PROCEEDINGS
VOLUME 2

FIFTH INTERNATIONAL CONFERENCE ON ENVIRONMENTAL COMPLIANCE AND ENFORCEMENT

November 16–20, 1998
Monterey, California, USA

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

UNEP

Ministry of Housing, Spatial Planning, and the Environment (VROM) The Netherlands

EUROPEAN COMMISSION

ENVIRONMENTAL LAW INSTITUTE

Environment/ Environnement Canada

ENVIRONMENT AGENCY

WORLD BANK

FIFTH INTERNATIONAL CONFERENCE ON ENVIRONMENTAL COMPLIANCE AND ENFORCEMENT

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These Proceedings, Volume 2, include opening and closing remarks, keynote speeches, additional papers, summaries of plenary theme, workshop and regional meeting discussions, results of the participant evaluations and a list of participants at the Fifth International Conference on Environmental Compliance and Enforcement, November 16-20, 1998, in Monterey, California, USA.

Opinions expressed are those of the authors and do not necessarily represent the views of their organizations.

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PREFACE

The Fifth International Conference on Environmental Compliance and Enforcement in Monterey, California, November 16-20, 1998. This Volume 2 of the Proceeding welcome, opening and closing remarks, additional papers and keynote speeche includes summary reports on Conference plenary sessions, workshops and meetings and the results of the participant evaluation of the Conference. The to in Volume 2 continue the practice of cross referencing relevant materials fi proceedings and reports issued by the INECE partnership. The Proceedings will disseminated to all conference participants, other country environmental officials, governmental organizations (NGO's) throughout the world. It is accessible thr Internet site of the International Network for Environmental Compliance and Enf (INECE): **www.INECE.org** where papers are also indexed by topic along with the papers from the Proceedings of the first four international conferences.

The advances and continuing challenges of the evolving network of government NGO's, and international organizations — in designing and developing effective r achieving compliance with and enforcing domestic environmental law and inter environmental agreements — speaks to us from these pages. We are all enriched v colleagues take the time out of their busy schedules to share their experienc frustrations, and their accomplishments so that we might be inspired by their e encouraged to try new approaches, and/or bolstered by evidence of the benefits difficult task can make the promise of implementation and compliance with enviro law a reality.

The Fifth International Conference was another important stepping stone, and cat "making it happen". These papers demonstrate the increasing commitment to and sophistication of programs and new initiatives around the world to achieve the prote public health and environment we seek. Volume 2 provides a vision of where the partnership sees environmental compliance and enforcement heading in the next mill It contains compelling accounts of ecosystem improvements through enforcement ir Colombia in Canada; of heroic efforts to prosecute and convict, on site, illegal operations in the Philippines; of experiments with reconciling new market incen develop environmental management systems which may deliver improved complian the need to maintain a strong enforcement presence in Germany; of the differential of market influences in the People's Republic of China to achieve reductions in depleting substances; of public access to justice issues in Kenya and Tanzania; of inn use of compliance schedules and action plans in Egypt and the Czech Republic environmental improvements and make compliance happen in the face of serious ec and institutional impediments to compliance; and of efforts by Mongolia to protect array of endangered flora and fauna. These are but a few examples of the many stories these volumes.

The Fifth International Conference was the first to be held under the banner of the Intern Network for Environmental Compliance and Enforcement (INECE). The INECE Ex Planning Committee devoted much time and effort to design a Conference to offer the g opportunity for useful exchange and practical information for individuals both with

can be obtained by contacting the Staff or members of the Executive Planning Committee. The INECE partnership will continue to foster national, regional and global networking, capacity building, and cooperation beyond the exchanges at the Conferences. On behalf of the Executive Planning Committee, we look forward to your continued and productive use of these Conference materials.

Editors:
Mr. Jo Gerardu
Head, Department of Strategy,
Planning and Control
Inspectorate for the Environment
VROM, The Netherlands

Ms. Cheryl Wasserman
Associate Director for Policy Analysis
Office of Federal Activities
Office of Enforcement and Compliance Assurance
U.S. Environmental Protection Agency

CONFERENCE PURPOSE AND GOALS

The purpose and goals of the Fifth Conference reflected the progress already made anc directions undertaken to meet needs of participants to improve environmental complianc enforcement.

Help to Make Compliance and Enforcement Happen

The Fifth Conference focused on action: making enforcement and compliance happen. conferences focused on the building blocks for understanding environmental compliance enforcement, developing a common framework, defining common principles understanding driving forces and barriers. Benefiting from these past discussions, the Conference used the common frameworks to focus on how to put these principles practice, how to harness the driving forces and how to evaluate and move beyond proc already achieved. Conference plenary presentations highlighted some of the best exar of how different nations from different regions of the world, economic and social settings l taken steps to "make it happen." In addition, the conference organizers introducec opportunity for participants to seek assistance on particular problems in "clinics" struct around specific requests.

Draw Together Those Influencing the Design of Environmental Compliand and Enforcement Programs in Effective Partnerships

The target audience for the Conferences remained enforcement officials and environme policy makers in government and NGOs active in environmental compliance and enforcer those who are in a position to influence the design or enhancement of environme enforcement programs. Within government the Conference sought representation f national, regional, and local governmental units responsible for both the legal and techr aspects of environmental enforcement at the mid- to senior-management levels. It a continued to involve selected non-governmental organizations (NGOs) and representati of selected international industry organizations. The Fifth International Conference ag drew attention to identify contacts within government from both environment ministries a or sectoral ministries involved in environmental enforcement as well as traditional enforcement personnel in order to foster new relationships to make enforcement work m smoothly within country and to facilitate cooperation among nations both on a global regional basis to address transboundary compliance issues.

Offer Something for Everyone

The Conference program included topics and workshops to meet the needs of all participa Participants came from countries with various approaches to compliance and enforcem as well as with enforcement programs at various stages of development within vari economic settings including those from developing, rapidly industrializing, transitional a industrialized economies. In addition, participants themselves had many years of experie in enforcement or only a few. Some participants attended past conferences, while for oth this was their first experience in this international forum. Workshops were structured to ta these differences into account while promoting exchanges among participants with a w range of experiences. The Conference began with a review of how lessons learned in p

providing all participants with common ground. An overview of the Principles of Environmental Compliance and Enforcement was targeted to those new to the conference or who wanted a refresher, followed by group exercises and open exchange on neutral case studies using the Principles of Environmental Enforcement workshops. This encouraged all participants to be open to new ideas and varying approaches of colleagues during the ensuing days of the conference.

The scope of the conference offered a wide range of perspectives, from global to regional to specific country or locality programs. It brought together the full range of disciplines and organizations needed to bring about compliance with environmental requirements, both within and outside of government. It encompassed both compliance and enforcement approaches, programs and the working relationships needed to support them, both incentives and disincentives. Finally, it extended from achieving compliance with domestic environmental requirements to domestic programs implementing international environmental agreements.

Articulate and Support Country, Regional and Global Capacity Building Agendas

The United Nations Conference on Environment and Development (UNCED) held in Rio de Janeiro in June, 1992, produced an international agenda, Agenda 21, which firmly stated that effective environmental compliance and enforcement programs are a key element of environmental management and recognized the need to build institutional capacity for effective enforcement in each nation's environmental program. If the INECE partnership and the participants in the international network are to succeed in building capacity they must direct limited resources on areas with the most important and pressing needs. The Conference program provided the potential and opportunity for nations to establish their own priorities for capacity building and an aggregated view within and across regions of the world to facilitate access to international support. To articulate needs in a manner which can be supported and understood sufficiently well to garner commitment and support, the Executive Planning Committee initiated development of a country progress self assessment tool. Among other goals it was designed to help participants focus on what they want to get out of their participation both at the conference and from follow up activities to meet perceived capacity building needs for their own countries, region, and across the globe.

Encourage Ongoing International and Regional Networking

Past conferences have shown the importance of ongoing international and regional networking beyond the conference itself that encourages and facilitates program improvements and cooperation. The conferences have seen the evolution of a global network- INECE- as well as several regional networks - both nascent and mature. The program highlighted international networking resources designed to address global issues and to facilitate cooperation among regions. In addition, participants had an opportunity to meet within their regions to discuss common challenges and priorities and to develop ongoing or build upon existing mechanisms for regional collaboration and strategies for strengthening environmental compliance and enforcement.

Foster Exchange of Expertise and Learning through Active Partici

The Conference was structured to provide ample opportunity for participants · professional networks and to learn through active participation. In addition to open dis during plenary sessions and workshops of 15 to 25 participants on every day Conference there were informal opportunities for exchange around exhibits and Conference events.

The Conference relied heavily on interactive workgroup sessions. Participants were ex and encouraged to participate actively in discussions and working sessions. Individuals come to the Conference prepared to share experiences in environmental complian enforcement that will benefit others involved in similar activities. The Conference provid for participants to reflect on their current enforcement activities and to identi approaches that can be implemented in their respective countries.

CONFERENCE PROGRAM

November 14, 1998

09:00 - 17:00 Training of facilitators for workshops on the Principles of Environmental Compliance and Enforcement

November 15, 1998

09:00 - 12:00 Preparation and training of facilitators for special topic workshops

13:00 - 14:30 Meeting of speakers and moderators to prepare for plenary sessions

15:00 - 16:00 Executive Planning Committee meeting

15:00 - 18:00 Registration (continued November 16, 1998 8:00-8:30)

17:00 - 18:00 Conference Welcome Reception

November 16- 20, 1998

Exhibits

Exhibits were on view throughout the Conference

- About INECE: International Network for Environmental Compliance and Enforcement.
- International Organizations with Institution Building Support: included UNEP, UNDP, the World Bank and others.
- Regional Displays: included Networks, Institution Building Projects and Programs, Country Program Highlights.
- NGO corner: Citizen Role in Enforcement.
- INTERNET/Automated Systems Support for Environmental Compliance and Enforcement: Demonstrations and Instruction.
- Models for Calculating Recovery of Economic Benefit or Assessing Damages.
- Inspector/Police Training Materials and Monitoring Equipment.
- Video Displays: Videos for Compliance and Enforcement Communications and Training.
- Materials Supporting Special Topic Workshop Sessions.

November 18, 1998

14:00 - 17:00 **Clinics/Exhibits**

Allotted open time to view exhibits and demonstrations in the exhibit area during Wednesday afternoon. Organized staffed "clinics" to respond to particular problems that individual countries or NGO's are facing for which they requested assistance where at their option, participants exchanged with others who have experience with similar problems and focus on developing potential approaches to resolve them.

Day One
November 16, 1998

Day Chair - Mr. Pieter Verkerk, Inspector General, VROM

8:30 - 8:40 **Welcome to Monterey:** Mr. William Nitze, Assistant Administrator, Office of International Activities, U.S. Environmental Protection Agency

8:40 - 9:15 **Opening Plenary: Overview and Vision**

Collaborative Session with Co-Chairs Mr. Steven Herman, Assistant Administrator for Enforcement and Compliance Assurance, USEPA and Mr. Pieter Verkerk, Inspector General, VROM and selected members of the INECE Executive Planning Committee

THEME #1 MAKING IT HAPPEN: APPLYING THE PRINCIPLES OF ENVIRONMENTAL COMPLIANCE AND ENFORCEMENT

9:15-11:15 **Plenary Session - Panel Discussion:**

Moderator: Dr. Paul Leinster, Director, Environmental Protection Directorate, Environment Agency, United Kingdom

Speaker # 1: Mr. Yasser Sherif, Director, Egyptian Environmental Affairs Agency, Egypt
- *Launching Enforcement Programs Through Compliance Action Plans and Environmental Management Systems*

Speaker # 2: Justice Michael F. Saldanha, Karnataka High Court, India
- *Citizen and Judicial Activism for Institutional Reform*

Speaker # 3: Mr. Armando Shalders Neto, Director of Environmental Pollution Control, Companhia de Tecnologia de Saneamento Ambiental, Brazil
- *The Evolution of Compliance and Enforcement in Brazil*

Speaker # 4: Ms. Nancy Bircher, Director, Ministry of Environment, Lands and Parks, BC Canada
- *The Evolution of Pulp and Paper Mill Compliance in British Columbia*

11:15-12:00 *Principles of Environmental Enforcement* - Overview for New Participants & others

Speaker # 5: Ms. Cheryl Wasserman, Associate Director for Policy Analysis, Office of Enforcement and Compliance Assurance, USEPA

12:00-13:30 **Lunch**

13:30-18:00 **Theme # 1 Workshops**

In small groups, workshop participants used case studies to explore the principles of environmental compliance and enforcement. Participants chose their preferred case study subject matter.

1A Coal Burning/Sulfur Dioxide problems
1B Mining
1C Petrochemical/Refining
1D Deforestation
1E Residential and Industrial Waste disposal
1F Tourism
1G Transboundary Illegal shipments of Hazardous Waste, Toxic chemicals (Pesticides), contraband CFC

18:30-19:15 **Keynote: Environmental Enforcement as a Cornerstone to a New Generation of Environmental Protection**

Ms. Carol M. Browner, Administrator, U.S. Environmental Protection Agency

19:30 **Dinner** hosted by Conference Sponsors

Day Two

Day Chair - Mr. Steven Herman, Assistant Administrator for Enforcement and Compliance Assurance, USEPA

November 17, 1998

THEME #2 COMMUNICATIONS, PUBLIC ROLE, AND COMPLIANCE MONITORING

8:30-9:30 **Plenary Session - Panel Discussion:**

Moderator: Dr. Adegoke Adegoroye, Director General, FEPA

Speaker # 6: Mr. Margana Koesoemadinata, Deputy Minister, BAPEDAL, Environmental Impact Management Agency, Indonesia
- *Compliance Status As Public Information*

Speaker # 7: Ms. Svitlana Kravchenko, President, Ecopravo, Ukraine
- *Effective Citizen Enforcement*

Speaker # 8: Mr. Nguyen Khac Kinh, Deputy General Director, National Environmental Agency, Vietnam
- *Launching a New Program through a National Inspection Initiative*

Speaker # 9: Ms. Elaine Stanley, Director, Office of Compliance, U.S. Environmental Protection Agency, USA
- *Using Self Compliance Monitoring and Performance Data*

9:30 - 12:30 **Theme # 2 Workshops**

In small groups, workshop participants explored special topics dealing with Theme # 2: Communications and Compliance Monitoring with experts and among themselves. Participants chose preferred workshop topic.

- 2 A Communications and Enforcement.
- 2 B Encouraging Public Role in Compliance Monitoring and Impact of Public Access to Environmental Information/Community Right to Know Laws on Compliance and Enforcement Programs.
- 2 C Compliance Monitoring.
- 2 D Multi-Media (Integrated) Inspections and Permitting.
- 2 E Source Self-Compliance Monitoring Requirements.
- 2 F Detecting Hidden Operations Outside of Legal Frameworks.

12:30 - 14:00 **Lunch**

THEME #3 "CARROTS AND STICKS"

14:00 - 15:00 **Plenary Session - Panel Discussion:**

Moderator: Ms. Helena Čížková, International Project Coordinator, Ministry of the Environment of the Czech Republic, Czech Republic

Speaker # 10: Mtro. Antonio Azuela, Federal Attorney for the Environment Protection, Mexico
- *Compliance Incentive Schemes: Harnessing Environmental Auditing, Environmental Management Systems (e.g., ISO14001 certification), and Their Relationship to Enforcement*

Speaker # 11: Mr. Boguslaw Dabrowksi, Head, Voivodeship Inspectorate for Environmental Protection, Poland
- *Compliance Plans: Creative Negotiations for Correction and Penalty*

Speaker # 12: Ms. Connie Musgrove, Deputy Director, Office of Regulatory Enforcement, U.S. Environmental Protection Agency, USA
- *Policies to Resolve Enforcement Cases to Maximize Environmental Benefit, Pollution Prevention, and Recover Economic Benefit of Non-Compliance*

Speaker # 13: Mr. Antonio Oposa, Jr., former public prosecutor, The Philippines
- *Using Coordinated Enforcement to Protect Forests From Illegal Logging in the Philippines*

15:00 - 18:00 **Theme # 3 Workshops**

In small groups, workshop participants explored special topics dealing with Theme # 3: "Carrots and Sticks" with experts and among themselves. Participants chose their preferred workshop topic.

3 A Structuring Incentives for Private Sector Compliance.
3 B Environmental Crimes and Criminal Enforcement.
3 C Citizen Enforcement.
3 D Structuring Financial Consequences in Enforcement: Penalty Policies, Recovery of Damages, Recovery of Economic Benefit of Non-Compliance.
3 E Role of Negotiation in Enforcement.
3 F Administrative Enforcement Mechanisms: Getting Authority and Making It Work.
3 G Compliance Schedules and Action Plans: Content, Enforceability and Use in Compliance and Enforcement.

Day Three
November 18, 1998

Day Chair - Mr. Pieter Verkerk, Inspector General, VROM

THEME #4 CAPACITY BUILDING

8:30 - 9:30 **Plenary Session - Panel Discussion:**

Moderator: Ms. Michele de Nevers, Sector Leader, Europe and Central Asia, The World Bank

Speaker# 14: Mr. Antonio González Pastora, Director, Central American Commission on Sustainable Development (CCAD)
- *Organizing International Cooperation: Example*

Speaker# 15: Mr. Ken Macken, Acting Manager, Environmental Protection Agency, Ireland
- *Creative Financing/Multi-Media Permitting & Enforcement*

Speaker# 16: Dr. George Asiamah, Senior Program Officer , EPA, Ghana
- *Decentralized Management Systems*

Speaker# 17: Mr. Christopher Currie, Chief, Enforcement Management Division, Environment Canada, Canada
- *Training Programs*

9:30 - 12:30 **Theme # 4 Workshops**

In small groups, workshop participants explored special topics dealing with Theme # 4: Capacity Building with experts and among themselves. Participants chose their preferred workshop topic.

- 4 A Managing Centralized and Decentralized Programs; Achieving the Right Balance of Roles and Relationships for Key Functions; Accountability Measures, Compliance Indicators and Reporting.
- 4 B Budgeting and Financing Environmental Compliance and Enforcement Programs: How Much Enforcement is Enough.
- 4 C Training Programs for Compliance Inspectors, Investigators and Legal Personnel.
- 4 D Setting Up and Managing Compliance Assistance Programs and Information Outreach on Regulatory Requirements.
- 4 E The Science of Enforcement: Setting Up and Financing Laboratories; Ensuring the Integrity of Sampling and Data Analysis; Scientific Support for Enforcement.
- 4 F Government/Municipal/Military: Compliance and Enforcement Strategies.
- 4 G Small and Medium Enterprises Compliance and Enforcement Strategies.
- 4 H/I Mobile Source Compliance Strategies and Enforcement. Non-Point Source Compliance and Enforcement Strategies.
- 4 J Geographic or Resource-Based Compliance and Enforcement Strategies.

12:30 - 14:00 **Lunch**

13:00 - 13:30 **Keynote: Relationship Between the Legal Arm of Government and the Line Environmental Agency or Ministry**

Ms. Lois Schiffer, Assistant Attorney General for Lands and Natural Resources, USA

14:00 - 17:00 **Clinics/Exhibits**

Day Four

Day Chair - Mr. Steven Herman, Assistant Administrator for Enforcement and Compliance Assurance, USEPA

November 19, 1998

THEME #5 INTERNATIONAL COOPERATION/TRANSBOUNDARY COMPLIANCE AND ENFORCEMENT ISSUES

8:30 - 9:30 **Plenary Session - Panel Discussion:**

Moderator: Mr. Andreas Gallas, Director General, Federal Ministry of the Environment, Nature Conservation and Nuclear Safety, Germany

Speaker# 18: Mr. Hongjun Zhang, Deputy Director, Legislative Office of Environmental Protection & Natural Resources, Conservation Committee, People's Republic of China
- *Illegal Shipments: Country Example of Problem and Response*

Speaker# 19: Mr. Lal Kurukulasuriya, Chief, Regional Environmental Law, Regional Office for Asia and the Pacific, UNEP
- *Trends in International Environmental Law and its Enforcement*

Speaker# 20: Dr. Kees Boekel, Deputy Regional Inspector, Inspectorate for the Environment- East, Ministry of Housing , Spatial Planning and the Environment, The Netherlands
- *Enforcement of International Environmental Agreements, e.g., Hazardous Waste and Ozone Depleting Substances*

Speaker# 21: Mr. Earl Devaney, Director, Office of Criminal Enforcement Forensics and Training, U.S. Environmental Protection Agency, USA
- *Environmental Crimes/INTERPOL*

9:30 - 12:30 **Theme #5 Workshops**

In small groups, workshop participants explored special topics dealing with theme # 5: International Cooperation/ Transboundary with experts and among themselves. Participants chose their preferred workshop topic.

5 A Illegal Transboundary Shipment of (Hazardous) Waste.
5 B Compliance with International Environmental Agreements: Focusing on Montreal Protocol and CITES: Illegal Shipments of CFC and Other Ozone Depleting Substances and Illegal Trade in Endangered Species.
5 C Illegal Shipments of Dangerous Chemicals Including Pesticides.
5 D International Enforcement Cooperation to Protect Shared Resources and Prevent Transboundary Pollution.
5 E Collaborative Targeting of Enforcement on an International Scale.

12:30 - 14:00 **Lunch**

THEME #6 BUILDING REGIONAL AND GLOBAL NETWORKS

14:00 - 15:45 **Plenary Session - Panel Discussion:**

Regional enforcement networks are in various stages of development. Plenary sessions highlighted their status and accomplishments.

Moderator: Mr. Jan van den Heuvel, Director, General Policy Affairs, Ministry of Housing, Spatial Planning and the Environment, The Netherlands

Europe Panel:

Speaker#22: Ms. Waltraud Petek
- *IMPEL*

Speaker#23: Ms. Ruta Baskyte
- *ECA-INECE*

Speaker#24: Dr. Ladislav Miko
- *AC-IMPEL*

Americas Panel:

Speaker#25: Ms. Linda Duncan
- *North American Working Group/Commission on Environmental Cooperation*

Speaker#26: Dr. Marco Antonio Gonzales Pastora
- *CCAD*

Speaker#27: Mr. Vincent Sweeney
- *Carribean Network*

Speaker#28: Mr. Eric Dannenmeir
- *OAS: Americas Hemispheric Network*

Asia Panel:

Speaker#29: Mr. Lal Kurukulasuriya
- *ASPA-INECE*

Speaker#30: Dr. Aziz Abdul Rasol
- *ASEAN*

Speaker#31: Dr. Ananda Raj Joshi
- *SACEP (South Asia Cooperative Environment Program)*

Africa/Middle East Panel:

Speaker#32: Dr. Adegoke Adegoroye
- *Africa Regional Networking Status Report*

Speaker#33: Mr. Arne Dalfelt
- *Africa - World Bank perspective*

Speaker#34: Mr. Eugene Shannon
- *Africa - Africa Development Bank perspective*

Speaker#35: Mr. Yasser Sherif
- *North Africa and West Asia/Middle East*

15:45 -18:00 **Regional Meetings**

Facilitated Discussion/Simultaneous breakout sessions. These sessions continued in the morning of Day 5.

6 A Europe (Western Europe, Central and Eastern Europe, and NIS)
6 B Americas (North America, Central America, Caribbean, and South America)
6 C Asia (Asia Pacific and South Asia)
6 D Africa and West Asia/Middle East

19:00 **Informal Networking: Strolling Dinner at the Monterey Aquarium**

Day Five

Day Chairs - Mr. Steven Herman, Assistant Administrator for Enforcement and Compliance Assurance, USEPA and Mr. Pieter Verkerk, Inspector General, VROM

November 20, 1998

THEME #6 BUILDING REGIONAL AND GLOBAL NETWORKS (Continued)

8:30 - 12:30 **Regional Meetings** (Continued)

Facilitated Discussion / simultaneous breakout sessions continued from afternoon of Day 4.

- 6 A Europe (Western Europe, Central and Eastern Europe and NIS)
- 6 B Americas (North America, Central America, Caribbean and South America)
- 6 C Asia (Asia Pacific and South Asia)
- 6 D Africa and West Asia/Middle East

12:30 - 14:00 **Lunch**

14:00 - 16:00 **Plenary Session: Regional Meeting Reports**

Presentation of future directions for global and regional networks

Moderator: Mr. Jan van den Heuvel, Director, General Policy Affairs, Ministry of Housing, Spatial Planning and the Environment, The Netherlands

Speakers selected from the regional meetings presented reports of meeting outcomes.

Speaker# 36: Ms. Susan Hay
- *Europe*

Speaker# 37: Dr. Marco Antonio Gonzales Pastora
- *Americas*

Speaker# 38: Mr. Yasser Sherif
- *Africa and Middle East*

Speaker# 39: Mr. Lal Kurukulasuriya
- *Asia*

16:00 - 17:00 **Closing Plenary: CLOSING REMARKS**

Mr. Steven Herman, Assistant Administrator, US EPA
Mr. Pieter Verkerk, Inspector General, VROM

Adjourn - Conference Evaluations Due

17:00 - 18:00 **Closing Reception**

November 21, 1998

Optional site visits arranged by US Environmental Protection Agency:

A A state-of-the art regional sewage treatment plant and state-of-the-art solid waste management landfill and related compliance inspections.

B Fort Ord, a former military installation that underwent environmental remediation and is now used as a junior college.

C A US EPA regional laboratory that analyzes compliance samples.

WELCOME TO MONTEREY

NITZE, WILLIAM

Assistant Administrator, Office of International Activities, U.S. Environmental Protection Agency

Thank you very much, Pieter. It is a great pleasure and an honor for me to make some welcoming remarks at the Fifth International Conference on Environmental Enforcement and Compliance. I am told, although I did not have the pleasure of attending your prior meetings, that each meeting has been better than the one that went before. I sense just from being among you here for dinner and breakfast this morning that there is a growing brother and sisterhood, if you will, of environmental enforcement officials and NGOs and other experts around the world, which is really building a network of cooperation that is unparalleled in the history of our work together. It is really a pleasure to welcome you here to this beautiful place in this state of California, which is one of the environmental leaders, if not the environmental leader, among all of the states in the United States.

We all face a tremendous challenge as environmental officials and as people interested in furthering the cause of environmental protection. And no where is that challenge greater than in the area of enforcement.

On my way out to this conference, I happened to buy the latest issue of TIME magazine. In that issue is an article about subsidies that companies in the United States have been receiving to locate highly polluting activities in different states of the union solely for the purpose of job creation. I will just show you, you can go out and get it at your local news stand, the article. It's entitled "Paying a Price for Polluters." What this article demonstrates is that even here in the United States where we have achieved a fairly high standard of living and a relatively advanced industrial structure, there is still this tremendous pressure for job creation through industrial development. That pressure in many cases threatens to overwhelm efforts by federal or state or local officials or environmental NGOs to clean up the environment and prevent pollution.

So, the challenge that we're all here to discuss of effective enforcement is not going to go away. It is going to continue. It is very much a challenge that Steve Herman and his colleagues face everyday and that their counterparts at the state and local level face every day. It is one we're just going to have to continue to address year after year after year.

Now I thought I would just say a few words this morning about some of the lessons, if you will, that we have learned and are learning in our work in the office of international activities to share experience, provide some technical assistance, and generally to cooperate with all of you and your counterparts in raising standards of environmental protection and actual environmental performance around the world.

The first challenge that we have found in many, many countries, and this includes parts of the United States, is to build an enforcement culture. Most countries with which we deal, including I am sure most of the countries that you come from, have at least in some cases strong laws and regulations which if they were actually complied with would produce virtuous environmental results. The problem obviously is that in many cases they are not enforced and they are not complied with. In some countries, Russia I am going to cite as a fairly extreme case, you have an overlapping network of environmental standards, some of which are considerably stricter than standards we attempt to enforce in the United States. However just visiting any major city – other perhaps than Moscow or St. Petersburg which

are better today – any industrial site, any agricultural site in Russia you understand that these laws are simply not being enforced. Part of the reason for that is that some of them almost cannot be enforced because they are inoperable.

Which brings me to the second lesson. That is, you have to design laws from the beginning in a realistic way so that they are actually enforceable in the particular circumstances of the country in question. We are indeed working with the Russian Federation and some of the states and localities there to help them redesign their environmental laws by in many cases simplifying them, making them less stringent but making them at least potentially enforceable. One example is in the city of Bolgegrad we are training local officials in measuring opacity of the smoke coming out of industrial facilities. Basically the blacker it is, the dirtier it is. Now this sounds very crude but actually it turns out to be a pretty good benchmark of particulates and other types of air pollution and is something that they are able to enforce and able to make operable.

Which leads to a third lesson which is in many cases we have found simpler is better. If you can get not only local officials but the enterprises they are attempting to regulate and the local populace to understand some basic rules and some basic techniques for enforcing those rules, which leads to actual compliance, that is much better than having a very complicated and sophisticated set of rules which simply are not being applied at all.

A fourth lesson is the power of information. As I think many of you have heard in past conferences, we in the United States were totally amazed at the effectiveness of our community 'Right to Know' law which was passed back in the 1980s. First we were amazed at the amount of pollution which companies reported as being discharged into the environment. Then we were amazed at the force that disclosure and the accompanying embarrassment and in many cases shame had in terms of getting them to reduce that pollution. With respect to toxic chemicals, I do not know the exact statistics, but I would guess that today of the major categories of toxic chemicals emitted into the environment that law is responsible for at least a 50% reduction. In many cases the reduction is more in the neighborhood of 70-80% in emissions. This is a result we simply could not have achieved through conventional enforcement techniques without public information. We are working with many countries around the world. We have an active program with Mexico. We are working with Canada. We are working with many countries further away to help them strengthen their pollutant release and transfer registry systems so that the public can be empowered with the kind of information which will allow them to directly or indirectly put pressure on polluters to reduce their emissions. I think that it is a very important complement to any enforcement program.

Finally, and this I know is a central theme of this conference and past conferences, is international enforcement cooperation. I know that we in the United States simply cannot achieve the results intended by our domestic laws without international cooperation (particularly laws designed to implement multi-lateral environmental agreements like the Montreal Protocol on ozone depleting substances or CITES or hopefully when we do pass implementing legislation of the BASEL Convention on transboundary shipments of hazardous wastes or our air quality agreement with Canada or the many air quality agreements we've entered into within the Economic Commission for Europe, and many, many other agreements). I am very pleased that international cooperation has been advancing at a rapid pace and has become a high priority for governments in many different parts of the world.

I will give you just one example of our work. We are currently, along with other donor countries, with the GEF (the Global Environmental Facility) and with the World Bank financing the phase out of CFC, ozone depleting substance production in Russia. It is a very

complicated task. There are many different players. It has taken years to put together. But I think finally we will succeed. This will make a major difference in drying up the black market for illegal freon and other substances in the United States and around the world.

So, we are here engaged in a very, very important enterprise. Really, the success of any program of environmental protection depends on it. Without enforcement you simply cannot, in the end, achieve the improvement in environmental conditions that you are aiming for. All of our future experiments, all of our future efforts to make the process of environmental protection less costly, more effective, more politically acceptable, have to have their foundation in effective enforcement. This is a theme I know that Steve Herman and others will pick up on. In the United States, you know, we talk about all these reinvention activities and various voluntary initiatives and partnerships and so forth. Well none of those would be possible or effective unless they were built on the foundation of strong enforcement.

So welcome to Monterey. I am proud to be among you and I look forward to getting to know many of you during the course of the conference. Thank you.

WELCOME AND INTRODUCTION TO THE CONFERENCE

VERKERK, PIETER

Inspector General, Inspectorate for the Environment, Ministry of Housing, Spatial Planning and the Environment, The Netherlands

First of all I will refresh your memory a little bit. The first international meeting on the enforcement of environmental legislation was held in Utrecht already 8 years ago. Since then we have come a long way fast. After Budapest, Oaxaca, and Chiang Mai, we now find ourselves in Monterey, but once again in the company of a huge number of participants from a vast range of countries and international organizations. Some already participated but 69% are newcomers today.

I consider it a very great pleasure to be here with my colleague Steve Herman, the Assistant Administrator for Enforcement at the US EPA to raise the curtain on this fifth conference. I am convinced that this will be another successful conference but leave things to your involvement and the involvement of the organizations which have given you the opportunity to be here today.

What are we seeking to achieve at this conference? Environmental problems are international, they do not recognize any borders. This simple message means that enforcement of environmental legislation should be an international and therefore a trans-cultural issue. In previous conferences we have focused to a significant extent on putting forward the knowledge and experience from all organizations for the benefit of all participants. The aim of this conference is no different. At Chiang Mai we observed that we have reached a point where we could proceed towards further development of international enforcement networks at the global and regional levels and the Executive Planning Committee has elaborated on these designs since Chiang Mai.

Internationally, the actual implementation and enforcement of environmental legislation still lacks strength. However, there are clear declarations of intent in this field. And I'm thinking of the G-8 Environment Ministers Summit in Miami in 1997, the enforcement consultation meeting of representatives of the G-8 countries in Washington in 1998 and the G-8 Summit in Birmingham in 1998 as well. Greater attention needs to be devoted to compliance and enforcement in political and administrative circles.

Enforcement of environmental legislation must come to feature more explicitly on the international political policy agenda so as to create the necessary conditions for establishing an adequate inspection structure in each country. There can be no disputing the fact that international conventions and protocols on climate, ozone, hazardous waste substances, or toxic chemical substances – on which agreement was reached in Kyoto, Montreal, Basel and Rotterdam – all contribute to a better environment if they are enforced.

The Netherlands has a vested interest in the effective implementation and enforcement of environmental regulations because the environmental pollution recognizes no borders. Implementation and enforcement counters distortion of competition and answers demands from the business community. The indicative model from The Netherlands' National Institute of Public Health and Environment (the RIVM) also reveals that incomplete compliance with environmental legislation can lead to shortfalls of more than 20-30% in estimated emissions reductions in The Netherlands. In other countries this figure may be different and even higher. All the more reason for concentrating our full attention on enforcing environmental legislation. Sometimes I get the feeling that environmental inspectors are

viewed or judged by politicians and the policy sector in general, to be a group of hardliners only dealing with law and order. Too much is neglected in observing that enforcers play a dominant role in implementing environmental policy and getting environmental results. Perhaps we must present ourselves more in this direction by promoting and improving and perhaps selling our results more effectively to the policy makers. Fortunately many countries support the idea of working towards regional enforcement networks from the basis of the international INECE enforcement network. The first new regional meetings have now been held, ECA INECE in Vilnius, Lithuania and ASPA INECE in Bangkok, Thailand, adding to networks already in existence in North and Central America and Western Europe. They proved very successful. The written reports of these meetings are available and you will hear more about them in the course of this conference.

What then is our vision of the future? We will be moving away from international conferences and enforcement of environmental legislation as we currently know them. We will move towards regional enforcement networks where countries within a given region determine the actual content of enforcement of environmental legislation. The existing channels provided by international organizations will be used to the greatest possible extent. The United Nations Environment Program (UNEP) has already been involved in the ASPA INECE Thailand and could also be one of the players to benefit other regional networks. This vision can be further explored as we work to develop these aspects in the course of this conference. The members of the Executive Planning Committee are all prepared to assist.

These regional enforcement networks for environmental legislation require backing in the form of a secretariat capable of providing assistance and support to participants. The Netherlands is currently considering a request for support of such a secretariat for ECA INECE in Lithuania. We are convinced that a financial solution in this matter will be forthcoming. Similar solutions must also be found for other secretariats. This is my sincere hope that other countries and organizations will wish to participate in setting up these INECE secretariats and will not only lend their financial support but also their participation to such projects.

Apart from these INECE secretariats we are moving towards an Executive Planning Committee which will stimulate these secretariats, maintain contacts and provide support where requested but which will also promote development and progress within the networks. We can then discuss progress with the Executive Planning Committee and key representatives from the countries participating in these regional enforcement networks at international enforcement conferences held every two years and on a smaller scale than the current ones.

Over and above this we can still rely on support from our staff for the Executive Planning Committee as well as our Internet homepage and the INECE newsletters as well, as ongoing workgroups on selected topics. As you have heard this is a future vision dealing with the further international development of enforcement of environmental legislation. Our vision is a very positive one but it stands or falls by participation in its most active form. I am convinced that together we can further shape our vision of the INECE future during the next few days. We will speak again at the end of the conference, and I have the fullest confidence that by then we'll have made significant progress in the international enforcement of environmental legislation. The Dutch government has in any event pledged its commitment to the success of this conference and of those to come.

Ladies and gentlemen, I wish you all a very fruitful conference and a very successful conference as well. Thank you for your kind attention.

OVERVIEW AND VISION: ENVIRONMENTAL COMPLIANCE AND ENFORCEMENT AND INTERNATIONAL NETWORKING

HERMAN, STEVEN A.

Assistant Administrator for the Office of Enforcement and Compliance Assurance, U. S. Environmental Protection Agency

Thank you Pieter. This is now the third of the five international conferences on environmental compliance and enforcement at which I have had the pleasure and privilege of sharing the role of day-chair with my colleague Pieter Verkerk. I could have no better partner. I also would like to recognize the members of the Executive Planning Committee and Associates to INECE who have contributed immeasurably to bringing this Conference about, and also to defining the ambitious program for the first two years of the International Network for Environmental Compliance and Enforcement.

Let me start by adding my own warm welcome to the United States, and to California. In the past, I have been touched by the graciousness of our hosts at the conferences in Oaxaca, Mexico and Chiang Mai, Thailand. They set a very high standard, which we in the U.S. are anxious to meet. I have very little doubt that we will succeed, if for no other reason than the quality of the people who are attending this conference. You were all hand picked by our Executive Planning Committee as individuals who can and will make a positive difference in the lives of your countrymen and women, and also our natural world. You come from over 100 different nations and 30 international organizations; from countries large and small, developed and developing. You practice distinct disciplines and professions. We have learned however, that the differences not withstanding, we face similar challenges and issues and can best achieve our individual and global objectives by collaborating, teaching and learning from each other.

The Steinbeck Forum in which we are seated is named for John Steinbeck, a Nobel prize winning American author. He wrote a famous novel – *Cannery Row* – centered around the sardine canneries which once thrived in Monterey. These waters, once teeming with sardines, were decimated by the pollution and overfishing. The economy of the area was wrecked. However, you look around today and you see a thriving community whose major industry is tourism. Tourism is dependent on a clean and healthy environment. This is a community that learned a lesson. For those of you who will be joining us on the site visits on Saturday, you can witness a community committed to state of the art control of both sewage wastewater and solid waste. And the Monterey Aquarium — which you will all get to see on Thursday evening —is associated with a major global effort to study and preserve marine life.

Our Executive Planning Committee members specifically charged Pieter Verkerk and me with the task of opening this Conference with an overview of where we have been and a vision of where we are going in environmental compliance and enforcement and the role an entity such as INECE plays in this effort.

First, of course, it is important to remind ourselves of why building national and international enforcement and compliance capacity is so important to environmental protection. As Bill Nitze said, virtually all of our nations have laws; some are very strong and very protective of human health and the environment. However, without effective enforcement the laws are worth little more than the pages they are written on. In fact, without enforcement laws are an empty promise to our citizens who look to the law to protect them.

Study after study has shown that the primary motivation for industry to comply with anti-pollution laws is enforcement – fear of being fined, fear of being exposed to the public as a polluter – as a dirty company, and in the case of individuals – fear of being put in prison. With strong, aggressive and fair enforcement, other approaches such as voluntary programs and economic incentives can also be employed. But, they are no substitute for effective enforcement as the foundation upon which environmental protection can be realized.

A fair and effective enforcement program will serve several purposes:

1) It will punish those who do not comply with the law.
2) It will require cleanup of polluted resources and it will assure repair of the damage caused by the pollution.
3) It will deter those who may be thinking of breaking the law – of cutting corners.
4) It will ensure that those industries and businesses who obey the law are not put at a competitive disadvantage to those who violate the law; put another way, effective enforcement assures that polluters do not profit by their non-compliance.
5) It will prevent the creation of pollution havens.
6) Enforcement will ensure the protection of human health and the environment; and
7) It will encourage healthy and sustainable national and international economies.

Enforcement assures us that individuals and companies will be held publicly accountable for their behavior. They will pay the price of their actions. Polluting cannot be permitted to be another cost of doing business.

1 NETWORKING AT ALL LEVELS

Environmental enforcement requires many different disciplines and types of organizations. At the national level, we must include not just environmental agencies, but also prosecutors, police and sector ministries, justice officials, customs officials and trained judges to implement environmental policy issues. Collaboration is also needed among levels of government. In many nations, enforcement is highly decentralized. Without effective communication and cooperation between local institutions and a national program dedicated to environmental compliance and enforcement, national laws are likely to be unevenly, and thus ineffectively, enforced. This has ramifications locally, nationally, regionally and globally.

Many of you are constrained in your efforts to achieve compliance because authorities and functions are spread out among so many ministries, departments, agencies, and regions, that, in a sense, no one is in charge or responsible. Authority is so dispersed that effective action is stymied. During this conference you will hear from colleagues about how they have used in-country networks at all levels to make rational even the most difficult organizational settings so that environmental compliance and enforcement happens. Whether it is the United States, the Netherlands, Ghana, Poland or Vietnam, there are ways to overcome these barriers. There are no perfect solutions, but there are ways to move ahead.

2 PUBLIC ACCOUNTABILITY AND PUBLIC PARTICIPATION IN ENFORCEMENT

Another major aspect of the vision for successful environmental compliance is public access to information and citizen participation in enforcement. We cannot underestimate the power of public knowledge of non-compliance and of facility performance to influence environmental performance in the business community. We will build on the principles articulated by participants at the Fourth International Conference. We know from many experiences and the papers contributed by our NGO colleagues from Ukraine to Nepal to the Americas that we have much work to do to make new international agreements on public access to information and to justice a reality. The new INECE document, Citizen Enforcement: Tools for Effective Participation, is also designed to facilitate progress.

Public information – and easy access to it — are needed for both effective citizen enforcement and to motivate business to comply with the law in the first instance. In the United States we have taken unprecedented steps to make information about facility compliance and toxics release to the environment available through the Internet. And we have seen substantial performance improvement. But we need to continue to seek to improve the form, content, reliability and availability of such reports to make them most effective.

3 NEED FOR FIRM, FAIR AND VISIBLE ENFORCEMENT

A third major aspect of the vision, as I have already noted, is the need to take firm and visible legal enforcement actions against violators. This is an essential prerequisite that never ceases, regardless of the state of a country's development. Enforcement must be pursued and maintained, but the levels and focus will always be in a dynamic state of change. We see new evidence of this in the reports from Peter Krahn in Canada in the Proceedings where he documents environmental gains resulting from using enforcement with promotion of, rather than exclusive reliance on, voluntary measures alone. We also see this evidenced in the numbers reported by Pieter Verkerk on the limitations of the voluntary industry covenants the Dutch have tried.

4 FINDING THE RIGHT BALANCE OF "CARROTS AND STICKS"

A fourth and closely related part of the vision is a broad recognition of the need to balance the carrots and the sticks – not choosing one approach over another. We hear in some quarters that we should adopt and rely upon the voluntary approach. To this, I say look around you. In most areas of the world we have concrete evidence of what voluntary approaches without enforcement has given us. Used smartly, strong enforcement, voluntary programs, and incentives will strengthen and compliment each other. The challenge is to find the right balance and sequence. The need for varying approaches is particularly apparent as we struggle with how to gain compliance at numerous small and medium sized enterprises. There are excellent examples for us in Sonoma County, California, in the Proper Program of Indonesia, and in the environmental audit program of Mexico.

Similarly, we have sometimes seen a reluctance to enforce because of fear of the costs of compliance. First, we must be always mindful of the larger long-term cost of tolerating non-compliance. We also know that inaction and delay leads to more inaction and delay. Countries like Poland and the Czech Republic and Egypt have taken great pains to construct

new enforcement authorities and policies which respond to the need for creative solutions which provide structured, affordable compliance schedules. The United States has developed several enforcement policies which preserve the principle of the polluter paying and not gaining an economic benefit, but which also advance opportunities to prevent pollution and correct environmental damage.

5 HARNESSING NEW TECHNOLOGIES AND APPROACHES TO DETECT VIOLATIONS AND MONITOR COMPLIANCE

As we look to the future of environmental compliance and enforcement, we cannot overlook the possibilities opened to us by new technologies for getting more accurate, more comprehensive and more real time monitoring information. We can be inspired by Australia's creative use of satellite technology to monitor trucks transporting hazardous waste and by some of the real time monitoring relays in Japan and elsewhere. Remote sensing is also being used to help protect wilderness areas and sensitive ecosystems from illegal activities.

6 ACHIEVING THE POTENTIAL OF ENVIRONMENTAL MANAGEMENT SYSTEMS

A sixth aspect of the vision is fostering and harnessing the promise of internal environmental management systems, self-auditing and responsible care programs. We see increasing international focus on environmental management systems for environmental compliance and prevention of environmental problems. However, we must never forget that having a system is not a substitute for actually complying with the law. It is the environmental result that matters, not the "system."

7 ENVIRONMENTAL CRIME

Finally, a significant part of our vision for the future is creating a seamless web to stop environmental crime and to work together to combat international crime which violates national law and environmental agreements. Our national laws give us the ability to cooperate directly with one another in investigations and prosecutions, and international treaties mandate that we do so. Here we can build on existing law enforcement networks.

We have recently seen the fight against environmental crime taken up by national leaders and stressed as a priority in the conduct of foreign affairs. In the last year, the G-8 Group of Nations' Leaders and Environmental Ministers have directed their enforcement officials to collaborate more closely in detecting and prosecuting criminal violations of environmental law and in establishing more effective ties to traditional law enforcement. This last summer, the Council of Europe passed the Convention on the use of Criminal Law to Protect the Environment and just last month, our colleague from Mexico, Antonio Azuela hosted an Iberoamericano Congress on environmental crime. INTERPOL's organized crime group is now interested in taking up this problem.

Now, it is time for us to go to work. Your mission is truly a critical one. I wish you all well. Participate fully over the next five days and we will surely succeed in our efforts to make our world a better, healthier, more prosperous and beautiful place to live. Thank you very much.

KEYNOTE: ENVIRONMENTAL ENFORCEMENT AS A CORNERSTONE TO A NEW GENERATION OF ENVIRONMENTAL PROTECTION

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Thank you Steve. I am delighted to be here. It is great to see so many of you from so many different parts of the world.

Our countries are quite different — different in size, culture, language, and pace of growth. But we share a common desire: To have a healthy environment, healthy people, as well as a healthy economy.

These things are often seen at odds — environmental protection pitted against economic growth. In the U.S., this was certainly the case a few decades ago. We needed strong laws to protect our water, land, and air.

Twenty five years ago, we actually had rivers catching fire in the U.S. That crisis prompted passage of the Clean Water Act. We found barrels of toxic chemicals buried under a community in New York — and that spurred passage of our nation's toxic waste cleanup law. When we found widespread contamination in one of our largest city's water supply we passed the Safe Drinking Water Act.

Under these laws, we have made great progress. By any measure, our rivers are safer, our skies cleaner, our land freer of toxic waste. But we all know our work is not done — not in the United States, not in any country in the world.

Today we face a new set of challenges.

I am talking about hard-to-control water pollution from urban and agricultural runoff — a big problem in the U.S. I am talking about air and water pollution that crosses the boundaries of countries. I am talking about one of the challenges all the world's nations face together and that is global warming.

President Clinton and Vice President Gore believe that we can meet all these challenges if we keep a few principles in mind: building strong partnerships, finding common-sense, cost-effective strategies, ensuring a healthy economy and a healthy environment — and providing tough enforcement of our nation's environmental laws.

These are the tenets of a new generation of environmental and public health protection, and they lie at the core of everything we do to safeguard the American people and to meet our international commitments on the environment.

This Administration has drawn from a variety of tools to get the job done:

First, we are building partnerships with industry to prevent pollution before it happens in the first place. As just one example, we have an agreement with the auto industry for cleaner cars — *70 percent cleaner cars*, which will be in showrooms around the country by end of next year.

We also have partnerships with 5,000 U.S. organizations and businesses — including some of the biggest companies in the country — to use energy more efficiently.

Just in 1997, these partnership programs together prevented the release of nearly *60 million tons of carbon dioxide*. At the same time, these measures saved businesses and consumers more than *$1 billion*.

Second, we are encouraging companies to not just comply with the law, but to go beyond compliance, by preventing pollution and reducing use of toxic chemicals — ways that can also increase productivity and increase competitiveness.

Third, we are using market-based incentives — to spur industry to develop even better pollution-reducing strategies. Emissions trading is a great example. This is where we place a limit on overall toxic emissions and then pollution reductions are traded on the open market.

We have had great success with emissions trading in our acid rain program — where we are making significant reductions in the pollution that causes acid rain, and the costs of compliance are far lower than anyone had predicted. And we have recommended a similar program to 27 eastern and southern states and the District of Columbia as a way to reduce emissions of smog-forming nitrogen oxides and meet the public health clean air standards.

Fourth, we are offering unprecedented compliance assistance to small businesses — nine centers that help industries — transportation, painting and coatings, local governments, printing, and others — to understand and comply with environmental requirements as easily and cost-effectively as possible.

We have a new self-audit policy that says to companies — if you voluntarily identify, disclose and correct violations we will reduce or waive penalties — a great way to provide cost-effective incentives for companies to protect the air, water and land. Since 1996, more than 1600 facilities have voluntarily disclosed and corrected violations.

Indeed, this Administration, every step of the way, is committed to flexible, cost-effective, common-sense strategies that work for business, work for public health and work for the environment.

But we cannot continue our progress without tough, comprehensive enforcement of our nation's environmental laws. It is the foundation of all we do to protect our air, water, and land. Strong enforcement is a red light for would-be polluters. It provides incentive for companies to participate in our voluntary programs. It ensures that polluters are held accountable for jeopardizing public health and the environment.

I suspect most of you would agree. A recent case sums up exactly why we need strong enforcement hand in hand with flexibility and voluntary measures. Last month, we announced one of the largest enforcement cases in history — a settlement with the seven leading manufacturers of diesel engines.

The companies used illegal devices that allow the engines to pass EPA's emissions tests in the laboratory, but turn off pollution control equipment under normal driving conditions — and all to cut a few corners on costs.

These devices not only bypassed emissions controls, they jeopardized public health and the environment.

Our action addressed the entire industry together, rather than company by company — so that we could level the playing field. No company should have a competitive advantage over the others. We need strong, tough, comprehensive enforcement to ensure that every business, every company, every industry plays by the same rules.

What applies locally, also applies globally. We must level the international playing field. No country should have a competitive advantage over another through violation of its domestic and international commitments to environmental and public health protection.

Today, we can exchange information between countries with a simple click of a computer mouse. We exchange billions of dollars every day over phone lines and through computers. Unfortunately, we also exchange pollution.

That is why it has become ever more important for us to work together. Pollution doesn't stop at the border. Environmental crimes do not stop at the border. Neither should our efforts to protect citizens at home and abroad.

We have made great progress already. Together, with Mexico, we've stopped illegal shipments of hazardous waste over our borders. We have seized millions of pounds of ozone-depleting CFCs smuggled into the U.S. We are sharing with our citizens information about toxic releases and transfers of toxic materials between Mexico, Canada and the U.S. We have come up with creative solutions for our shared borders. As one example, we included in a settlement of an environmental violation a provision that the company pay for environmental improvements in a company on the other side of the border.

Together, we are making great progress, and all the while respecting each countries' sovereignty, each countries' independence.

But we can do more. We must continue to share information about environmental criminals, hazardous waste tracking, and companies that violate environmental laws. We must share our expertise, our skills — so that we can do an even better job of protecting our shared resources, and bringing polluters to justice. And we must work together to find innovative solutions to the difficult environmental and public health challenges we all face.

I congratulate you all for coming together to share your experiences and find ways that we can work together to protect the air we all breathe, the water we all drink and the land we all live upon. As we become ever more closely linked in this world of high-tech communications and growing pollution problems, we must move forward arm in arm, shoulder to shoulder, side by side. Our families and our children depend on it.

Thank you.

THEME #1:

MAKING IT HAPPEN: APPLYING THE PRINCIPLES OF ENVIRONMENTAL COMPLIANCE AND ENFORCEMENT

Moving from principles to practice takes time and often some driving force. Programs evolve at their own pace responding to both domestic and international commitments to environmental protection, demands of fair and free trade, public pressure, market forces, crises, and other opportunities to garner support for building and implementing compliance and enforcement programs. The Fourth International Conference opened with an exploration of driving forces, challenges and impediments to effective environmental compliance and enforcement. This Fifth International Conference focused on how different country officials and NGOs in diverse situations have "made it happen".

Papers and plenary session speeches for Theme 1 addressed the following issues:

- Genesis of the program, what precipitated its development; the driving forces that gave rise to a decision to create or enhance an environmental compliance/ enforcement program or to respond to particular noncompliance problems. Particular challenges including issues such as economic and political uncertainty, level of support for environment, tradition or lack of tradition of enforcement and compliance, limitations on availability of human resources with necessary skills and experience in the field.
- Evolution of the program: organization, functions, financing, training: issues that arose in developing or enhancing a program, options considered/selected.
- Organization of the program: hierarchy, levels of government, roles and responsibilities including, as appropriate, information on the:
  - overall status of laws, regulations and permits to establish enforceable requirements;
  - plans or programs to promote compliance;
  - mechanisms to establish priorities and what they are;
  - how the country monitors compliance:
    - Inspection program: multi-media and/or single program focus, training and targeting of government inspection activity;
    - Use of source self-monitoring, record-keeping and reporting;
  - enforcement response authorities and how they are used;
  - public role in enforcement;
  - accountability and measures of success;
  - communications; and
  - areas in which progress is needed.

Papers 1-14 for Theme #1 and a list of related papers from other International workshop and Conference Proceedings are in Volume 1

SUMMARY OF PLENARY SESSION #1: MAKING IT HAPPEN - APPLYING THE PRINCIPLES OF ENVIRONMENTAL COMPLIANCE AND ENFORCEMENT

Moderator: Paul Leinster
Rapporteur: Jo Ann Sernones

1 INTRODUCTION

Moving from principles to practice takes time and often some driving force. Programs evolve at their own pace responding to both domestic and international commitments to environmental protection, demands of fair and free trade, public pressure, market forces, crises, and other opportunities to garner support for building and implementing compliance and enforcement programs. The Fifth International Conference opened with an exploration of driving forces, challenges, and impediments to making effective environmental compliance and enforcement programs happen.

2 PRESENTATIONS

Mr. Yassar Sherif, Director, Egyptian Environmental Affairs Agency, Egypt, discussed a new environmental management tool that was piloted in Egypt, the Compliance Action Plan (CAP). The CAP was initiated as a cooperative effort to address special industry needs at the end of a three year grace period for complying with Law 4 of 1994, Egypt's most recent environmental law. While the grace period had been granted to allow existing companies to come into compliance, it became clear that the majority of the regulated community would still be non-compliant by the end of that period (February 1998). Companies that developed and submitted a CAP could be granted a further two year extension by demonstrating three things: the actions taken and progress achieved towards compliance and supported by documentation; the state of compliance expected by February 1998; and the activities planned to achieve compliance by February 2000. Commitments to specific actions were to be reflected in a clear implementation schedule and progress reporting; the identification of sources of financing for compliance actions; and the establishment of a company CAP implementation task force with clear authorities and responsibilities. While the concept of the CAP is a good one, its implementation was hampered by tight time constraints, scarce human and material resources, and weak political support. However, the tool has been successfully tested, proven its usefulness and versatility and is now a standard component in environmental management courses for industry.

Justice Michael F. Saldanha, Karnataka High Court, Bangalore, India, discussed the role of the judiciary in achieving environmental reform through judicial activism. At the end of 1998 a critical audit in India indicated that environmental enforcement levels are low because the Courts have been playing a minimal role. The subordinate Courts which deal with environmental transgressions have "failed miserably" in achieving respect for the laws or in creating fear of any consequences for breaking it. Judges have been criticized for levying "flea-bite" sentences. While there has been some deterrence in punishing environmental offenders, there are two other important means, namely the power to prohibit and the power to direct, are two of the quickest and most

effective means, and need to be used more frequently. Compliance will be forthcoming only when the message goes out from the Courts that it is no longer safer or cheaper to break the law than to obey it. Concrete steps toward ensuring judicial activism include: a well defined program aimed at providing Judges with environmental compliance literature; a sustained media campaign directed toward bringing home the message that the Courts and Judges will intervene in environmental enforcement efforts; and an immediate directive from the Chief Justice of India that a Green Bench be set up in the Supreme Court and in every high Court to handle environmental cases expeditiously and efficiently.

Mr. Armando Shalders Neto, Director of Environmental Pollution Control, Companhia de Tecnologia de Saneamento Ambiental (CETESBE), Brazil discussed the broad program goal in San Paulo State, Brazil -- which has about 40% of Brazil's population's industrial base pursuing enforcement efforts but also promoting pollution prevention. For many years, CETESBE has implemented a strong traditional enforcement program with inspections and fines. Now, pollution prevention is an expectation as well.

Ms. Nancy Bircher, Director, Ministry of Environment, Lands and Parks, Province of British Columbia, Canada, discussed how compliance with environmental law by British Columbia pulp and paper mills has evolved through four distinct phases. Each phase has been driven by growing public awareness of environmental issues and government response to public demand. Phase 1 was characterized by low public awareness, almost no regulation, and even less enforcement. The industry was free to grow and operate, unencumbered by environmental concerns. This phase was characterized as one where the British Columbia government spoke softly to the pulp and paper industry but carried no stick to speak of. In Phase 2, growing public awareness of the health hazards of pollution drove government to set emission standards. Still, no significant enforcement was carried out and industry complied with the law at its discretion. This phase was characterized as one where government had a stick but didn't use it. In Phase 3, the public demanded and government delivered tighter emission standards and tough enforcement. Industry at first resisted and paid dearly in fines which finally led to improved compliance. The turning point in industry compliance occurred during this phase when the government implemented an aggressive enforcement program. This phase was characterized as one where speaking loudly and using its big stick government finally got industry's attention. In Phase 4, the industry is substantially in compliance with stringent emission standards, the public continues to press for a cleaner environment and the government encourages industry to move "up the pipe" to a new environmental management regime. This phase was characterized as one where the government is back to speaking softly to industry but is carrying a big stick in plain view.

Ms. Cheryl Wasserman, Associate Director for Policy Analysis in U.S. Environmental Protection Agency's Office of Enforcement and Compliance Assurance, Office of Federal Activities, presented an overview of the "Principles of Environmental Compliance and Enforcement." Ms. Wasserman described in very clear and visual way what these Principles are and how they apply to everyone. She provided some historical background on the genesis of the Principles, defined key terms, and she described the basis and context for the principles — particularly the range of motivations that must be tapped to change human behavior. Ms. Wasserman introduced the framework including, ensuring the enforceability of requirements, promoting compliance, monitoring compliance, responding to violations, defining clear roles and responsibilities for dedicated institutions for environmental compliance and enforcement and establshing management accountability and evaluation of results. The presentation included international examples of country strategies for addressing each

element in the framework and for strategically pulling together "carrots" and "sticks" in the most effective way. She stressed that "The Principles" should not be seen as a model but rather as a point of departure from which any nation or locality may develop or enhance their own unique compliance and enforcement program or strategy in any legal, social or cultural setting.

3 DISCUSSION

In response to a question about the level of public participation regarding the Compliance Action Plan (CAP) pilot, Mr. Sherif said that public participation in decision making is not the norm in Egypt, even in issues less complex than industrial pollution. However, it was considered essential that industry inform the public of its efforts to comply, and in retrospect, the proposed model should have been made a public document. Mr. Sherif explained that the public was not involved in the compliance action plan although these plans had to be accessible to the public. There are of the moment 500 compliance action plans. Press was not amused by a grace period for companies that have been polluting for ages.

When asked how judges can be re-educated toward environmental issues in India, Justice Saldanha said that an environmental law institute has been started for this purpose. He said that although the judiciary has shown a high degree of resistance to date, the institute is beginning to generate enthusiasm to give priority to environmental matters. Also, the media is very sensitive to environmental issues and is highlighting every instance where there has been significant and worthwhile Judicial intervention.

One questioner wanted to know if there were any voluntary programs in Brazil. Mr. Shalders Neto said that there are a few pilot voluntary projects which started with the textile sector and now include the metals sector. These pilots are challenging industry to identify ways to avoid, reduce, and eliminate pollution at source rather than treating or containing it after it's been created. Through voluntary efforts, companies incorporate pollution prevention in their business plans and develop stronger ties to the communities in which they operate.

Another questioner asked how fines were developed in Canada. Ms. Bircher said that the government had to be convinced, and that strong public outcry helped. Awareness of public health hazards grew with the closures of commercial fisheries in the vicinity of pulp mills, announcements of consumption advisories for a number of coastal and inland waters, and the discovery of dioxins and furans in the marine environment. Also, environmental non-governmental organizations were effective at communicating public concern to government and back to the general public. This helped increase the maximum daily fine from $50,000 in 1982 to $1 million ($3 million for intentional damage) in 1989.

4 CONCLUSION

Environmental pollution knows no borders. Despite many differences between our countries, we all face tremendous challenges to build an enforcement presence and to design laws in a realistic manner so that they are enforceable. Whether its striving to establish a compliance culture in Egypt, reorienting the judiciary to environmental enforcement in India, promoting pollution prevention in Brazil, or balancing the use of "carrots and sticks" in Canada, we agree that enforcement plays a critical role in

achieving environmental results. And we agree that as we move down the path of improving environmental compliance, it's the solutions, not the systems, that are important.

The presentations and the conclusions showed the different driving forces. It could be best concluded as done by Ms. Nancy Bircher who cited Theodore Roosevelt, " Speak softly but carry a big stick."

LAUNCHING ENFORCEMENT PROGRAMS THROUGH COMPLIANCE ACTION PLANS

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SUMMARY

In 1997, a tool was added to the environmental management scene of Egyptian industry, namely the Compliance Action Plan. The tool has been developed to address the special needs of the end of the 3-year grace period of Law 4 of 1994, Egypt's most recent environmental law. The grace period has been granted to allow existing establishments at the time of its issuance to comply with its requirements. However, it has become clear that the overwhelming majority of the regulated community will still be non-compliant by the end of this grace period (February 1998).

The idea behind the Compliance Action Plan has been to shift the social focus from the line dividing the complying and the non-complying groups of the regulated community to shedding the light on a more dynamic and meaningful, given the state of compliance, feature which is the seriousness of the establishment in moving towards compliance.

The Compliance Action Plan thus addressed the threat of an unproductive deadlock between the regulators and the regulated. However, it is also a typical case of a threat turned into an opportunity to establish a more cooperative interaction pattern between the two parties.

The Egyptian Environmental Affairs Agency has developed a system to introduce and manage the new tool. Unfortunately, major stumbling blocks have prevented the implementation of the system as designed. Nevertheless, the introduction of this tool had major repercussions on the different aspects of environmental management of industry in Egypt, some of which will still be unfolding for the next few years.

1 THE CONTEXT

1.1 Law 4 of 1994

After a long debate of the most recent Egyptian environmental law in three consecutive parliamentary sessions, it was finally issued in January 1994 and became known as Law 4 of 1994. Several environmental laws preceded this one whose original concept was to unify them and complement them under one umbrella law. However, the approach was watered down during the long debate to complementarity only rather than integration.

The law has introduced a number of new features in environmental management in the Egyptian context. Environmental Impact Assessment, hazardous waste management and regulations, economic incentives and regulated community self-monitoring just to count a few. It is the first Egyptian law to regulate air emissions and ambient conditions, which were regulated by other lower level regulations such as ministerial decrees. It is also the first law to address marine pollution in an integrated manner from both sea-based and land-based sources. It addresses a wide range of other issues from protection of species to

vehicle emissions and contingency planning for environmental disasters. It is, however, only a part of a wider arsenal of environmental laws, managed by a wide group of regulators, to which establishments are subjected.

Law 4 of 1994, re-established the Egyptian Environmental Affairs Agency, created by Presidential Decree in 1982, as the national authority responsible for environmental policy and planning. However, the law did not give the Egyptian Environmental Affairs Agency full executive authority for the implementation of its requirements, but established it as a core agency to manage the environmental agenda in coordination with other "concerned administrative agencies". These concerned agencies, depending on the case, may be any of the ministries, authorities, or the different levels of local administration.

1.2 The State of Environmental Compliance

Earlier environmental laws have not had a bright record of compliance. For example, compliance with one of the major laws, Law 48 of 1982 concerning the protection of the Nile and water channels from pollution, was still not the rule 12 years later when Law 4 of 1994 was issued. However, movement had already started towards compliance with the requirements of this law and others. Its pace has also increased after 1994, although mainly limited to larger establishments.

Given these conditions, and because, obviously, laws do not create social order (environmental laws are no exception), Law 4 of 1994 has granted the establishments existing at the time it was issued a three year grace period starting from the date its executive regulation are issued (February 1995) to comply with its requirements. This grace period was not only a chance for establishments to comply, but also and more importantly, a chance for the regulators to introduce the elements of a social order conducive to the enforcement of the law after this period has elapsed. In fact, it is impractical to enforce a law that does not reflect and is not supported by a social trend. A critical mass of law abiders is a precondition for efficient enforcement.

The question became how could such a critical mass be created.

1.2.1 The Focus on Industry of the Egyptian Environmental Affairs Agency

The poor compliance situation applies to all sectors. Hotels and resorts in the tourism sector, hospitals and clinics in the health sector, municipal services such as solid waste disposal sites and wastewater treatment plants among others were far from the requirements of the law. All these sectors, and others, have been the subject of the Egyptian Environmental Affairs Agency initiatives, even before the issuance of Law 4/94, to increase their level of compliance in preparation for an eventual enforcement of the law.

The industry sector has seen a higher level of activity. No records are kept to indicate whether a conscious institutional decision was taken to focus on this sector. In all likelihood, it could have been the result of the efforts of a small active group coupled with a larger scope of opportunities to improve performance which allowed for an incremental evolution of this Egyptian Environmental Affairs Agency focus.

The Egyptian Environmental Affairs Agency addressed the industrial compliance question though a number of venues. First, a substantial portion of industrial pollution could be dealt with by instituting good operational practices at no or low cost or through environmental improvements with very short pay back periods. Accordingly, the Egyptian Environmental Affairs Agency has established in 1994 the National Industrial Pollutior Prevention Program; a program dedicated to the promotion of feasible and economically desirable interventions. The program has taken a sectorial approach to industry, and startec

its activities in the largest sectors of Egyptian industry (Food and Textiles), but failed to expand its scope due to financial constraints. Moreover, the Egyptian Environmental Affairs Agency has attracted international financing to support major investments needed to address industrial pollution that could not be prevented through financially viable interventions. In parallel, the Egyptian Environmental Affairs Agency was building its own internal capacity in preparation for the end of the grace period, including human resources as well as a network of regional laboratories to support inspections.

1.2.2 Effects on Compliance Levels

The Egyptian Environmental Affairs Agency plans had a minimal effect on the level of industrial compliance at the end of the grace period. Operational and procedural delays resulted mainly from the fact that almost all activities relied on international financing. It is only in 1998, that a part of the projects that should have had a demonstration value for the industrial community is starting to materialize. Another major part of the Egyptian Environmental Affairs Agency planned interventions will only see the light at the end of 1998 or early 1999. These will still be useful, but rather late for the grace period, that ended in February 1998.

Nevertheless, the Egyptian Environmental Affairs Agency promotion activities created a higher awareness in industrial leadership that environmental and economic objectives are not always in contradiction; there is a long way to go where they are in consonance. This has contributed to start the environmental transition of Egyptian industry.

A number of other factors had contributed to triggering this transition, including:

- Enforcement efforts of municipalities and other regulatory agencies, as well as NGO's, academics and media increasing interest in the issue.
- The increase in energy prices, coupled with an increase in exploited resources of natural gas allowing the transfer to cleaner fuels.
- Large state investments in infrastructure and especially sewerage systems (networks and treatment plants) have allowed industry effluents to be transferred from Law 48/82 regulations (discharges to the water ways) toLaw 93/62 regulations (discharges to the sewer system) with milder standards, thus making the required investments more affordable to industry.
- Developments on the international level (both material and intellectual) of cleaner technology were available to industry.
- Exporters also experience other factors such as the development of legal requirements in importing countries, and the ISO 14000, evolving as the de-facto standard in industry.

1.3 The Challenge

The Specter of Law 4 of 1994 having the normal track record of enforcement was hanging above the Egyptian Environmental Affairs Agency's head in the Summer of 1996, 18 months before the end of the grace period. It was clear that only a small portion of industrial establishments would be complying with the requirements at the end of the grace period[1].

One of the major factors for the successful enforcement of the law was missing.

1.3.1 Contextual Constraints

The obvious line of action to be considered was to expedite the implementation of the Egyptian Environmental Affairs Agency's initiatives to increase the level of compliance. However, when other contextual conditions are taken into account, the challenge was bigger. The "environmental transition " sought in the next few years should take place in the context of multiple economic, political and social transitions witnessed by Egyptian society. Structural uncertainties faced by Egyptian industry include privatization, relocation, as well a more open trade market. These were added to the sheer size of investments needed to achieve compliance for a number of establishments. A few other factors have to be accepted as given:

- Addressing all environmental problems of Egyptian industry at once is beyond all currently allocated human and financial resources at the national level, whether from the regulator or the regulated sides.
- The capacity of industrial establishments to react to sudden pressure is questionable. This is not only because of financial constraints in most of the cases, but also because of technical engineering constraints.
- Only a sketchy characterization of the industrial scene concerning environmental performance is possible. Major sources of compliance information (Self-monitoring and reporting, inspections, citizen complaints and ambient monitoring) are all inadequately functioning, if not non-existent. However, the current state of knowledge allowed for the establishment of a framework for action.

1.3.2 Short-term Objectives

Given the contextual conditions, it seemed clear that achieving compliance is not possible in the near future for the larger portion of the industrial community. While keeping the ultimate objective, which is to improve the environmental conditions for the Egyptian people, in mind realistic short-term objectives had to be reconsidered. It was internally agreed in the Egyptian Environmental Affairs Agency that the realistic objective of the next period should be limited to establishing a compliance culture in Egyptian industry as well as creating the maximum possible energy to progress towards compliance. For the dissemination of compliance culture over wide sections of the regulated and the regulating communities and the public at large, Egyptian Environmental Affairs Agency will obviously need a success early in the next phase.

2 DEVELOPING AN APPROACH

2.1 Compliance Action Plans

The need to act to achieve the short-term objective required a tool that goes further than the soft approaches of awareness and promotion, a tool that would represent the necessary compromise between legal requirements, the need for real progress to appreciably improve environmental conditions as well as a deep understanding of the current conditions of industry and its need to schedule its environmental investments to adjust to its structural and individual constraints.

These features of the required tool defined it as a plan to comply with legal requirements which priorities and time frame would be organized to maximize social benefits given the polluter's technical and financial constraints. These plans would also help clarify constraints imposed by other parties and put them before their responsibilities. Examples of these constraints is the lack of hazardous waste infrastructure, the delay in the execution of sewerage networks and the meager financing and technical capacity of inspectorates. Last but not least, these plans should help relieving some of the legal enforcement burden for which the Egyptian Environmental Affairs Agency was not adequately prepared.

This plan named "Compliance Action Plan" had a legal basis in Law 4 of 1994 which stated that the grace period, originally granted for three years ending in February 1998, could be extended by Cabinet decision for a maximum of an additional two years given that the establishment proves seriousness in progressing towards compliance. Establishments wishing to extend the grace period should apply to the Egyptian Environmental Affairs Agency six months before the end of the grace period (i.e. August 1997). This application should address the reasons for extension and the actions already undertaken to comply with the requirements of the law.

2.1.1 The Compliance Action Plan Contents

The "reasons for extension " were always understood as the reasons for needing extension, in other words, why was the establishment not able to comply in the three year grace period. The Compliance Action Plan has redefined this expression to be the reasons for granting extension, in other words to what additional efforts does the establishment commit to undertake if granted an extension.

Accordingly, the Compliance Action Plan requested by the Egyptian Environmental Affairs Agency from establishments applying for an extension included three correlated parts:

- The actions undertaken and progress achieved towards compliance, supported by satisfactory documentation.
- The state of compliance expected by February 1998.
- The activities planned to achieve compliance by February 2000.

These parts would, according to the establishment's specific case, address different compliance issues:

- Liquid Effluents.
- Air Emissions.
- Hazardous waste and substances.
- Solid waste.
- Work environment.

The commitments of the establishment to actions would be reflected in:

- A clear implementation schedule and progress reporting.
- The identification of sources of financing of committed actions.
- The establishment of a Compliance Action Plan implementation task force, with clear authorities and responsibilities.

It was also made clear to industry that a possible extension of the grace period is contingent on a continued commitment to Compliance Action Plan implementation. In other words, an extension could be revoked if the Compliance Action Plan is not implemented as agreed.

Annex 1 is an English translation of the Compliance Action Plan framework distributed to concerned parties[2].

2.1.2 The Unintended Contributions of the World Bank

The World Bank contributed to the process, though unintentionally, through one of the activities that EEAA initiated to increase the level of compliance of industrial establishments: The "Egyptian Pollution Abatement Project", a 5-year project designed in collaboration between the Egyptian Environmental Affairs Agency and the World Bank to address industrial pollution problems. The World Bank financial contribution to the Egyptian Pollution Abatement Project was a soft financial package of 35 million dollars to support environmental investments in industry with which agreements were negotiated in April of 1996. One of the steps of their ratification procedures was their clearance by the Cabinet. Actually, the Cabinet discussed the agreements in December 1996 and asked for a reformulation of certain points. It was only in July 1997, that Egyptian Pollution Abatement Project agreements were renegotiated to address the interests of all parties involved. During this period, the uncertainty concerning the fate of the Egyptian Pollution Abatement Project brought the activities of its Egyptian Environmental Affairs Agency Project Implementation Unit to a near complete halt. It is the Project Implementation Unit that took the initiative of formulating the grace period extension system, which revolved around the submission of Compliance Action Plans by industry.

The World Bank's first contribution was therefore through this unit created to implement Egyptian Pollution Abatement Project. Ironically, it is the delay of ratification of the Egyptian Pollution Abatement Project agreements that freed this unit specialized in industry to manage the grace period extension process. The Bank 's second contribution was a document developed for use by Egyptian Pollution Abatement Project to produce "Pollution Abatement Action Plans" for major polluters. The Compliance Action Plan framework produced by Project Implementation Unit has used the Pollution Abatement Action Plan's guidelines as a starting point. Although both documents are environmental planning guidelines, the Compliance Action Plan was meant to be produced with specific conditions by the industry itself, without external support. Accordingly, the Pollution Abatement Action Plans framework had to be substantially simplified. Annex 2 describes the difference between Compliance Action Plan's and Pollution Abatement Action Plan's.

2.2 Major Decisions

A number of major decisions had to be taken to outline the system already clearly based on industry submitting Compliance Action Plan's as a support to their request for extension of the grace period. Based on the text of the Law, the Cabinet should ratify the Egyptian Environmental Affairs Agency recommendation concerning this request.

2.2.1 Eligibility Criteria for Grace Period Extension

All industrial companies existing at the time Law 4/94 was issued are eligible to apply for an extension of the grace period. However, these could be divided into the following:

a Companies committed to full compliance by February 2000

- Review the technical adequacy of committed actions to moving from current compliance status to objectives and consequently with financial plans.
- Review the necessity of the period requested as extension and the possibility of a compressed plan.
- Review the monitoring and reporting system.

In brief, the discussion in this case would be around details, given that other concerned agencies provide their non-objection to the plan.

b Companies unable to commit compliance by February 2000

Even though an applicant may not be committed to full compliance by February 2000, a positive recommendation concerning extension could be made. This is because it is always better to commit progress than not. The Compliance Action Plan provides a better monitoring opportunity than otherwise. However, a strong case should be made to justify the situation. Examples are:

- The funds required for full compliance would drive the company out of business.
- The company faces technological challenges in treating its waste.
- Quick solutions will not be cost effective on the long run (need for asset replacement).
- Plans to move from the current site decrease the useful life of fixed investments at the current site.

In all the cases above, the company should still commit substantial progress towards compliance focused on high priority pollution issues, given the constraints.

2.2.2 Scope of Committed Actions by Industry

The possible extension of the grace period applies only to the requirements of Law 4/94. The question was whether these requirements could be addressed in isolation of requirements of other environmental laws. Technically, they can and legally they should since some of these laws never had a grace period while some others had a grace period that ended more than ten years earlier. Practically, however, it was well known that industry had compliance problems with all environmental laws. Since the proposed system should encourage industry to progress towards compliance, why should other laws be excluded.

The decision was to keep the text of the Compliance Action Plan framework vague concerning this issue by requesting a statement of general compliance status but a plan to comply to Law 4/94 only. Through a consultation system with other regulatory agencies, other environmental laws could be addressed if raised by industry.

2.2.3 Involvement of Other Regulatory Agencies

Other Regulatory Agencies should be involved. This is not only because of the expectation that all environmental requirements will be included in the Compliance Action Plan, but also because of the Egyptian Environmental Affairs Agency's lack of independent executive authorities. It seemed that the review and ratification of each Compliance Action Plan would involve a large number of parties.

In order to decrease the coordination load, it was decided that the highest level of the local administration, the governorate, should be involved. This is because most of the regulatory agencies are represented at this level, and the law of local administration gives it high executive powers. Only specific cases will be referred to the central agencies. Moreover, and in order to decrease the coordination load, it was decided that extending the grace period for discharges to sewerage networks will not be recommended since this issue is managed by the lower municipal level. The Egyptian Environmental Affairs Agency cannot independently have sufficient information concerning the ability of the network and treatment plants to carry excess volumes or pollution loads for specific periods to make a justified recommendation.

The next question was when should the governorate staff be involved. It was found useful to involve them from the beginning to achieve two objectives. The first objective is to benefit from the field information to which they have access or can easily acquire it. The second objective is to create efficient channels of communication and a common discourse, which will be needed for follow-up on compliance as well as for enforcement activities. It was decided that a formal training course on Compliance Action Plan review and follow-up would be delivered to selected governorates before the Compliance Action Plans submission starts.

2.2.4 Negotiations with Industry

It was expected that most of the plans submitted by industry would reflect priorities, interests and/or positions not totally accepted by the Egyptian Environmental Affairs Agency. This would be true whether full compliance is committed toor not at the end of the extended grace period (February 2000). The plan would in any case be reviewed by regulatory agencies and an opinion developed. However, two different alternative courses of actions were considered at this point. The first alternative is to base the recommendation to the Cabinet on an agreement between regulatory agencies on an acceptable course of action. The recommendation may differ from the submitted in the Compliance Action Plan in terms of time, priorities and scope. The second alternative was to discuss the feasibility of this desired course of action with the applicant to reach a balanced Compliance Action Plan reasonably addressing the interests and constraints of all parties. The second alternative was preferred for a number of reasons including a higher efficiency in reaching a more realistic and acceptable course of action. Moreover, this alternative throws the seeds of an unheard of cooperative regulator/regulated culture. Experiences from other societies have shown that a purely confrontational approach has proven inefficient and sometimes ineffective.

These negotiations with industry would put a higher burden for managing the grace period extension process. It needed to be minimized while keeping the eye on the advantages of the selected approach. This was to be achieved in two fronts. First, the negotiated cases could be limited to those where the discrepancy between the regulator and the regulated positions is substantial. In other words, be lenient where the benefits from not being so do not outweigh the costs of allocating scarce management resources to realize them. On the other hand, the number of negotiating parties from the regulatory side should be minimized as much as feasible. Finally, a little breach of the principle of transparency may prove useful. The willingness of the Egyptian Environmental Affairs Agency to negotiate was not disclosed, but would yield to demand by industry.

2.2.5 Public Involvement

This was yet another issue that required extensive in-house discussions. Public participation in public decision making is not the norm, even in issues less complex than industrial pollution abatement. Moreover, involving the public will require a longer time than available before the end of the grace period. However, it was considered unacceptable to open dialogue with industry without a reciprocal attitude towards the community. Symmetry had to be preserved and an exclusionary system is bound to create mistrust. Moreover, public involvement early in the process is likely to mobilize active participation. Such participation was badly needed, given the limited inspection capacity. Finally, it was considered essential for industry to inform the public of its efforts and the constraints it faces to comply. The compromise reached concerning this issue is to especially consider for public involvement the cases in which industries will not able to comply at the end of the extended grace period. These are the cases for which no legal basis existed for additional extensions. Direct public participation was not considered feasible. Alternatively, a number of active Non-Governmental Organizations (NGO's) in industrial areas were identified to be adequate interfaces / organizers in due course.

2.2.6 Management of Work Load

The Project Implementation Unit had only three professional staff members and was not expected to grow substantially, it was clearly impossible for the Project Implementation Unit to carry the workload, especially since it was uncertain how many companies would apply. It was imperative to rely on external expertise.

The key to financing external expertise was provided by Law 4/94:

- The executive regulations allow the Egyptian Environmental Affairs Agency to hire experts to prepare the report concerning extension.
- It also states that the applicant shall bear the costs of these experts, and
- The Egyptian Environmental Affairs Agency will estimate these costs.

Several alternatives were considered for charging these costs. Finally, it has been decided that it will be linked to the size of the establishment (in terms of work force). Although this had no bearing on the type of expertise and the complexity of the issues, the advantages of a transparent and uniform fee structure outweighed its disadvantages, given a reasonably large number of applicants.

In order to better manage the available resources, it was also decided to stretch the period of submission of Compliance Action Plans to start after the deadline for application (August 31, 1997) and extend to December 31, 1997. It should be noted that this is not totally consistent with the regulatory text, which states that applications should be submitted before the deadline accompanied with the relevant documentation. However, no one objected.

2.2.7 The Complementarity with Enforcement Activities

One of the benefits of the Compliance Action Plan system was to partially relieve the Egyptian Environmental Affairs Agency from the legal enforcement burden for which it was not adequately prepared. Nevertheless, the Egyptian Environmental Affairs Agency will have to prove that it has enforcement teeth, after the grace period has elapsed.

It was imperative to separate the follow-up on Compliance Action Plan implementation from inspections on establishments which did not submit plans. For the former, no legal enforcement procedures will take place unless the establishment refrains from implementing committed actions, and only after due notification. On the other hand, the latter will be subject to inspections which could directly lead to legal procedures. The differential treatment of the two groups should be managed to encourage more establishments to plan their compliance activities and submit their Compliance Action Plans.

3 IMPLEMENTATION

Implementation could be divided to a number of distinct phases:

- Phase 1: April 1997 to August 1997

  Activities mainly revolved around the diffusion of information, technical advice to industry and the refinement of the system in parallel with the receipt of applications from industry. Other activities were planned during this period including training of governorate staff, the initiation of a media plan, the refinement of the consultation system for implementation in phase 2. However, these were not implemented due to the confusion resulting from the rejection in principle of the extension of the grace period by the Prime Minister. The next phases were not implemented as planned.

- Phase 2: September 1997 to February 1998:

  Draft Compliance Action Plans should be submitted starting the 1st of September. Revision of these drafts and the finalizing of these documents should take place, with due consultation and negotiations according to the cases. In order to help industry produce their draft Compliance Action Plans in an acceptable form and content, especially in terms of planned actions, formal consultation sessions were planned during this phase. This should have decreased the subsequent negotiation load. This phase was not implemented as planned, as described later.

- Phase 3: March 1998 to Present

  It was clear at this point that Cabinet decisions would not be taken concerning the extension of the grace period. Accordingly, the planned activities concerning the follow- up on ratified Compliance Action Plans did not take place. However, the lack of transparency has made the system continue by inertia. Industry reactions to this confusion varied.

3.1 Phase 1

Actual implementation started in April 1997 with the diffusion of information concerning the grace period extension system and requirements revolving around the submission of a Compliance Action Plan and a commitment for its implementation.

3.1.1 Information Activities:

Informing the largest number of establishments in the shortest time possible using limited resources was resolved through releasing information to strategic actors:

- A media information session in April, diffused information through major newspapers, radio and television.
- A total of 35 information letters to core organizations (holding companies, the federation of Egyptian industries and its sectorial chambers, investors associations and the like) suggesting to them to diffuse information to their member companies. The efficiency of diffusion was supported by the responses from member companies referring to the letters sent by the Egyptian Environmental Affairs Agency.
- A series of meetings in industrial fora .
- A series of training activities in Compliance Action Plan preparation for a selected group of 100 major polluting industries. This group of larger industries was specifically targeted because of the underlying interest in avoiding or at least delaying confrontation with major industries.

Most importantly, a group of consulting firms was invited to this training. The firms, perceiving the business opportunity, launched marketing activities including mailing campaigns to inform potential clients of the Egyptian Environmental Affairs Agency requirements. Moreover, the Environmental offices of selected Governorates where industry is concentrated, participated in this training to prepare them for the next phase when they should have been trained to participate in reviewing Compliance Action Plans.

The repercussions of these strategic information activities were substantial. For example, the Ministry of Public Business Enterprises took the initiative in informing all the companies that belong to it. Mostly large employers, and of which some are major polluters, these companies have been bombarded by information about the grace period extension system directly, through their holding companies, through the Ministry and through industrial chambers as well as media. Most of these companies have requested extension. On another front, the Environmental Pollution Prevention Project (EP3) of the United States Agency for International Development (USAID) have taken the responsibility of informing its client industrial enterprises of the requirements.

A few months later, all consultancy service providers were mobilized for preparing industrial CAP's. These included offices of the Ministry of Industry which provided competitive prices being a government entity. This made the subject of complaints concerning unfair competition from a number of private firms. The market mechanism was at work.

3.1.2 System Refinement

Given the late start, a number of system components were not fully developed when the grace period extension requirements were announced in April 1997. It was also clear to the Project Implementation Unit that the workload of reviewing, negotiating and finalizing Compliance Action Plans will exceed the existing resources. As mentioned above, one of the techniques to allow for better planning was to delay the submission of the Compliance Action Plans to start after the end of the application period. Moreover, a standardization of procedures and report formats were developed to help streamline the workload after draft Compliance Action Plans will pour starting September 1st. During this phase, the following documents were developed:

- Terms of Reference for external Compliance Action Plan reviewers.

- A standard review report format allowing for a quick review by the Egyptian Environmental Affairs Agency to insure impartiality and a clear delineation between technical and political decisions.
- Terms of Reference for external advisors to contribute in formal consultation sessions for industry to be held in the Egyptian Environmental Affairs Agency.
- A compilation of an expert database by specialization in industrial sector and/ or pollution media to be used for recruitment of external reviewers and advisors.
- A refinement of the suggested system to collect and disburse review charges, insuring adequate financial resources for the system operation.
- Terms of Reference for a media expert and an expert to design the public consultation mechanism were drafted.
- A consultation system with other regulatory agencies including Terms of Reference for the selected agency contact team and a team profile.
- A standard report format for submission to the Cabinet for approval.
- A suggested text for Cabinet decrees clarifying the decision and its contingency on continued commitment to implementation by the establishment. It was also considered to use this decree to fill a gap in law 4/94 executive regulations concerning the ratification and periodical revision by the Egyptian Environmental Affairs Agency of self-monitoring schedules.

Finally, and in order to keep track of the procedures and deadlines to respond to each individual establishment, an electronic database was developed to record the submission, review and response dates concerning of each establishment. The database was also used to analyze information sectorially, to estimate the work load on each category of reviewers, and geographically as a basis for consultation with the local administration.

3.1.3 Technical Support

The technical support activities focused on the industrial establishments to help them assimilate the concepts and mobilize their efforts to produce their Compliance Action Plans.

First, and before the Egyptian Environmental Affairs Agency's requirements were made public, three Compliance Action Plans in three different industrial sectors were commissioned to three different consultants by the Egyptian Environmental Affairs Agency[3]. These cases were meant to test the viability of the Compliance Action Plan framework, the type of resources that need to be mobilized and the availability of information to produce it. This activity has also helped the Project Implementation Unit gain experience closer to the field, which benefited the future technical advice to other establishments.

Consultations provided to industry already started at the end of the period but relying exclusively on the Project Implementation Unit, since as described underneath, the mobilization of funds to hire external advisors did not take place.

3.2 A Major Blow-down

With all the complexities and workload that this system entailed, it seemed to have been well designed. Minimal unforeseen pitfalls were expected during actual operation starting September 1997.

However, a major factor was missing. A system with such a novel approach should have had stronger political support. In the last week of July, the Prime Minister declared in the monthly Governors' meeting that the extension of the grace period for industrial establishments is rejected in principle. Industry had enough time to comply and extension would shake the credibility of the law and question the seriousness of the state to enforce it.

The very next day, the Project Implementation Unit clarified to the Egyptian Environmental Affairs Agency leadership that this rejection is inconsistent with the regulatory framework which sets the following principles:

- The possibility to extend the grace period.
- The authority of the Cabinet to grant this extension on a case-by-case basis.
- The responsibility of the Minister of Environment to present cases, supported by relevant documents, to the Cabinet for decision.
- The Egyptian Environmental Affairs Agency has the mandate to revise the documentation submitted (which was decided to be in the form of a Compliance Action Plan) and report to the Minister of Environment for presentation to the Cabinet.

The grace period extension became an issue of high political sensitivity, the Prime Minister's position could not be rediscussed. It should have been translated into an Egyptian Environmental Affairs Agency's focus on enforcement activities rather than the promotion of industry's commitment to actions achieving compliance. However, the Egyptian Environmental Affairs Agency already invested in the Compliance Action Plan promotion activities. Informing industry that the grace period ending in February 1998 will not be extended would have compromised the Egyptian Environmental Affairs Agency's credibility.

Internal Egyptian Environmental Affairs Agency discussions went on to the end of August, when the following compromise was reached:

- Continue with the grace period process as previously agreed.
- Fulfill the responsibility of presenting the cases to the Cabinet, given that it will be in its discretion to approve, or disapprove, of extensions on a case-by-case basis.
- In order to avoid political sensitivities and confrontation, the process of preparation of the cases for presentation should take place while keeping the lowest possible profile.

The compromise allowed the Egyptian Environmental Affairs Agency to:

- Implement what was agreed to be an effective means to promote compliance and achieve substantial improvement in both the environmental performance of major polluters and the environmental management culture in the next two years.
- Avoid backing-up from a process that was essentially positively received by industry, which expressed its willingness to commit compliance-oriented actions.

However, the "secrecy" implied by the compromise had, a number of negative effects on the process. These could be summarized as follows:

- First, transparency was in itself a major advantage of the process as designed since it diffuses to the public, industry and, decision-makers a number of messages. These mostly revolved around the efficiency of a cooperative approach. Moreover, information about the actions committed by industry and the degree to which they are fulfilled should allow for public scrutiny and eventually mobilization in terms of support and /or pressure. This would be inachievable since plans for public consultation, as well as media plans, were totally frozen.

  It was hoped at the time that this is only delayed until the first cases are presented to the Cabinet, which should trigger a more open reaction. Although it cannot be totally foreseen, whether the Cabinet chooses to approve or disapprove of extension, the low-key constraint will be broken.
- Second, the system developed for financing the Compliance Action Plan review and monitoring of implementation relied on raising funds from applicants based on the text of the executive regulations allowing the Egyptian Environmental Affairs Agency to recover the costs, it estimates, for the production of reports to be presented to the Cabinet. The system was designed and reviewed by Egyptian Environmental Affairs Agency financial advisors, and was ready for clearance by the Egyptian Environmental Affairs Agency CEO when the process was disrupted by the political developments concerning the grace period extension. It was decided not to require applicants to pay these revision fees to keep the agreed upon low profile. Alternatively, resources would be mobilized from internal sources.
- Third, the most critical effect of these developments concerns the freezing of efforts to coordinate with other concerned agencies. The lack of a coordination mechanism can put the whole process at risk, since the Egyptian Environmental Affairs Agency is not the only agency concerned with the environmental performance of industry.

3.3 Phase 2

At the end of the specified application period (31 August 1997), 190 companies requested extension, representing almost 300 plants. These were of a heterogeneous profile. Both privately and publicly owned companies were represented as well as all sectors of industry, including 6 power plants, distributed in 23 out of 26 governorates composing the national territory. The last days before the deadline saw an exponential growth in requests, which reflected the expected eagerness of industry to extend the grace period.

Early in this phase, the results of a survey of activities undertaken by industry to comply with the law since its issuance started materializing. These results supported the earlier perception that industry has made a serious effort to comply, especially larger establishments, but it still has a long way to go; the perception upon which the Compliance Action Plan system was based.

The figures were more surprising. The results of the survey indicated that Egyptian industry has invested more than 3 billion Egyptian Pounds (LE) in environmental investments during the last few years. This figure includes a few major projects totally shifting production

to cleaner technologies, but also hundreds of millions were spent by state-owned enterprises to minimize the environmental effects of their discharges through waste minimization, recycling and treatment. The other important result was that most of these funds were mobilized locally, although only international financing was highly publicized.

3.3.1 Compliance Action Plan Review

Unexpectedly some Compliance Action Plans were submitted in the first days of September. Companies did not all wait for the last days of December to submit their Compliance Action Plans it was clear that these were the companies that actually had an environmental plan, and did not produce it only to extend the grace period.

The process went as designed in the early stages of content revisions. However, companies that completed the Compliance Action Plan's contents, called for another critical decision. Since the formal consultation process with other regulatory agencies was put on hold, the report and the recommendation concerning a possible extension to be submitted by the Egyptian Environmental Affairs Agency for Cabinet ratification can only reflect Egyptian Environmental Affairs Agency's opinion. It was not possible to initiate such consultation without breaching the low profile compromise already agreed with Egyptian Environmental Affairs Agency's leadership.

3.3.2 Consultation with Regulatory Agencies

To develop an opinion concerning the seriousness of activities already undertaken to comply with the law did not represent a problem. Nor was the technical assessment of the adequacy of committed future actions to control currently non-complying aspects. The problem was basically two-fold, the insufficiency of field information to assess the effects of pollution allowed to continue during an extended grace period on the environment and the community, the other side of the problem is the political sensitivity of recommending to the Cabinet actions that fall within the domain of other agencies.

A decision was taken at that point, that it is Egyptian Environmental Affairs Agency's assessment and opinion, which will be submitted to the Cabinet. Whatever deficiency in the recommendation will be discussed in the Cabinet; an awkward situation which were to be avoided if consultation took place beforehand.

3.3.3 Negotiations with Industry

Negotiations with industry took place in only a few cases in which consultation with other regulatory agencies was essential. The low-profile attitude was preserved since this consultation mostly relied on personal contacts, and no formal system of consultation was put in place.

3.3.4 Reliance on Available Resources

Internal resources to replace the funds raised through application fees were never mobilized. The Project Implementation Unit has relied mainly on its existing staff to review draft Compliance Action Plans. Moreover, valuable support to hire external reviewers was contributed by Egyptian Pollution Abatement Project's technical and institutional support component (supported by the Finnish government)[4]. This contribution did not, and could not, cover all the activities that were planned during this phase.

Until the end of this phase, the Project Implementation Unit continued the revision, finalization and report production including the recommendation concerning the extension of the grace period. But because of meager resources, the process took longer than anticipated. This process that should have ended with this phase spilled to the next.

3.3.5 The Expansion of the Compliance Action Plan Scope

The deadline for accepting requests (August 31, 1997) was linked to the legal requirements to extend the grace period. Given the developments, and the uncertainty concerning such extensions for those who applied before the deadline, it was found meaningless to reject additional Compliance Action Plans. It was decided by the Project Implementation Unit to accept more submissions while specifying to the applicants that it will bear no relation to the possibility of extending the grace period but will be taken into account in inspection activities. This approach was well received by industry and applications continued.

Additional major developments took place late in 1997, which showed that the Compliance Action Plan approach has established roots. The association of investors of Sadat City (a new industrial city) contacted the Project Implementation Unit to express its will to submit Compliance Action Plans for all its members (more than 100 industrial plants). The association was fully aware that no extension will be granted, but they thought it was an adequate approach to ensure that their members are compliant or will be compliant within a specific time period. This was essential in a growing industrial city before environmental problems get out of control as has happened in other industrial cities. The Project Implementation Unit has welcomed the approach and has received and commented on the Compliance Action Plan's submitted from Sadat City.

The Chamber of building materials industries of the Federation of Egyptian Industries has also contacted the Project Implementation Unit to investigate the possibility of coordinating the preparation of Compliance Action Plans by its 1,200 members. The approach was also welcomed, and several meetings have taken place, but the Chamber did not go further in the process.

On another front, by the end of 1997 the local administration has applied enforcement pressure on brick kilns. This industry using old technology is definitely polluting, like so many others, and the reasons pressure was applied specifically on this one are unclear. The important point is that the local administration, knowing that it cannot close down hundreds of these kilns, has advised their owners to submit Compliance Action Plans to the Egyptian Environmental Affairs Agency. Almost 300 submissions from these kilns were received in 2 months. In order to support this positive movement in an industry lacking the technical capabilities, the Egyptian Environmental Affairs Agency has initiated a pollution abatement technology study to provide objective technical information to these plants as a guidance to their efforts.

3.3.6 Plans for the First Egyptian Environmental Affairs Agency Inspections

The Egyptian Environmental Affairs Agency was preparing for the first inspection campaign planned to start the next day the grace period ends. The original idea was to exclude from inspections, as a first enforcement activity of the Egyptian Environmental Affairs Agency, companies, which did apply for extension and accordingly submitted a Compliance Action Plan. The logic was that those who already " confessed" and promised to " repent", would be given some time to check whether they hold their promises. These need to be

included in a follow-up, and not an inspection, system. However, as a result of the decreasing interest in the Compliance Action Plan approach, and the low confidence in the submitted plans given the lack of consultation, this principle was requestioned.

This issue was resolved through a decision that all the inspections planned for the first two months (56 plants)[5], some of which applied for extension, will only be followed by mild notifications evolving later for those who do not take issues seriously to legal enforcement procedures. Moreover, these inspections would focus on low cost measures to achieve the following:

- Avoid unproductive arguments about the financial capacity of industry to implement high cost investments. This is especially true for large state-owned enterprises facing real financial constraints.
- Avoid the need for scarce equipment and measuring devices, and arguments on the accuracy of measurements.
- Mobilize higher public support, since most of these measures are needed where production inputs and /or intermediate products are wasted due to deficient management.
- Capitalize on the potential of these measure to be implemented quickly to achieve the highest possible reduction in pollution loads in the shortest delay.
- Finally, it will also be an effective means to test the accuracy of information submitted in the Compliance Action Plans.

The inspection teams were formed from research centers and other regulatory agencies . Only a few members were internal to the Egyptian Environmental Affairs Agency. This approach was a necessity since Egyptian Environmental Affairs Agency has not built its inspection team yet, but it was also useful in overcoming fragmentation of responsibilities, as prescribed in current legal instruments dealing with the environment, among several agencies; a major obstacle to effective implementation of enforcement activities.

This activity has been the first practical use of the Compliance Action Plan's, since inspectors used the valuable documents as background information before site inspections.

3.4 Phase 3

It is difficult to report on this phase which started March 1, 1998 after the end of the grace period, since developments concerning the management approach to industrial compliance are still unfolding. However, major trends and patterns could still be outlined.

3.4.1 A Stagnant Period

Test cases were never submitted to the cabinet and it was clear at this point that the rejection in principle of the grace period extension will not be challenged. It could not be challenged by the Egyptian Environmental Affairs Agency as a government entity, but it was also not challenged by industry, the other major stakeholder of this decision. This may have been for a number of reasons, which hampered collective action by industry.

- The Federation of Egyptian Industries has had a major change in management in this period. Neither the new nor the old management was in a position to get into a confrontation concerning this issue;

- The Federation of Egyptian Industries and its sectorial chambers had other important issues on their agendas (such as dumping, export promotion, and the effects of removing import barriers on local industry) for which they needed the Cabinet support;
- Information concerning this rejection was never confirmed by the Project Implementation Unit, still hoping unjustifiably to see this decision reversed; and finally
- Industry may have been also interested in avoiding closer scrutiny to follow up on its Compliance Action Plan implementation.

Given this deadlock, the Project Implementation Unit has approached a local conflict resolution research center. This center should have taken the lead in opening a dialogue highlighting the issues and stakes of the two different management approaches as a means to move the stagnant situation. However, the effort to prepare for this dialogue was an additional burden on the Project Implementation Unit that could not be borne, given the high and growing workload. A workload especially growing since the Project Implementation Unit was integrated in the Egyptian Environmental Affairs Agency's structure under a different mandate. The Industrial Compliance Unit has taken the mandate of its predecessor in addition to other industrial related activities dispersed in the Egyptian Environmental Affairs Agency. The dialogue was never opened.

3.4.2 A State of Confusion

As a result confusion started to increase from the beginning of this period. Decisions awaited by industry concerning the grace period were never taken while regulatory agencies including Egyptian Environmental Affairs Agency started inspecting compliance with the law.

The reaction of industry to this confusion varied along a wide spectrum reflecting different degrees of seriousness to move towards compliance. While some establishments started implementation and reporting, others insisted on having their requests for extension accepted claiming that their commitment to action is hampered by the lack of a clear stand from the Egyptian Environmental Affairs Agency. The Industrial Compliance Unit, knowing that the Egyptian Environmental Affairs Agency does not have the authority to grant extensions, was elusive concerning the latter group, and could only be encouraging for the former.

Another contributor to the state of confusion and growing pressure were consultants. As a marketing approach, consultants which were hired by industry to prepare their Compliance Action Plan's have linked their final payments to the acceptance of the Compliance Action Plan. The Project Implementation Unit could only, given the circumstances, inform industries of the completion of the Compliance Action Plan requirements but never of its acceptance. A large number of contracts are still hanging to date and consultants are complaining of the vagueness of the Egyptian Environmental Affairs Agency's position.

3.4.3 The Role of Local Administration in Promoting Compliance Action Plan's

Local administration has started promoting Compliance Action Plan's in late 1997 especially among brick kilns. Later, after the end of the grace period, during its normal inspection it was faced with industries questioning such activities since, as they claimed, their Compliance Action Plan's were accepted by the Egyptian Environmental Affairs Agency,

and a cabinet decision concerning their grace period extension is due any time[6]. Unmistakably, the local administration contacted the Egyptian Environmental Affairs Agency, which informed it of the compliance program and asked it to follow-up on its implementation taking necessary legal actions if not implemented as submitted.

Continuous enforcement activities have supported the validity of the Compliance Action Plan approach. Needed corrective actions cannot be implemented in a short period. Priorities should therefore be set in a way agreed and ratified by the regulatory agency. The local administration has realized it, but lacks the technical capacity to take a more positive attitude towards it. It attempted to resolve the issue through an unexpected move. Local administration had started requiring industries renewing their operating licenses to contact the Egyptian Environmental Affairs Agency for environmental compliance purposes as a requisite for license renewal. Surprisingly, similar requests originated simultaneously from different cities and towns. Although, the Egyptian Environmental Affairs Agency perceived the opportunity to promote compliance, it would have been an unbearable burden for which the Egyptian Environmental Affairs Agency has no actual mandate. Local administration has been informed that the Egyptian Environmental Affairs Agency has no mandate concerning license renewal.

Finally, a number of governors, the highest authorities in local administration seemed to have assimilated the benefits of an approach promising an improvement of environmental conditions without threatening the continuing operation of polluting industries, large employers of the local work force and contributors to the economic welfare of the population. Compliance Action Plan's became a normal reference in a number of governors' communications with Egyptian Environmental Affairs Agency concerning industrial pollution as well as with industries falling in their administrative domain.

3.4.4 Egyptian Environmental Affairs Agency's Current Revived Interest

It is now (September 1998) clear to all parties that the grace period extension decisions will never be taken by the Cabinet. Accordingly, the issue has lost most of its political sensitivity. The Compliance Action Plan could now be decoupled from the grace period extension. The Egyptian Environmental Affairs Agency's revived interest could be exemplified in a number of activities currently undertaken by the Industrial Compliance Unit as cleared by the Egyptian Environmental Affairs Agency's management.

- Formal contacts to industry to report on their progress in Compliance Action Plan implementation;
- The cooperation with local administration to follow-up on implementation is being revisited;
- A dialogue with the association of iron foundries to develop a collective agreement concerning progress towards compliance; and
- A system is being designed to incorporate environmental requirements in license renewal (the issue originally raised by local administration) taking the milestones of a Compliance Action Plan as references for temporary renewable licenses.

Moreover, outside the Industrial Compliance Unit other units of the Egyptian Environmental Affairs Agency developed Compliance Action Plan frameworks for hotels and hospitals and started requesting these establishments to submit their Compliance Action Plans. Odd cases, such as an airport, a maritime transportation company and a wastewater

treatment plant were received by the Egyptian Environmental Affairs Agency. The Egyptian Electricity Authority is currently developing a Compliance Action Plan for each of its power plants, and not only the six plants for which it originally requested a grace period extension.

4 CONCLUSION

This paper could have been written in a number of forms. Its anecdotal approach was selected to try to give the flavor of the real experience of the author. Stories of our childhood usually ended with a strong morale, and this one has its own: The fate of the war is not decided in one battle.

The system devised to manage the extension of the grace period has failed in most of its aspects. It had all the elements needed to have a program fail:

- A tight time constraint.
- Scarce human and material resources.
- Weak political support.

Introducing a management system entails a number of inter-related elements that should be developed in consonance to keep the system in equilibrium during the start-up phase. If this system is introduced within a government, or any large bureaucracy, it is also subject to forces of institutional inertia, that easily transform initiatives to change to unnoticeable scratches on its surface. A successful change in bureaucracy requires the mobilization of extra-institutional alliances, that given the three above-mentioned elements was not possible in the right moment when it was needed.

It was, in a way, not wise to initiate such a program 10 months before the end of the grace period with three professionals on board. It was more so to insist on preserving the system inertia when it was clear that weak political support had turned into outright rejection.

However, there was a good product in hand and the market was in dire need for it. One can claim at this point that the Compliance Action Plan and its underlying cooperative approach are now more than scratches on the surface. The approach was successfully incubated but it still needs to be nurtured to strengthen systemic roots in the Egyptian environmental scene. The tool was also successfully tested and has proven its usefulness and versatility. Its development is now a standard component in environmental management courses tailored for industry cadres in Egyptian universities. It is only the establishment of the management system that failed temporarily.

ANNEX 1

COMPLIANCE ACTION PLAN (CAP)

(Framework)

1 BACKGROUND

The environmental law 4/94 has granted the existing industrial establishments a grace period of three years starting from the issuance of its executive regulations (February 95) to meet its requirements. The grace period can be extended for 2 years, given that the establishment proves seriousness in progressing towards compliance.

All establishments expecting not to comply with the requirements of the executive regulations by February 1998 are required to formally apply for extension 6 months before the end of the grace period (August 1997). This application should address the reasons for the extension and the actions already undertaken to comply with the requirements of the law.

The Egyptian Environmental Affairs Agency requires the establishments to provide satisfactory evidence of the progress achieved and the actions to be undertaken during the extension period to ensure compliance at its end, according to the attached framework.

2 OBJECTIVES

The immediate objective of the Compliance Action Plan is to bring the applicant facility in compliance with environmental laws and regulations. The ultimate objective is to strengthen environmental commitment and to incorporate environmental management systems and cleaner production technologies in the Egyptian industry.

3 SCOPE

The Compliance Action Plan should accomplish the following:

- Translate the planned technical interventions to conceptual engineering designs.
- Reflect financial requirements and limitations.
- Outline an environmental management system integrated in the facility's planning and management systems to respond to evolving environmental requirements.
- Form the basis of the facility's agreement with the Egyptian Environmental Affairs Agency on a phased plan towards environmental compliance.

4 DEVELOPMENT OF THE CAP

4.1 Draft Cap

The Compliance Action Plan is the facility's document and throughout the phases of its development, the full involvement of its concerned personnel as well as its management full consent should be ensured.

The following issues should be addressed in the draft Compliance Action Plan report:

4.1.1 Environmental Status

- Provide Plant information as described in Appendix A.
- A list of environmental studies conducted for the facility in the last three years (copies of these studies should be attached).
- Report on actions undertaken and progress achieved towards compliance, supported by satisfactory documentation, since the issuance of the Law 4/ 94.
- Identify the state of compliance with relevant environmental laws and regulations expected by February 1998 concerning:
  - liquid Effluents, for each point of discharge, specifying discharge rates, source(s) by industrial process. A table comparing the average concentration of pollutants to the maximum allowable limits according to Law 4/1994 should be attached.
  - Air Emissions, for each point of discharge (stacks and fugitive emissions), specifying source(s), emissions rates, stack heights and fuel used if applicable. A table comparing the average concentration of pollutants to the maximum allowable limits according to law 4/1994 should be attached.
  - Hazardous materials used in the facility and the current management system compared to the requirements of Law 4/94.
  - Solid and Hazardous waste, identifying sources by industrial process and the current management system compared to the requirements of Law 4/ 94.
  - Work environment, specifying locations where pollutants concentration exceed the maximum allowable limits according to law 4/1994. A list for these pollutants with their concentrations should be attached.
- Existing Pollution Control Facilities
  - Sewer layout diagram.
  - Description of in-process and end-of-pipe treatment of liquid waste and air emissions and the efficiency of the existing treatment facilities.
  - Availability of space for installing pollution treatment units.

4.1.2 Planned activities for Environmental Compliance

4.1.2.1 Polluting discharges

- Specify proposed actions to mitigate non-compliance problems during the grace period including:
  - Process changes and / or control
  - Improved maintenance measures
  - Input substitution
  - Material recovery and recycling
  - End-of-pipe treatment

4.1.2.2 Hazardous waste and materials

- Describe measures to upgrade management of hazardous waste and material, according to law 4/1994, including a contingency plan.

4.1.2.3 Work Environment

- Specify actions to be undertaken to bring the work environment in compliance with law 4/1994.

4.1.2.4 Monitoring of Industrial Emissions

- Describe present system, and identify planned actions to establish a self-monitoring scheme according to the requirements of Law 4/94.

4.1.3 Environmental Policy and Management System

- The facility should inform the Egyptian Environmental Affairs Agency of the composition of the task force -with defined roles, responsibilities and authority as well as adequate resources- designated to ensure that the Compliance Action Plan is implemented as committed and to report on progress towards its implementation to top management.
- During the extension period, this task force will also be responsible for developing the facility's environmental management system. This would include, but is not limited to:
  - Outline the company strategy on pollution abatement, cleaner production, energy conservation, waste minimization, water recycling and by-product recovery;
  - Designate the responsibility for achieving environmental objectives and targets to each relevant function and level of the organization;
  - Identify measures to strengthen awareness of management, supervisors and workers of environmental issues and regulatory requirements relevant to their areas of responsibility;

- Develop a plan for on-the-job training on cleaner technologies, operation of waste treatment systems, and emissions monitoring; and
- Identify measures to be undertaken when monitoring information indicates non-compliance or unacceptable degradation of the receiving environment

4.1.4 Action Plan

4.1.4.1 Implementation Schedule

- A summary implementation schedule should be included. This schedule should delineate the technical and managerial aspects of the compliance plan, the financial plan, targeted deadlines for major activities, as well as the anticipated reductions in pollution loading, and the resulting progress towards compliance.

4.2 Financial Plan

- Delineate financial requirements in terms of investments and operational costs as well as potential benefits.
- Identify sources of financing for the activities that will be implemented by the facility.

4.2.1 Progress reporting

- Periodical reporting -at 6 months intervals- to the Egyptian Environmental Affairs Agency will be required to summarize the progress on the action plan as well as forth coming activities.

4.2.2 Feedback to the Draft Compliance Action Plan

The draft Compliance Action Plan, cleared by the establishment Board of Directors, will be submitted to the Egyptian Environmental Affairs Agency for review and comments. The feed back solicited by the Egyptian Environmental Affairs Agency, as needed, from the local administration as well as other concerned parties will be included.

4.3 The Compliance Action Plan Final Document

A revised Compliance Action Plan should be prepared by the facility to incorporate changes based on the comments, if any, of the concerned parties. The final document will be annexed by the Egyptian Environmental Affairs Agency to its recommendation concerning extension of the grace period submitted to the Cabinet of Ministers.

APPENDIX A

FACILITY INFORMATION FORM

I. General Information

Company:.....
Facillity Address:.....
CEO:.....
Size of labor force:.....
Major production activities:.....
SIC Code:.....
Contact Person:.....
Address .....
Phone .....Fax .....

II. Production Processes

Process Information

- Process flow diagrams.
- Material, water and energy balances.
- Map showing facility layout illustrating main uses, points of discharge and sources of emissions.

Production Information

- Products

Products	Production Capacity (t/y)	Average Production (t/y)

- Raw materials and auxiliaries

Main Raw Materials	Average (t/y)	Maximal Consumption Consumption (t/y)

- Water

Water Consumption	Amount (m^3/y)	Supply Source
Domestic Water		
Process Water		
Cooling Water		

- Energy

Type	Amount/year	

III. Surrounding Environment

- Map of plant location, identifing receiving water body, surrounding land uses, distances to human settlements.

IV. Future Plans, if any

- Relocation plan
- Expansion plan
- Major process modifications

ANNEX 2

ON THE DIFFERENCE BETWEEN THE COMPLIANCE ACTION PLAN AND POLLUTION ABATEMENT ACTION PLANS

Both the Compliance Action Plan and the Pollution Abatement Action Plans are environmental planning exercises at the industrial facility level. For both a central element is an in-depth plan for environmental upgrading, covering technical solutions, their costs and a timetable.

However, their emphasis and scope of activities may differ.

	Compliance Action Plan (CAP)	PollutionAbatement Action Plans (PAAP)
• Objectives	Compliance	Env. soundnes
• EMS	Initiation	Integration
• Contingency schemes	Hazardous material	Comprehensive
• Training	Env. Personnel	Plant personnel
• Monitoring	Emissions	Env. performance
• Financing	Affordable	Substantive

The main differences between the two planning exercises are their time frame and objectives. While the Compliance Action Plan is a short term plan to ensure compliance with applicable laws and regulations, the Pollution Abatement Action Plans is a longer term plan with an ultimate objective to secure environmental compatibility and economic viability of the establishment .

In the long term two factors, that are fixed on the short term, become variable:

- The plant configuration.
- The environmental requirements.

ENDNOTES

1. A subsequent survey conducted in July- October 1997 and which covered 1000 larger industrial establishments, has substantiated this perception.
2. The CAP framework has benefited from the comments of several parties including EEAA staff and advisors as well as the Finnish staff of a EEAA international project (Egyptian Pollution Abatement Project's technical and institutional support component, supported by the Finnish Government) in EEAA. Other useful comments have been solicited and received from EPA office for compliance and enforcement after distribution has begun. These comments have been used in the subsequent management of the subject but are not reflected in the annexed CAP framework.
3. These CAP's were supported by the Finnish contribution to the Egyptian Pollution Abatement Project.
4. We acknowledge the understanding of Dr. Alec Estlander, the Egyptian Pollution Abatement Project Finnish project manager of the importance of the activities which allowed for an ideal cooperation with the PIU during this crisis situation.
5. These plants were in the greater Cairo and Alexandria regions, where a large proportion of Egyptian industry is located. Limiting the geographic coverage of this first inspection campaign simplified substantially the logistical demands of inspection. Moreover, the concentration on large industrial areas was expected to have the highest deterrence effect. The plants were selected to include private and public companies from different sectors but all with considerable size.
6. PIU communication concerning the completion of the CAP requirements, also mentioned that a report concerning the extension request was prepared for presentation to the Cabinet. This may have given the impression of acceptance by EEAA, which was not always true. But since only a few cases were negotiated with industry, EEAA opinion was not clarified and the reports included positive as well as negative recommendations.

INSTITUTIONAL REFORM THROUGH JUDICIAL ACTIVISM

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SUMMARY

The role of the Judiciary in achieving radical environmental institutional reform has hitherto been overlooked in so far as the emphasis has always been on Governmental action and its implementation. While the role of the NGOs has been assumed to be more of a vigilante nature they have also been ascribed with the important task of achieving higher compliance even in the absence of strict policing by the State. At the end of 1998 a critical audit in India will indicate that the achievement levels have still been low in vital areas principally because the Courts have been playing a minimal role in the arena. While it is true that punishing environmental offenders in a manner that has to be a deterrent is the need of the day, it must be simultaneously emphasized that the two other important means namely the power to prohibit and the power to direct are two of the quickest and most effective weapons that need to be used more frequently. In the Indian context, the subordinate Courts which deal with environmental transgressions have failed miserably in achieving any respect for the laws or any fear of the consequences of breaking it. Compliance from society will be forthcoming when the message goes out loud and clear from these Courts that whereas today one can transgress nature's laws and State laws almost with impunity, that the Courts will ensure that it is no longer safer or cheaper to break the law than to observe it. What is required is a no nonsense approach whereby fear is the key — a respect built on the understanding that the consequences of a breach will be very very serious. The Indian Supreme Court's interpretation that the fundamental right to life does include the right to clean environment elevates what is otherwise an ordinary legal right to that of a basic human right constitutionally protected through writ jurisdiction of the Supreme Court and High Courts. Therefore, despite failure of administrative and legal arrangements in the effective protection of environment, human rights standards and procedures have advanced the cause of a right to a clean environment by putting administrators on the defensive and generating a positive enthusiasm to give priority to environment issues.

1 INTRODUCTION

Are environmental rights, individual rights? They most certainly are, as it affects the individual's right to life. At the same time, they are group rights as well, since a safe and clean environment is the basic need of all living creatures, particularly human beings. However, at the end of the day, the discourse on rights invariably aims at articulating potentially enforceable individual rights, as all human rights are inherently anthropocentric (focus on people).

Many aspects of environmental rights reaffirm the substantive content of such rights. Thus, environmental rights emanated out of the right life, right to health, right to privacy, and right to sustainable development. At the same time, without individuals having the standing to challenge perceived violations of the environment and the system following "due process of law" as a prerequisite for interference with fundamental rights, the development of

environmental rights has evolved as part of human rights. It is the Courts and more importantly the Judges in many of these Courts who are required to give body and soul to these vibrant concepts.

2 JUDICIAL ACTIVISM

The Indian Constitution invests the higher Judiciary with the powers that were originally possessed by the sovereign and to provide complete justice these Judges are the repositories of unbridled powers. India is a subcontinent and it has as many as 438 High Court Judges and 29 Supreme Court Judges and the figures are being set out in order to illustrate that if this virtual army of Judges were to use the powers vested in them both individually and collectively to the extent that is expected, that every erring institution or every defaulting institution could have been reformed in no time. The gravity of this argument would be illustrative from the fact that out of the 248,860 cases that these Judges handled in 1997, as many as 16,480 pertained directly to environmental issues and the failure rate is as high as 93.8%. The orders indicated that the Courts generally refused to interfere and virtually redirected the parties to the authorities at a slightly higher level. It was an appeal from Ceasar to Ceasar, an exercise in futility that demoralized the complainants and encouraged environmental vandalism. Why did this happen? My only regret is that in the higher Judiciary, which is otherwise overloaded, an almost universal trend has manifested itself among the fraternity built on the fallacious notion that environmental issues belong to a field which is really directly not the business of the Courts, which should be agitated elsewhere and that even the few cases that come up should be beaten down in order to reduce the volume of such litigation and lighten the load on the Judiciary. To my mind, the whole approach is wrong and requires drastic change.

The Indian Constitution incorporates some unique features such as Art.51A which enumerates Fundamental Duties one of which is "to protect and improve the environment including forests, lakes, rivers and wildlife and to have compassion for living creatures." This is a provision that is more overlooked than observed but it does postulate as much a duty on the Judges as on the citizens to ensure environmental preservation. The number of cases that come up before the Courts are severely limited because the chances of success are relatively low. There are also other reasons, the main one being that the offenders invariably belong to powerful or dangerous lobbies an in the majority of instances, there is total back-up and political patronage. A classic example is where the State or its departments acting through its representatives are the offenders, such as in the case of widespread destruction that takes place through the forest department which in turn is riddled with corruption. The complainants would either be afraid or are resigned to the fact that the offending party is too big or powerful to be rectified. I mention these features deliberately because the higher Judiciary is the one and only institution and the avenue of last resort available to an aggrieved citizen or an endangered population to obtain corrective action; if the Judiciary shows a high degree of reluctance in entertaining the complaints, for its own defensive reasons, the number of approaches would necessarily fall. Nothing is more eloquent than the analysis of the cases belonging to this category which increased by 11% between 1980 and 1985, by another 47% between 1985 and 1990 thanks to a responsive Judiciary and then declined by 22% between 1990 and 1995 and, dived even more by 44% between 1995 and 1998. These figures demonstrate a dangerous trend and one which requires urgent reversal. Whereas a decade ago the situation was in the process of reform, a change of Judicial attitude has today restored it to a situation of pathos.

Undoubtedly, the entertaining of this class of litigation results in a flood of complaints and it is up to the Judiciary to weed out the grain from the chaff, but the aspect of significance is that if the message goes out loud and clear that the Courts will not tolerate atrocities in this field, the compliance levels will climb immensely. Conversely, if there is a confidence that the Courts will turn a Nelson's eye to the problem, infringements will only grow. This itself establishes the total and absolute need for Judicial activism in this field.

Sad as it may seem, the activist Judges who include the writer of this paper, are labeled by their own colleagues as being ones who are interfering in areas which they should not and are publicity seekers. It is inevitable that the few Judges who apply themselves seriously to the task of enforcing Environmental Law compliance which includes rigorously punishing the offenders, do get noticed. The media in this country is very sensitive to environmental issues and is about the only institution that has relentlessly fought against all forms of degradation. Undoubtedly therefore it highlights every instance where there has been significant and worthwhile Judicial intervention which to my mind is essential because it ensures the message of compliance.

Judicial activism only connoted responsible responsiveness, a willingness to intervene and above all the moral courage to take on environmental predators. True, it involves more than moral courage, the spirit of preservation and as Dr. Albert Schweitzer put it, "a reverence for life in all its forms." A Judge who is true to his office needs to address to himself the question "What has God given you a neck for if not to stick it out?" (An anonymous British poet). If Environmentalism is to make headway, judicial activism is a must.

What are the concrete steps of ensuring Judicial activism which is really the need of the hour?

- A well defined program aimed at feeding the Judges with the right type of literature, highlighting the all important aspect that they man the only institution that can hold the fort.
- A sustained media campaign directed towards bringing home the message that if the Courts and the Judges do not intervene, nobody else will and that therefore they must.
- An immediate directive from the Chief Justice of India that a Green Bench be set up in the Supreme Court and in every High Court to handle this class of cases expeditiously and efficiently and that the Judiciary be more responsive to these issues.

3 WRIT JURISDICTION

Under the Judicial set up in India, every Judge of the High Court and the Supreme Court is invested with inherent powers whereby writs can be issued to every government, state and public authority. These inherent powers are absolute and an order or a direction issued is bound to be observed an in cases of breach, the Courts have the powers to enforce their orders. Nothing can be more effective in enforcing environmental compliance than this mechanism and to my mind, it is the single, most expedient and effective means of achieving institutional reform. Time-factor wise and cost-wise again, it is the finest remedy and the one that needs to be utilized far more effectively than at present. To the question as to whether the addition of this field of litigation would abnormally pressurize the already overworked Judiciary, my answer is in the negative. First of all, there is no problem whatsoever in

increasing the number of Judges but even if that takes a while, with mere better time management, work management and a degree of mechanization, there is absolutely no difficulty in accommodating these cases. What needs to be emphasized is that this class of litigation involves comparatively uncomplicated cases which can be disposed of very fast. To my mind, if every High Court and the Supreme Court were to firmly and seriously order corrective steps and enforce them for a period of one year the compliance levels will shoot up to a point that the need to approach the Courts will be reduced by as much as 75%. I say this from a position of experience and with total confidence.

4 JUDICIAL MILITANCY

Shocking as it may seem, this expression may appear totally out of place in relation to Judicial functioning. While it is accepted in most quarters that a definite degree of Judicial activism is desirable, eyebrows would probably be raised of one advocates Judicial Militancy. I have already referred to the more serious issue namely that in respect of major transgressions the aspects of personal safety and survival invariably deter public interest litigation. In 1983 the Indian Supreme Court entertained a series of letters from convicts and later on from journalists which were treated as letter petitions and converted these into writ petitions on the basis of which the Courts proceeded to summon the respondents and to pass appropriate orders. Over the years, the Indian Courts have accepted the practice of entertaining such complaints which are initially screened and thereafter acted upon. These may concern individual grievances or in may instances involve a request for Judicial intervention in cases where the problem is brought to the notice of the Court. In the first of such cases it was brought to the notice of the Supreme Court that in one of the States a number of undertrial prisoners had been victims of police torture which had resulted in their being blinded and that the authorities had never produced them before the Courts thereafter and had indefinitely retained them in custody and the Supreme Court came down heavily on the authorities and ordered exemplary compensations. Some years later, when the capital city of India, New Delhi, was preparing for the Asian Games, thousands of migrant laborers had been brought to Delhi to work on construction sites without even the provision of basic amenities resulting in abnormally high civic pollution, and a journalist took the matter up with the Supreme Court which intervened and brought about immediate corrective action. This avenue of approaching the Courts still continues but the irony of the situation is that only 1.2% of the letter complaints get to be entertained. An examination of a cross section of these complaints indicates that 92% of them deal with aspects of pollution, degradation of forests, tanks and rivers, noise pollution, dangers to public health and generally matters that require redressal in the public interest. All that is required is that a well qualified scrutiny mechanism be set up in the Courts to sift these complaints and to act on ones which require redressal. Even in cases relating to pollution by small industries, the residents of that area invariably do not disclose their names for fear of reprisals but this is no ground on which a Court should ignore the complaint. Where it is a question of the public good and the public interest the predominant consideration must always be to correct and not to permit injustice.

What I am coming to really is that through this source, complaints are addressed directly to the Judges and additionally through the media and even through ones own observation, instances do arise when serious illegalities come to the personal notice of a Judge. A Judge being a Constitutional functionary the Judicial Officer is vested with "suo motto" powers to direct corrective action and for doing this, it is not necessary that a public interest petition or a formal complaint should be on record. Undoubtedly, the Judge will follow

a procedure whereby the issue is investigated and the party against whom action is proposed would be given a fair opportunity of being heard but the fact remains that while exercising suo motto powers, the members of the superior Judiciary are reaching out further than and activist Judge would normally do. I have used the expression Judicial Militancy because I believe that in order to bring about social change and institutional reform a Judge would have to be militant to the extent of keeping one's eyes and ears open and acting on one's own. The impetus has to come from within and for this, there has to be a background of deep seated dedication fired by a commitment to reform.

I advocate a resort to this mechanism in the context of the Indian sub-continent because the Judges have the power, the competence and the means to achieve rapid institutional reform as they do not have to wait for complaints which may or may not come.

5 SENSITIZING THE JUDGES

For all this, a process has to be initiated to very quickly but very firmly sensitize the Judges towards the importance of environmental action. The Bar Councils and the Universities need to be moved towards including the subject in the Law curriculum. The Bar Associations from where the majority of Judges emerge need to be stimulated and spurred into action by increasing awareness of environmental issues but as far as the existing Judges are concerned what would perhaps help immensely would be through the setting up of a Judicial Academy in each State which could hold orientation courses for the Judges in order to increase the sensitivity levels that are absolutely necessary, if the levels of activism or militancy are to be increased. Whereas various international bodies have hitherto concentrated on government bodies, NGOs., private enterprises, the legal profession appears to have gone by default so far. I have attempted to highlight how vital this area is and while I do not dispute that a tremendous amount has been done towards formulation of laws, regulations and the like, that the role of the Courts has not been sufficiently emphasized is a sad truth. This paper has therefore attempted to place before this Conference how vital this sector is in achieving rapid and radical institutional reform.

MAKING IT HAPPEN: THE EVOLUTION OF PULP AND PAPER MILL COMPLIANCE IN BRITISH COLUMBIA

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SUMMARY

Compliance with environmental law by British Columbia pulp and paper mills has evolved through four distinct phases, each phase driven by growing public awareness of environmental issues and government response to public demand. Phase 1 was characterized by low public awareness, almost no regulation and even less enforcement. The industry was free to grow and operate, unencumbered by environmental concerns. In Phase 2, growing public awareness of the health hazards of pollution drove government to set emission standards. Still, no significant enforcement was carried out and industry complied with the law at its discretion. In Phase 3, the public demanded and government delivered tighter emission standards and tough enforcement. Industry at first resisted and paid dearly in fines which finally led to improved compliance. In Phase 4, the industry is substantially in compliance with stringent emission standards, the public continues to press for a cleaner environment and government encourages industry to move "up the pipe" to a new environmental management regime.

The turning point in industry compliance occurred at Phase 3 when the government implemented an aggressive enforcement program.

1 INTRODUCTION

In November of 1988, the federal Minister of Fisheries and Oceans announced the closure of commercial fisheries for prawn, shrimp and crab in the vicinity of three coastal pulp mills in British Columbia. Further monitoring led to additional commercial shellfish closures and announcement of consumption advisories for a number of coastal and inland waters.[1] While regulation of pulp and paper mills in British Columbia had begun 20 years previously, the closures and the significant human health concerns they represented, sparked an urgent call to government to implement an effective environmental compliance and enforcement program.

2 BACKGROUND

British Columbia is a large Canadian province of approximately 95 million hectares. It is bounded, for the most part, by the 49th parallel on the south, the 60th parallel on the north, the Pacific Ocean on the west and the height of the Rocky Mountains on the east. 78% of British Columbia is publicly owned, government managed, forest land.[2] Forest harvesting and the production of forest products, such as pulp and paper, constitute the backbone of the provincial economy.

Canada is the world's largest producer of market pulp, producing one-third of the world's total in 1991 and the single largest supplier of newsprint, with 56% of the 1991 world total. British Columbia is a large contributor to Canada's output of these products, producing 29% of the Canadian pulp output in 1992.[3]

The first pulp and paper mills in British Columbia began operations in the early 1900's. Because they need water, wood and shipping routes, the earliest mills were established along the Pacific coast. Later, during rapid expansion in the 1960's and 1970's new mills opened on the coast and also on major inland rivers. There are now 26 pulp mills in the province, 23 of which release effluents directly into the environment.

Compliance with environmental law by British Columbia pulp and paper mills has evolved through four distinct phases, each phase driven by growing public awareness of environmental issues and government response to public demand.[4] Phase 1 was characterized by low public awareness, almost no regulation and even less enforcement. The industry was free to grow and operate, unencumbered by environmental concerns. In Phase 2, growing public awareness of the health hazards of pollution drove government to set emission standards. Still, no significant enforcement was carried out and industry complied with the law at its discretion. In Phase 3, the public demanded and government delivered tighter emission standards and tough enforcement. Industry at first resisted and paid dearly in fines which finally led to improved compliance. In Phase 4, the industry is substantially in compliance with stringent emission standards, the public continues to press for a cleaner environment and government encourages industry to move "up the pipe" to a new environmental management regime.

The turning point in industry compliance occurred at Phase 3 when the government implemented an aggressive enforcement program. In this paper I will describe the four phases, but will focus attention on Phase 3 as this is the phase when British Columbia "made it happen".

3 PHASE 1

The first 60 years of pulp and paper mill operations in British Columbia passed with almost no reference to the environment. The public was largely unaware of environmental concerns and the mills discharged wastes with little or no regulation by government. In the late 1960's the provincial government enacted the first legislation that required pulp and paper mills to obtain wastewater discharge permits to control and reduce the types and quantity of wastes released to water. The site specific permits also introduced legal requirements to monitor the impact of pulp mill discharges on the receiving environment [5] but no formal enforcement was carried out. Industry viewed the controls as a nuisance and paid scant or no attention to compliance.

4 PHASE 2

The 1970's and early 1980's saw growing public awareness to the health hazards of pollution. Accordingly, government sought public input to environmental policy development. In 1971, pollution control objectives were introduced.[6] In 1976, a public inquiry was conducted to review the objectives and ensure they served the public good. Public and industry meetings were held around the province. The resulting *Pollution Control Objectives for the Forest Products Industry of British Columbia* were published with a view to reducing the volume, concentration and toxicity of waste discharges from pulp and paper mills and

also as an attempt to standardize permitting practices across the province. Pulp and paper mill operations require at least three waste discharge permits, one for effluent discharges to water, one for emissions to air and a third for discharging refuse to land. The new objectives addressed the complex issue of operating one phase at the expense of the others and sought to balance air, water and land discharges to ensure the effluents are disposed to the various media within the assimilative capacity of each.[7]

In 1982, a new *Waste Management Act* increased penalties for pollution, to a maximum of $50,000. Nonetheless, enforcement activity remained very low key, with no major investigations or prosecutions. Negotiation and bargaining were the main techniques employed to achieve compliance. Informal sanctions such as sending a letter or scheduling a meeting with senior officers of the company were the harshest measures employed in most cases on non-compliance. Sometimes a conservation officer in uniform attended site visits. This was perceived to have an impact by suggesting that prosecution measures might be taken. During the years 1984 to 1986 the average fine imposed under the *Waste Management Act* was $565. At the end of this phase, in 1987, the provincial government reported only 9 convictions under the Act for a total of $4,900 in fines.[8]

The industry took notice of increasing government attention to environmental concerns by appointing environmental coordinators to work with government environmental protection staff, negotiating permit discharge limits and attending meetings to discuss compliance issues, but compliance remained low.

Lengthy and complex scientific studies were undertaken by governments to investigate effects that pulp mills were having on surrounding ecosystems. Dioxins and furans were linked to the use of chlorine bleaching in the pulp milling process. The discovery of dioxins and furans in marine environments around coastal pulp mills emphasized the need for improved wastewater treatment and process changes.

5 PHASE 3

The 1988 shellfish closures and public health advisories near pulp mills focused public attention on this industrial sector. The public had by this time developed a sophisticated understanding of environmental issues and environmental non-government organizations, known as "ENGOs", were effective at communicating public concern to government through lobbying efforts and communicating back to the general public through the media. Public meetings held on the fishery closures were well attended, by up to 5,000 people at a single meeting, who criticized government for not enforcing its laws.

Also in 1988, an environmental lawyer and law professor at a British Columbia university published a report that brought to light the failure of government to achieve compliance with its environmental protection legislation. The report begins "Regulators respond to most environmental ... violations by ordering offenders to obey the law. Sanctions are seldom invoked.".[9] The author's analysis of monitoring data showed that many industrial permittees were habitually and substantially out of compliance with their permitted discharge levels. Further, interviews with government staff revealed that persuasion was used almost exclusively over punishment and that many habitual offenders were never penalized. The report contended that sanctions hold great promise in the regulatory context. A monetary penalty can be expected to be more effective for companies in direct pursuit of profit than they are for those who commit more expressive crimes such as murder or illicit drug use because of the negative profit contingency presented.[10]

An important regulatory goal of the British Columbia government was to ensure all pulp mills employed acceptable pollution control technologies to meet new tougher standards. Careful attention was paid to permitting practices across the province and tracking compliance. Mills were required to install equipment to monitor their discharges and regularly provide the data to government. Regular meetings with company officials were held to review the data and discuss compliance issues. At one notable meeting, a table was presented showing the industry's own monitoring results. Each instance of non-compliance printed in red ink; the compliant discharges were printed in black. The table appeared almost entirely red and the company vice-presidents walked out of the meeting *en masse*[11]. This behavior was a clear indication that if compliance was to be achieved, persuasion alone would not provide the means.

Government implemented an enhanced program of inspections to verify industry's monitoring data and made a bold decision to address habitual significant industrial non-compliance with prosecution.

Prince George, on the Fraser River, is a small interior city with four pulp mills impacting the same watershed and airshed. These four mills together produce more tons of pulp per day than anywhere else in Canada; second most only in North America. In 1987, ambient air and water monitoring revealed that, despite clear permitted discharge limits, one of the pulp mills was by-passing its pollution treatment works on a regular basis and releasing untreated waste directly to the environment. When questioned, the mill manager was unable to provide accurate information of the dates, times and levels of the untreated discharges. Clearly, more careful monitoring of the mill's discharges was required. Government officials amended the mill's permit to prohibit untreated discharges without first receiving permission from a government official. One evening the mill manager telephoned to seek permission for an untreated discharge to the air. As the ambient air quality that day had been poor, the official refused permission. The mill manager became indignant and informed the official that he would by-pass the works regardless, which he did. Government decided to take enforcement action and initiated charges; the senior prosecutor in Prince George took personal charge of the case. Charges were laid, not only against the mill but also against the mill manager, an action unheard of to that point under British Columbia's environmental legislation. The company received a $65 thousand dollar fine and apologized for the violation. Charges against the mill manager were stayed.[12]

In 1989, penalties for pollution offenses were increased to a maximum of $1 million per day, $3 million per day for intentional damage and provisions were added that attached liability to Directors and imposed the potential for jail sentences of up to three years. Environmental Enforcement Units of inspectors and investigators and an Environmental Prosecution Group of lawyers specializing in environmental law, were posted in key locations throughout the province. Specialized training courses were developed and delivered to inspectors, investigators, prosecutors and expert witnesses. Prior to that time, environmental cases were investigated by officers and prosecuted by lawyers who had no background or training in pollution law; most government experts had never set foot in a court of law.[13] Much of the training focused on the significant cultural change required for staff who were accustomed to the persuasive approach and extremely uncomfortable prosecuting their industrial "clients".

In 1990, 308 charges were laid under British Columbia's environmental legislation and over $1 million in fines was collected. This trend continued until the mid 1990's, with individual fines against pulp mills reaching $200,000 and higher. The Ministry published media releases listing the names of companies significantly out of compliance with

environmental legislation and permits. It also released the names of companies charged and convicted of environmental offenses, including major penalties. Release of this information continues to this day.

Environmental law conferences sponsored by the Environmental Prosecution Group were well attended by legal counsel for industry who advised their clients that practices and procedures must now be implemented to protect the environment and also to protect industry against prosecution. Prior to that time, environmental defense work was rare and normally done off the corner of industry counsels' desks, but now, the large British Columbia law firms began to employ lawyers specializing in environmental law.[14]

The pulp and paper industry responded by employing environmental specialists to liaise with government regulatory staff and to develop environmentally sound operating standards for the mills. During the period 1989 to 1993, the British Columbia pulp industry reportedly spent roughly $1 billion to meet the new standards.[15] Finfish and subsequently shellfish closures and consumption advisories began to be lifted in 1993.[16] This trend continues.

6 PHASE 4

Now, the public is informed and exercises its vigilance through mature ENGOs, effective lobby mechanisms and the media. Domestic and global markets apply economic pressure on industry to make and keep their products "green". Government regulation continues to evolve with technological advances. In 1995 a regulation was passed that would lead to complete elimination of AOX discharge from the bleaching process by December 31, 2002. The decision to require zero AOX discharges from pulp mills set an international precedent. The government of Canada introduced regulations that require the virtual elimination of dioxins and furans. Monitoring, inspection and enforcement regimes are well established. Industry knows that protecting the environment is good for business and uses environmental endorsements and certification to sell their products. Compliance is high; the number of prosecutions and the amounts collected in fines has decreased substantially. Water and air quality continue to improve.

With these elements in place, British Columbia's government has decided to move its efforts farther "up the pipe" to increase the efficiency and effectiveness of environmental management in the province. A new initiative called "Pollution Prevention Planning" challenges industry to identify ways to avoid, reduce and eliminate pollution at source rather than treating or containing it after it has been created. Through Pollution Prevention Plans, companies incorporate pollution prevention in the context of their strategic business plans and also develop stronger ties to the communities in which they operate. This initiative compliments the International Standards Organization's environmental management certification process (ISO 14000) and facilitates the development and implementation of comprehensive environmental management systems on an industrial site basis. Over time, these plans can replace the multiple "end of pipe" permits for direct discharges to water, air and land. Industries efforts will involve measures such as elimination of hazardous material inputs, improvements to in-production processes and "closed-looping" of residual streams. These innovations will focus also on increasing efficiency, reducing costs, improving flexibility and gaining a competitive advantage through secure markets.

7 CONCLUSION

United States President Theodore Roosevelt, speaking at the Minnesota State Fair in 1901, advised to "Speak softly and carry a big stick". The British Columbia government spoke softly to the pulp and paper industry during its first 60 years of operation in the province, but government carried no stick to speak of. Later, government finally had a stick but didn't use it. Speaking loudly and using its big stick during the third phase, government finally got industry's attention. Now, we seem to have Roosevelt's formula about right. We are back to speaking softly to industry but we carry our big stick in plain view.

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PUBLIC PARTICIPATION AND ENVIRONMENTAL COMPLIANCE AND ENFORCEMENT IN CAMBODIA

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1 MISSION

As we know, Principle 6 of the UN Conference on the Environment Stockholm 1972 stipulated that "the discharge of toxic substances, or of other substances and the release of heat in such quantities, or concentrations as to exceed the capacity of the environment to render them harmless, must be halted in order to ensure that serious or irreversible damage is not inflicted on ecosystems."

The Royal Government of Cambodia considers prevention of pollution the principle means of protecting the environment and will seek to gain an improvement in the environmental performance of all waste producers. Its role is to prevent and protect the environment from damage and irreversible harm caused by the release or escape of all waste substances from all sources to the environment whether harmful or not.

It is the responsibilities of the Solid Waste and Toxic Substances Management Office to assess the risk of damage or harm occurring to the environment from substances released into the environment.

The office resulting from risk analysis, is to define standards beyond which discharge cannot be made and to issue appropriate licenses and monitor the source to achieve that result.

2 THE MANAGEMENT POLICY

The management policy of the Pollution Control Department and its specified offices is to:

- identify and monitor all sources of waste;
- advise on waste minimization;
- promote reuse and recycling;
- set standards for the release of waste;
- issue regulatory control mechanism;
- promote environmental management systems (ISO 14000); and
- enforce the law.

The Pollution Control Department and Solid Waste and Toxic Substances Management office has identified and taken guidance from International Standards and Policy matters included in Agenda 21 of the UN Conference on Environment and Development in Rio de Janeiro 1992. The priority policy of Solid Waste and Toxic Substances Management office for 1998/1999 is:

- To increase the knowledge, skill and ability of the staff of the Pollution Control Department to undertake the key tasks of the department.

- To undertake the key tasks work of the Pollution Control Department and meet target schedule:
  - The identification and registration of all waste problems within Cambodia.
  - System collaboration with other ministries and authorities.
  - Prevention of pollution through promoting Environmental Management Systems (ISO 14000).
  - Setting of standards for the release of substances.
  - Issuing regulatory controls.
- To achieve financial self sufficiency within a period of 5 years.

For good and sound reasons solid waste in Cambodia has historically not been a matter of concern to the public at large and consequently there has been no demand for the control of waste. The result has been to constrain Professional Practice and the development of skills through the provision of environmentally sound services and facilities.

The implementation of the regulatory function is itself therefore constrained by the lack of trained and competent resources.

The emphasis of the department at this inaugural stage of development of a procedural and regulatory activity is therefore to seek, in the first instance, an improved Environmental Performance by the waste producer, Transport Undertaking, processor or Waste Management organization, leading to the reduction of waste, without prejudice to the regulatory duty of the ministry.

3 THE POLICY ON ENVIRONMENTAL LAW

Policies state that the overriding goals are to:

- Establish a clear preference in regulation and monitoring for self regulation in advance of prescriptive regulation i.e. create law and regulations such that all acts of deliberate contravention are to be instantly prosecuted, but that recorded improved environmental management is recognized and encouraged.
- Minimize the regulatory administration and regulatory fiscal burden on investors. Licensing, certification, monitoring and inspection to be exercised by one multi-disciplinary authority to clearly defined terms and procedures.
- Be immediately reactive to proven deliberate acts of pollution against the regulation and public interest.
- Identify and collate all law and regulation in existence in Cambodia and all applicable international regulation conventions and resolutions; relating to Environmental Law.
- Establish clear definitions and conventions regarding all elements of waste generation, transfer and disposal.

For historical reasons the laws relating to the environment in Cambodia is spread among many ministries. The Solid Management Office is a technology-based office primarily seeking to develop its risk assessment skills to establish and monitor standards. It is not skilled nor does it seek to be skilled in drafting and promoting law as is therefore to seek the professional assistance from external sources and/or of other department.

The law requires that the Ministry of Environment collaborates with other ministries consequently the complexity of the law and diversity of enforcement authorities requires that an independent body be established to interpret and correlate that which exists and to develop new law.

The law as drafted cannot reasonably be implemented for the lack of compliant facilities and services. There is a need therefore to establish an organization and to investigate the provision and management of assets and their management and to implement the results.

4 COLLABORATION

The Ministry of Environment is required to collaborate with all ministries, Governors of all provinces, all departments of ministries including municipalities, districts and Ministry of Interior, all relevant IOs and NGOs, as required by the law and those who may have some contribution to make the key tasks of the Solid Waste and Toxic Substances Management office.

Historically the exercise of environmental management and regulation was practiced by a number of ministries. Those ministries still have the duty to create and enforce environmental law appropriate to their operational policies and strategies.

More indefinite is the role of the Ministry of Environment Provincial Offices where the directors appear to report to both the Ministry and the Governor (Municipality). This is identified in an agreement to the monitoring of different industries by either the Ministry or the Municipality.

The relationship between the Ministry of Environment and the Provinces is vital to the operational strategy of the Office of Solid Waste and Toxic Substances Management. The current relationship is one of collaboration, but with centralization it is expected that will change soon.

5 PUBLIC PARTICIPATION AND PROBLEM RESOLUTION

The construction of housing, industries, the development of tourism resorts in sensitive areas, the allocation of timber harvesting rights to a large private company, are developments permitted legitimately by government institution in many countries around the world. Each decision or permission has to be agreed upon based on sound technology analyses of the environmental impacts of the proposed development, particularly and of the social economic as a whole. Public interest is a major part in decision-making. They generally do not have enough right to join in what the government has decided even though they know what the impacts are going to be. Consequently some groups benefit, while others are being adversely affected.

In response to controversial development decision non-government organizations may form to lobby the government to influence the decision. As we know for more countries around the world, the public has the authority to destabilize or overturn government decision that they do not agree or support, leading to a succession of decision that are unstable. Unfortunately, Cambodians are not allowed to evaluate the situation that has been undertaken by the government, though the law of Environmental protection and Natural Resources Management prescribed, and in some cases they have information or ideas that can contribute significantly to the quality of the decision. Therefore the government or the decision-maker must weigh the prospective benefits against the cost of various levels of participation.

THE U.S. EXPERIENCE WITH THE TOXICS RELEASE INVENTORY: AN IMPORTANT TOOL TO IDENTIFY POTENTIAL RISKS TO THE PUBLIC AND TO PROTECT ENVIRONMENTAL HEALTH

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SUMMARY

The U.S. Toxics Release Inventory and its enforcement heralds a new era in approaches to environmental protection, combining mandatory requirements for information reporting with strong incentives for voluntary pollution prevention opportunities. The United States took a bold step to create requirements to publicly report chemical use information which has created a powerful voluntary incentive to prevent and control pollution from thousands of toxic and hazardous chemicals. The lessons learned have great implications for counties seeking to develop similar Pollutant Release and Transfer Registers.

Emergency planning and public reporting of pollutant releases and their potential risk came to the forefront in the United States and international community after the 1984 Bhopal tragedy in India in which the release of toxic gas killed and injured thousands. The Congress of the United States recognized that a similar accident could happen at home and created a new marriage of market mechanisms and regulatory approaches. Prior to 1986, the federal Environmental Protection Agency had no single repository of information on hazardous and toxic chemical use, storage or manufacture. The Congress also recognized the slow pace of regulating environmental protection on an individual pollutant or industrial process. In 1986 Congress enacted the federal Emergency Planning and Community Right to Know Act to ensure that potentially dangerous chemicals are identified and that communities are prepared to respond to an accidental release of toxic chemicals. This paper examines the implementation, enforcement, and expansion of the TRI during the last twelve years, and demonstrates how simple reporting of chemical use information and practice and its enforcement can have a dramatic and positive effect in reducing risk to public health and environmental safety.

1 INTRODUCTION

Imagine a toxic cloud seven miles long arching over a community of thousands of men, women and children. Imagine a toxic release in the middle of the night that silently kills thousands of residents, including animals within a one mile radius of the plant. Imagine a simple chemical use estimate requirement that causes widespread internal chemical use assessments that result in widespread voluntary pollution reduction and waste elimination. You do not need to use your imagination because each of these items are true. The toxic release in the middle of the night was a pesticide cloud released from the Union Carbide plant

in Bhopal, India. The toxic cloud seven miles long was chloride release during a fire at the All Regions Laboratory in Springfield, Massachusetts. Since the tragic toxic chemical explosion in Bhopal, India focused worldwide attention on the actual and potential risks that chemical manufacture and storage pose. The concept of a community's right to know about toxic chemicals in the environment has become a world-wide regulatory theme.

The requirements that have led to countless incidents of pollution assessment, evaluation and voluntary reduction is the federal Emergency Planning and Community Right to Know Act. The United States first codified the right to know in the Emergency Planning and Community Right To Know Act or "EPCRA." EPCRA Section 313 also referred to as the Toxics Release Inventory or the "TRI" which is perhaps the most publicized aspect of the right to know in the United States. Other countries have enacted similar legislation, known internationally as National Pollutant Release and Transfer Registers or "PRTRs." PRTRs appear to be one of the fastest growing trends in environmental regulation today. The US EPA is currently in its twelfth year of implementing the TRI.

EPCRA is the largest regulatory net ever cast by Congress affecting a larger array of facilities and industrial sectors than any other regulatory program. The statute is further evidence of the recognized need for broad based, community environmental action. EPCRA's goal is emergency preparedness and community right to know, however, an important and perhaps unanticipated result has been widespread pollution prevention and control by industry. Further refinements in the use of this data will be achieved through efforts to make it easier for the public to access information and support community action. Vigorous enforcement of EPCRA emergency reporting and toxic release inventory violations have led to hundreds of enforcement settlements involving substantial civil penalties but also numerous pollution prevention projects. Many other counties have begin to adopt similar regulatory strategies to create voluntary incentives to prevent and control pollution from thousands of toxic and hazardous chemicals.

2 EPCRA: GOALS, PURPOSE, STRUCTURE

On October 17, 1986,[1] the U.S. embarked on an entirely novel approach to environmental regulation. Departing from decades of command and control regulatory approaches where the government set ambient and performance standards for facilities to meet or specific methods for pollution control,[2] the Toxic Release Inventory and other Pollution Release and Transfer Registers,[3] encouraged voluntary corporate pollution control and prevention based upon internal assessments of chemical use practices by requiring regulated entities merely to report the amounts of specific listed chemicals that are produced, stored disposed of or released into the air or water during the previous year of operation. EPCRA Section 313 does not define any acceptable level of pollution, nor does EPCRA Section 313 directly penalize regulated entities for releasing chemicals into the environment. Rather, EPCRA Section 313 is violated primarily when regulated entities fail to submit specified information detailing the amount of each toxic chemical released into the environment, or when regulated entities submit incomplete or inaccurate information.[4] By making reports of this information available to the public, press and others interested parties, public pressure and not government mandates encourages pollution reduction.[5]

The reductions of chemical use have been dramatic. Because EPCRA's Toxic Release Inventory data is freely available through the Internet and other data sources, citizens and other interested parties can search the data bases looking for the top chemical user in the United States; their state; their county; township; hamlet of cross roads. You can

search by company name; address, zip code; even the longitude and latitude. When the results of the first reporting year were made available to the public in 1988, the Monsanto Corporation was found to have the largest number of chemicals used or released in the United States. As the result of this information, Monsanto management vowed to reduce chemical use and emissions by 90 per cent whenever feasible. The next reporting year saw a new company in the top spot. Not a petrochemical giant, blast furnace or steel mill, but the Kodak Corporation, a household name for millions. Following this dubious recognition, Kodak executives vowed to reduce their chemical use, spoilage and emissions wherever feasible. Because EPCRA puts the opportunity for chemical reduction on the individual corporation and facilities, companies can identify voluntary strategies to reduce chemical usage that meet their timetable, specific processes and checkbook, consistent with applicable federal laws and regulations, of course. This eliminates the need for EPA to try to dictate "command and control" requirements. "Anticipate and prevent" does work.

2.1 How the Statute Works and Key Elements

EPCRA's primary purpose is obvious from its title: Emergency Planning and Community Right to Know Act. Encouraging and supporting emergency planning for responding to chemical accidents helps provide local governments and the public with information about possible chemical hazards in their communities. The Act contains four major provisions, all requiring state, local, and industry action. These major provisions are: planning for chemical emergencies[6]; emergency notification of chemical accidents and releases[7]; reporting of hazardous chemical inventories[8] and toxic chemical release reporting.[9]

2.1.1 Emergency Planning

Emergency planning for chemical releases requires cooperation at all levels. Citizens must know what industrial and chemical activities are operating in their communities; the state and local governments must set in place emergency procedures; and industry must play its central part in the disclosure of complete information which allows for better emergency planning.

Under the emergency planning provision of the EPCRA, governors appoint state emergency response commissions. These state emergency response commissions establish emergency planning districts and appoint, supervise and coordinate local emergency planning committees. The local emergency planning committees then develop local emergency response plans and review them at least annually. Facilities[10] are obligated to notify state emergency response commissions and local emergency planning committees if they have extremely hazardous substances present above "threshold planning quantities"[11] and to participate in emergency planning.

Where a release has occurred, facilities notify the state emergency response commissions and local emergency planning committees immediately of accidental releases of hazardous substances in excess of "reportable quantities"[12] and provide written reports on actions taken and on medical effects. The state emergency response commissions and local emergency planning committees make accidental release information available to the public.

2.1.2 Reporting Requirements

2.1.2.1. Hazardous Chemical Reporting Requirements

Under the hazardous chemical reporting requirements, facilities must submit material safety data sheets or lists of hazardous chemicals on-site (above "threshold quantities") and emergency and hazardous chemical inventory forms (amounts and locations of chemicals) to state emergency response commissions, local emergency planning committees and local fire departments. In turn, the state emergency response commissions and local emergency planning committees make the hazardous chemical information available to the public. Aside from material safety data sheets, companies must also report on hazardous chemicals by submitting annual inventories of these same hazardous chemicals to the local emergency planning committee, the state emergency response commission, and the local fire department.[13]

2.1.2.2. Toxic Chemical Release Reporting

Toxic chemical release[14] reporting under '313 applies only to facilities that meet certain requirements.[15] An estimated 30,000 facilities nationwide are subject to reporting.

While these reports are intended for community use, some are submitted to local emergency planning committees, state emergency response commissions and fire departments. The annual release reports are submitted to EPA headquarters and to the state environmental, health, or emergency response agency which coordinates with the state emergency response commissions. EPA is required to compile them into a national computerized data base called the Toxic Release Inventory or "TRI". This data must be accessible to the public through computer telecommunications and other means.

2.2 The Legal Framework of EPCRA Section 313, the Toxics Release Inventory

EPCRA is nationally administered by the U.S. EPAB no portion of the statute is delegated to the states for implementation.[16] The basic requirement of EPCRA Section 313[17] is that owner's and operator's of covered facilities must complete toxic chemical release forms (hereinafter "Form R" or "Form A") for each toxic chemical listed under the Act tha was manufactured, processed, or otherwise used above established thresholds during each preceding calendar year.[18] Specifically, a Form R or Form A must be submitted if the following criteria are met: (1) the facility is in Standard Industrial Classification Codes 20 39,[19] or one of nine additional Standard Industrial Classification Codes added in a May, 199 rule-making;[20] (2) the facility has 10 or more full time employees, or the hourly equivalent;[2 (3) the facility manufactures or processes over 25,000 pounds, or otherwise uses over 10,00 pounds, of a listed toxic chemical during the preceding calender year.[22] Where these criteri are met, a regulated entity must submit a Form R or Form A regardless of any liste chemicals actually released into the environment.[23]

2.2.1 The Data Collected

The primary source of TRI information, the Form R,[24] (See Annex) is due annuall to EPA and the state where the facility is located by July 1.[25] The Form R contain information such as: the quantity of each toxic chemical entering each environmenta media;[26] amounts of each chemical shipped from the facility to other locations for recycling energy recovery, treatment, or disposal;[27] amounts of each chemical recycled, burned fo energy recovery, or treated at the facility;[28] maximum amount of chemical present on-sit

at the facility during the year;[29] types of activities conducted at the facility involving the toxic chemical;[30] source reduction activities;[31] environmental permits held;[32] and name and telephone number of a person to contact concerning toxic chemicals present at the facility.[33] Pursuant to the statutory mandate, EPA publishes TRI data in an annual public data release which appears in both printed and electronic form.[34]

2.2.2 How Chemicals Become Regulated

EPA considers chemicals "toxic" and therefore listed under EPCRA Section 313 if they pose statutorily proscribed risks to human health, or the environment.[35] Recognizing the evolution of science, the statute empowers EPA to add or remove chemicals from the list depending upon whether EPA determines the criteria for listing are met.[36] Private citizens and state governor's may also petition EPA to add or remove chemicals from the purview of the Act.[37] By law, EPA must timely consider and publicly respond to every request.[38]

2.2.3 How Entities Become Regulated

EPCRA Section 313 originally identified only facilities in Standard Industrial Classification codes 20-39 as potentially obligated to report under the Act.[39] However, by the authority of the Act,[40] EPA may add additional Standard Industrial Classification codes "to the extent necessary to provide that each [Standard Industrial Classification] to which this section applies is relevant to the purposes of this section."[41] In fact, EPA exercised this authority and added seven additional Standard Industrial Classification codes to the list of potentially covered facilities.[42]

2.2.4 Enforcement Authority

Violations of EPCRA Section 313 are punishable by civil penalties of up to $27,500,[43] with potential for per day penalties.[44] Alternatively, the statute authorizes citizens to sue,[45] and to collect costs should they be successful,[46] for violations of EPCRA Section 313 upon specified notice to EPA and the regulated entity.[47] In assessing penalties, the statute requires EPA to consider various factors, including the nature, extent, gravity, and circumstances of the violation.[48] EPA calculates civil administrative penalties using the Enforcement Response Policy (hereinafter "ERP") for Section 313, which applies the statutory criteria for consistent penalty assessment.[49]

3 THE IMPORTANCE OF EPCRA

3.1 Generally

The basic principle underlying EPCRA is public, government and industry cooperation in an awareness of the health and environmental risk to their communities. Environmental decisions must include and be influenced by the public. EPCRA builds on the idea of education, training[50] and access to information. These are essential in building an effective emergency planning program.

3.2 Advantages to Reporting

Reporting benefits government, industry, and citizens. Citizens can put together a complete record of hazardous substances in their district, therefore gaining a greater role in decision making and planning at a grass roots level; government can better prepare for an emergency spill; and industry can use the release information to assess their operations with the objective of reducing the amount of toxic chemicals they use and release into the environment. The entire structure of EPCRA is to identify risks and requires community action to better safeguard its health and environment.

3.3 Improved Targeting of Industry

While EPA generally has been able to focus its attention on traditional smokestack industries: steel, iron, automobiles, petrochemicals, by virtue of their public visibility and need for Clean Air and Clean Water permits, some categories of American industry, due to their comparatively small size or scatter distribution, failed to attract the full measure of the Agency's collective attention.

With the ability to electronically manage the TRI data into categories,[51] EPA can readily see at a glance what areas of the country have the largest concentrations of chemical-producing facilities and search for sites of particular chemicals of concern, such as carcinogens or bioaccumulating substances. In addition to company name, address and zip code, the TRI Form R requires the longitude and latitude of the facility. This allows EPA to search the TRI by zip code, watershed, airshed or identical regional sector.

Industry sectors that traditionally might not have appeared on Agency "intuitive" lists of likely violators also come into clear focus through the TRI. One example has been the furniture category, Standard Industry Code 25. Generally smaller to mid-size in operations, furniture manufacturing in the United States releases approximately 100 million pounds of chemicals, including some very toxic substances such as acetone and toluene. Enforcement actions have been initiated at more than 10 furniture manufacturers for not reporting to the toxics release inventory.

In addition to looking for larger sources of environmental releases in neighborhoods or environmental areas of concern, EPA can check lists of Standard Industry Code sector facilities against the list of facilities that have reported to the TRI. Facilities that have not have reported to TRI might also have neglected other reporting requirements of other statutes, including treatment storage and disposal requirements for hazardous waste.

3.4 Pollution Prevention

A remarkable and startling outcome of TRI reporting has been the response of American business to reduce emissions in reaction to TRI reporting. Anecdotal reports coming to EPA from the first reporting cycle in 1988 suggests that many corporate executive and managers were shocked by the high volume of chemicals used and reported to the TRI. Reportedly, executives at Monsanto Corporation, alarmed to be the number one company for total emissions in the nation, vowed to reduce emissions and successfully did so before the next reporting cycle. The same was true with a top emitter for 1989: Kodak. Companies anxious to be number one in sales; customer loyalty, product recognition, do not want to be number one in chemical emissions for the U.S.; their state; their county; township; city; zip code or watershed.

Significantly, many voluntary reductions in chemical usage and emissions come from process and design changes, developed at the site by personnel familiar with the operation and not through "One size fits all" regulatory fixes mandated by Washington. Seeing voluntary, measurable reductions in chemical usage is reassuring to regulators long accustomed to command and control technology and fosters an increased willingness to consider innovative regulatory approaches to environmental problems.

3.5 Environmental Justice

One area where Toxic Release Inventory Reporting information has had a particularly beneficial effect has been in the area of Environmental Justice.[52] Minority and low income communities can experience higher levels of environmental hazards due to the interplay of siting of highly concentrated polluting activities in areas where land values are low and siting of low income housing where housing prices are low. Evidence of unequal health risks is demonstrated by a higher number of death rates from cancer[53] and higher incidence and levels of lead poisoning.[54] Having access to toxic release chemical inventory information is proving to be a good means of raising awareness and helps to empower the local community to seek answers to their environmental concerns.

4 FACILITY OBLIGATIONS UNDER EPCRA

The Emergency Planning, Community Right to Know Act requires facilities to adhere to emergency planning, notification, and reporting requirements.

4.1 Planning Obligations

Under EPCRA's emergency planning provisions,[55] facility owners and operators must notify their state emergency response commission[56] and the local emergency planning committees [57] if they have extremely hazardous substances present above "threshold planning quantities."[58] A second obligation is to participate in emergency planning by representing their facilities as members of the local emergency planning committees. The entire community must be involved since all have very important interests at stake, most importantly, the health and safety of the community.

A third obligation of emergency planning requires the facility to designate a facility representative who will participate in the emergency planning process as a facility emergency coordinator.[59] This requirement creates a more efficient relationship between the facility and the community. Finally, upon request from the emergency planning committee, the facility must promptly provide information to such committee as necessary for developing and implementing the emergency plan.[60]

4.2 Emergency Notification by Facilities

4.2.1 Types of Releases Requiring Notification

Notification by facilities is imperative where accidental releases of hazardous substances in excess of "reportable quantities" has occurred. There are three types of releases under EPCRA Section 304. The first is a *hazardous chemical* which is produced, used, or stored, which requires a notice by the Comprehensive Environmental Response, Compensation and Liability Act §103(a)[61] is discussed below.

The second type of release involves an *extremely hazardous substance* which originates from a facility at which hazardous chemicals are produced, used, or stored but are not subject to the notification requirements of 103(a) Comprehensive Environmental Response, Compensation and Liability Act. This type of release requires the same procedural notification as the first type of release *only if* the release is one listed in '304(a)(2)(A), (B), and (C).[62] EPA may establish by regulation the specific amount that must be spilled to constitute a reportable quantity. Until a quantity for an extremely hazardous substance is established by regulation, the quantity shall be 1 pound per release of released substances requiring notice.

The third type of release requiring notification is of a substance which is a 103(a) Comprehensive Environmental Response, Compensation and Liability Act hazardous chemical release produced, used or stored at a facility. The distinguishing feature here is that such a release is of a substance which is not on the list referred to in '302 "substances and facilities covered and notification" of EPCRA. The notice requirements of this provision provide a distinction between releases of substances for which a reportable quantity has been established under '102 of Comprehensive Environmental Response, Compensation and Liability Act and those for which a reportable quantity has not been established.[63]

4.2.2. Notice

The first two types of releases require notice which is to be given immediately after the release by the owner or operator of a facility (by such means as telephone, radio, or in person) to the community emergency coordinator for the local emergency planning committee for any area likely to be affected by the release and to the state emergency response commission of any State likely to be affected by the release. With respect to transportation of a substance or storage incident to transportation, the notice requirements of a release shall be satisfied by dialing 911 or, in the absence of a 911 emergency telephone number, calling the operator.[64]

After a release an owner and operator of a facility must also provide a written follow-up emergency notice (or notices, as more information becomes available) setting forth and updating the information. This notice should include actions taken to respond to and contain the release; any known or anticipated acute or chronic health risks associated with the release; and where appropriate, advice regarding medical attention necessary for exposed individuals.[65]

4.2.3 Contents of Notice

Notice shall generally include each of the following to the extent known at the time of the issuance of the notice: the chemical name or identity; indication of whether the substance included under EPCRA; an estimate of the amount of release; time and duration the medium or media into which the release occurred; potential health risks; possible precautions to take as a result of the release; and the name and telephone number of the person to be contacted for more information.[66]

4.3 Reporting Requirements

Reporting requirements involve two separate types of substances: hazardous chemicals and toxic chemical releases.

4.3.1 Hazardous Chemical Reporting

Hazardous chemical reporting requires both the submission of material safety data sheets or lists[67], and hazardous chemical inventory forms[68]. The owner or operator of any facility which is required to prepare or have available a material safety data sheet for a hazardous chemical under the Occupational Safety and Health Act of 1970[69] must submit a material safety data sheet for each such chemical, or a list of such chemicals[70] on site which are above threshold quantities. This information must then be given to the local emergency planning committee, the state emergency response commission, and the fire department with jurisdiction over the facility.

The chemical inventory form requires the owner or operator of any facility which must submit material safety data sheets for hazardous chemicals under the Occupational Safety and Health Act to also prepare and submit an emergency and hazardous chemical inventory form to the local emergency planning committee, the state emergency response commission and the fire department with jurisdiction over the facility.[71]

4.3.2 Toxic Chemical Release Forms

This reporting requirement only applies to owners and operators of facilities that have (a) 10 or more full-time employees; (b) are in Standard Industrial Classification Codes 20 through 39 and (c) that manufactured, processed, or otherwise used a toxic chemical listed under EPCRA in excess of the quantity established under the statute. Once a facility fits this category, the owner or operator must complete a toxic chemical release form.[72] This form must be submitted to the Administrator and to an official of the State.[73] The Administrator of the EPA manages and maintains in a computer database, the Toxics Release Inventory,which is updated annually and is based on data submitted under the toxic chemical release forms. This information is available to the public and communities through a national computerized database, or the Toxics Release Inventory.

5 ADMINISTERING THE TRI

Administering the Toxics Release Inventory program has presented EPA with many novel challenges. Shortly after first developing the Toxics Release Inventory program, the scope of EPCRA Section 313 was expanded. Following distinct phases of expansion, the Toxics Release Inventory program became highly publicized and the data came under greater scrutiny. Effective administration of the Toxics Release Inventory requires close coordination of distinctive functions. From the first efforts to educate the regulated community, to the first administrative cases, EPA has been re-engineering environmental enforcement through the Toxics Release Inventory.

5.1 Internal Organization

Implementing the Toxics Release Inventory Program encompasses four primary operations: regulatory program development, information management, compliance assistance, and enforcement. These four functions are managed by different offices within EPA Headquarters. The regulatory program develops policy and the regulations through which the statutory mandate is realized. EPA's Office of Pollution Prevention and Toxic Substances, Environmental Assistance Division, Toxics Release Inventory Branch currently

has primary responsibility for developing the Toxics Release Inventory regulatory program.[74] Information management pertains to organizing and disseminating the data (largely Form Rs) submitted by the regulated community. EPA's OPPTS, Information Management Division has primary responsibility for developing the information management program. Compliance assistance consists of outreach to the regulated community to inform regulated actors of the statutory and regulatory obligations imposed by Congress and EPA. EPA's Office of Enforcement and Compliance Assurance, Office of Compliance is currently responsible for the compliance assistance program. The enforcement program penalizes the regulated community for violating the regulatory program developed by the Toxics Release Inventory Branch. Currently, EPA's Office of Regulatory Enforcement, Toxics and Pesticides Enforcement Division, is responsible for nationally implementing the TRI enforcement program.

All of these offices are located at EPA headquarters in Washington, D.C., and oversee regional implementation of the TRI program. EPA, in addition to its headquarters offices, has ten regional offices located throught the U.S. Each regional office is responsible for local implementation of various programs through Memoranda of Understandings, executed between EPA headquarters and each regional office.[75] MOUs are annual commitments to engage in specified regulatory activities such as: performing a specified number of media specific inspections, participating in national initiatives and providing established levels of compliance assistance to regulated entities through seminars and other contact with the regulated community.

5.2 Expanding the Scope of EPCRA Section 313

Following these initial priorities, the regulatory program began expanding EPCRA Section 313 through three major phases.[76] Phase one increased the number of toxic chemicals regulated under the Act. As enacted in 1986, the original TRI listed over 300 chemicals, but permitted EPA to add new chemicals.[77] Phase one was achieved in 1994 when EPA promulgated a rule increasing the number of listed toxic chemicals from nearly 300 to well over 600.[78] Almost one-half of the added chemicals were pesticides regulated under the Federal Insecticide, Fungicide, and Rodenticide Act.[79] The addition of FIFRA regulated chemicals expanded the TRI's reach into every major statute administered by EPA.[80]

The phase two expansion added additional industries to the requirements of TRI. Originally, EPCRA Section 313 applied only to those industrial facilities classified in SIC codes 20-39. However, in 1997, EPA promulgated a final rule,[81] which added nine additional sectors.[82] Reports for these additional sectors are first due on July 1, 1999.[83] Additional industries are pending EPA review.[84]

EPA announced plans for a phase three expansion on October 1, 1996.[85] Phase three will add "materials accounting" data to the Form R.[86] Materials accounting data tracks the use of chemicals throughout their life, from the time they enter a facility, to the time they exit.[87] While the phase three expansion is not without controversy,[88] it is fully supported by the Clinton Administration.[89]

EPA is also planning to lower the reporting threshold amounts for certain persistent bioaccumulative toxins.[90] These are chemicals already listed on the TRI that pose heightened risks because they are persistent (stable for long periods in the environment) and bioaccumulative (build up in the environment, especially in food chains).[91] Because PBTs are typically manufactured below the current threshold amount of 25,000 pounds, they are often excluded from TRI reports.[92]

There have been expansions of the TRI program from forces outside EPA as well. Even before EPA completed its Phase one expansion, Congress itself added to the TRI by passing the Pollution Prevention Act of 1990.[93] The Pollution Prevention Act is an independent statute that directs regulated entities to strive for pollution reduction.[94] Where pollution prevention is not feasible, the Pollution Prevention Act encourages industry to recycle.[95] Only where recycling is not feasible, should industry resort to treating, disposing, or releasing pollutants into the environment.[96] The Pollution Prevention Act was implemented through the TRI reporting requirements of EPCRA Section 313, and are reflected in Section Eight of the Form R.[97] Where EPCRA Section 313 indirectly encourages pollution prevention through public exposure, the Pollution Prevention Act directly requires regulated entities to report progress toward pollution prevention.[98]

Following EPA's announcement of phase three, the White House expanded the scope of EPCRA Section 313. On August 8, 1995, President Clinton signed executive order 12969 which subjected federal facilities to the TRI reporting requirements.[99] Although EPA can not assess penalties against federal agencies that violate EPCRA Section 313, liability is the first step toward deterrence.[100]

5.3 Managing the Information

Publicly available information is the driving force behind the TRI, and the end result of TRI administration. As the TRI becomes more publicized, the data are put to greater and more innovative use. Federal, state, and local governments use TRI data to evaluate existing environmental programs and set regulatory priorities.[101] Community groups generate their own reports based on TRI data, highlighting top polluters, evaluating the regulated communities progress toward reducing pollution, and interpreting risks posed from certain chemical releases.[102] Finally, and perhaps at the heart of the TRI program, industry is able to identify and reduce costs associated with toxic waste, identify opportunities for pollution prevention, establish reduction targets, and measure attainment of these goals on an annual basis.[103]

With the extensive and complex data generated by the Form R, EPA's IMB faces many challenges. In Fiscal Year 1988, 75,000 Form Rs were submitted to EPA.[104] After the first phase of regulatory expansion, which increased the reporting universe by capturing more chemicals,[105] regulated entities submitted 73,311 Form Rs, and 6,437 Form As.[106] In 1996, 71, 381 TRI forms were filed, representing on and off-site releases totaling 2.43 billion pounds of toxic chemicals.[107] The IMB was mandated not only to make TRI data publicly available and free of charge, but also to make the data accessible "by computer telecommunication."[108] Congressional foresight should be commended, considering this is original language from the Act many years before the Internet as we know it today. In fact, EPA now displays TRI data on the Internet in formats which permit several user-defined searches.[109] Information can be mapped, with controls for population and the presence of schools, and the maps can be redrawn from the street to the state level.[110] EPA also distributes TRI data in a variety of other media.[111]

5.4 Educating the Regulated Community

Compliance assistance is critical to the effective implementation of the TRI enforcement program. EPA publishes many general[112] and industry specific guidance documents,[113] and supports a free hotline to answer questions regarding EPCRA Section 313 requirements from anonymous callers.[114] During the first year TRI reports were due, EPA focused mainly on outreach and compliance assistance activities at the regional level.[115]

EPA took every opportunity to inform the regulated community of their responsibilities under EPCRA Section 313 prior to any enforcement activities. Ignoring these outreach efforts prior to implementing the enforcement program would result not only in potential litigation risks, but also in lower compliance rates, and a diminished attainment of the Statute's objectives.[116]

6 ENFORCEMENT

USEPA recognized early in the life of this program that for it to be effective, information had to be credible and those who report cannot be at an economic disadvantage compared to those who ignored the reporting requirements. Enforcement actions under EPCRA exceed 1,500 administrative penalty cases, with more than 100 published decisions by administrative law judges, all generally favorable to the letter and spirit of this important statute. Significantly, many of the targets of enforcement have been facilities without prior federal environmental violations. One explanation has been that many EPCRA facilities have not been required to apply for or maintain federally-issued or administered operating or discharge permits under the Clean Water Act, Clean Air Act or Resources Conservation and Recovery Act. Examples of such cases include penalty actions against operators in the food industry: *Citrus Hill Orange Juice*, $15,000 paid; *Murray's Meats*, $48,000; *General Mills*; $112,000 paid; *Dove Bar Ice Cream*, $75,000 paid. The penalties paid by these companies was for failure to report the release of a commercial refrigerant, ammonia. Though each facility was regulated and inspected regularly by the federal Occupational Safety and Health Administration and United States Department of Agriculture OSHA and the USDA, none were subject to the federal permit requirements of the Clean Air Act, Clean Water Act or Resource Conservation and Recovery Act.

EPCRA has truly become the new "cradle to grave" statute, having seen cases involving baby cribs *Riverside Furniture* (seen TRI chemicals not reported to the EPCRA inventory) to *Clarksburg Casket* (chemicals used in processing wood and metal coffins).

The primary objective of enforcement is to ensure achievement of the environmental protection and the results from environmental requirements and to deter violations of environmental law. When enforcement is necessary, actions must be calculated, swift, and equitable. Through EPCRA Section 325(c), EPA is given broad enforcement authority to seek "a civil penalty . . . not to exceed $25,000 . . ." for violating any requirement of Section 313,[117] or the companion Pollution Prevention Act.[118] Through this broad grant of authority EPA built the TRI enforcement program. Initially, enforcement focused on those who failed to submit TRI forms.[119] However, as the TRI requirements expanded,[120] and the universe of non-reporters diminished,[121] enforcement priorities have adjusted accordingly. Currently, enforcement priorities include upholding the quality of the data actually submitted, and deterring non-reporters.

6.1 Inspections of Release Reporting: a new challenge

Issues regarding whether a facility falls within the criteria of types of facilities which need to report is easily such as determining the number of employees required for TRI reporting eligibility, namely ten full time employees or more. The same is true for making a determination of report eligibility regarding the facility Standard Industrial Code, which must be between Standard Industrial Classification Codes 20 to 39. Standard Industrial Classification Codes are assigned to representative manufacturing and commercial activities by the United States Department of Commerce. By its very nature, however, inspectors checking for the veracity of the actual data in TRI reports require a process oriented

inspection that tracks from raw materials to waste the handling and quantities of toxic substances and which attempts to determine independently whether there has been a fair accounting made. The Inspectors collect evidence of non-compliance on-site, and prepare an inspection report for the enforcement case development officer. Compliance with TRI reporting requirements or the companion requirements for immediate reporting of accidental releases of chemicals requires a careful examination of chemical inventory records, raw materials management, chemical use, storage and release records. Challenges to inspectors and case development personnel include the difficulties of being able to reconcile facility inventory records with actual process or disposal information. Frequently inspectors rely upon chemical use or release information that is contained in discharge or emissions reporting information subject to the federal Clean Air Act, Clean Water Act or Resource Conservation and Recover Act.

6.2 The Enforcement Response Policy

To implement the broad enforcement mandate expressed in the statute, EPA first developed an Enforcement Response Policy for EPCRA Section 313 in 1988.[122] The Enforcement Response Policy is a statement of enforcement policy intended to guide enforcement actions and to alert regulated entities to the consequences of non-compliance.[123] As EPA headquarters, and each regional office initiates enforcement actions,[124] consistency in enforcement can only be obtained when all enforcement actions are consistent with the Enforcement Response Policy. The Enforcement Response Policy explains what constitutes a violation of EPCRA Section 313,[125] the appropriate response by EPA,[126] and the proper penalty to propose in a complaint.[127]

6.2.1 Penalties for Not Reporting[128]

The government may assess civil and administrative penalties of $10,000 to $75,000 per day against facilities that fail to comply with the above provisions. Anyone who knowingly and willfully fails to provide emergency release notification is subject to criminal penalties of up to $50,000 or five years in prison. To date, EPA has issued more than 500 enforcement actions for EPCRA violations, including 200 for failure to report emergency releases.

6.2.2 Initiation of Actions against the Industry

The state emergency response commission, local emergency planning committee, or the state or local government may initiate actions against facility owners or operators for failure to comply with EPCRA requirements. Citizens may initiate civil actions against facility owners and operators for failure to comply with the law. Citizen suits[129] are a powerful enforcement tool against industry since the public image of any industry is of paramount importance. When a citizen suit is initiated, an industry may quickly change its behavior because of public pressure and the need to be perceived as an environmentally sound industry.

After EPA concluded four years of TRI enforcement, the Enforcement Response Policy was revised in 1992.[130] The revision permitted consideration of developing administrative case law,[131] statutory and regulatory expansions of EPCRA Section 313,[132] and evolving enforcement priorities. Currently, EPA is drafting a third revision to the Enforcement Response Policy. This latest revision is expected to be implemented by May, 1999. The new Enforcement Response Policy will better define enforcement procedure for

recently established enforcement priorities.[133] Occasional Enforcement Response Policy revisions permit the TRI enforcement program to adjust to internal and external changes, while maintaining the basic structure of TRI enforcement actions.[134]

6.2.3 Targeting Strategies

EPA develops many successful targets through electronic information exchange.[135] The Agency has amassed environmental data about many regulated entities through requirements of various environmental laws. Electronically Linking media specific databases provides EPA with a panoply of targeting data.[136] Through electronic targeting, EPA is able to identify probable non-compliance prior to initiating an inspection for more efficient use of inspection resources.

Historically, the enforcement program devoted all resources toward targeting non-reporters.[137] However, as the TRI program matured, enforcement began examining the quality of the TRI data submitted to EPA and the states.[138] As the rate of publicity[139] and TRI data use increase,[140] data quality is increasingly critical to the right to know, and with increasing public exposure and the self-reporting nature of the TRI, there is both the opportunity and the motive to submit inaccurate data. By simply comparing typical reports submitted by similar industrial sectors, EPA targets likely data quality violations for inspection.

6.2.4 Building Effective Cases

EPA trains all enforcement personnel through the National Enforcement Training Institute (hereinafter "NETI").[141] Litigating EPCRA Section 313 violations requires coordination among the EPA Inspector, Case Development Officer, and attorney.

The Case Development Officer assembles all elements of proof from the inspection report and elsewhere, calculates the proposed administrative penalty based upon the Enforcement Response Policy,[142] drafts a Complaint, and presents the case file to the attorney for review. The Case Development Officer also provides technical expertise on scientific issues and serves as a penalty witness should the matter proceed to hearing. The attorney leads all EPA TRI litigation efforts. The attorney first reviews the case file to determine whether there is sufficient evidence to warrant an administrative complaint,[143] a judicial referral to the Department of Justice,[144] or a criminal referral to Department of Justice.[145] If a Complaint is filed with either the regional or headquarters hearing clerk, the attorney is responsible for all ensuing litigation or settlement negotiations.[146]

EPA generally builds TRI cases through one of two methods. Depending upon the amount of evidence already possessed, an EPA inspector may inspect a possibly non-compliant facility, and/or provided an open investigation has yielded credible evidence of a violation, an EPA attorney may issue a Show Cause Letter demanding that a targeted facility provide evidence invalidating EPA's allegation. Regardless of the method employed, it is critical to gather evidence of each element necessary to establish a prima facie case prior to filing the Complaint.[147]

6.2.5 Achieving Deterrence

Deterrence through enforcement upholds the community right to know and ensures accurate data is reported to EPA and the states.[148] There are two primary models o deterrence upon initiating enforcement actions.[149] Some believe that negotiating many settlements by reducing penalties best upholds deterrence by conserving enforcemen resources, which enables a greater EPA field presence. Others believe deterrence is bes

achieved through vigorous enforcement and litigation of fewer cases, which culminate in widely publicized administrative decisions and penalty orders.[150] EPA will either settle or litigate depending upon the facts and circumstances of each individual case. However, whether or not a case is settled or litigated, the Enforcement Response Policy provides consistency in the assessed penalty.[151]

Regulated entities may avoid litigation by self disclosing violations. EPA encourages self disclosures by applying its "Audit Policy."[152] Where the criteria for the Audit Policy are met, EPA mitigates penalties either 75, or 100%. In fact, most self disclosures under the Audit Policy involve violations of EPCRA Section 313.[153]

Many administrative penalty action involving EPCRA TRI or emergency release reporting violations are settled without further court proceeding. Generally the evidence of violations is not at issue, leaving only the size of the civil penalty to be paid. Because EPA's enforcement response policies can specify penalties as high as $27,500 per violation per day, companies with 10 to 20 violations may face substantial civil penalties. Many companies choose to propose using the EPA's Supplemental Environmental Policy[154]

6.3 The Future of TRI Enforcement

The enforcement program is guided by available resources and regulatory priorities, which are in turn influenced by political factors. Currently, expanding the Right-to-Know is one of the Agency's top ten goals.[155] As EPCRA Section 313 is expanded to cover a larger universe of regulated entities and listed chemicals or expanded to included additional obligations, EPA attempts to shift enforcement priorities accordingly. However, there are many more resources devoted to regulatory development than to enforcement.[156] If the TRI program is continually expanded without a corresponding increase in the enforcement budget,[157] some regulatory objectives will not be measured or assured. Despite resource shortages, TRI Enforcement will increasingly focus more on data quality. However, because there is not 100% compliance with EPCRA Section 313,[158] and because of recent expansions,[159] EPA will not abandon enforcement actions against non-reporters.

7 RESULTS

Because the Toxics Release Inventory (TRI) is an information based program, there are substantial data on which U.S. Environmental Protection Agency (USEPA) and others can monitor its impact. The most recent national report on TRI data, the 1997 TRI Public Data Release (PDR), compares releases from 1988, 1995, 1996, and 1997. It includes aggregate data on releases, both on and off-site, to specific media (i.e. air, land, surface water, treatment type, etc) and by chemical. A copy of the report can be accessed on the Internet at http://www.epa.gov/opptintr/tri/tri97/access.htm. A summary of the entire TRI database would be too complex to report here other than in a highly simplified way since reporting requirements, chemicals covered, and the regulatory context have all changed significantly over these time periods. It is therefore often difficult to distinguish real changes in source reduction and pollution control, from paper changes resulting from release estimation techniques, reporting definitions, changes in levels of production, and the like. Between 1988 and 1997, releases of chemicals of the TRI have decreased 43% or 1.45 billion pounds, decreasing in all on-site media releases (using the 1988 base set of chemicals). Air releases, both fugitive and point source, were the most significant of any of the decreases, declining by 1.20 billion pounds or 55%. Surface water releases decreased 63%, underground injection decreased 22%, on-site land releases decreased 26%, and off-

site releases increased 1%. Between 1995 and 1997, releases decreased approximately 2% or 38.8 million pounds (using the 1995 core set of chemicals— the chemical expansion base set of chemicals). Air releases, both fugitive and point source, decreased 16% or 248 million pounds. Surface water releases actually increased 24%, underground injection decreased 6%, on-site land releases increases 10%, and off-site releases increased 48%. One of the factors contributing to the large increase in the off-site release category is related to the solidification/stabilization of metals and metal compounds in hazardous waste.

Although air releases continue to decrease in recent reporting years, the rate of this decrease is falling. At the same time, certain media releases have increased (off-site releases to land in particular) and the overall decrease in total releases from one year to the next has become smaller. Although total releases between 1995 and 1997 have decreased, total releases have slightly increased between 1996 and 1997. These data trends point to the need to maintain such information over the long term.

From the perspective of direct results of environmental compliance and enforcement, the magnitude of these changes cannot be attributed just to compliance with TRI reporting requirements for obvious reasons. However, USEPA does maintain information on environmental results achieved through settlement agreements with violators of reporting requirements which include commitments to reduce or eliminate pollution in lieu of some of the assessed penalties. In fiscal year 1997, there were 376 cases related to non-compliance with the Emergency Planning and Community Right-to-Know Act (EPCRA) with 130 of these cases leading to settlement agreements with quantifiable environmental results. These cases include violations of both the TRI and non-TRI requirements of the law. Of the 130 agreements in 1997, 74 resulted in improved protection of human health and 46 resulted in increased protection of ecosystems. There were also 67 cases that resulted in increased worker protection, four that led to greater environmental restoration, and 42 that increased public awareness. Further, these settlement agreements resulted in the elimination of more than 100 million pounds of air pollutants in 1997 and more than 800,000 pounds in 1998. The majority of these reductions consisted of volatile organic compounds but also included reductions in particulate matter and carbon monoxide levels. The environmental results arise because the enforcement actions go beyond increased EPCRA reporting and recordkeeping to include specific chemical use reductions, industrial process changes, and changes in emissions or discharges.

8 CONCLUSION

American manufacturing and industry of all types must be responsible to their communities and take EPCRA seriously to avoid heavy fines or avoid risking the loss of a business. EPCRA is an important planning tool for government - state and local - as well as its citizens. Most importantly, EPCRA allows citizens to work toward Environmental Justice for their communities by gaining a sense of responsibility and control over the environmental quality of their neighborhoods. Implementing EPCRA will empower the public to bring a positive change in the environmental health of minority and low-income communities. In the long run, EPCRA will avoid potential environmental disasters and save lives.

As the world implements TRI and other PRTR legislation, pollution can be analyzed globally for the first time. TRI and other PRTR information will continue to have more and innovative uses as more countries implement right to know legislation. However, because

of the self reporting nature of the TRI and other PRTRs, a vigorous enforcement program is a necessity to ensure the integrity of the data, and any ensuing analysis. Although the nature of TRI violations deviate from traditional enforcement programs where violations produce actual harm to human health or the environment, it is nevertheless essential since the TRI remains a valuable regulatory tool for the community, for state and government planning and targeting, and as an incentive for business to prevent pollution.

APPENDIX I: RESOURCE LIST

1. TRI User Support Service (202) 260-1531. Provides assistance using and assessing TRI data.
2. EPCRA Hotline 1-800-424-9346. To request documents or pose regulatory questions.
3. Envirofacts Warehouse: http://www.epa.gov/oppt/tri. Conduct data analysis from many EPA regulated statutes.
4. Office of the Administrative Law Judge: <http://www.epa.gov/alj> Obtain recent administrative opinions.
5. EAB Homepage: . <http://www.epa.gov/eab> Obtain recent administrative decisions.
6. General Environmental Law Links on the World Wide Web (various)

EPA has a toll free Hotline to answer questions about EPCRA: 1-800-535-0202.

ENDNOTES

1. Publ L. 99-499, title III, Sec. 313, Oct. 17, 1986, 100 Stat. 1741.
2. *See, e.g.*, [CAA; CWA; CERLCLA; Environmental Law Textbook].
3. See CAA; CWA; CERCLA; Environmental Law textbook.
4. *See generally* 42 U.S.C. §§ 11045(c), 11023(a), 11023(g); *see also* 40 C.F.R. Part 372 (implementing 42 U.S.C. § 11023 and describing additional requirements such as record keeping and supplier notification).
5. *See* 1997 Public Data Release available at <http://www.epa.gov/oppt/tri>.
6. EPCRA Sections 1001-11003.
7. EPCRA Section 11004.
8. EPCRA Sections 11021-11022.
9. EPCRA Section 11023.

10. EPCRA Section 11049(4) defines facility as " all buildings, equipment, structures, and other stationary items which are located on a single site or on contiguous or adjacent sites and which are owned or operated by the same person (or by any person which controls, is controlled by, or under common control with, such person)."

11. EPCRA Section 11002 (a)(3)(A)(ii).

12. EPCRA Section 11004.

13. This law requires a two-tiered approach for annual inventory reporting. Under Tier I, a facility must report the amounts and general location of chemicals in certain hazard categories. A Tier II report contains basically the same information, but it must name the specific chemical. Congress gave companies the flexibility to choose whether to file Tier I or Tier II forms, unless the State Emergency Response Commission, Local Emergency Planning Committee, or fire department request Tier II. Tier II reports provide emergency planners and communities with more useful information. EPCRA Section 11022(a).

14. Information that must be gathered and reported under this section of the Act includes:

    1. Which toxic chemicals were released into the environment during the preceding year.
    2. How much of each chemical went into the air, water and land.
    3. How much of the chemicals were transported away from the site of the facility for disposal.
    4. How chemical wastes were treated on-site.
    5. The efficiency of that treatment.

15. The applicable facilities are those which have (a) 10 or more full-time employees and that are (b) in Standard Industrial Classification Codes 20 through 39 and (c) that manufactured, processed, or otherwise used a toxic chemical listed under EPCRA in excess of the quantity established under the statute. EPCRA Section 11023.

16. Some federal statutes have in fact been delegated to states to varying degrees for implementation. *See, e.g.*, CAA; CWA.

17. Other requirements are imposed administratively by authority of EPCRA ' 328 and include record keeping obligations and supplier notification obligations. 42 U.S.C. § 11048; 40 C.F.R. §§ 372.10, 372.45; *see also* 40 C.F.R. § 372.18.

18. 42 U.S.C. § 11023(a); 40 C.F.R. § 372.22.

19. 42 U.S.C. § 11023; 40 C.F.R. § 372.22. SIC codes 20-39 consist largely of the manufacturing sectors.

20. 62 Fed. Reg. 23834 (May 1, 1997). SIC codes added include the following: major codes 10 (except 1011, 1081, and 1094), 12 (except 1241), 4911, 4931, 4939 (limited to facilities that combust coal and/or oil for the purpose of generating power for distribution in commerce), 4953 (limited to facilities regulated under the

Resource Conservation and Recovery Act, subtitle C, 42 U.S.C. § 6921 et seq.), 5169, 5171, and 7389 (limited to facilities primarily engaged in solvent recovery services on a contract or fee basis). *See* 40 C.F.R. § 372.22 for determining primary SIC codes. Note that the first reports were due for the newly added SIC codes on July 1, 1998.

21. 40 C.F.R. § 372.22. *See* 40 C.F.R. § 372.3 for the hourly equivalent of 10 full time employees.

22. 42 U.S.C. § 11023; 40 C.F.R. § 372.22.

23. A common mistake is to assume no report is necessary if there are zero releases of a toxic chemical. In fact, the statute requires reporting even where there are zero releases. 42 U.S.C. §11023(a). Failing to abide by any requirement EPCRA Section 313 or the regulations promulgated under that authority is an actionable offense, subject to penalties not to exceed $27,500. 42 U.S.C. §11045(c); 40 C.F.R. § 372.18; *see also* Part 3.3.1 *infra*.

24. Office of Pollution Prevention and Toxics, Environmental Protection Agency, Toxic Chemical Release Inventory Reporting Form R and Instructions (1997) ("Form R") available at http://www.epa.gov/opptintr/tri .

25. Although the statutory deadline is July 1, EPA has permitted forms to be submitted at later dates from some reporting years due to international delays. Such actions are announced in the Federal Register on an individual basis. *See, e.g.*, 62 Fed. Reg. 28,651 (May 27, 1997).

26. Form R, *supra* note 23, at part II, § 5.

27. Form R, *supra* note 23, at part II, § 6.

28. Form R, *supra* note 23, at part II, § 7(a)-(c).

29. Form R, *supra* note 23, at part II, § 4.

30. Form R, *supra* note 23, at part II, § 3.

31. Form R, *supra* note 23, at part II, § 8.

32. Form R, *supra* note 23, at part I, § 4.

33. Form R, *supra* note 23, at part I, §§ 4.3, 4.4.

34. *See* 42 U.S.C. § 11023(j); *infra* Part 3.2.1.

35. *See id.* § 11023(d) (describing the process to list and delist a chemical from the requirements of EPCRA). Congress provided the initial list of chemicals. *Id.* § 11023(c).

36. *Id.*

37. *Id.* § 11023(e).

38. *Id.*

39. 42 U.S.C. § 11023(b)(1)(A).

40. *Id.* at § 11023(b)(1)(B).

41. *Id.*

42. *See* part 3.2.1 *infra.*

43. *Compare* 42 U.S.C. § 11045(c) *with* 28 U.S.C. § 2561 (amended by 31 U.S.C. § 3701) *and* 40 C.F.R. Part 19. Although EPCRA § 325 (c) permits penalties not to exceed $25,000 per violation, recent legislation adjusted statutory penalties upward to account for inflation. 28 U.S.C. ' 2461 (amended by 31 U.S.C. §3701). Thus, EPA now assesses penalties up to $27,500 for violations of EPCRA § 313. 40 C.F.R. Part 19.

44. 42 U.S.C. § 11045(c)(3).

45. 42 U.S.C. § 11046 (a)(1)(A)(iv).

46. *Id.* at § 11046(f).

47. *Id.* at § 11046(d).

48. *See* 42 U.S.C. § 11045(b)(1)(C). Penalty factors include: "the nature, circumstances, extent and gravity of the violation or violations and, with respect to the violator, ability to pay, any prior history of such violations, the degree of culpability, economic benefit or savings (if any) resulting form the violation, and such other matters as justice may require." *Id.* Although these factors expressly apply to the emergency notification provisions of EPCRA, EPA administrative decisions have applied them to Section 313 penalty assessments as well. *See, e.g.*, Apex Microtechnology, EPCRA-09-92-00-07, Initial Decision (Frazier, May 7, 1993); Colonial Processing, Inc., II EPCRA-89-0114, Initial Decision (Frazier, June 24, 1991).

49. *See* part 3.3.1 *infra.*

50. EPCRA §11005.

51. Categories such as - (a) the total toxic releases by state - the top 25 counties with the largest TRI releases; (b) the 50 U.S. cities with the largest TRI releases; (c) the TRI releases by industry category; (d) the top 50 facilities with the largest TRI releases; and (e) the regional or geographic distribution of the top 25 chemicals released.

52. On February 11, 1994, President Clinton signed the Presidential Executive Order #12898, "Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations," requiring each federal agency to make achieving environmental justice part of its mission by identifying and addressing "disproportionately high and adverse human health or environmental effects of its programs, policies, and activities."

53. African American males had a 33% higher death rate from cancer than white males, and African American females had a 16% higher death rate from cancer than white females. Collin, Robert W., "Environmental Equity: A Law and Planning Approach to Environmental Racism", 11 Virginia Environmental Law Review, 501 (1992).

54. Among urban children five-years old and younger, the percentage of African Americans who had excessive levels of lead in their blood far exceeded the percentage of whites at all income levels. For families with incomes less than $6,000, 68% of African American children and 36% of white children had unsafe blood lead levels. In families earning more than $15,000, 38% of African American children and 12% of white children had lead poisoning. *Id.* at 501-502.

55. EPCRA Sections 11001-11023.

56. Under EPCRA Section 11001, the Governor of each state shall appoint a State emergency response commission. To the extent practicable, the Governor must appoint persons to the State emergency response commission who have technical expertise in the emergency response field. In turn, the State Emergency Response Commissions appoint local emergency planning committees and establish emergency planning districts. The State Emergency Response Commissions supervise and coordinate the activities of local emergency planning committees. The SERCs are also responsible for establishing procedures for receiving and processing requests from the public for information under EPCRA.

57. Under EPCRA §11001, local emergency planning committees are made up of elected State and local officials; law enforcement, civil defense, fire fighting, first aid, health, local environmental, hospital, and transportation personnel; broadcast and print media; community groups; and owners and operators of facilities. Local emergency planning committees establish provisions for public notification of committee activities, public meetings to discuss the emergency plan, public comments, response to such comments by the committee, and distribution of the emergency plan. Local emergency planning committees must also establish procedures for receiving and processing requests from the public for EPCRA information. After emergency response plans are established by the local emergency planning committees, there are reviewed at least annually. *See* EPCRA §11003(c) for the emergency response plan required provisions.

58. EPCRA §11002(a)(3)(A)(i). Under this section, the Administrator must publish a threshold planning quantity for a substance; if the Administrator fails to establish this threshold quantity, then the quantity shall be 2 pounds until the Administrator publishes regulations establishing a threshold for the substance. EPCRA §11002(a)(3)(C).

    Note that §11042 of EPCRA provides for withholding of information by facilities where trade secret requirements are met. Trade secret factors must be met and findings of sufficient assertions must be determined by the Administrator.

59. EPCRA §11003(d)(1).

60. EPCRA §11003(d)(3).

61. Comprehensive Environmental Response, Compensation, and Liability Act of 1980. 42 U.S.C.A. §9603(a). Hereafter "CERCLA".

62. EPCRA §11004(a)(2)(A), (B) and (C) are as follows:

    (A) is not a federally permitted release as defined in section 101(10) of CERCLA [42 U.S.C.A. §9601(10)],

(B) is in an amount in excess of a quantity which the Administrator has determined (by regulation) requires notice, and

(C) occurs in a manner which would require notification under section 103(a) of CERCLA [42 U.S.C.A. §9603(a)].

63. *See* EPCRA §11002(a)(3)(A) and (B).

64. EPCRA §11004(b)(1).

65. EPCRA §11004(c).

66. EPCRA §11004(b)(2):

(A) The chemical name or identity of any substance involved in the release.

(B) An indication of whether the substance is on the list referred to in section 11002(a) of this title.

(C) An estimate of the quantity of any such substance that was released into the environment.

(D) The time and duration of the release.

(E) The medium or media into which the release occurred.

(F) Any known or anticipated acute or chronic health risks associated with the emergency and, where appropriate, advice regarding medical attention necessary for exposed individuals.

(G) Proper precautions to take as a result of the release, including evacuation (unless such information is readily available to the community emergency coordinator pursuant to the emergency plan).

(H) The name and telephone number of the person or persons to be contacted for further information.

67. EPCRA §11021.

68. EPCRA §11022.

69. 29 U.S.C.A. §651 et seq.

70. EPCRA §11021(a). *See also* EPCRA §11021(a)(2) for contents of the chemical list and §11021(a)(3) for treatment of mixtures.

71. The inventory form may contain either "Tier I", or "Tier II" information. Under Tier I, a facility must report the amounts and general location of chemicals in certain hazard *categories*. A Tier II report contains basically the same information, but it must name the *specific chemical*. Congress gave companies the flexibility to choose whether to file a Tier I or Tier II form, unless the SERC, LEPC, or fire department requests Tier II. EPA believes that Tier II reports provide emergency planners and communities with more useful information, and is encouraging facility to submit Tier II forms. Many companies voluntarily provide Tier II reports. *See* EPCRA §11022(a)(2) and (3). *See also* §11022(d)(1) and (d)(2) for contents of Tier I and Tier II information.

72. EPCRA §11023(g). Information required under the release form is as follows:

(A) provide for the name and location of, and principal business activities at, the facility;

(B) include an appropriate certification, signed by a senior official with management responsibility for the person or persons completing the report, regarding the accuracy and completeness of the report; and

(C) provide for submission of each of the following items of information for each listed toxic chemical known to be present at the facility:

(i) Whether the toxic chemical at the facility is manufactured, processed, or otherwise used, and the general category or categories of use of the chemical.

(ii) An estimate of the maximum amounts (in ranges) of the toxic chemical present at the facility at any time during the preceding calendar year.

(iii) For each waste stream, the waste treatment for disposal methods employed, and an estimate of the treatment efficiency typically achieved by such methods for that waste stream.

(iv) The annual quantity of the toxic chemical entering each environmental medium.

73. *See* EPCRA §11023 for Toxic chemical threshold amounts and §313(g) for the information required on the Release form.

74. At the time of this Article, there is a proposed reorganization that would place the TRI program in an Office other than OPPTS. In fact, there have been several reorganizations in the past, changing office names and shifting programs from one office to another.

75. To review enforcement related MOA documents, see OECA's World Wide Web page at: http://www.epa.gov/oeca/polguid/index.html.

76. *See infra* notes 54, 61, 62 and accompanying test. Less publicized expansions included: Record keeping and supplier notification obligations. 40 C.F.R. §§ 372.10, 372.45.

77. *See supra* part 2.2.2.

78. 59 Fed. Reg. 61,432 (Nov. 30, 1994), *codified at* 40 C.F.R. § 372.65.

79. 7 U.S.C. § 135 *et seq.*

80. Listed chemicals includes those also regulated by the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), The Toxics Substances Control Act (TSCA), the Clean Air Act (CAA), the Clean Water Act (CWA), and the Resource Conservation and Recovery Act (RCRA).

81. 62 Fed. Reg. 23,834 (May 1, 1997), *codified at* 40 C.F.R. §372.22.

82. The statute explicitly grants EPA authority to add new industries. 42 U.S.C. § 11023 (b)(1)(B); *see also* part 2.2.3.

83. *See* 62 Fed. Reg. 23,834 (May 1, 1997) (reports first due July 1, 1999).

84. *See* 63 Fed. Reg. 6691 (Feb. 10, 1998) (proposed rule to add SIC 45 Transportation by Air to the list of covered facilities under EPCRA § 313); 1996 PUBLIC DATA RELEASE *supra* note 1, at 16 (discussing addition of oil and gas industries).

85. 61 Fed. Reg. 51322 (October 1, 1996).

86. *Id.*

87. *See id.*; 1996 DATA RELEASE *supra* note 1, at 12.

88. *See, e.g.*, TOXIC SUBSTANCES: FEW STATES HAVE CONSIDERED REPORTING REQUIREMENTS FOR CHEMICAL USE DATA, GAO/RCED-97-154 (June 6, 1997); *supra* note 28; 61 Fed. Reg. 51322, 51328; John Cunniff, *The New Battlefront: Economic Intelligence*, ASSOCIATED PRESS, Sunday, March 8, 1998.

89. *Expediting Community Right-to-Know Initiatives*, Pres. Mem. of Aug. 8, 1995, *reprinted in* 60 Fed. Reg. 41791 (August 10, 1995).

90. *See* http://www.epa.gov/opptintr/chemrtk/persbioa.htm ; *see also* note 21 and accompanying text.

91. *Id.* Examples of PBT chemicals include: Chlordane, Benzo(a)anthracene, Mercury compounds, Lindane, and PCBs. While many PBTs are no longer manufactured in the U.S., they are released during treatment and disposal activities.

92. *Id.*

93. 42 U.S.C. § 13101 *et seq.*

94. Source reduction is defined as any practice which (1) reduces the amount of any hazardous substance, pollutant, or contaminant entering any waste stream or otherwise released into the environment (including fugitive emissions) prior to recycling, treatment or disposal; and (2) reduces the hazards to public health and the environment associated with the release of such substances, pollutants, or contaminants. 42 U.S.C. 13101(b).

95. 42 U.S.C. § 13101(b).

96. *Id.*

97. 42 U.S.C. § 13106. For a discussion on the success of EPA's implementation of the PPA, see TOXIC SUBSTANCES: EPA NEEDS MORE RELIABLE SOURCE REDUCTION DATA AND PROGRESS MEASURES GAO/RCED-94-93 (September 23, 1994).

98. *See* 42 U.S.C. § 13101.

99. Executive Order No. 12,969, *reprinted in* 60 Fed. Reg. 40989 (August 10, 1995).

100. *See* 42 U.S.C. § 11045(c)(1) ("Any person (other than a governmental entity) who violates any requirement of section 312 or 313 shall be liable to the United States for a civil penalty in an amount not to exceed $25,00 for each such violation.").

101. *See* 40 C.F.R. § 372.1.

102. *See, e.g.*, *Manufacturing Pollution* (Citizens Fund, Washington D.C.), August 1992; *Poisons in Our Neighborhoods: Toxic Pollution in the United States* (Citizens Fund, Washington D.C.), November 1993; Alair MacLean and Rich Puchalsky, *Where the Wastes Are: Highlights from the Records of the More Than 5;000 Facilities that Receive Transfers of TRI Chemicals* (OMB Watch and Unison Institute, Washington D.C.), April 1994; Jefferey Tryens *et. al.*, *Making the Difference: Using the Right-to-Know in the Fight Against Toxics* (Center for Policy Alternatives and Working Group on Community Right-to-Know, undated).

103. In fact, comparisons of TRI data from 1987 through 1996 reflect industries "have reduced their on and off-site releases of TRI chemicals by almost 50% or 1.5 billion pounds." Office of Pollution Prevention and Toxics, U.S. Environmental Protection Agency, 1996 Toxics Release Inventory Public Data Release Ten Years of Right To Know (May, 1998) ("1996 Data Release").

104. 1988 Toxics Release Inventory Public Data Release, Office of Pollution Prevention and Toxics, March 1989.

105. *See supra* note and accompanying text.

106. 1996 Public Data Release, supra note 43, at

107. 1996 Public Data Release, *supra* note 43, at 24-25.

108. 42 U.S.C. § 11023(j).

109. For TRI information and analysis, visit EPA's web site, the Envirofacts Warehouse, located at <http://www.epa.gov/enviro> .

110. *Id.* <http://www.epa.gov/enviro/html/tris/tris_overview.html>

111. The annual data release is available in the full printed format, free of charge at: (800) 424-9346. An abbreviated form of the data release, "State Fact Sheets," are available free of charge as well at: (800) 424-9346. There is a CD-Rom version of the TRI data which is searchable by customized query, however this item is free only to libraries, educators, students, non-profits, and community groups. Call (800) 490-9198 to obtain a copy of the CD-Rom. There are many other publications available, including the "TRI Information Kit," which is also free and available at: (800) 490-9198.

112. *See* <www.epa.gov/opptintr/tri/>.

113. *See* <www.epa.gov/oeca/sector/index.html> .

114. The EPCRA Hotline may be reached at: 1-800-424-9346. TRI guidance documents may be requested through the EPCRA Hotline, or on the Internet at: <http://www.epa.gov/oppt/tri>.

115. *See* [FIRST CASEBBLACK BOOK].

116. It is probably much simpler to understand the requirements of an environmental regulation through a guidance document than through reading a judicial or administrative decision adjudicating liability. However, litigation is also important to deter voluntary ignorance of the requirements.

117. 42 U.S.C. § 11045(c)(1); *see also supra* note 23 (regarding upward penalty adjustments to account for inflation).

118. 42 U.S.C. § 13106(c).

119. *See, e.g.*, Colonial Processing, Inc., II EPCRA-89-0114, Initial Decision (Frazier, June 24, 1991) (early case imposing penalty for late report). Note that EPA characterizes non-reporters as late reporters. *See generally* CBI Services, Inc., EPCRA-05-1990, Order Granting Motion for Accelerated Decision (Greene, Apr. 30, 1991).

120. *See supra* part 3.2.1.

121. *See infra* note 133 and accompanying text.

122. Office of Compliance Monitoring, Environmental Protection Agency, Enforcement Response Policy for Section 313 of the Emergency Planning and Community Right-to-Know Act Also known as Title III of the Superfund Amendments and Reauthorization Act (SARA), December 2, 1988.(hereinafter "1988 ERP").

123. Note that because the ERP has not been subjected to notice and comment rulemaking, it is not binding upon regulated entities in and of itself. Instead, the ERP is a tool through which the statutory criteria for penalty assessment is applied. Thus, EPA attorneys must independently explain why the ERP yields a fair penalty under the Statute during administrative hearings. *See* Colonial Processing, Inc. II EPCRA-89-0114, Initial Decision (Frazier, June 24, 1991). While EPA's administrative law judges (ALJ) must consider the ERP when adjudicating a final penalty, they may deviate from it if they provide an explanation. 40 C.F.R. § 22.27(b). *See also* Genicom Corp., EPCRA Appeal No. 92-2, Final Decision (Dec. 15, 1992).

124. EPA maintains an internal delegations manual which lawfully delegates the authority granted the Administrator by Congress to issue civil enforcement actions to certain headquarters and regional management.

125. Violations of EPCRA § 313 range from failing to timely file the Form R or A and data quality errors, to failure to maintain records, failure to supply notification, and failure to respond to Agency requests for minor corrections. Office of Compliance Monitoring, Environmental Protection Agency, Enforcement Response Policy for Section 313 of the Emergency Planning and Community Right-to-Know Act (1986) and Section 6607 of the Pollution Prevention Act (1990), 11-12, August 10, 1992 (1992 ERP).

126. Enforcement actions available under the ERP consist of the following: no action for certain revisions to Form R submissions; Notices of Noncompliance (NON) for certain circumstances causing minor errors in the Form R; civil administrative complaints for failing to report in a timely manner, certain data quality errors, failure to respond to a NON, repeated violations, failure to supply notification, and failure to keep records; civil judicial referrals to the Department of Justice for exceptional circumstances; and criminal sanctions under authority under authority of 18 U.S.C. § 1001. 1992 ERP *supra* note 106, at 2-7.

127. Penalties are assessed by first identifying the gravity based penalty using the ERP's penalty matrix, which considers the size of the business and the amount of chemical involved. The gravity based penalty is then adjusted based on certain "adjustment factors" discussed in the ERP. 1992 ERP *supra* note 106, at 7-8.

128. EPCRA Sections 11045-11046.

129. EPCRA Section 11046(a)(1).

130. 1992 ERP *supra* note 106.

131. To examine recent administrative decisions, visit the Office of the Administrative Law Judge, or the Environmental Appeals Board on the World Wide Web at the following addresses, respectively: <http://www.epa.gov/alj> <http://www.epa.gov/eab> .

132. *See supra* part 3.2.1.

133. *See infra* part 3.3.2.

134. Note that Enforcement Response Policy revisions would be less likely if the Enforcement Response Policy was subjected to notice and comment rule-making, and codified as a regulation. While codifying the Enforcement Response Policy would likely result in consistent application by administrative law judges, it would also result in a more static enforcement program due to resource intensive nature of rule-makings.

135. Jon D. Jacobs and Michael J. Walker, *Introducing the Environmental Data Police in the Decade of Data and Data Quality* 4 Envtl L. & Practice 47 (July/Aug. 1996).

136. For example, by comparing pesticide production reports required by Federal Insecticide, Fungicide and Rodenticide Act § 7 to the list of TRI chemicals, EPA can ascertain whether a regulated entity meets one of the TRI reporting criteria manufacturing over 25,000 pounds of a listed toxic chemical. Similar information pertaining to the TRI reporting criteria are available from many internally cross-referenced databases. *See generally* 7 U.S.C. §136(e); 40 C.F.R. § 167.85; 40 C.F.R. 372.65.

137. Cite either old MOA, initial cases, or budget.

138. Cite old MOA mandating % of DQ inspections ensure this is public info!! Support for DQ: see supra, or cite to 313(g)(h).

139. *See* 1996 Public Data Release *supra* note 84, at Appendix B.

140. *See supra* part 3.2.2.

141. For more information, visit the NETI web-site at: http://www.epa.gov/oeca/neit/netimain.html.

142. *See supra* part 3.3.1.

143. 42 U.S.C. § 11045(c)(4); *supra* note 107 and accompanying text.

144. *Id.*

145. *See supra* note 107.

146. This is mandated by the Delegations Manual. (Internal Document).

147. *See generally* Pease and Curren, Inc., EPCRA I-91-1008, Initial Decision (Frazier, Mar. 13, 1991) (arbitrary and unreasonable for EPA to assess a penalty based solely on failure to file a Form R for a regulated toxic chemical prior to an EPA inspection).

148. *See supra* part 2.

149. *See supra* part 3.2.3 and *infra* note 132 for pre-enforcement deterrence mechanisms.

150. A common method EPA uses to publicize noteworthy administrative decisions is through the "Enforcement Alert Bulletin." Enforcement Alert Bulletins are directly mailed to the regulated community, and also available on the Internet at: http://www.epa.gov/oeca/ore/enfalert.

151. *See supra* part 3.3.1. The ERP provides that any deviation by the regional CDO or attorney must be approved by EPA headquarters. 1992 ERP *supra* note 106, at 20.

152. Incentives for Self-Policing: Discovery, Disclosure, Correction and revention of Violations, 60 Fed. Reg. 66,706 (Dec. 22, 1995), *available at* http://www.epa.gov/oeca/auditpol.html.

153. See the Audit Policy Newsletter at: http://www.epa/gov/oeca/auditpol.html.

154. See, for example, A Settlement Policy on Supplemental Environmental Projects, Office of Enforcement and Compliance Assurance; Revised, March 5, 1998.

155. OFFICE OF THE CHIEF FINANCIAL OFFICER, UNITED STATES ENVIRONMENTAL PROTECTION AGENCY, STRATEGIC PLAN, 17, 50-52 (Sept. 1997).

156. *See* U.S. ENVIRONMENTAL PROTECTION AGENCY, BUDGET (1998).

157. For fiscal year 1999, Congress directed a 10 million dollar budget cut to EPA enforcement.

158. In 1990 an EPA study conducted under contract estimated EPCRA § 313 compliance to be about 80%.

159. *See supra* part 3.2.1.

Annex 1 Form R - Toxic Chemical Release Inventory Reporting Form

(IMPORTANT: Type or print; read instructions before completing form)

Form Approved OMB Number 2070-0093
Approval Expires: 04/2000

EPA — United States Environmental Protection Agency

FORM R

TOXIC CHEMICAL RELEASE INVENTORY REPORTING FORM

Section 313 of the Emergency Planning and Community Right-to-Know Act of 1986, also known as Title III of the Superfund Amendments and Reauthorization Act

WHERE TO SEND COMPLETED FORMS. 1. EPCRA Reporting Center, P.O. Box 3348, Merrifield, VA 22116-3348, ATTN: TOXIC CHEMICAL RELEASE INVENTORY	2. APPROPRIATE STATE OFFICE (See instructions in Appendix F)	Enter "X" here if this is a revision: ☐
		For EPA use only

Important: See instructions to determine when "Not Applicable (NA)" boxes should be checked.

PART I. FACILITY IDENTIFICATION INFORMATION

SECTION 1. REPORTING YEAR _____

SECTION 2. TRADE SECRET INFORMATION

2.1	Are you claiming the toxic chemical identified on page 2 trade secret? ☐ Yes (Answer question 2.2. Attach substantiation forms) ☐ No (Do not answer 2.2. Go to Section 3)	2.2	Is this copy ☐ Sanitized ☐ Unsanitized (Answer only if "YES" in 2.1)

SECTION 3. CERTIFICATION (Important: Read and sign after completing all form sections.)

I hereby certify that I have reviewed the attached documents and that, to the best of my knowledge and belief, the submitted information is true and complete and that the amounts and values in this report are accurate based on reasonable estimates using data available to the preparers of this report.

Name and official title of owner/operator or senior management official	Signature	Date Signed

SECTION 4. FACILITY IDENTIFICATION

4.1		TRI Facility ID Number	
Facility or Establishment Name		Facility or Establishment Name or Mailing Address (if different from street address)	
Street		Mailing Address	
City/County/State/Zip Code		City/County/State/Zip Code	

4.2	This report contains information for: (Important: check a or b; check c if applicable)	a ☐ An entire facility	b ☐ Part of a facility	c ☐ A Federal facility
4.3	Technical Contact Name			Telephone Number (include area code)
4.4	Public Contact Name			Telephone Number (include area code)

4.5	SIC Code (s) (4 digits)	a.	b.	c.	d.	e.	f.

4.6	Latitude	Degrees	Minutes	Seconds	Longitude	Degrees	Minutes	Seconds

4.7 Dun & Bradstreet Number(s) (9 digits)	4.8 EPA Identification Number (RCRA I.D. No.) (12 characters)	4.9 Facility NPDES Permit Number(s) (9 characters)	4.10 Underground Injection Well Code (UIC) I.D. Number(s) (12 digits)
a.	a.	a.	a.
b.	b.	b.	b.

SECTION 5. PARENT COMPANY INFORMATION

5.1	Name of Parent Company	NA ☐	
5.2	Parent Company's Dun & Bradstreet Number	NA ☐	

EPA FORM R
PART II. CHEMICAL-SPECIFIC INFORMATION

TRI Facility ID Number

Toxic Chemical, Category or Generic Name

SECTION 1. TOXIC CHEMICAL IDENTITY (Important: DO NOT complete this section if you completed Section 2 below.)

1.1	CAS Number (Important: Enter only one number exactly as it appears on the Section 313 list. Enter category code if reporting a chemical category.)
1.2	Toxic Chemical or Chemical Category Name (Important: Enter only one name exactly as it appears on the Section 313 list.)
1.3	Generic Chemical Name (Important: Complete only if Part I, Section 2.1 is checked "yes". Generic Name must be structurally descriptive.)

SECTION 2. MIXTURE COMPONENT IDENTITY (Important: DO NOT complete this section if you completed Section 1 above.)

2.1	Generic Chemical Name Provided by Supplier (Important: Maximum of 70 characters, including numbers, letters, spaces, and punctuation.)

SECTION 3. ACTIVITIES AND USES OF THE TOXIC CHEMICAL AT THE FACILITY
(Important: Check all that apply.)

3.1 Manufacture the toxic chemical:	3.2 Process the toxic chemical:	3.3 Otherwise use the toxic chemical:
a. ☐ Produce b. ☐ Import		
If produce or import		
c. ☐ For on-site use/processing	a. ☐ As a reactant	a. ☐ As a chemical processing aid
d. ☐ For sale/distribution	b. ☐ As a formulation component	b. ☐ As a manufacturing aid
e. ☐ As a byproduct	c. ☐ As an article component	c. ☐ Ancillary or other use
f. ☐ As an impurity	d. ☐ Repackaging	

SECTION 4. MAXIMUM AMOUNT OF THE TOXIC CHEMICAL ONSITE AT ANY TIME DURING THE CALENDAR YEA

4.1	☐ (Enter two-digit code from instruction package.)	

SECTION 5. QUANTITY OF THE TOXIC CHEMICAL ENTERING EACH ENVIRONMENTAL MEDIUM ONSITE

			A. Total Release (pounds/year) (Enter range code or estimate*)	B. Basis of Estimate (enter code)	C. % From Stormwater
5.1	Fugitive or non-point air emissions	NA ☐			
5.2	Stack or point air emissions	NA ☐			
5.3	Discharges to receiving streams or water bodies (enter one name per box)				
	Stream or Water Body Name				
5.3.1					
5.3.2					
5.3.3					
5.4.1	Underground injection onsite to Class I Wells	NA ☐			
5.4.2	Underground injection onsite to Class II-V Wells	NA ☐			

If additional pages of Part II, Section 5.3 are attached, indicate the total number of pages in this box ☐ and indicate the Part II, Section 5.3 page number in this box. ☐ (example: 1,2,3, etc)

EPA form 9350-1(Rev. 04/97) - Previous editions are obsolete.

* Range Codes: A= 1 - 10 pounds; B= 11- 499 pounds; C= 500 - 999 po

TRI Facility ID Number

EPA FORM R

PART II. CHEMICAL - SPECIFIC INFORMATION (CONTINUED)

Toxic Chemical, Category, or Generic Name

CTION 5. QUANTITY OF THE TOXIC CHEMICAL ENTERING EACH ENVIRONMENTAL MEDIUM ONSITE(Continued)

		NA	A. Total Release (pounds/year) (enter range code* or estimate)	B. Basis of Estimate (enter code)
5	Disposal to land onsite			
5.1A	RCRA Subtitle C landfills	☐		
5.1B	Other landfills	☐		
5.2	Land treatment/application farming	☐		
5.3	Surface impoundment	☐		
5.4	Other disposal	☐		

CTION 6. TRANSFERS OF THE TOXIC CHEMICAL IN WASTES TO OFF-SITE LOCATIONS

DISCHARGES TO PUBLICLY OWNED TREATMENT WORKS (POTWs)

A Total Quantity Transferred to POTWs and Basis of Estimate

6.1.A.1. Total Transfers (pounds/year) (enter range code* or estimate)	6.1.A.2 Basis of Estimate (enter code)

B. __ POTW Name

POTW Address

State | County | Zip

B. __ POTW Name

POTW Address

State | County | Zip

ditional pages of Part II, Section 6.1 are attached, indicate the total number of pages

is box ☐ **and indicate the Part II, Section 6.1 page number in this box** ☐ **(example: 1,2,3, etc.)**

CTION 6.2 TRANSFERS TO OTHER OFF-SITE LOCATIONS

__ Off-Site EPA Identification Number (RCRA ID No.)

ite Location Name

ite Address

State | County | Zip

ation under control of reporting facility or parent company? ☐ Yes ☐ No

*Range Codes: A = 1 - 10 pounds; B = 11 - 499 pounds; C = 500 - 999 pounds

EPA FORM R

PART II. CHEMICAL-SPECIFIC INFORMATION (CONTINUED)

TRI Facility ID Number

Toxic Chemical, Category or Generic Name

SECTION 6.2 TRANSFERS TO OTHER OFF-SITE LOCATIONS (Continued)

A. Total Transfers (pounds/year) (enter range code* or estimate)	B. Basis of Estimate (enter code)	C. Type of Waste Treatment/Disposal/ Recycling/Energy Recovery (enter code)
1.	1.	1. M
2.	2.	2. M
3.	3.	3. M
4.	4.	4. M

6.2. __ Off-Site EPA Identification Number (RCRA ID No.)

Off-Site location Name

Off-Site Address

City | State | County | Zip

Is location under control of reporting facility or parent company? ☐ Yes ☐ No

A. Total Transfers (pounds/year) (enter range code* or estimate)	B. Basis of Estimate (enter code)	C. Type of Waste Treatment/Disposal/ Recycling/Energy Recovery (enter code)
1.	1.	1. M
2.	2.	2. M
3.	3.	3. M
4.	4.	4. M

SECTION 7A. ON-SITE WASTE TREATMENT METHODS AND EFFICIENCY

☐ Not Applicable (NA) - Check here if no on-site waste treatment is applied to any waste stream containing the toxic chemical or chemical category.

a. General Waste Stream (enter code)	b. Waste Treatment Method(s) Sequence (enter 3-character code(s))								c. Range of Influent Concentration	d. Waste Treatment Efficiency Estimate	e. Based on Operating Data ?
7A.1a	7A.1b	1		2		3		4	7A.1c	7A.1d	7A.1e
	5		6		7		8			%	Yes ☐ No ☐
7A.2a	7A.2b	1		2		3		4	7A.2c	7A.2d	7A.2e
	5		6		7		8			%	Yes ☐ No ☐
7A.3a	7A.3b	1		2		3		4	7A.3c	7A.3d	7A.3e
	5		6		7		8			%	Yes ☐ No ☐
7A.4a	7A.4b	1		2		3		4	7A.4c	7A.4d	7A.4e
	5		6		7		8			%	Yes ☐ No ☐
7A.5a	7A.5b	1		2		3		4	7A.5c	7A.5d	7A.5e
	5		6		7		8			%	Yes ☐ No ☐

If additional pages of Part II, Section 6.2/7A are attached, indicate the total number of pages in this box ☐ and indicate the Part II, Section 6.2/7A page number in this box : ☐ (example: 1,2,3, etc)

* Range Codes A = 1 - 10 pounds, B = 11 - 499 pounds, C = 500 - 999 po

Page 5 of 5

EPA FORM R **PART II. CHEMICAL-SPECIFIC INFORMATION (CONTINUED)**	TRI Facility ID Number Toxic Chemical, Category or Generic Name

SECTION 7B. ON-SITE ENERGY RECOVERY PROCESSES

☐ Not Applicable (NA) - Check here if no on-site energy recovery is applied to any waste stream containing the toxic chemical or chemical category.

Energy Recovery Methods [enter 3-character code(s)]

1 ☐ 2 ☐ 3 ☐ 4 ☐

SECTION 7C. ON-SITE RECYCLING PROCESSES

☐ Not Applicable (NA) - Check here if no on-site recycling is applied to any waste stream containing the toxic chemical or chemical category

Recycling Methods [enter 3-character code(s)]

1. ☐ 2. ☐ 3 ☐ 4. ☐ 5. ☐

6. ☐ 7. ☐ 8 ☐ 9. ☐ 10. ☐

SECTION 8. SOURCE REDUCTION AND RECYCLING ACTIVITIES

		Column A Prior Year (pounds/year)	Column B Current Reporting Year (pounds/year)	Column C Following Year (pounds/year)	Column D Second Following Year (pounds/year)
8.1	Quantity released **				
8.2	Quantity used for energy recovery onsite				
8.3	Quantity used for energy recovery offsite				
8.4	Quantity recycled onsite				
8.5	Quantity recycled offsite				
8.6	Quantity treated onsite				
8.7	Quantity treated offsite				
8.8	Quantity released to the environment as a result of remedial actions, catastrophic events, or one-time events not associated with production processes (pounds/year)				
8.9	Production ratio or activity index				

8.10	Did your facility engage in any source reduction activities for this chemical during the reporting year? If not, enter "NA" in Section 8.10.1 and answer Section 8.11			
	Source Reduction Activities [enter code(s)]	Methods to Identify Activity (enter codes)		
8.10.1		a.	b.	c.
8.10.2		a.	b.	c.
8.10.3		a.	b.	c.
8.10.4		a.	b.	c.
8.11	Is additional information on source reduction, recycling, or pollution control activities included with this report? (Check one box)		YES ☐	NO ☐

* Report releases pursuant to EPCRA Section 329(8) including "any spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping, or disposing into the environment." Do not include any quantity treated onsite or offsite.

ENVIRONMENTAL ENFORCEMENT IN THE CZECH REPUBLIC: THE EU PRE-ACCESSION PHASE

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SUMMARY

Environmental enforcement problems are always difficult, but their importance becomes much greater in the European Union (EU) candidate countries. Based on a description of their historical background and development (including the legal and institutional framework of environmental protection and environmental enforcement), the most significant environmental enforcement problems in the Czech Republic are defined also with respect to the EU accession. The current approach to solving these problems is highlighted, with emphasis given to legislative activities and to institutional and human resources capacity building.

1 INTRODUCTION

In 1995, the European Agreement was signed and the Czech Republic (as well as other 9 countries from the Central and Eastern European Countries and Cyprus) started its long-term preparation process for the European Union (EU) membership. The basic conditions for joining the EU were clearly defined by the European Commission (EC):

- the national legislation must be fully harmonized with the EU laws (acquis communautaire);
- the institutional and procedural settings should be adjusted to implement and enforce the harmonized legislation efficiently;
- the general public is supposed to be aware of all these changes.

In the Czech Republic (similarly as in the other EU candidate countries), the preparatory work was started by evaluating the national legislative system with respect to EU acquis communautaire (EU AC). The process resulted to identification of gaps and to decisions on steps which must be taken to meet the EU requirements. It is obvious that the environmental part of this exercise are among the most difficult ones. Despite many pieces of legislation which have been already updated or replaced by new acts compatible with the EU AC, there is still much to do. But writing and adopting a legal act is only the beginning of the more complicated phase tied with enforcement of this legislation. All the involved institutions and procedures must be revised and - if necessary - rebuilt and strengthened

to reach the desirable effect in practice. The paper is trying to identify (based on their historical background) the main problems dealing with environmental enforcement problems in the Czech Republic and propose some perspectives on how they should/could be solved.

2 DEVELOPMENT OF LEGAL AND INSTITUTIONAL FRAMEWORK OF ENVIRONMENTAL ENFORCEMENT IN THE CZECH REPUBLIC

The ground-stones of the present environmental legislation in the Czech Republic were implemented at the beginning of the nineties, within the former Czech and Slovak Federal Republic (Czechoslovakia). The main, framework law – Act No. 17/1991, on the Environment - adopted in 1991, fixed the basic principles and rules for environmental protection. Within the period 1990-1992, all the main environmental legislation was adopted, as described in Mezricky (1994). However, the traditional sectoral approach was again preserved. During the same period, Czechoslovakia became a party to several important international agreements (as e.g. Basel or Washington Conventions).

In January 1, 1993, Czechoslovakia was split into two independent states: the Czech Republic and the Slovak Republic. The new Czech Republic adopted the entire set of environmental laws of the predecessor. Management and also enforcement of environmental law is thus partly depending on several more or less independent acts (e.g. Clean Air Act No. 309/1991, the Act No. 238/1991 - now replaced by the new Act 125/1997 - on Waste Management, the Act No. 114/1992, on Nature and Landscape Protection etc.). On the other hand, some horizontal legislation also exists. The most important are the Act No. 244/1992, on Environmental Impact Assessment, the Act No. 388/1991, on State Environmental Fund and the completely new Act No. 123/1998, on Public Access to Environmental Information.

Enforcement of environmental law was (and still is) traditionally distributed among several institutions. The position of the main enforcement body at the subregional level is taken by Environmental Departments within the District Offices (72 in the area of Czech Republic). Some of the enforcement competences are also given to municipalities. The supervision (compliance monitoring) is generally performed by the Ministry of the Environment. However, some specific enforcement organization was also needed. In 1991, the new Czech Environmental Inspectorate (CEI) was created by the Act No. 282/1991, as a nationwide specialized enforcement body. In the time when the independent Czech Republic was created, the Czech Environmental Inspectorate consisted of five more-less independent divisions (air pollution control, water pollution control, waste management, nature and landscape protection and forest protection), managed by one Directorate, but each headed by one Chief Inspector.

During the year 1993, important organizational changes occurred within the Czech Environmental Inspectorate. To ensure a more integrated approach to inspections and closer contact with industry and areas of interests, the regional principle of administration was adopted. 9 regional offices of Czech Environmental Inspectorate (called Regional Inspectorates) were formed; another one was added later. Each of the Regional Inspectorates consists of 5 specialized departments (the same as the former divisions mentioned above) and headed by one regional Chief Inspector. The structure of Czech Environmental Inspectorate headquarters was also changed to 5 departments; their role changed from direct control and commanding more to providing methodical guidelines and coordination. The national range of inspection was preserved, so that any inspector from Czech Environmental Inspectorate may proceed with inspections in the entire area of the Czech Republic. This practice enables us to use broadly and more efficiently the expertise and experience of

individual inspectors, if necessary. This essential change was initial and a very important step towards a more integrated approach in control of environmental compliance. However, due to sectoral legislation, the majority of control activities are still one-sector oriented. From another point of view, the current structure of CEI (namely the Regional Inspectorates) may now be considered as a valuable advantage in implementation of new environmental legislation during the EU-approximation process, in respect to EU directives on Integrated Pollution Prevention and Control (96/61EC, the IPPC Directive).

3 PRESENT MAIN PROBLEMS IN ENVIRONMENTAL ENFORCEMENT

3.1 General enforcement problems

The present state of law enforcement in the Czech Republic is significantly influenced by the history of legislation development. At first, the system of legislation was designed under a strong German and Austrian influence, and then (after a short period of democratic development between the World Wars) was affected by the communist regime. Based on these facts, some general enforcement problems, which are present not only in environmental issues, may be observed:

- Most of the Czech legislation is applied traditionally in the very rigid way, that causes the same approach in proposing a new law automatically: legislation is thus very detailed and cannot be used in more general way. In fact, in the enforcement procedures the "letter of law" is more important than the "sense of law" in enforcement. As a consequence, there is an absence of appropriate sanctions or their low ability to be applied (their "uselessness") often occurs in individual non-compliance cases.
- The impacts and effectiveness of sanctions are often lower than might be expected: sanctions are sometimes comparatively much lower in cases of essential large companies, influencing the economy of a whole state or even owned by state, in comparison with medium-sized or small installations, where the overall economical effect is lower or negligible.
- The institutional framework of executive enforcement bodies is often underestimated. Human resources to proceed with a compliance control are limited not only by the insufficient number of staff, but sometimes also by a low level of experience. Coordination and cooperation with different ministries is often an essential problem. The competences for compliance promotion are scarce or missing, that results in the predominant application of „command and control" principle. This is the problem not only at the national level of the state administration; implementation of competences at the lower level of administration (districts, municipalities) is limited or missing, due to the amount of other administrative work, limited human sources or missing experience. In this situation, quantitative as well as qualitative capacities of enforcement are insufficient, resulting in procedural and formal mistakes and failures. As a consequence, the effectiveness of enforcement is low, and real impact of sanctions on non-complying facilities (organizations) is often soft or absent.

- Public participation in the enforcement process is low or completely missing. The passive approach to law compliance is very common, as well as high level of tolerance for non-compliance.

3.2 Environmental enforcement problems from the EU accession point of view

It is very difficult and even impossible to separate the problems of the environmental enforcement problems linked with the EU accession from the general ones described above. Lack of institutional and human resources capacities, insufficient financing, complex and not always effective and transparent procedures of enforcement and missing legislative frameworks for promotion of environmental compliance are making problems also from the EU accession point of view. Nevertheless, the needs to solve the same problems with the perspective to meet strong EC requirements as the necessary condition for being accepted as an EU member state in the relatively near future, provides both a great challenge and stimulation to correct the problem.

Even during the pre-accession phase, the EC is paying an enormous attention not only to the process of harmonizing the "language" of appropriate legislation, but also (and even more) to providing sound evidence that the harmonized legislation will be enforced effectively. From the detailed view of the EC, the current problems in environmental enforcement are more visible. Specifically, adopting and implementing some complex and/ or horizontal directives (like the IPPC Directive, the new Water Framework Directive which in under preparation now) requires intensive work in adjusting enforcement mechanisms in a short time. Our first experience with this kind of exercise have already been gained from implementing the completely new pieces of legislation (i.e. the Act No. 157/1998, on Chemicals and Chemical Substances, the Act. No. 123/1998, on Public Access to Environmental Information) which are fully compatible with the EU environmental acquis.

4 PERSPECTIVES FOR STRENGTHENING THE ENVIRONMENTAL ENFORCEMENT

Improvement of environmental enforcement in the Czech Republic in general and ensuring the effective enforcement of the EU environmental legislation cannot be considered separately as they are "two sides of one problem." The EU member states are obliged to enforce the EC environmental legislation in the same way and using the same instruments and methods which they apply in enforcing their own national environmental requirements. Therefore measures taken to strengthen the environmental enforcement in the Czech Republic should be designed to meet the needs for enforcement of the Czech laws, strong enough to enforce the EU legislation incorporated into the national legislative system.

The measures which inevitably follow the above mentioned gaps and inconsistencies of the Czech enforcement system, could be distinguished into three categories:

- improvement of legislative procedures and environmental legislation;
- establishment of more effective institutional frameworks and procedures for the enforcement;
- changes of competencies of the competent authorities.

4.1 Legislative measures

The expected improvement must be achieved not only by preparing new acts or by updating the current laws to be compatible with the EU environmental acquis, but also by strengthening all legislative procedures. This is necessary:

- to make the legislative procedures less political and more professional, concentrated on substantial problems;
- to open procedures of making comments on bills for the general public, for academic/university and independent experts;
- even in early stage of drafting new pieces of environmental legislation, to take into account more extensively practical experience and knowledge of environmental inspectors, academic/university and independent experts;
- to specify environmental requirements which are enforceable, concrete and exact - the environmental obligations must be permanently and consistently linked with proposed sanctions (penalties etc.);
- to specify monitoring obligations in sectoral legislation;
- during drafting a new environmental law, to assess all the requirements for effective enforcement (institutional capacities, procedures, technical and information support including equipment, human capacities and financial needs) and ensure that they are in place before the law is in power;
- to review, propose and adopt clear and effective administrative rules and institutional framework for permitting procedures;
- more efficiently and a greater extent to involve the general public into the environmental decision-making;
- to introduce legal standing for representatives of the general public in environmental matters.

4.2 Institution building and strengthening of capacities

Possibilities to improve environmental compliance and enforcement depend very much on the current, real state of enforcement institutions, on their capacities and competences and, consequently, on their effectiveness. Quantitative growth of enforcement bodies does not solve the problem, structural and qualitative changes are evidently much more efficient. The process must be started by detailed and quite comprehensive assessment of present enforcement capacity, by identification of needs and gaps. This process has been already launched in the Czech Republic, supported by EC and several EU member countries.

Based on the first results of this assessment and the new legislation proposed, the capacity and effectiveness of enforcement institutions can be enhanced (in a present stage of our knowledge) by:

- changing the current state administrative system and the position of state employees working in enforcement institutions to strengthen their respect;
- establishing and introducing enforcement as a comprehensive approach used regularly as the systematic tool wherever and whenever the environmental requirements are to be met (programs of enforcement - system of targeting, priority setting, compliance promotion, inspections);

- applying the compliance promotion approach by enhancing and implementing new competences of enforcement institutions;
- changing the quantitative proportion between administrative and executive staff in environment enforcement, to strengthen enforcement capacities without essential enlargement of the state administration;
- changing the structure of enforcement organizations, to enable a more integrated approach in enforcement and to improve cooperation among different enforcement bodies;
- specifying clearly monitoring obligations (with respect to the duties of the state administration and the polluters) and setting efficient systems of reporting and data documentation;
- creating interdisciplinary (cross-sectoral) links between the enforcement bodies to avoid duplication of activities and to use existing expertise and experience more efficiently;
- strengthening considerably the system of training and education of enforcement officers;
- building new international links, especially with the neighboring countries to enhance effectiveness of environmental enforcement in transboundary issues;
- cooperating more closely with polluters, responsible owners of polluting facilities to increase the awareness of enforcement institutions on the internal problems of installations, which will support the voluntary approach in compliance;.
- enhancing involvement of the general public in the enforcement process and raising public awareness on environmental problems (including education aimed at the "right-to-know" in environmental matters).

4.3 Clarification of competences

Based on experience gained from daily practice, unclear and/or inappropriate setting of competence is one of the main obstacles to achieve effective cooperation necessary for efficient enforcement. To improve the current situation in the Czech Republic, it is necessary to:

- establish the regional level of the state administration with clearly defined responsibilities;
- clarify the relationship between the Czech Environmental Inspectorate and District Offices in environmental matters;
- review, assess and redistribute responsibilities and competences of state officials in enforcement authorities.

5 CONCLUSION

Evaluating more than eight years of experience in environmental protection under the conditions of continuing dernocratic changes and economic transition, it is obvious that actions taken in the Czech Republic were correct in principal. But the first steps of setting

democratic state administration in environmental protection, and a foundation of new systems of environmental legislation are not enough without the strong and effective enforcement. Just after the revolution changes, the generally declared demand for "better and healthy environment" followed by expressions of a "willingness to do something for that" was leading to some kind of underestimation of what it would require to achieve. Under the economic pressures which resulted from the complex and difficult reconstruction and privatization of the economy and which were followed by changing priorities of socially accepted values, failures and gaps in enforcement became visible. The EU accession process is now a great stimulus to strengthen the environmental enforcement starting from the phase of drafting legislation. This situation seems to be also a unique challenge for changing the traditional "command and control" approach to more a proactive one, opening the opportunity for promoting environmental compliance and for active involvement of the general public.

REFERENCES

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ENFORCEMENT OF ENVIRONMENTAL LAWS IN MONGOLIA

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SUMMARY

In Mongolia, there have been adopted more than 20 different laws on environmental protection, living in secure, healthy environment, guaranteeing life of future generations as follow-up to the (UNCE) United Nations Conference on Environment and Development of Rio's Conference.

Mongolia has signed and ratified globally important documents in the field of the environment including the "Convention on Biological Diversity" (1993), the "Convention to Combat Desertification" (1996), the "Vienna Convention for the Protection of the Ozone Layer" (1996), the "Montreal Protocol on the Substances that deplete the Ozone Layer" (1996), the "Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal" (1997), and the "Convention on Wetlands of International Importance especially as Waterfowl Habitat" (1998), and is preparing to ratify the "Convention on Migratory Species of Wild Animals".

At the same time, the Mongolian government has been intensively developing bi-lateral cooperation on environmental protection with the governments of the People's Republic of Kirgyzstan since 1993, with the Russian Federation since 1994, as well as, with many other countries. Currently, measures are being taken to improve the ideas of Mongolian Legislation and the conditions of international bilateral agreements.

1 STATE OF ENVIRONMENT IN MONGOLIA

Mongolia has a territory of 1. 564 118 square kilometers, a current estimated population of 2.49 million people and it is located in Central Asia. Mongolia is a landlocked country, which borders with Russia and China, and occupies an ecological transition zone where the Siberian taiga forest, Central Asian steppe, Altai Mountains and Gobi desert meet.

The Mongolian Environment has a large variety of features. The northern part of the country is covered by forest mountain ranges dominated by Siberian Larch Larix sibirica, Siberian Pine Pinus sibirica and Scotch Pine Pinus sylvestris. The southern part encompasses desert, desert-steppe and steppe areas with low mountains, rolling hills, hillocks with a sparse vegetation cover. The eastern part consists of an area of vast plains and wild heaths. About 81 per cent of Mongolian territory are situated higher than 1000 meters above sea level and the average elevation of the country is 1580 meters above sea level (the

lowest and highest points being at 532 meters and 4374 meters respectively). One third of Mongolian territory consists of desert and desert steppe zones. These examples show that the Mongolian landscape is one of great variety and contrast.

Mongolia can be divided into 6 natural belts and zones: Alpine, Mountain taiga, and Mountain Forest Steppe belts; the Arid Steppe, Desert-Steppe and Desert zones. These belts and zones differ from each other on the basis of their soil quality and plant and animal species, which in turn are adapted to different habitats and climatic conditions characteristic to each of these belts or zones.

Mongolia has a unique biodiversity of flora and fauna. Today many of these areas provide habitat for representative and often-rare examples of the wild plants and animals of central and northern Asia. Wildlife species that have largely disappeared from the rest of continent remain here, sometimes relatively abundant. 10% of the whole territory is forest.

According to studies Mongolia has 665 species of fauna and 5775 species of flora. Mongolian game hunting resources consist of 56 species of mammals, 132 species of birds and 35 species of fish.

Mongolia has many useful plants such as 845 species of medical use, 173 species for human nutrition, 64 species of industrial use, 849 species of ornamental plants, as well.

2 NATIONAL LEGISLATION ON BIODIVERSITY CONSERVATION

The 1991 Constitution establishes the right of Mongolian citizens to live in a safe and healthy environment and states that all land and natural resources of Mongolia are subject to state protection. The adoption of environmental laws in conformity with the constitution created a legal basis for the protection of species.

The basic guidelines for the protection of the environment and its natural resources are clearly formulated in such directives as the "Mongolian National Security Policy Orientation" of 1995, the "National Development Strategy" of 1996 and the "Ecological Policy Orientation of Mongolian State" of 1997. The ideas of these documents are expressed in detail in the corpus of environmental laws, the national program on the preservation of biodiversity, the program to combat desertification and the program on protected areas and forest conservation, restoration and proper use. The implementation of such programs is in progress. At the same time, environmental protection has become an important item in the "Action Plan of the Mongolian Government", and in the annual guidelines of country's socio-economic development. Accordingly, all the administrative units plan their work at the ground level, focusing on wider involvement from the population.

The regular Spring Session of the State Great Hural (Parliament) hears and discusses the Report on the Current Status of the Environment, which plays an important role in the protection of biodiversity in Mongolia. In our work, we are also paying attention to all possible alternatives to develop multilateral and bilateral relations in the field of biological resource conservation, exchange of experiences and acquisition of new knowledge and technical know-how. All these activities are intrinsically linked with activities carried out o implement the provisions of the Convention on Biodiversity, Ramsar Convention, World Heritage Convention and CITES and Mongolia's commitments to the world community.

In past years state and governmental organizations have concentrated their efforts on the establishment of a legal foundation consistent with the environment protection objectives of the country. For example, in 1995 and 1996, the "Law on Natural Plants", "Law on Plant Protection", "Law on Hunting", "Law on Fees for the Harvest of Forest Timber and Fuelwood", "Law on Natural Plant Use Fees", and "Law on Hunting Reserve Use Payments,

and on Hunting and Trapping Authorization Fees" have been passed and came into effect under the State Great Hural. In addition, over 30 Regulations and Resolutions have been endorsed to support those laws such as the "Rules for Forest Management", "Rules for Estimation of Damage caused by Forest and Steppe Fire", "Procedures for collection, stocking and selling Forest Seeds", "Rules of Forest Seed Laboratory", "Procedures for Afforestation, Planning and Funding of Forestry", "Instructions on Timber Felling", "Methodology to Define the Extent of Fire Damage", "Procedures to Transfer Planted Trees to the State Forest Fund and to Mobilize Manpower" and "Transportation to Combat Fire". Also, some 20 rules and instructions were formulated on the conservation of wild animals and plants.

The protection of natural resources and their proper use fall under the "Law on Environmental Protection", "Law on Water", "Law on Land", "Law on Protected Areas", "Law on Protection from Toxic Chemicals", "Law on Air", "Law on Ground Mineral Resources", which shall be perfected and improved in the years to come. New amendments have been made to the "Law on Protected Areas" and draft revisions have been prepared with regard to some other Laws. New Laws on fauna and pastures are currently under formulation. The new "Law on Assessment of Impacts on the Environment" enforced in 1998 and is making important contributions to the improvement of environmental conditions in this country.

According to Mongolian Laws, all biological resources must be re-examined and determined periodically. For instance, forest resources shall be surveyed every ten years; animal and plant resources shall be surveyed annually. As of today, resources of about 100 plant species that exist in this country have been identified and preparations to define the animal resources are now under way. Ecological and economic assessments of forests and some animals have been conducted. Based on Mongolian law, animal and plant species are classified as threatened, endangered and abundant. As a result, 18 animal species and 133 plant species are under protection and they can be used only for the purpose of scientific research. There are some 18 animal species and 234 plant species considered to be limited resources and measures shall be taken to restore their populations.

Before the harvesting or culling of any species, all individuals, economic entities or organizations should have carried out an environmental impact assessment and have plans to restore these species at their own expense; those restored species can be registered as the private property of the individuals, economic entities or organizations which have restored them. Also, they shall enjoy the right to domesticate wild species if they have the intention of breeding or growing them, and their activities will not have a negative impact on the environment. Any individuals, economic entities or organizations who trap animal species for the purpose of re-introduction, eliminating populations from disease core areas or for research, shall be exempted from fees. The government uses these fees for breeding of animals and growing plant species. According to law, 70 per cent of fees accumulated from the use of forests should be used for afforestation.

Those who violate Laws and Regulations can be heavily fined in accordance with the relevant provisions of the legislation. So, there is consistent effort in developing the economic mechanisms in Mongolian environmental protection.

In Mongolia there is an urgent need to make large scale investments with regard to the protection of biological resources from which we all gain the benefit of transferring the living legacy of nature to our children. Several institutions have been established, but more needs to be to done to:

- Organize activities on the enforcement of environmental legislation, stop violations of the legislation and compensate for damage resulting from violations.
- Coordinate work related to environmental impact assessments for new industrial and service projects.
- Monitor air, water and soil pollution and carry out activities to decrease pollution.
- Provide work instructions to and assess work of state senior environmental inspectors, state inspectors and rangers.
- Create positive working conditions for those who work in environment inspection.
- Assess environmental degradation and control activities on environmental restoration.
- Control implementation of environmental laws at the local level; stop violations of laws and provide local communities with information.

3 STRUCTURE OF ENVIRONMENTAL CONTROL

To achieve this, the institution of a State General Environmental Inspector has been established with the following structure:

- State General Environmental Inspector.
- State Senior Environmental Inspectors of Environmental Protection Agency – 8 persons.
- State Senior Environmental Inspectors of The Professional Inspection Agencies under aimag (administrative unit-province, there are 22 aimags in Mongolia) and city Governors – 22 persons.
- State Environmental Inspectors of The Professional Inspection Agencies under aimag. And city Governors – 48 persons.
- State Environmental Inspectors of Soums (administrative unit smaller, there are 400 soums in Mongolia) and Strictly Protected Areas – 374 persons
- Rangers –508 persons.
- Environment volunteer – 122 persons.

THE GENERAL ENVIRONMENTAL LAW OF THE REPUBLIC OF PANAMA

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SUMMARY

Law No. 1 of July 1, 1998 established the General Environmental Law for the Republic of Panama. It was published in the official Gazette No.23578 of July 3, 1998. This paper describes the content and development of this law.

1 INTRODUCTION

The General Environmental Law was designed as a modern judicial instrument that includes the principles approved in the XV Ordinary Meeting of the Central American countries, held in Guasimo, Limon, Republic of Costa Rica, August 20, 1994. In this meeting the Presidents of the Central American countries adopted an Alliance for Sustainable Development as an overall initiative of the political, social and ecological contexts, with the purpose of developing coherent and integrated actions, with the participation of the community, to accomplish the strategy approved by the leaders of the Central American Region.

2 BASIC PRINCIPLES

The ideological content of the General Law of the Environment of the Republic of Panama is in harmony with international covenants and the basic objectives of sustainable development. It clearly states the responsibilities of the private sector to adopt "clean technologies" based on the new world open market concept, the natural environment and the community in general.

This new law builds on universally accepted rules and environmental principles as a means to access international markets, attract foreign investment, foster scientific investigation, the joint implementation and economic instruments for development in the carbon sequestration market.

The Law includes in Title I, the objectives and basic definitions in the technical language included in the international covenants, and environmental laws in the Republic of Panama. Title III establishes the relationship with the National Environment Policy. Specifically, Article 3 states: "The National Environment Policy constitutes the group of measures, strategies and actions established by the State, which orients, conditions and determines the behavior of the private and public sector, of the economic agents and the public or population in general, in the conservation, use, management and harvesting of the natural resources and the environment."

The executive agency, with the advice of the National Council of the Environment approves, promotes and oversees national environmental policy, as part of the public policies for the economic and industrial development of the country.

The Third (III) Title created the National Environmental Authority, administrative structures and activities. This autonomous institution has among others, the obligation to develop and sustain actions necessary to obtain results based on the integrated triangle of sustainable development with its economic, social and environmental components. It is an authority created to assess environmental problems created by each phase of human activity advancing social and economic interests.

Law No. 41 is a judicial instrument that is easy to understand. It is non repressive and focuses on prevention as a principal goal as well as the integration of science and law.

The judicial regime provides an extensive period of eight (8) years to provide for integrated implementation. This relatively long period permits the formulation of specific plans that integrate environmental concerns within the operations of companies. They have the time to include development of environmental concepts and achievement of government standards in their operations. Based on the fact that these companies were not subjected to environmental impact assessment requirements stated in Law No. 30 of December 30, 1994, this law is incorporated in the General Environment Law. The General Environmental Law requires all companies within a period of three (3) years to undergo environmental audits that the National Environmental Authority previously proposed and approved.

3 NATIONAL ENVIRONMENT STRATEGY

The National Environmental Authority is in the process of formulating its National Environment Strategy. This strategy will harmonize various economic, social and environmental plans and policies. The experience gained through existing planning exercises will be fully used and incorporated into a country driven environmental strategy. Its goals will be to ensure socially responsible economic development while protecting the resource base and the environment for the benefit of future generations. This strategy is developed through the widest possible participation and based on thorough assessment of the current situation and initiatives.

4 ROLE OF THE NATIONAL ENVIRONMENTAL COUNCIL

The National Environmental Policy from the point of view of the Law No. 41 states that it will be oriented by a National Environmental Council. This Council is composed of three (3) State Ministries that have five (5) specific functions that are in harmony with the Constitution Ecological Regime (Title III) that pertains to the Fundamental Guarantees consecrated in the Political Constitution of 1972, that expresses the ideological parameters for the environment activities in Panamá.

5 INTERGOVERNMENT COLLABORATION FOR ENVIRONMENTAL IMPACT ASSESSMENT

This law not only contains scientific and technical issues, but also provides a process to improve decision-making processes so that consideration of socio-economic and environmental issues is fully integrated and a broader range of public participation assured. The strategy delegates planning and management to the local levels of public authority

consistent with effective actions. It also strengthens intersectoral committees at both the political and technical level, including active collaboration on linkages with scientific, cultural, religious, business, social and other institutions, using networking arrangements.

The National Environmental Authority creates a Consultive National Commission that presents proposals to the National Environmental Council and the General Administrator. Also the Law creates the Provincial, Municipal and Indian Reserves Consultive Commissions.

The integration and interinstitutional coordination for the analysis of environmental assessments is a clear mandate that will be used by the group of sectorial units on the topic of environment.

The interinstitutional integration and coordination arrangements to conduct analysis and environmental studies is a clear responsibility that will be developed through a scheme to unite sectorial with environmental competence.

The modern focus and theory that Citizens have the right to participate actively in the application of the environmental Law is provided in the law, and for this it uses the mechanism of diffuse rights: Diffuse rights are the rights disseminated in the collective (It corresponds to each of its members, it does not originate in legal titles, actions or other legal ordinance). It enables all citizens to plea judicial, civil, administration actions in favor of the natural media.

Title N°IV of the instruments of Environmental Actions, includes, among others, land use planning with the purpose of using the land based on its ecological values. The Law also states the obligation to develop Environmental Impact Assessments. Article 23 establishes: "any activity or project, that by their nature, characteristics, effects, location or resources could generate environmental risk, require an environmental impact assessment previously to the start or beginning of the activity or projects." This aspect is of great importance, it is the formula needed to avoid the environmental deterioration and obtain mitigation actions as required.

The environmental quality rules result from environmental procedures that state the limits of the human activity and the Law establishes fixed periods of time, eight (8) years from the publication of the Law, for the companies to adopt or introduce clean technologies that minimize contamination, so that economic efficiency is achieved to guarantee the quality of life in benefit to the cultural plurality and life in all its manifestations.

In the context of the natural resources, it integrates technically and functionally the experience of several years gained in the management and use of these resources, such as water, air, forest are of extraordinary importance in the development of the Law.

The concern for biodiversity and protected areas are integrated in the National System of Protected Areas, that include all the territory that have this category. The functions and responsibilities are 0given to the Ministry of Agriculture in conformity with the Law N°8 that created the Metropolitan Park, located in the city of Panama. The Law is a general scheme to orient and consolidate technical-judicial concerns but also offers emphasis on environmental education.

The Law establishes the principles of environmental responsibilities and objective bases for defining responsibility. The Law also limits administrative interventions. Violations are sanctioned with fines up to $10 million USD.

The General Environmental Law empowers the Public Ministry as the competent organization to conduct legal processes to prosecute the violations, destruction and contamination. A Public Attorney with clear responsibilities is the officer in charge of receiving pleas or complaints about environmental trangressions. The law also establishes two (2) Circuit Courts that will receive the complaints or pleas and hand down judicial judgments.

THEME #2

COMMUNICATIONS, PUBLIC ROLE, AND COMPLIANCE MONITORING

This theme covers two important and often interrelated aspects of environmental compliance and enforcement. To correct and prevent violations of environmental requirements one must be able to assess compliance status and detect violations in the first instance. To deter future violations, one must communicate effectively about requirements, why compliance with them is important, and what consequences will befall those who do not comply. Communications about compliance status to the public becomes a powerful means not only to foster compliance but also to support critical program functions such as compliance monitoring.

Theme #2 Workshops:

- 2 A *Communications and Enforcement*
- 2 B *Encouraging Public Role in Compliance Monitoring and Impact of Public Access to Environmental Information/Community Right to Know Laws on Compliance and Enforcement Programs*
- 2 C *Compliance Monitoring*
- 2 D *Multi-Media (Integrated) Inspections and Permitting*
- 2 E *Source Self-Compliance Monitoring Requirements*
- 2 F *Detecting Hidden Operations Outside of Legal Frameworks*

1. Summary of Theme #2 Panel Discussion: Communications, Public Role and Compliance Monitoring, *Moderator: A. Adegoroye; Rapporteur: M. Penders*

SUMMARY OF THEME #2 PANEL DISCUSSION: COMMUNICATIONS, PUBLIC ROLE AND COMPLIANCE MONITORING

Moderator: Adegoke Adegoroye
Rapporteur: Michael Penders

1 INTRODUCTION

This plenary session addressed three interrelated topics: the importance of communication and enforcement, the fundamental importance of the public role in all aspects of an environmental compliance and enforcement program and the central role of compliance monitoring in particular, the presentations demonstrated how all three areas can be creatively addressed to be reinforcing. The participants in the panel included government officials from Nigeria, Indonesia, Vietnam and the United States as well as a prominent NGO representative. U.S. EPA Assistant Administrator Steve Herman introduced the morning's plenary with observations about the need to accurately assess compliance status and then use that information to deter future violations.

From their various perspectives, all participants in the panel stressed the central value of the public right to know and the need to communicate effectively about violations and the results of cases. The fundamental importance of the public role in all aspects of an environmental compliance and enforcement program environmental information is a means of encouraging compliance, and more broadly, to protect the environment itself by assuring that citizens have adequate information about threats to the environment and public health so they may shape their nation's policies, practices, and influence corporate behavior accordingly. They reviewed recent international developments, including mandates for access to environmental information, and examined the benefits of implementing the right to information by law and in reporting methods which maximize the useful information for citizens and governments concerned with compliance and minimizing or preventing pollution generally. Panelists detailed practical measures, information management regimes, and new technologies which assist in public awareness and the strategic analysis of information relevant to detecting violations and promoting widespread compliance.

2 PRESENTATIONS

The first speaker, Mr. Margana Koesoemadinata of Indonesia, stressed the importance of compliance status as public information and the use of disclosure of information to encourage compliance. He noted that in areas that have weak laws, weak enforcement, and corruption; public disclosure may be the most effective way to promote compliance.

Mr. Koesoemadinata went on to describe the "Proper" program in Indonesia, a country with a population of about 200 million, whereby BAPEDAL (the environmental agency) has implemented a system for the rating of environmental performance of industries and for publicly announcing the ratings. BAPEDAL has developed public ratings and color coding, ranging from gold to black, to denote facilities which meet or exceed environmental standards, those which achieve minimum compliance and discharge standards, and those in the red and black categories which are out of compliance or make no efforts to comply. Since the implementation of this system, BAPEDAL reports that compliance rates have raised 51 per cent each year.

Indonesia recommends that such a system be considered around the world. They have found it to be an excellent example of how public information can be a powerful tool for environmental protection.

Ms. Svitlana Kravchenko, a professor and President of a public interest law firm, "Ecopravo-Lviv" with particular expertise in Ukraine and the newly independent states (NIS), discussed developments stemming form the Arhus Convention in June of 1998. While this convention, formally entitled "Convention on Access to Environmental Information, Public Participation in Environmental Decision-Making,, and Access to Justice in Environmental Matters", was certainly a positive development and a "victory in public interest law", Ms. Kravchenko made it clear that it was far more important how well this convention was implemented in practice in order to transfer these rights into realities.

Professor Kravchenko noted that after the collapse of the Soviet Union, Ukraine adopted laws, including a constitutional right to a safe environment, in order to overcome the legacy of Chernobyl. Because these are relatively new laws and "public rights", however, and enforcement and the economic as well as cultural climate are lacking, citizens do not assert their rights enough and officials are not receptive. Accordingly, the professor argued for more specific enforcement mechanisms.

She cited the case of a small town where 2000 children suffered from water contamination. Coal mining was responsible for the pollution of ground water and legal action was costly to pursue, and the citizens ultimately lost their courage and interest to follow through and did not believe in the independent court. Recently, however, there was another case where a Judge overruled a Minister's decision allowing a major project without an environmental impact statement. She cited this as an important precedent that citizens' rights are not just on paper.

Professor Kravchenko recommended specific actions, including the following: (1) the need for expertise to prove cases which depends upon resources; (2) make information more widely available; (3) develop environmental legislation with strong enforcement mechanisms and transparency; (4) promote citizens' suits; (5) promote environmental education, especially in the sphere of the rights of citizens; and (6) spread information about successful court cases and precedents.

Mr. Ngoc Sinh Nguyen, Director General of Vietnam's National Environmental Agency, reported on the first large-scale environmental inspection of enterprises in Vietnam, which took place in 1997. He described the steering committee and inspection teams assembled in each city and how they conducted 9,384 inspections. They found that about half of the facilities were in violation of the law; 4, 390 enterprises were fined and over one hundred were ordered to halt their activities. It was further noted that of the fined enterprises, 58% were private.

This first large scale inspection process raised awareness about the obligation of all individuals and organizations to protect the environment and fulfill the mandate of the Law on Environmental Protection. This mass inspection helped in making a national assessment of the current environmental compliance situation and has helped policy makers work out feasible and appropriate measures to increase the effectiveness of the environmental protection regime.

The inspections also facilitated close cooperation between different branches of government and the mass media. The investigation helped increase the role and awareness of the environmental inspectors in society. Tens of thousands of people were introduced to the law on Environmental Protection by working with the inspection teams.

The final panel presentation was by Ms.Elaine Stanley, Director of U.S. EPA's Office of Compliance, who discussed the experience of the United States in using compliance monitoring information generally and recent initiatives to enhance public access to environmental compliance data. One category of new approaches relies on increased public accountability through the dissemination of facility specific compliance data to inform the local community and to enable the facility to benchmark its own performance.

The Sector Facility Indexing Project (SFIP) is a leading example of such an approach. This project provides up-to-date environmental compliance information on a facility specific basis, accessible to the public via the Internet at www.epa.gov/oeca/sfi. It currently contains records for over 650 facilities in five industry sectors: petroleum refining; iron and steel production; primary metal refining and smelting; pulp manufacturing; and automobile assembly.

In the past, these records, although public, were very difficult for government users and the public to access because they were spread across many different data bases. Under this project, EPA has integrated this information so it can be reviewed in one place, and can be used to understand the various impacts of an entire facility. Ms. Stanley reported over 46,000 user sessions and 250,000 hits on the Internet in its first year of operation.

Other EPA initiatives provide more general environmental data to the public to help communities discover the existence of regulated entities in their neighborhood, and assist in compliance with environmental laws. For example, in 1998, EPA Administrator Carol Browner announced a new World Wide Web site established for the Center for Environmental Information and Statistics to provide a one-stop source of information about the environment. Among other information, users can access environmental profiles for each state, county, and territory in the United States to get information on air quality, drinking water and surface water quality, and the management of hazardous waste and toxic chemicals in a county.

In closing, Ms. Stanley noted that today's technological advances provide new opportunities for public access to facility compliance and performance data. She concluded that government agencies have the responsibility to determine the most effective way to provide public access, but also the responsibility to ensure equal access and accurate data.

3 CONCLUSION

Thus, today's information technology makes possible a whole new era for the public right to know. Environmental agencies can bring together more information and make it more accessible to a greater number of people than ever before. If laws and international agreements providing for such access are actually implemented and enforced, nations can expect that enhanced access to environmental information will lead to greater compliance with environmental laws and the prevention of pollution in the first place.

WORKSHOP 2A
COMMUNICATIONS AND ENFORCEMENT

Participants in this workshop engaged in a role-play "game" which was first introduced at the Fourth International Conference during which participants will work in small groups in roles to develop a "communications strategy" for a particular compliance and enforcement problem within realistic resource constraints. Subsequent discussions benefited from a capacity building support document on "Communications for Enforcement" prepared for the Fourth International Conference and papers on this subject in Conference proceedings.

Papers 1 - 2 for Workshop 2A and a list of related papers from other International Workshop and Conference Proceedings are in Volume 1

See also Workshop 2B: Encouraging Public Role in Compliance Monitoring and Impact of Public Access to Environmental Information/Community Right to Know Laws on Compliance and Enforcement Programs.

SUMMARY OF WORKSHOP: COMMUNICATIONS AND ENFORCEMENT

Facilitators: Workshop 2A: Chris Currie, Rob Bakx
Workshop 2AA: Connie Musgrove, Jaap van Dijk
Rapporteurs: Workshop 2A: Betske Goinga
Workshop 2AA: Joost Buntsma

GOALS

The papers and the discussions were designed to cover the following issues:

- The role of communications as a compliance tool, as an enforcement sanction and as a means of enhancing program effectiveness.
- Ways to identify and to understand the different needs of a target group for communications about enforcement, including the regulated community, enforcers, licensees or permittee, the general public, politicians.
- Legal problems in using information about non-compliers in communications.
- Ways to develop a strategic approach for communications and enforcement for a group of significant non-compliers; how communication is made part of the total enforcement process.
- Attracting press interest in "positive" enforcement stories and communication results.
- Special activities enforcers can undertake to ensure effective communications: such as press release policies and requirements, contributions to newsletters or trade press, broadcast, other.

1 INTRODUCTION

Enforcement and communications are both instruments in the environmental policy of the national as well as the local/regional government. Enforcement is one of the most powerful instruments to influence behavior of individuals and consequently, of companies. Communication is every information flow and information exchange between organizations or persons with the objectives to promote:

- environmentally friendly behavior; and
- compliance by the regulated community.

One of the main problems for environmental enforcement is the imbalance between the huge amount of companies under regulation and *limited enforcement capacity.* Therefore a more sophisticated approach to enforcement is needed. Through *communications* the effectiveness of enforcement can be improved.

Communications makes environmental enforcement more effective by influencing the perception by the regulated community of the enforcement action, in other words, the effectiveness of enforcement depends on the perceived 'chance to get caught'.

Like enforcement, communication is an instrument of environmental policy. It is necessary to integrate these two instruments. This leads to two basic rules:

- Rule 1. No Enforcement without Communication.
- Rule 2. No Communication without Enforcement.

Integration of enforcement and communications demands a strategic approach, based on a thorough analysis of the present situation and the environmental problem at hand, the target groups and the means of enforcement, which are available.

The following objectives of communications can be distinguished:

- Attention and agenda-setting.
- Knowledge and understanding.
- Social basis and public awareness.
- Change of behavior.
- Cooperation.

2 PAPERS

The Conference sponsors prepared a Capacity Building Support Document on Communications Strategies for Enforcement Programs. This document builds up to a strategic approach for communication and enforcement, supported by a number of checklists. The Conference Proceedings (Volume 1) contained a paper by Els Rauwerda on developments in communications with regards to enforcement of the Netherlands' environmental legislation.

3 DISCUSSION SUMMARY

3.1 Definition of Communication

The following definition of 'communication' was used: "Communication is every information flow and information exchange between organizations and /or persons, with a certain objective", e.g. environmentally friendly behavior, or compliance by the regulated community.

3.2 Experiences

Communication is necessary not only during enforcement but also during the licensing procedure from authorities to industries. It was felt that communication is the most fundamental aspect of enforcement and that it can have the following functions:

- education
- deterrence

- punishment

Communication contains information. This information must be correct and understandable. For communication to be effective, it has to be a two-way system: from the authorities to the public or industries (depending on the target group) and the other way around. Therefore communication, when properly used, should generate feedback from the target of the communication. It gives a view of the effects of enforcement communication. It should however not be forgotten that internal communication within the authorities is also very important.

Information that is communicated should be correct, understandable and clear. Besides communications as a tool for authorities when applying enforcement, there is a need for clarification on the importance of communication between different levels of government and the way lawyers and the judiciary can use communication skills.

The role of the press is very important. But they should be encouraged to give good news and not only news on environmental disasters. It was determined that this can be accomplished by building a professional relationship between the enforcers and the journalists of environmental specials in newspapers, magazines, radio and TV. It was noted that especially local newspapers are keen on environmental news. Religious leaders can also play an important role to get public environmental awareness.

3.3 Role-play: Water Pollution Case

In a role-play the enforcement authorities had to decide how to support their enforcement actions by means of communication within a limited budget. A great number of oil companies which were violating environmental regulations had to be brought back into compliance. Three target groups had to be influenced: the industry-managers, the industry-workers and the general public. Three governmental taskforces were formed to choose which communication activities could be used towards these three different target groups. Possible activities were radio, TV, newspaper (regional and national), billboards, letter, visit or personal talk, meeting or congress, brochures and video. The taskforce had to put their selected actions, which had a specific price attached to them, on a schedule and within budget. The aim of this exercise was to demonstrate that different forms of communication would be used towards different target groups, even although the violations by the polluter were the same. The outcome of the role-play showed a distinct difference in approach for the three target groups: in the first two targets the actions started off with some form of personal communication, while the focus for the third target group in the first instance was publicity. Also later in time there were differences in proposed actions.

4 CONCLUSION

Enforcement and communications are both instruments in the environmental policy of the national as well as the local/regional government. Enforcement is one of the most powerful instruments to influence behavior of individuals and consequently, of companies. Communication is every information flow and information exchange between organizations or persons with objectives:

- environmentally friendly behavior; and
- compliance by the regulated community.

One of the main problems for environmental enforcement is the imbalance between the huge amount of companies under regulation and *limited enforcement capacity*. Therefore a more sophisticated approach to enforcement is needed. Through *communications* the effectiveness of enforcement can be improved. The workshop materials were very useful in sensitizing participants to the need to distinguish the objectives of communications and to choose the right kind of communication activities based on both the situation and the target group involved.

WORKSHOP 2B
ENCOURAGING PUBLIC ROLE IN COMPLIANCE MONITORING AND IMPACT OF PUBLIC ACCESS TO ENVIRONMENTAL INFORMATION/ COMMUNITY RIGHT TO KNOW LAWS ON COMPLIANCE AND ENFORCEMENT PROGRAMS

Discussions built on papers published in the Proceedings of the Second, Third, and Fourth International Conferences. In addition, discussions benefited from a new capacity building support document on the general subject of citizen enforcement commissioned for the Fifth International Conference to tie together past writings on the subject.

Papers 1 - 7 for Workshop 2B and a list of related papers from other International Workshop and Conference Proceedings are in Volume 1

See also Workshop 3C: Citizen Enforcement

SUMMARY OF WORKSHOP: ENCOURAGING PUBLIC ROLE

Facilitators:	Workshop 2B:	Elaine Stanley, Alex Steinmetz
	Workshop 2BB:	Lee Paddock, Paul van Erkelens
	Workshop 2BBB:	Antonio Oposa Jr., John Bonine
Rapporteurs:	Workshop 2B:	Michael Alushin
	Workshop 2BB:	David Mowday
	Workshop 2BBB:	John Rothman

GOALS

Discussions were designed to address the following issues:

- The role of citizens and citizen organizations in compliance monitoring.
- The impact of their activities in enforcement presence and supporting follow up.
- What support citizens need from government.
- Program implications of public access to information on compliance and environmental monitoring.
- Impact on program effectiveness.
- Roles the public and citizen groups may play.
- How to foster the public role.
- How dependent is an effective public role on disclosure of compliance information.

1 INTRODUCTION

Citizens and nongovernmental organizations are playing an increasingly important role in assuring compliance with environmental requirements. Effective governmental programs often include strategic partnerships among environmental NGOs, community groups, unions, business trade organizations and others. All parties in these arrangements should be aware of the opportunities and risks involved.

2 PAPERS

Papers related to this workshop include:

- Citizen's Environmental Enforcement in Ukraine, *Kravchenko, Svitlana*
- UN ECE Convention to Access to Information, Public Participation in Decision-Making and Access to Justice in Environmental Matters: Towards More Effective Public Involvement in Monitoring Compliance and Enforcement in Europe, *Jendroska, Jerzy*
- Good Governance and Community Participation as Tools to Make Environmental Enforcement and Compliance Happen, *Karanja, Mary*

- Experience of Malawi: Public Role in Enforcement, *Makawa, Ernest*
- Public Access to Compliance Monitoring and Enforcement Data: A Look at the Sector Facility Indexing Project and Other Agency Initiatives, *Stanley, Elaine and Teplitzky, Andrew*
- Public Influence on the Supervision and Enforcement of Environmental Law in the Netherlands, *van Dijk, Jaap*
- Public Access to Environmental Information - Legal and Practical Problems: A Case Study of Tanzania, *Ringia, Deogratias William*

3 DISCUSSION SUMMARY: WORKSHOP 2B

3.1 The Economic and Social Impact of Citizens and NGOs

Participants agreed that the impact of citizens and NGOs occurs best when they develop the "critical mass" to become a political force. Direct economic impact could occur, for example, through a consumer boycott of products from a polluting company. It could also occur through a political movement to reduce subsidies to polluting industries or to impose taxes on pollution. The most important social force they can produce is strong general support for environmental programs. Even when they have limited resources, communities which are directly affected by pollution can and do act to attack the problem. Both economic and social pressure can result from legal action by citizens against polluters or government agencies that fail to effectively enforce environmental laws. In some countries, however, the economic situation is such that both the industry and the local citizens prefer jobs rather than environmental protection.

3.2 Roles the Public and Citizen Groups May Play

Early involvement can include participating in the development of standards. Citizens may also be involved in the development of permit terms and conditions for particular facilities. Later in the process citizens can stimulate government enforcement action (ranging from inspection to formal enforcement proceedings) by reporting problems and demanding government action. Citizens can participate in government-industry negotiations to settle formal enforcement proceedings. If applicable laws provide for it, in some countries citizens may directly enforce requirements by starting an administrative or court proceeding, presenting evidence of violations, and requesting a order requiring the company to comply.

3.3 Barriers to Effective Involvement

The group agreed that there is only a limited amount of time and energy citizens can spend. The more complicated requirements are, the more difficult it is for citizens to participate in their enforcement. Even when citizens have a formal opportunity to participate, limited hearings with predetermined outcomes can prevent citizens from having input and discourage future participation.

Next came the question of how can NGO's summon the resources to fulfill this role. One NGO began by describing how they were dependent on grants from foreign sources such at the American Bar Association or the US AID. One European country described how the NGO's were able to receive public funding to carry out their activities. An Asian country stated that in developing nations it was difficult to operate without government funding and to be totally depending on citizens for their income. However, on the other side, several participants were extremely skeptical of government funding in that it might constitute a conflict of interest when contesting government actions. Another participant said that if you have government funding and do not "tow the government's line" you would be in danger of losing your funding.

Another debate revolved around the use of the term "NGO" itself. Several participants felt the term was negative and denigrating to the organizations. They felt that another term was need, such as "community based organizations" or "citizen environmentalists."

Finally, the observation was made that if NGO's were so important to assuring public access to and involvement in enforcement and compliance and the accountability of government organizations, then this conference should have even greater NGO participation that it now did, perhaps even as a co-chair of the conference as evidence of the commitment to the NGO's key role in environmental compliance and enforcement.

5 DISCUSSION SUMMARY: WORKSHOP 2BBB

5.1 Promote and critically examine the AARHUS Convention

The group agreed unanimously that the "three pillars" provided by the AARHUS Convention (and the Rio convention) i.e., public participation in decision-making, public access to information, and public access to justice, are necessary minimum requirements for successful citizen involvement. However, there was animated discussion about how these abstract principles are applied in specific countries. For instance, several developing countries reported that they had incorporated the "three pillars" into their laws but that in practice they were not being applied. There was a general recognition that application of the principles is a problem in every country.

The group "brainstormed" ways to involve the public. Ways to involve the public included: creation of legal rights to public participation; provision of scientific advice; NGO networking; use of radio and television; green marches; use of handbooks and "comic" books, provision of information in marketplaces (e.g. to involve nomadic publics); plays and puppet shows; support of religious leaders; support of academics; and local public hearings.

The group discussed the roles that NGOs play in setting program and enforcement policy. All countries reported some role for NGOs in setting policy. Some found NGOs to be a "loyal opposition." However, others believed that NGOs distorted priorities. Several Western European representatives believed that in Western Europe government and NGOs tend to share priorities and, therefore, they find less conflict between government and NGOs than in other countries, e.g. the U.S. Many representatives were skeptical about that conclusion.

- How does public participation address transboundary problems?

3.7 Conclusion

Citizens and organizations are playing an increasingly strong role. Smart government administrators are seeking strategic partnerships with environmental organizations, community groups, unions and business trade organizations.

As a political force, citizen interest can provide important support for environmental programs. Grass roots, local level is a good place to start. Even when citizens have few resources, they can be mobilized by an environmental problem that directly affects them.

Citizens can:

- Push government to inspect and enforce.
- Participate in government - industry negotiations.
- Directly enforce requirements if legal framework allows.

Some Barriers to effective participation include:

- Bureaucratic resistance and public discouragement. Overcoming these may require cultural change.
- "Confidentiality" of information.
- Overly complicated environmental standards.

Support is needed within each country for public participation including:

- Legal authority in environmental laws include provision for real participation.
- Public access to environmental discharge and monitoring information.
- Training.
- Technical and legal assistance.
- Funding (but there is risk of NGO being influenced by funding source).

International Support is also needed:

- Funding.
- World Bank is sponsoring programs to encourage governments to work with NGOs.

4 DISCUSSION SUMMARY: WORKSHOP 2BB

After a review of the participants expectations, discussion centered on three issues:

- Mechanisms to raise public involvement
- The Aarhus Convention, especially access to justice
- Role of the NGO's, including public versus private financing

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5.2 The group identified a series of obstacles to public participation

5.2.1 Access to Information from Government and Other Sources

Country representatives reported vastly different universes of government information that is available to the publics. There was a general recognition that both formal and informal systems for dissemination of information were desirable. There was consensus that for formal systems to work there must be clear rights for public access to information.

5.2.2 Insufficient Culture of Public Participation

Some countries (e.g. Guatemala, Kenya, Columbia, Mongolia and Peru) reported an insufficient culture of public participation. Lack of education and literacy were cited as aggravating factors.

5.2.3 Financial obstacles

Effective public participation is often expensive to publics, however defined.

5.3 The Need to be Tolerant of Discord

There was a general recognition that encouraging public roles will inevitably cause discord. In order to effectively bring the public into our debates and decision-making, all of us, government, NGOs and other public representatives will need to develop a tolerance for discord.

5.4 Examine legitimacy of stakeholder process

The group was unanimous that the term "non-governmental organization" was overly broad in that it could be understood to include groups protective of the environment as well as trade organizations devoted to growth of business even at the expense of the environment and could be understood to include non-profit as well as for profit organizations. Similarly, there is an uneasy relationship between the NGOs, even the obviously pro-environmental groups, and the "public." Who represents the public? How representative are the NGOs. Is there a difference between grassroots and mainstream environmental groups? Who decides who represents the public? Does the government decide? Should NGOs decide?

SOUTH AFRICA: CASE STUDY ON CITIZEN PARTICIPATION IN SETTING AND MONITORING ENVIRONMENTAL STANDARDS. (CAPRICORN PARK/A SCIENCE PARK IN CAPETOWN)

ANDREWS, ANGELA

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SUMMARY

A science park, spanning 200 hectares and intending to be a densely developed light industrial site presented a threat of pollution, chemical accidents and ground water contamination to communities living nearby. Environmental controls which would minimize adverse impacts were needed in the context of lax standards and poor enforcement by a generally under resourced state. Opposition by citizen groups evolved into a collaboration with the local authority to develop a preventative system of environmental management for the Park. The system included the setting of performance standards for industries, the evaluation of prospective investors and the setting of conditions and monitoring of compliance therewith by industries occupying the Park.

1 INTRODUCTION

During 1997 a large development was planned for Cape Town called Capricorn Park, which would involve the creation of a science park spreading out over 200 hectares of land. The park was planned to be the size of the central business district of Cape Town and its developers estimated that it would create approximately 40,000 jobs. It was advertised as a project which would provide much needed skills training to the citizens of Cape Town in the fields of science and technology, in a campus like setting.

Communities and environmental groups were concerned at the proximity of what was in fact to be a densely developed light industrial site close to the coast and adjacent communities. The developers claimed that they were not in a position to fully disclose what types of industries would occupy the site, and instead gave a very broad list of possible future occupiers. The list included the electronics industry, which raised a number of concerns. The first was the history of underground contamination in the past at sites such as Silicon Valley where electronics plants had apparently stored chemicals in leaking underground tanks. The second was the fact that the Capricorn Park site was located on a shallow aquifer, the contamination of which would adversely affect the nearby coastline which is a large bathing amenity adjacent to low income communities. The third was the possibility of accidents or spills involving toxic chemicals which could endanger the lives of adjacent residents who live very close to he site.

2 ENVIRONMENTAL IMPACT ASSESSMENT

The local Council had sold the land to the park developer subject to a three tiered agreement, which made provision for a broad brush' environmental impact assessment of the whole site followed by more detailed environmental impact assessments as the site was

developed and a final site specific environmental impact assessment for each industry before it received its service connections. At the time the only statutory provision relating to environmental impact assessments was contained in a policy provision promulgated under the Environment Conservation Act, no 73 of 1989 which required a "planned analysis, involving public participation" before commencement of any large scale land developments. This provision was strengthened somewhat by the Constitution which requires administrative action to be procedurally fair, and which has an environmental protection provision. This provision states that every person has the right to an environment which is not harmful to their health and well-being, and requires that reasonable steps be taken in order to conserve and sustain the environment and protect it from pollution.

3 FAILURE TO DISCLOSE SUFFICIENT IMPACTS

After the broad brush' environmental impact assessment was completed the developer made application to the local authority for subdivision of the land in order to begin developing. The local authority was required to zone the land as a result of this application with conditions as it saw necessary in order to protect, among other things, the environment. It was argued by the environmental group, the Wildlife and Environment Society, that there was insufficient disclosure of information in this environmental impact assessment to enable the local authority to exercise its decision making power in terms of the Constitution and to take reasonable steps to discharge its duty to protect the environment. The developer stated that in view of the fact that it had not secured contracts with occupants of the site it could not accurately speculate about future industries and their impacts. It also did not choose to disclose detailed information about impacts regarding those industries from whom it had secured undertakings. The broad brush environmental impact assessment therefore dealt mainly with issues of storm water, surface landscaping and aesthetic features of the development. It did not look in sufficient detail, or in a meaningful way, at possible air and ground water pollution, traffic impacts and risks of accidental chemical releases and spills, noise and water consumption, issues which were of importance to surrounding communities.

4 CHALLENGE TO SUBDIVISION APPLICATION

Once the subdivision was granted, an objection was lodged by Wildlife and Environment Society in terms of the applicable provincial Land Use Planning Ordinance which governs town planning. This law requires the provincial Premier to approve or deny the subdivision, or make changes to it as he/she sees fit, if an objection is made. The objection was made on the basis that there had been insufficient disclosure of information for a proper impact assessment to take place, in particular into the cumulative impacts of the development. Without such impact analysis the local authority it was argued was not in a position to act reasonably in order to protect the environment as required by the environmental clause and the just administration clause of the Constitution. This encompassed in particular the requirement of running a planned analysis with full public participation. This it was argued could not be fulfilled in the absence of adequate information. Before reasonable steps could be taken by the Council in its environmental governance an adequate analysis of impacts and mitigatory measures would be required which would guide it, and which likewise was not possible without comprehensive disclosure. This challenge considerably delayed the development during which time the Wildlife and Environment Society began considering what course of action should be adopted in order to best protect

the diverse interests which would be affected by the development. The objective of the Society was not to halt the development which was seen as an important source of future employment and an economic growth point for the region. During this period the Society disseminated information and gave a voice to the many other residents and environmental groups which were concerned with the development (hereafter referred to as "environmental groups").

5 INTEGRATED ENVIRONMENTAL MANAGEMENT

South African regulatory standards relating to the environment are laxer and less clear than those which apply in Europe and North America. Furthermore industrial activities are not regulated in a uniform manner. In some areas there is very little formal regulation, such as in the area of environmental air quality standards. Although there are regulations as to what may be emitted into the workplace, the question of what emissions may be vented into the environment generally, through smokestacks or otherwise is far more poorly controlled. Local authorities control smoke emissions. Industrial emissions are very much the subject of the regulators discretion. Permits are issued requiring compliance with standards set on an ad hoc basis by a national pollution control officer who has an almost total discretion as to what may be emitted.

A development of the type planned for Capricorn Park would be covered by many areas of regulation, some of which are more effective than others, for example, waste disposal, ground water quality management, coastal zone management, air pollution, hazardous installations, noise pollution, municipal services, such as sewers and storm water drainage, workplace heath and safety, building regulations and town planning regulations, to name but a few. In most respects once a right to conduct industrial activity is granted, the protection of the environment in such a development is governed through criminal prosecution of offenders who are proven to have violated an environmental standard. The standard of proof in such cases is guilt beyond reasonable doubt. Fines for contraventions are very low and have not been shown to act as a deterrent. Regulatory resources for inspection and prosecution are very scarce and in a country facing a high prevalence of violent crime, prosecution for environmental crimes is seen by many as a low priority. Large scale developments therefore present a very real threat of causing serious environmental damage.

In this context environmental groups were of the view that it would be more practical and protective of the environment and surrounding communities to develop an environmental management strategy for the park which would prevent environmental damage, rather than prosecute polluters. During the period of delay caused by the Premier having to consider their objection to the development, they proposed a proactive strategy of environmental enforcement for the Park, should it proceed to be authorized.

6 PROACTIVE ENVIRONMENTAL MANAGEMENT

A proactive environmental management strategy, based of course on adequate disclosure of information, with the following features was put forward by the environmental groups:

- Oversight body: A representative body, incorporating the developer, local authorities and environmental groups' representative was proposed to in order to develop and audit the management strategy.

- Policy review of developers proposals: Review of industry profiles and development of a system of information disclosure for future activities of occupants of the Park, including initial disclosure on intended industrial activity, monitoring of activities once in operation and auditing of compliance with the environmental management system.
- Setting of detailed standards and procedures: After the review, standards and procedures would be developed which would include controls on waste (minimization, recycling and handling), water and energy consumption, air emissions, management of hazardous substances and emergency responses.

7 APPROVAL OF THE SUBDIVISION

During the course of the above negotiations subdivision approval was granted to the developer but subject to certain conditions. These included the requirement that an integrated environmental management system be developed for the Park and that an Environmental Advisory Board be constituted, including a representatives from civil society, the developer, and various government departments, to oversee the implementation of the management system. In particular the Board was required to assess industries wanting to occupy the park, and to advise the local authority on conditions it should impose on activities of such applicants. These conditions would then become land use conditions which could be withdrawn if there was non- compliance therewith. It seemed that the Premier had been informed of the proposals emanating from civil society and had given tacit approval to these in these conditions. The problem of trying to create an environmental management system where no regulatory framework existed for one was hopefully overcome through the use of land use rights referred to above.

8 DEVELOPMENT OF AN ENVIRONMENTAL MANAGEMENT STRATEGY

The Council then proceeded to develop an Environmental Management Strategy in based on the processes and features set out hereunder. The process was developed by consultants employed by the Council. The first three components, namely the development of a background information package, the investors application procedure and the development of significant issues' to which quantifiable performance criteria could be attached were developed by the consultant initially employed by the environmental groups. This arrangement arose as a result of negotiation with the Council in order to give more legitimacy to the process.

8.1 Background Information for Environmental Management

The environmental management approach for the park was based on two legs, first detailed assessments of applications of investors with regard to environmental performance, and second the development of an environmental management system for the park. In some instances occupants would be required to develop in addition their own environmenta management system.

The environmental management system structure consisted basically of a policy plus an implementation, auditing and review plan. Investors were advised that a management system along the following lines was being finalized which was based on a number of internationally recognized environmental management principles and would include the following items:

- history, description and aims of the development;
- roles of the local authority, developer, property owners association during the different phases of the development;
- legal requirements, set by South African law as well as the local authority and who would be responsible for checking on compliance therewith;
- discussion of other requirements to which the project was committed, such as "the polluter pays" principle;
- the environmental policy of the Park;
- the environmental management program - objectives, targets, responsibilities and timelines;
- operating procedures for the park; and
- the fact that applicants would be individually evaluated for potentail of adverse impact on the environment and in certain instances would be required by the local authority to develop and implement in addition their own environmental management system.

Investors were also informed of:

- applicable principles relating to environmental management systems generally, for example, Receiving Environment Standards and the principle of Integrated Pollution Control;
- environmental auditing systems including:
  - auditing of the environmental management system's of the individual occupants as permitted by the local authority; and
  - process consumption and waste audits in which water and energy usage and the compositions and quantities of outputs streams are examined and compared to the companies performance criteria (i.e. permitted performance conditions).
- design and operational limitations of the Park; (These included for example rules regarding the design of chemical storage tanks; transfer, handling and storage of materials on site; noise abatement; disposal of waste products; equipment maintenance and other issues);
- further restrictions on use based on zoning which could be applied after the assessment procedure for occupants had been completed; and
- applicable legislation and principles applying to the Park. (This included reference to the law relating to hazardous substances, health and safety in the workplace, and emergency procedures and operational hazards both applicable under South African law and in some instances developed beyond

this for the purposes of the Park Environmental management system, for example, the Environmental Protection Agency list of priority pollutants' list of hazardous substances).

8.2 The Investors Application Procedure

One of the most important tools of management employed in the Park is prevention of environmental harm, rather than punishment after the fact, of environmental transgressors. Investors will therefore be required to disclose information about their planned activities to the Environmental Advisory Board which then assesses the sensitivity of the proposed operations with regard to the environment, in order to make it possible to evaluate whether the applicant is suitable for investment at the Park. The assessment results in a recommendation to the Council which will approve or disapprove the activity, or place conditions thereon.

Once the required information is submitted, the applicant is rated green' for general approval, orange' for cases which will be examined and possibly further information requested, and red' for cases which are refused. Orange cases are for example those applicants who burn oil or coal, who have inadequate measures planned for dealing with a number of environmentally hazardous activities, such as the handling and storage of hazardous substances, or accidents and spills. Red cases are those which use pathogenic organisms or which use or produce asbestos, PCB's and dioxins. The initial ratings are evaluated by the environmental control officer, an employee of the local authority, who then passes them on for further investigation by the Environmental advisory board, who can also hear representations from the applicants. The executive committee of the local authority is the final decision making body. Informative documentation is supplied to potential investors in order to assist them in the application process. The Environmental Control officer liases with potential investors during the procedure in order to assist them in finding ways to conform with environmental norms and standards of the Park so that they can be admitted. Applicants may also still have to apply to other government departments for permits where applicable.

The application questionnaire covers a number of topics, including the following:

- nature and size of undertaking and whether technology used is the best available;
- choice of location and identification of possibly dangerous activities;
- disclosure of information regarding other existing activities elsewhere;
- noise levels likely to be emitted by the plant;
- projected water consumption, and wastewater disposal;
- energy consumption; and use of energy efficient machinery;
- identification of risky organisms used in biological or medical industries;
- practices for transporting, handling and storage of hazardous materials;
- site inputs and outputs, and waste products and reduction programs;
- details of hazardous components of inputs, products and wastes;
- details of storage facilities for hazardous process inputs; and
- provisions which have been made for spills and accidents.

In many of the activities where potential exists for detrimental effect on the environment, the applicant is rated orange' until satisfactory arrangements can be made to minimize the risk, for example proper arrangements made for the removal of waste, where no such arrangements were originally contemplated by the applicant.

Six significant issues to which quantifiable "Performance Criteria" can be attached.

The next step in developing the Environmental management system was the drawing up of a list of potentially significant issues to which quantifiable "Performance Criteria" (i.e. environmental performance conditions) could be attached for occupants of the Park. Monitoring mechanisms were developed to check for compliance with these standards. After completing the information disclosure questionnaire, applicants would have to satisfy these standards before being permitted to commence operations in the Park.

Examples of the application of some of these criteria is contained below:

- Emissions to stormwater: Stormwater from the Park is discharged into a lake in the centre of the Park. In order to prevent contamination of the lake, discharges of substances into the stormwater system which might have this effect are not permitted. Performance criteria include a ban on discharges into the stormwater, a routine for the environmental site officer for checking accidental and intentional discharges and control parameters (i.e. standards) for monitoring quality of stormwater (e.g. permissible pH, conductivity, coliform and dissolved oxygen levels; maximum allowed concentrations of heavy metals and numerous other compounds).
- Quality of water inflow into lake: In cases of spillages, washwater and stormwater in materials handling, transfer and storage areas, water has to be drained away from storm water systems to a special sump, to prevent contamination of the lake. This requires preventative design in the handling, transfer and storage areas, including concrete floors in and bunding around these areas. Silt and litter traps are required at entry points of stormwater to the lake. Design of the above features and monitoring of maintenance thereof is conducted by the environmental site officer.
- Emissions to sewers: Permission is required from Local Authorities for industrial discharges into sewers. Investors who have had conditions set for discharges to sewers are responsible for appropriate monitoring thereof. Permissible pH and conductivity of sewerage discharges are set at specified levels. There is a program for monitoring of pH and conductivity of sewerage by the environmental site officer at various sites at increasing levels of frequency leading finally (as is recommended) to continuous monitoring after the site has been 75% developed.
- Solid waste and disposal practices of individual owners: Hazardous waste in particular is identified. All hazardous waste has to be treated on site or removed by the producer or an independent removal contractor. Containers for waste have to be approved by the local authority Medical Health Officer, and waste containers continuously covered, save where solid waste is being removed or deposited in them. All hazardous waste producers must keep a record of hazardous waste produced and the fate thereof. Operators must set annual targets for the reduction of hazardous waste produced for a given level of activity. Audits of the above are carried out by the environmental site officer. There is a separate set of controls on storage and handling as well as audits for substances which are defined as hazardous chemicals.

- Ambient groundwater: This is monitored by checking 6 -7 boreholes after baseline levels have been established. This enables the park to be alerted to any significant incidents of groundwater contamination. The baseline value for each borehole environmental control officermes the performance criterion.

7 THE ENVIRONMENTAL MANAGEMENT SYSTEM

The local authority is initially developing the Environmental management system through negotiation with the developer who is the precursor to the Property Owners Association of the Park. As set out above expectations regarding environmental performance of members of the association are in the form of the "performance criteria" which are negotiated between these parties, prior to development .

The Environmental Advisory Board has been set up. This body evaluates applicants to the Park and recommends conditions which may be imposed by the local authority on activities. It also reviews the audits of environmental performance of the Park and can make recommendations to the local authority regarding modifications of the environmental management system. It is made up of representatives of the State and the civil society hence it cannot take decisions on behalf of the local authority. In practice however the local authority would probably follow its recommendations.

The Property Owners Association in practice has control over the common or shared areas of the park, and also monitors environmental compliance with the Environmental management system by its members. Day to day management of the Environmental management system is the task of an employee of the Property Owners Association known as the Environmental Site Officer. Implementation measures include general awareness training of employees as well as competency training of employees whose duties could have a significant impact on the environment. Other tasks of the Environmental Site Officer are sampling and monitoring of emissions and activities, investigation and follow-up of incidents and nonconformity, and doing audits where prescribed by the environmental management system.

The Environmental Control Officer is an employee of the local authority who is responsible for the day-to-day representation of the local authority's interests in the environmental management of the Park. The Environmental Control Officer is involved in the pre-screening of applicants to the Park, and also conducts ad hoc performance checks on activities in the Park. Thus the bulk of auditing of compliance with the environmental management system falls on the Property owners themselves, subject to checks by the local authority Environmental control officer and review of the Park's environmental performance through audits, conducted by the Environmental advisory board.

The final features of the Environmental management system are at this stage being negotiated. The Environmental Advisory Board has been established and the first investors have been evaluated and approved for the Park.

8 CONCLUSION

In the absence of strong environmental laws and performance criteria communities can develop institutional mechanisms using Environmental Impact Assessment Environmental Management Systems and schemes for compliance monitoring of terms and conditions to more effectively control pollutions and detrimental impacts on human and natural environments.

WORKSHOP 2C
COMPLIANCE MONITORING

Workshop discussions built on the description of compliance monitoring techniques and programmatic approaches in the "Principles of Environmental Compliance and Enforcement" text and the UNEP training manual on industrial compliance. Discussions also utilized papers published in the Conference Proceedings and several related capacity building documents prepared for the Fourth International Conference including: Self-Compliance Monitoring Requirements, and one on Multi-Media Inspection Protocols, as well as a new document commissioned for the Fifth International Conference on Inspector Training course Compendium, Course Comparison and Example Program Descriptions. Discussions in this workshop provided an overview of all issues related to compliance monitoring. Other workshops: 2D, 2E, and 2F, focused on distinct aspects of compliance monitoring to allow participants to focus on particular areas of interest. Further, inspector training was also addressed in more depth in workshop 4C.

Papers 1 - 3 for Workshop 2C and a list of related papers from other International Workshop and Conferences Proceedings are in Volume 1

SUMMARY OF WORKSHOP: COMPLIANCE MONITORING

Facilitators: Harley Laing, Ger van Tongeren, Henk ten Hoopen, Marcia, Mulkey
Rapporteurs: Jo Ann Semones, Jean Aden

GOALS

The discussion was designed to address the following issues:

- Goals for compliance monitoring and country examples of decisions about use of one or more of the following approaches:
  - Inspections.
  - Source self-compliance monitoring, record keeping and/or reporting.
  - Citizen complaints, monitoring.
  - Supplemental information.
  - Ambient monitoring.
  - Aerial reconnaissance.
- Decisions on the structure of an inspection program:
  - Whether to separate permitting and compliance monitoring responsibilities.
  - Use of dedicated environmental compliance inspectors and/or part time duties for environmental or non-environmental professionals such as police or other staff.
  - Single versus multi-media or integrated inspections.
  - Use of governmental personnel or third parties or a combination.
  - Balancing inspections for routine, for cause, for follow up and for case development.
- Overview of compliance monitoring technology:
  - What is the state-of-the-art, what is particularly cost-effective.
  - By medium (air, water, groundwater, soils); whether point or non-point fugitive releases.
  - Daytime or nighttime surveillance (e.g. lidar technology for nighttime distanced observation and measurement of air releases).
- Management of compliance monitoring data, quality control programs for sampling.

1 INTRODUCTION

Many nations face similar problems in developing compliance monitoring programs and decisions about the use of one or more of the following approaches: inspections, source self-compliance monitoring, record keeping and/or reporting, citizen complaints and monitoring, supplemental information, ambient monitoring, and aerial reconnaissance. The discussion focused on examples of special problems and special approaches to compliance monitoring in a variety of countries.

2 PAPERS

A paper on random and risk-based inspection to increase enforcement effectiveness was prepared by Ivan Rajniak of the Slovak Inspectorate of the Environment. The document discusses ways to use these tools to increase the agency's efficiency at detecting companies operating outside the legal framework.

Also, a paper on liquid waste management in western Australia was prepared by Adam J. Parker, et al which describes a system for collecting waste disposal information using electronic data exchange and tracking of truck movements. This paper points to the successful use of global positioning systems to improve compliance and increase the viability of the hazardous waste industry.

In addition, a paper on understanding compliance through root cause analysis was prepared by Joanne Berman and Tracy Back of US EPA which offers a research-oriented approach to identifying sources of noncompliance and trends in targeted industry sectors. This information is then used to refine strategies for compliance promotion, monitoring and enforcement for those sectors.

3 DISCUSSION SUMMARY

3.1 Enforcement Programs

The Rotterdam region is the most densely populated area in the Netherlands. More than 1 million people live within an area slightly under 700 km^2. A large industrial complex which includes petrochemical companies and refineries is located in the same area. Major environmental problems include air pollution, industrial and residential waste, soil contamination, noise and safety concerns. The DCMR Environmental Protection Agency represents both the provincial government and the local government to speak with one voice in addressing these issues.

Enforcement is seen not as an end in itself but as an instrument to promote compliance with environmental rules. Effective enforcement makes maximum use of enforcement options to achieve environmental objectives. These options include: periodic inspections, communication with companies and residents, and the use of administrative and criminal enforcement actions.

In order to achieve a sustainable society, DCMR supports a "tailor-made" enforcement approach for those enterprises that distinguish themselves in environmental behavior. This differentiation is based on an evaluation of the environmental risk, the environmental impact and the environmental performance of each enterprise. Enterprises

are categorized as "frontrunner" companies which implement a wide range of environmental measures, "middle runner" companies which implement limited measures, and "straggler" companies which either do not comply or comply inadequately.

Egypt and Slovakia use a "tiered" approach to conducting inspections at industrial facilities. In Egypt, a general visit is conducted at all facilities. A second visit is conducted at those facilities who have not complied. A third visit involves detailed scrutiny of the operation. In Slovakia, for larger plants, a multimedia effort involving air, water and waste inspectors is utilized. At smaller facilities, media specific inspections allow for more specialization. In both Egypt and Slovakia, the inspections are targeted based on industry sectors.

Sweden places strong reliance on self-monitoring. A surveillance program is jointly funded by operators and the government. Ghana places strong reliance on investigating complaints from the public. Resulting actions include permit withdrawal, remediation, relocation, plant closure, administrative orders, and prosecution.

3.2 Sustainability

The Inter-American Development Bank is taking a strong role in ensuring that every project is being done in a sustainable manner. Proposals for dams, highways, mining and irrigation projects are being evaluated to ensure that they meet not only the environmental needs of today but of the future as well. The Inter-American Development Bank is working with other banks in joint ventures around the world to achieve these goals.

Nigeria has developed a requirement that each company conduct an environmental audit every five years. Approved consultants conduct the audits and inspectors review facilities for compliance. The national government is planning to publish a report on the status of these companies.

3.3 Public Participation

In some countries citizen participation in environmental issues takes many forms and presents many problems. For example, in Ecuador, local residents took matters into their own hands and shut down an oil pump which local residents felt was polluting the water. The government is interested in promoting media coverage of these kinds of events but is unsure of the proper approach. In St. Lucia, the government has a good deal of environmental information and data since it licenses all industries. However, it is uncertain as to how to develop its messages and to which audiences. In Slovakia plants are required to display emissions data in the front hall of the facility. So far the public isn't paying much attention. Cambodia promotes public participation in its one, very broad environmental law. However, since the environment is a new issue, environmental offices share overlapping responsibilities and no standards exist for water quality, air or effluent discharge.

In other countries a variety of approaches are being tested to actively promote citizen involvement. Jamaica has developed a method to distribute permit and licensing information to the public. Information regarding conditions of approval is made available through the parish wardens and local planning authorities. In addition, a national environmental education program for schools, police and the judiciary has just been launched. Bulgaria is designing a program to employ public/citizen inspectors to augment the state inspection effort. The program allows citizens to accompany state inspectors on certain site monitoring activities. Sweden publishes all industry data including production data and all emissions data are publicly available.

4 CONCLUSION

While no single approach emerged to resolve the common goals of strengthening enforcement programs, improving enforcement capacity and enhancing public participation, there was agreement that many tools can be used to achieve these goals. While these tools may be used differently at different times in different countries, there was agreement that effective enforcement makes maximum use of diverse compliance tools in order to achieve maximum environmental benefit.

MULTI-SECTORAL APPROACH TO COMPLIANCE MONITORING

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SUMMARY

The growing awareness of environmental impacts associated with development projects coupled with the increasing demand for public participation in managing such impacts, calls for deliberate efforts to continuously involve various stakeholders in the overall strategy on environmental protection. In the Philippines, public participation is pursued not only in planning for environment friendly development but is greatly prioritized in the actual implementation of such development. The Philippine Environmental Impact Statement System, in particular, provides participatory mechanisms for various stakeholders not only during the review process but as well as after the Environmental Compliance Certificate had been issued. Ensuring public participation in compliance monitoring gives greater credibility to the Environmental Impact Statement System.

The Multi-Partite Monitoring Team is a required mechanism under the System. Its creation aims to encourage public participation and greater stakeholders' vigilance, and to provide appropriate check and balance mechanisms in compliance monitoring of development project implementation. This multi-sectoral approach delegates roles and functions to identified stakeholders (local executives, community leaders, non-governmentorganization, indigenous people, etc.) regarding monitoring compliance, handling of complaints, dissemination of information and preparation of reports. While the Multi-Partite Monitoring Team creation does not absolve both the regulator and the industry of monitoring responsibilities, its effective operation provides strong basis for regulatory and management decision-making processes.

The Multi-Partite Monitoring Team is seen as comprehensive tool to address biophysical and socioeconomic monitoring of a particular development. Its approved environmental monitoring plan systematizes its monitoring work. An environmental monitoring fund put up by the project proponent is established to support the Multi-Partite Monitoring Team. In cases of damages due to accidents and the necessary rehabilitation, an environmental guarantee fund is likewise established.

Documented case studies show the effectiveness of this multi-sectoral approach especially when there is limited monitoring capability on the part of the regulator and a strong effort to promote local environmental governance.

1 BACKGROUND

The present state of the Philippine environment calls for the integration of environmental considerations in development planning. Towards this end, the Philippine Environmental Impact Statement System is believed to be one of the most powerful tools to achieve sustainable development, a development that meets the needs of present

generation without compromising the ability of future generations to meet their own needs (1992 Earth Summit). In the Philippines, the successful implementation of the Environmental Impact Statement System is considerably dependent on how effectively public (stakeholders) participation is pursued. Lack of public participation usually results to a low social acceptability while extensive public participation often guarantees high social acceptability. Despite meeting the technical requirements of the Environmental Impact Statement System, many development projects are delayed by strong opposition that is largely due to failure in public participation. This may, however, positively demonstrate the extent of public awareness and consciousness of development-environment interactions and the need to involve various sectors in sustainable development planning.

2 SOME LEGAL CONSIDERATIONS

While the Philippine Environmental Impact Statement System was actually implemented in the early 1980's, it was only in the 1990's that public participation became significant in the Environmental Impact Assessment process. The latest implementing rules and regulations of the Environmental Impact Statement System Law "enhances maximum public participation in the Environmental Impact Assessment process to validate the social acceptability of the project or undertaking so as to ensure the fullest consideration of the environmental impact of such project or undertaking".

While the task of protecting the environment is primarily given to one department, in reality, a number of government agencies, both at the national and local levels impinge on this task, qualifying them as partners.

The Local Government Code of 1991 provides for the devolution of some environmental functions from the national government agencies to the local government units. This particular law gives local executives the mandate to manage their local environs. Thus, their participation is not only desired but also required.

In addition, there is a strong effort among organized communities, peoples' groups and other marginalized sectors to participate in environmental protection efforts.

3 PUBLIC PARTICIPATION DEFINED

The environment involves not only the biophysical aspect but also the socioeconomic dimension of development projects. People are part of the environment and are often affected by development projects. Public participation therefore becomes crucial in making decisions that affect their lives and their environment. It also recognized that people possess intimate knowledge about their environment, have needs and aspirations for socioeconomic uplifting and are recipients of benefits or environmental stress arising from development projects. Public participation gives citizens the opportunity to influence major decisions that affect them. In the Environmental Impact Assessment process, the goal of public participation is to enable citizens to take responsibility for environmental protection and management through active involvement in decision making.

Public participation is the most effective process to determine social acceptability of a project or undertaking. In addition, it offers the following added values and benefits:

- Helps to identify and address concerns of stakeholders.

- Focuses planning on issues or concerns.
- Provides alternatives for planning consideration.
- Provides added sources of expertise.
- Reduces level of misinformation and distrust.
- Improves decision making.
- Empowers the citizen to take responsibility in environmental protection.

Identification of stakeholders is crucial to effective public participation. Stakeholders are persons who may be significantly affected by a project or undertaking such as, but not limited to members of the local community, industry, local government units, non-government organizations and peoples organizations.

Public participation can be elicited in the following stages of the Environmental Impact Assessment Process:

- Scoping.
- Baseline studies, ecoprofiling or validation.
- Impact identification and prediction.
- Validation of impact identification/prediction and impact evaluation.
- Negotiation and dispute or conflict resolution.
- Public hearing.
- Environmental Management Planning.
- Environmental monitoring.
- Implementation of sanctions or penalties.

4 PUBLIC PARTICIPATION IN COMPLIANCE MONITORING

All projects covered by the Environmental Impact Statement System and issued an Environmental Compliance Certificate are subject to periodic monitoring by the Department of Environment and Natural Resources. As a minimum requirement in compliance monitoring, the activities to be monitored by the Department of Environment and Natural Resources shall correspond to the conditions provided in the Environmental Compliance Certificate. In addition, compliance with the Environmental Management Plan and other applicable laws, rules and regulations shall also be monitored. Further, the industry is required by law to monitor its own compliance. The Department of Environment and Natural Resources have established a self-monitoring system to guide the industry.

The primary purpose of monitoring is to ensure the judicious implementation of sound environmental management. Specifically, it aims to:

- Monitor project compliance with the conditions set in the Environmental Compliance Certificate.
- Monitor compliance with the Environmental Management Plan and with applicable laws, rules and regulations.

- Provide a basis for timely decision-making and effective planning and management of environmental measures through the monitoring of actual project impacts vis-à-vis the predicted impacts.

To promote public participation and in the light of limited resources and capability for monitoring the Department of Environment and Natural Resources has initiated a multi-sectoral approach to compliance monitoring especially for environmentally-critical projects. This mechanism calls for the organization of the Multi-Partite Monitoring Team by the project's proponent as early as possible prior to the construction/implementation phase of the project. This, however, does not preclude the Department of Environment and Natural Resources or the proponent from conducting its own monitoring, as deemed necessary.

The purposes for organizing the Multi-Partite Monitoring Team are to encourage public participation and greater stakeholders vigilance and to provide appropriate check and balance mechanisms in the monitoring of project implementation. The Multi-Partite Monitoring Team shall:

- Monitor project compliance with the Environmental Management Plan, Environmental Compliance Certificate conditions and other related permits.
- Gather relevant information to facilitate determination of causes of damages and validity of complaints or concerns about the project.
- Prepare, integrate and disseminate monitoring reports and submit recommendation to the Department of Environment and Natural Resources.
- Monitor community information, education and communication activities.

The composition of the Multi-Partite Monitoring Team and their responsibilities shall be provided in a Memorandum of Agreement negotiated by the proponent, the Department of Environment and Natural Resources and the major stakeholders. In all cases, the Multi-Partite Monitoring Team shall be composed of representatives of the proponent and of a broad spectrum of stakeholder groups including representatives from the local government's units, non-government organizations, and peoples organizations, the community, the women's sector and whenever necessary, the academic, relevant government agencies and other sectors. Criteria for the selection of representatives to the Multi-Partite Monitoring Team should consider capability in monitoring, credibility and stature in the community, commitment with a high sense of civic duty and availability for regular monitoring activities.

The Multi-Partite Monitoring Team is operationalized through the formulation of an annualized monitoring plan that covers air and water quality, biophysical and socioeconomic monitoring activities. It may engage the assistance of experts in its monitoring activities in cases when such expertise cannot be provided within the Multi-Partite Monitoring Team.

5 FUNDING REQUIREMENTS

To support the Multi-Partite Monitoring Team operation, the proponent commits to establish an Environmental Monitoring Fund. The amount to be allocated for the Environmental Monitoring Fund is determined on the basis of the estimated cost of approved environmental monitoring plan.

An Environmental Guarantee Fund is likewise established for projects that have been determined by the Department of Environment and Natural Resources to pose a significant public risk or where the project requires rehabilitation or restoration. The Environmental Monitoring Fund may be used for the following purposes:

- Immediate rehabilitation of areas affected by damages in the environment and the resulting deterioration of environmental quality as a direct consequence of project construction, operation and abandonment.
- Just compensation of parties and communities effected by the negative impacts of the project.
- Conduct of scientific or research studies will aid as maybe needed to carry out the purposes of the fund.

WORKSHOP 2D
MULTI-MEDIA (INTEGRATED) INSPECTIONS AND PERMITTING

Many nations are moving toward integrated permitting and inspection and others are considering these approaches.

Papers 1 - 2 for Workshop 2D and a list of related papers from other International Workshops and Conference Proceedings are in Volume 1

SUMMARY OF WORKSHOP: MULTI-MEDIA (INTEGRATED) PERMITTING AND INSPECTION

Facilitators: Workshop 2D: Ken Macken, Tom Maslany
Workshop 2DD: Christopher Booth, Reggie Cheatham
Rapporteurs: Workshop 2D: Michael Penders
Workshop 2DD: Gail Ginsberg

GOALS

Discussions were designed to address the following issues:

- The extent of country experiences with integrated permitting and/or integrated (multi-media) inspections.
- How an integrated permit is defined, specifically whether it covers procedural integration, administrative integration, substantive integration or all three. What is different about integrated versus single media or program permits.
- How integrated or multi-media inspections are defined including multi-media screening, cross program or combined inspections, team inspections and process-oriented inspections.
- Advantages and disadvantages of integrated permits and whether they are more or less efficient and effective and why, in what circumstances.
- Potential and actual results from integrated permits that would not have resulted from single-media permits.
- Level of difficulty in issuing and monitoring compliance with integrated permits: more or less difficult to achieve compliance by the regulated community.
- Special expertise needed to implement integrated inspection programs.
- Impact on integration of compliance and pollution prevention concerns and approaches.

1 INTRODUCTION

Many countries have either already adopted multimedia approaches to permitting and enforcement or are planning to do so. The current interest in developing such approaches is largely driven by the European Community directive for Integrated Pollution Production and Control (IPPC), which requires integrated permitting beginning in 1999, to be fully implemented by 2007. European nation participants, in particular, were interested in gaining experience and knowledge in preparation for meeting these requirements. Other nations expressed interest in these concepts from a resource, pollution control, and environmental benefits perspective.

2 PAPERS

Papers prepared by Padraic Larkin, "Incorporation of Environmental Management Systems into Integrated Pollution Control Licensing in Ireland", and Mikael Lundholm, "Integrated Permitting in Sweden," describe strategies and processes for integrated permitting, inspection and enforcement response in those countries.

3 DISCUSSION SUMMARY: WORKSHOP 2D

Best quotes:

"Which imbecile has written those conditions?" Ireland, on the need to integrate not just media programs, but permitting and inspection functions as well.

"When you are not the lead dog, the view never changes" Canada, on the difficulty of implementing change under current administrative structures, with more general applications as well.

3.1 Defining "integrated permits and integrated permitting"

The following definitions, drawn directly from the workshop write-up on this subject in the Fourth Conference Proceedings, were adopted by the participants.

"Integrated permits were defined by the participants as: one permit related to one facility covering all elements of the environment. The group realized that there were different approaches and goals for integrated permitting systems and integrated permits that existed around the globe, ranging from integration of permitting processes to integration of the substantive requirements in a permit. Three categories of approaches were identified with three types within one the categories yielding a total of five different approaches:

1 The Staple approach which added together the results of what were essentially separate permitting processes to deliver a single permit.

2 A coordinated approach in which separate permitting processes are coordinated to ensure that cross-media and cross-program transfers of pollution do not occur and that information about the facility is shared for purposes of decision-making on a media-by-media and program-by-program basis.

3 Holistic approaches which create new substantive requirements as a result of permit integration at three possible levels:

a) best available technology from a multi-media standpoint is applied;

b) pollution prevention and cleaner technology is emphasized in addition to a base-line of compliance including resource; and/or

c) the integrated permit takes into account overall environmental impacts and the management system which implements them."

3.2 Country experiences with integrated permitting

In reviewing country experiences, fully two-thirds of those represented had implemented some form of multi-media or integrated permitting and/or multi-media inspections. Several countries had experience with integrated permitting that is holistic.

Among the countries participating in the workshop, Ireland, Sweden, Israel, and Greece had experience with holistic approaches, taking into account overall environmental impact, including ecological conditions in a single environmental permit. Finland was mostly integrated, except for water. Brazil, Bulgaria, Belgium, Poland, Romania, and the U.K. have multi-media permits, with the Brazilian state of San Paulo's "born integrated and multi-media". Hungary has sectoral permits, sometimes integrated, with other nations moving towards or experimenting with various multi-media approaches.

Ireland incorporates a condition requiring an Environmental Management System in its Integrated Pollution Control Licenses as a way to assure implementation of an integrated approach and allow for inspection and enforcement response around the parameters of the identified and enforceable management system.

3.3 Implementation Issues: Legal; Organizational, Management; and Expertise

It was noted that moving to integrated approaches is much easier if a country adopts integrated laws and requirements. Single medium permitting and inspection, however, remain the norm in many countries, and so organizational lines are still defined by medium. Accordingly, a move to integrated permitting or inspections —absent integrated laws and multimedia expertise— raises organizational issues created by both the requirements of single media expertise, the need to cut across organizational authority, and the ability to evaluate systems and new technologies.

3.4 Conclusion

The following conclusion drawn from the Chiang Mai write-up remains the same: "Most all nations noted a problem with the need for greater expertise and management of multi-media permitting and inspection. Several nations expressed concerns with the difficulty of enforcement with multi-media permitting and inspection. All noted a lack of training and resources for multi-media approaches and several expressed concerns that it would be easy to miss problems if a multi-media inspection did not retain adequate expertise and resources to address all the media in detail. It was observed that as cross-media and holistic approaches and expertise for environmental management and inspection develop, that expertise may be used to fashion new and integrated laws with enforceable requirements that cut across all media."

4 DISCUSSION SUMMARY: WORKSHOP 2DD

An integrated approach to multimedia permitting and inspection produces many challenges and many benefits which are common to both activities. Although the discussion below attempts to identify factors unique to each of these activities, the reader should bear in mind that there is considerable overlap.

4.1 Challenges to Integrated Permitting

In many countries, different media may be managed by different parts of an agency or even different agencies of government. A multimedia approach may necessitate restructuring the government, in some instances leading to the creation of new, large bureaucracies. There may be resistance from those who see themselves as losing power.

Reluctance will also come from those who perceive a loss of expertise through integration of all media. Finally, someone must answer the question: Who executes or issues a multimedia permit?

There is no clear consensus on whether multimedia permitting requires integration at the administrative and procedural levels, as well as substantive integration. However, there is agreement that coordination is the responsibility of the government, not the permit applicant.

Single media experts often fail to communicate with one another. A multimedia approach requires constant consultation, clear and comprehensive guidance, and management willingness to make experts work together. A corollary is that many current regulatory staff have only single media expertise. A multimedia approach demands skills which may not currently exist, and raises the potential for loss of single media expertise.

Where there is a requirement for both a business license and an environmental permit, the conditions of each may not be coordinated and could be incompatible.

An unanswered question is: How are environmental benefits/impact quantified in a multimedia approach?

4.2 Benefits to Integrated Permit Approach

From both an environmental and a regulatory standpoint, there can be many advantages to using integrated permits. One benefit of an integrated permit is the ability to avoid exporting pollution from media-to-media. Another benefit is that a multimedia approach forces the regulators to look into the processes in operation at a particular facility and not just look at the end of the pipe. This strategy may lead to process-based solutions, may also be more energy efficient and fewer natural resources.

Some countries see resource advantages to issuing a single, integrated permit, as well as advantages in prosecution of violations. The clear advantage for the regulated community is the prospect of "one-stop shopping" - the ability to obtain just one permit for all environmentally-related activities at a single facility.

4.3 Challenges for Multimedia Inspections

In many, if not most countries, there is a lack of expertise to perform multimedia inspections. Few agencies have inspectors trained to perform these inspections, or very few such inspectors. The challenge is to insure a critical mass of inspector resources and to build multimedia inspection teams. In some countries, inspectors do not have the level of education needed to develop successful multimedia inspectors. The question remains on the table: Is there a need for a "super inspector"?

Several countries raised the question of which entity should conduct the inspections - the central government vs. the province or state? A related issue is that public complaints often focus on a single media problem.

Although multimedia inspections are often considered advantageous to the regulated entity, there are also disadvantages. For example, when the government knocks on the facility's door with a group of inspectors, there may not be sufficient management staff on duty to escort the inspectors. This may or may not be advantageous to proper conduct of the inspections.

There is considerable debate over the question: What is the role of the multimedia (or other) inspector? Is the inspector an advisor or an enforcer? This issue was hotly debated during this workshop, with no clear consensus emerging from the participants. A related issue is whether the inspector is empowered to investigate beyond the confines of the facility's permit?

4.4 Benefits to Multimedia Inspections

Everything must go somewhere. The multiple inputs to any industrial process all end up somewhere, either in the environment or the final product. A multimedia approach to inspections can focus on industrial processes and enable the government to identify the cross-media transfer and the endpoint of all pollutant contributions.

Multimedia inspections, especially those which use a process approach, can help facilities identify opportunities for pollution prevention. Solutions to pollution problems may be process-based. In some instances, it may be advantageous to conduct multimedia screening inspections.

There may also be opportunities for technology transfer as a result of multimedia inspections. For example, one participant related the experience of using the knowledge gained from inspection at one type of dioxin-emitting facility to evaluate the feasibility of requiring another dioxin emitter to meet lower standards.

4.5 Lessons Learned

A well-drafted, enforceable integrated permit is essential to the success of a multimedia inspection program.

4.6 Conclusion

A multimedia approach to permitting and enforcement enables the regulator to evaluate a single facility's technology on a holistic basis and, balancing various considerations and inputs, to design the best strategy for the facility and the environment. However, the advantages of multimedia permitting and inspections do come at a cost. Most governments do not currently have personnel with multimedia experience, and it is feared that where regulatory staff operate across all media, there is an accompanying loss of expertise to each individual medium. There also may be a need for substantial reorganization of regulatory agencies in order to achieve true integration across programs.

WORKSHOP 2E
SOURCE SELF-COMPLIANCE MONITORING REQUIREMENTS

Source self-compliance monitoring, record keeping and/or reporting plays an essential role for sources of pollution to manage to assure their own compliance and provide a more complete picture of compliance performance over time rather than the brief snap shot that a periodic inspection can provide.

Papers 1 - 2 for Workshop 2E and a list of related papers from other International Workshops and Conference Proceedings are in Volume 1

SUMMARY OF WORKSHOP: SOURCE SELF-COMPLIANCE MONITORING REQUIREMENTS

Facilitators: Kees Boekel, Ron Kreizenbeck
Rapporteur: Maria Comino

GOALS

Discussions were designed to address the following issues:

- Design of source self-compliance monitoring, record keeping and/or reporting requirements:
  - Types of sources to which it applies.
  - Parameters and frequency of monitoring.
  - Form of reporting (standard forms, all data or exceptions) and frequency (real time, monthly, quarterly, semiannually, exceptions) electronic versus paper.
  - Data management.
  - Quality control and assurance programs.
- Uses for source self-compliance monitoring information in the enforcement program:
  - Assurance of permittee or regulated community's self awareness.
  - Requirements for corrective and/or preventive response by the regulated.
  - Basis for targeting inspection.
  - Basis for defining a violation and enforcement response.
  - Modelling of ecosystem performance.
- Use of environmental audits by third parties or by regulated sources:
  - Voluntary and confidential or requirements to conduct and report self-evaluations.
  - Nature of reporting (entire report, exceedences, environmental performance).

1 INTRODUCTION

Countries are at different stages in their development of monitoring and source self-compliance monitoring requirements. Computer technology is assisting the collection process and the transfer of information from operator to regulator. There is growing recognition of the value of source self-compliance monitoring because it shifts some of the

responsibilities that enable compliance to the operator. Equally, participants stressed the importance of ensuring that only useful information is collected to avoid the collection of lengthy data with little utility.

Overall, participants confirmed the value of source self-monitoring as a tool in the monitoring process, but emphasized the importance of effectively reviewing the source self-compliance requirements.

2 PAPERS

Reference was made to the papers prepared by Markku Hietamaki on Self-Monitoring, Reporting and Compliance Monitoring in Finland, and Calderon Bartheneuf J.L. on Environmental Auditing in Mexico, included in the Conference Proceedings Volume 1.

3 DISCUSSION SUMMARY

3.1 Preconditions to Effective Source Self-Compliance Monitoring

It was noted that source self-compliance monitoring is appropriate where the sources can be precisely measured. For example, it is not appropriate in the case of waste management where measurements are only a part of compliance monitoring. Technical information must be in a form amenable to verification, and the parameters and purposes for information collection should be clearly specified to ensure that only data relevant to the compliance assessment is collected. In some countries, source self-compliance monitoring requirements are included in the operator's license conditions.

3.2 Incentives

The principal reason for self-monitoring requirements is to ensure industrial self-compliance at the site of industrial operations and secondly to provide continuing information to regulators to monitor compliance status and respond to violations.

It was also noted that operators in many cases needed incentives for source self-compliance monitoring, but for instance in Nordic countries, self-compliance monitoring is generally used. To be effective, they needed to be based on a clear understanding of the likely responses of regulators to particular violations.

Incentives could include providing regulatory flexibility in exchange for the provision of more detailed information. Source self-compliance monitoring could be an aspect of environmental performance awards to show where operators had gone beyond minimum requirements. Model operators needed to be rewarded particularly in those countries where 'cowboy' operators were prolific.

3.3 Advantages of Source-Self Compliance Monitoring

Several advantages of source self-compliance monitoring were noted for both the regulator and the operator.

For the agency, it can contribute to the overall efficiency of its compliance and enforcement programs, by generally decreasing demand on the agency and allowing the agency to develop and focus its expertise on the review and evaluation of the monitoring data. It can help clarify where the key problems are.

For the operator, it can become part of good business practice. It can also assist operators meeting their obligations under ISO14000.

3.4 Clarifying the Role of Regulator

Although there were advantages to source self-compliance monitoring, a clear identification of the role of the regulator was required to ensure its proper implementation. With current trends towards delegation of many government functions to the private sector, it is important that the regulator approves the self-monitoring and reporting system and has the power to evaluate the results and to subsequently require the adjustment of operators' activities. Operators needed to be fully aware of that potential. Such a definition of roles would contribute to the overall transparency of the process.

3.4.1 Operator Responsibility for Compliance

For the same reasons, operators needed to understand that satisfaction of international standards like ISO14000 did not remove the responsibility of the regulator properly reviewing monitoring data and conducting inspections to verify this information. This was because ISO14000 did not adequately identify overall environmental goals or standards to which operators needed to direct their performance.

3.4.2 Roles of Third Parties

Third parties could also be involved in the process of auditing the operation of monitoring systems. However, the impartiality of third parties had to be thoroughly assessed to ensure that in the preparation of their reports they are not partial to particular operators. Third party audits provide information on compliance and can reduce demands on an agency but the role of the regulator must remain one of determining ultimate compliance that cannot be delegated. It also requires the regulator to develop the ability to assess self-monitoring systems.

3.4.3 Confidentiality

Participants also noted the tensions between the provision of information for enforcement work and the need to provide some protection of operator information to protect commercially confidential information. The challenge was to look at how both considerations could be adequately balanced.

4 CONCLUSION

Recognizing the needs identified above, in particular the overriding role of government in defining and evaluating the monitoring process, there is good potential for further implementation of source self-compliance monitoring requirements, assisted by ongoing improvements to computer record-keeping.

Workshop participants identified advantages of source self-compliance for both the regulator and the operator. For the agency, it can contribute to the overall efficiency of its compliance and enforcement programs. For the operator, it can become part of good business practice.

At the same time, participants emphasized the importance of being clear on the role of the regulator. With current trends towards delegation of many governmental functions, it is important to ensure the regulator retains key powers to evaluate monitoring results and to subsequently require the adjustment of operators activities. It must also be clear that satisfaction of international standards like ISO14000 does not remove the responsibility of the regulator to properly review monitoring data.

WORKSHOP 2F
DETECTING HIDDEN OPERATIONS OUTSIDE OF LEGAL FRAMEWORKS

There will always be those who evade legal processes for operating within the law and are 'hidden" from the view of government officials and perhaps the public. Given the economic incentive to avoid costs of pollution control and prevention or to exploit weaknesses in the systems for the more routine aspects of implementing compliance and enforcement programs, including inspection of known sources of pollution, it has therefore become increasingly important to reward those who comply and address what can be significant environment problems posed by those who lie outside our regulatory net. These sources may be operating without permits, remain outside of our registrations, inventories, reporting and tracking schemes. This workshop focused on how these hidden operations can be successfully detected.

A list related papers for Workshop 2F from other International Workshops and Conference Proceedings are in Volume 1

SUMMARY OF WORKSHOP: DETECTING HIDDEN OPERATIONS OUTSIDE OF LEGAL FRAMEWORKS

Facilitators: Linda Spahr, Ton Spel
Rapporteur: Andrew Lauterback

GOALS

Discussions were designed to address the following issues:

- Problems countries experience with hidden operations, e.g. unpermitted, unauthorized wetlands or natural resource destruction, construction without a permit, illegal logging, waste or product import/export. How much is known about the magnitude of these problems given that by definition they are hidden.
- How enforcers have successfully detected hidden operations for these problems and what the key factors were in their success.
- What problems face officials and how might they be overcome with improved:
  - Data analysis.
  - Education of citizenry.
  - New types of inspection and investigation methods.
  - Other.

1 INTRODUCTION

Given the economic incentive to avoid costs of pollution control or pollution prevention it is important to reward those comply by ensuring that those who try to avoid the regulatory scheme are detected and brought within its requirements. The workshop focused on how environmental compliance and enforcement personnel can effectively detect hidden operations, those operating outside the legal framework such as the sources operating without permits or who remain outside our registries.

2 PAPERS

No new papers were prepared for this workshop.

3 DISCUSSION SUMMARY

3.1 Types of Hidden Illegal Operations

Most countries appear to be experiencing similar types of illegal operations that fall outside the purview of the regulatory program. Most prevalent among these hidden ventures include: concealed violations at legally operating facilities, illegal operations that fall entirely

outside the regulatory scope, masking an operation under the guise of a legal operation; i.e., fraud, and other criminal activities that as a consequence cause environmental violations, e.g., illegal drug manufacturing generates hazardous waste.

3.2 Problems in Detecting Illegal Operations

The countries participating in the workshop discussion experienced similar problems in detecting illegal operations. Those problems included:

- knowing where to look;
- the enforcement authorities may have the information, but that information may not be admissible in court (such information could still be used for targeting purposes);
- problems with information exchange between governmental agencies; and
- a lack of training of police officers to detect hidden illegally operating facilities.

3.3 Detection Techniques

Uncovering hidden illegal operations is one of the biggest challenges facing environmental enforcement officials. It requires experimenting with innovative techniques. Some of these approaches have been successful, including:

- mapping sensitive sites with aerial photography in order to develop a database;
- use of environmental criminal intelligence and analyses;
- comparing data from similar time or events; e.g., discharge data of facilities over time by use of composite samplers hidden in manholes;
- looking at chemical signatures, including oil from ships;
- blending traditional criminal investigative techniques with regulatory inspection techniques;
- using microtaggants and DNA analyses of selected endangered species in order to develop a database;
- use of Global Positioning Systems to monitor barge and ship movements in order to determine illegal dumping in harbors and ship channels; and
- use of tips from networks established with other governmental authorities and citizen volunteers.

4 CONCLUSION

Although the workshop topic concerned the detection of hidden illegal operations, most comments and discussion gravitated toward interactions between the police and the administrative agencies and also the desperate need for additional training. It was felt that the law enforcement authorities were not sufficiently trained to recognize environmental violations and provide initial response. There was also a feeling that a greater degree of trust between the police and the administrative authorities was needed in order to enhance cooperation required for uncovering illegal operations.

THEME #3

"CARROTS AND STICKS"

At the heart of any successful environmental compliance and enforcement program is its ability to deliver incentives for compliance and consequences — or disincentives — to violators in a timely, predictable, fair, and appropriate manner in relation to the nature of the regulated community and to the actual or potential for harm. The evolution of environmental enforcement programs includes the search for the right mix and type of carrots and sticks for different situations to change to and/or maintain compliance behavior. Both carrots and sticks are important and most effective when they are used together and in the right balance. This theme explored the development, implementation and results of different "carrot and stick" approaches and ways to best enhance and motivate compliance by designing integrated ways to use them together.

Theme #3 Workshops:

- *3 A Structuring Incentives for Private Sector Compliance*
- *3 B Environmental Crimes and Criminal Enforcement*
- *3 C Citizen Enforcement*
- *3 D Structuring Financial Consequences in Enforcement: Penalty Policies, Recovery of Damages, Recovery of Economic Benefit of Non-Compliance*
- *3 E Role of Negotiation in Enforcement*
- *3 F Administrative Enforcement Mechanisms: Getting Authority and Making It Work*
- *3 G Compliance Schedules and Action Plans: Content, Enforceability and Use in Compliance and Enforcement*

SUMMARY OF THEME #3 PANEL DISCUSSION: CARROTS AND STICKS

Moderator: Helena Čížková
Rapporteur: Jo Gerardu

1 INTRODUCTION

Any successful environmental compliance and enforcement program has the ability to deliver incentives for compliance and consequences to violations in a timely, predictable, fair and appropriate manner. The environmental enforcement programs search for the right mix and type of carrots and sticks. Both are important and most effective when used together and in the right balance.

2 PRESENTATIONS

Mr. Antonio Azuela reported about the way Mexico balanced between carrots and sticks. In 1988, Mexico had the framework for prevention but a weak legislation. In 1995, a Ministry for Environment (PROFEPA) was created that was responsible for all regulations concerning the environment except for water. This means more than 28,000 industrial facilities with significant impact on the environment. The balance between carrots and sticks was created by having a verification program that can lead to sanctions and a voluntary audit program. The verification program can lead to sanctions on closure of the facility by PROFEPA without going to court. In 5 years 2,300 closures were reported, but the percentage of facilities with serious violations changed from 20% in 1992 to less than 2% in 1997. The audit program has the results of an audit by an independent auditor; the company has to fulfill all regulations also those that are not regulated by Mexico but are internationally (mostly EPA). The audit leads to an action plan. After fulfilling the action plan the company gets a "clean industry" facility. At the moment almost 900 facilities are in the program. At the end of 1997 157 facilities have gotten the certificate with considerable results for the environment.

Mr. Bogusław Dabrowski reported that in the end of 1989 a list was created with the most polluting facilities by the Inspectorate. Foreign investing companies were asking about the pollution by facilities. The Inspectorate started a training program created with the U.S. Environmental Protection Agency. With this knowledge the facilities were inspected. With the results the negotiations with the facilities started: the penalties were the sticks but if the facility invested in new techniques that would be environmentally friendly, the penalties could be negotiated: the carrot. If at a new inspection the techniques were not there and in use the end would be a 4 times higher penalty.

Ms. Connie Musgrove reported about civil enforcement having its limits. It can realize compliance but resources are limited and sometimes hard to prove. The USEPA developed other incentives (carrots and sticks) as compliance assistance programs. Facilities can disclose their violations and correct them within certain borders and get reduced penalties that are fixed and published. Economic benefits are recovered. Those who do not participate may be subject to strict enforcement. Three successful compliance assistance programs were reported: 1) chemical hazard reporting act, nationwide; 2) multi-media compliance program with mini mills, Chicago; 3) rock crushing operations under the Clean Air Act, Kansas. Violations were published widely and warning letters were sent and companies

reported their violations. The companies that did not report were subject to enforcement activities and high penalties. The lesson learned were that you need strong enforcement and in limited time.

Mr. Antonio Oposa, Jr. reported about the loss of Philippine forests despite the appropriate environmental laws. Nobody was jailed for illegal logging. A special team was formed of participants of the Department of Justice, the Department of Environment and the National Bureau of Investigation. The team had an opportunity in 1992 when a saw mill was discovered with illegal logging behind an official facility; there were armed guards. Together with the enforcement activity, the prosecutor was brought to the saw mill and in three hours those responsible were in jail immediately. This was the first time that illegal logging was punished. This resulted in special prosecutions for illegal logging; the results were zero convictions in 1992 to June 1995 with 185 convictions. But this will not restore the illegal logged trees. Oposa propose a needle instead of a stick because a needle is used swift, painful and public as deterrence. Don't be nice for people that operate outside legal limits; but make sure that humanity has its thinking role as part of us here.

3 DISCUSSION

In response to a question Mr. Azuela stated that for Mexico the conclusion was that voluntary programs do not work without enforcement. Ms. Musgrove explained that if there were no economic benefits by violating the law the penalty could be waived to zero.

4 CONCLUSION

Ms. Helena Čížková concluded that the questions remains what is the carrot and the stick. The local situation will be very important for the answer to this question. What will work in one place or one situation may not in another situation. But always make sure you have the right balances of carrots and sticks or candies and needles. In the presentation there were examples of the ways one can develop carrots and sticks given the specific situation.

WORKSHOP 3A
STRUCTURING INCENTIVES FOR PRIVATE SECTOR COMPLIANCE

This workshop examined the incentives countries are using to promote compliance, and improved environmental performance generally and also explore the relationship between these incentives or carrots and the threat of the enforcement stick. It also examined the widening use and development of environmental audits and environmental management systems both in relation to the International Standards Organization's Series 14000 Standards, the European Union's eco-management and audit regulation or other schemes. Governments have been asked to respond to company run environmental management systems. Some have responded with explicit policies which encourage such advances but which maintain a traditional line between an independent regulatory and enforcement role for government as distinct from private sector and marketplace initiatives while others are advocating a shifting of roles from government enforcement to the marketplace. The workshop drew upon related papers and workshop discussion summaries from prior conferences on both promoting voluntary compliance and economic incentives.

Papers 1 - 2 for Workshop 3A and a list of related papers from other International Workshops and Conference Proceedings are in Volume 1

SUMMARY OF WORKSHOP: STRUCTURING INCENTIVES FOR PRIVATE SECTOR COMPLIANCE

Facilitators: Workshop 3A: Harley Laing, Kees Boekel
Workshop 3AA: Marlen Dooley, Michele de Nevers
Rapporteurs: Workshop 3A: Nigel Peaple
Workshop 3AA: Reggie Cheatham

GOALS

Discussions addressed the following objectives and issues.

- Approaches countries have employed to motivate compliance through positive incentives; what is known about how effective such approaches are and factors contributing to success or failure of compliance incentive schemes.
- How countries link compliance incentives and enforcement sanctions:
  - Whether and what successes of programs designed to promote compliance can be achieved independently or in relation to inspection and enforcement response.
  - Successful relationships between incentives, technical assistance, inspections, and enforcement response.
  - How enforcement response policies might be designed to promote compliance as well as deter violations.
- How government compliance and enforcement programs are responding to regulated sources which adopt Environmental Management Systems either certified for conformity with ISO 14001 or other EMS standards:
  - What is known about compliance status and ability to self-monitor, correct, and prevent violations of entities which adopt such systems versus those who do not.
  - Potential effectiveness of the for International Standards Organization's international environmental management standards (ISO 14000 series) in promoting compliance.
  - Potential for or limitations on the opportunity for official government recognition in efforts to promote compliance and take enforcement response.
- How to maintain accountability for performance within compliance incentive schemes; how to account for their effectiveness and results and how success might be defined .

1 INTRODUCTION

Effective environmental compliance and enforcement programs should include an ability to deliver incentives for compliance and consequences to violators in a predictable and fair manner. Such "carrots and sticks" are most effective when they are used together and in the right balance.

The issue of structuring incentives has been a continued discussion topic from previous conferences and the papers for the Fifth International Conference on Compliance and Enforcement continue to demonstrate various efforts by countries to implement such programs. With the above mentioned goals, workshop participants focused on three major areas: 1) ISO 14001 or other EMS standards; 2) Approaches to Motivate Compliance; and 3) Technical Assistance. These discussions continued to explore the fragile balance between incentive programs and enforcement.

2 PAPERS

Several authors developed new topic papers associated with structuring incentives for private sector compliance. The following are presented in the Fifth International Conference on Environmental Compliance and Enforcement Proceedings, Volume 1:

- Enforcement and Encouragement; An Investigation in the Brick and Roofing tile Industry, Schoenmakers, John M.J.
- A Socio-Cultural Approach to Environmental Law Compliance; A Philippine Scenario, Oposa, Antonio A., Jr.
- Enforcement Versus Voluntary Compliance: An Examination of the Strategic Enforcement Initiatives Implemented by the Pacific and Yukon Regional Office of Environment Canada 1983 to 1998, Krahn, Peter K.
- Industrial Estate Authority of Thailand Strategy for Environmental Compliance, Homchean, Kasemsri.
- Penalty Cap Programs, Schaeffer, Eric.

3 DISCUSSION SUMMARY: WORKSHOP 3A

3.1 Approaches to motivate compliance through positive incentives; effectiveness factors that contribute to success of failure.

Compliance incentive schemes are now widely used by environmental regulators throughout the world. There are many different sorts of incentive: economic incentives; legal incentives; regulatory incentives and public relations incentives.

- *Economic Incentives*:
  - Romanian industries are given tax credits for investments in environmental technologies.
  - The Inter-American Development Bank provides loans for companies wishing to make environmental investments.
  - Malawi has recently introduced a law that provides for general economic investments for compliance.

- *Legal Incentives*
  - In the USA, companies are sometimes exempted from criminal prosecution in cases where they admit to non-detected pollution based on an environmental audit.
  - In Finland, a highly consensual approach is adopted with interested parties being closely involved in the legal drafting process.
- *Regulatory Incentives*
  - In several countries, extensions to the license period are allowed for companies with a good compliance record, also, it is common for fewer inspections to be carried out on such companies, thereby allowing more time for regulators to focus on non-compliant industry.
  - In Peru, industry is encouraged by regulators to adopt environmental management systems in the understanding that these will assist the regulated community to improve their performance.
- *Public Relations Incentives*
  - In the USA, the Sonoma Green Business award scheme is used for industries meeting or exceeding a selected series of key environmental regulations, companies with the award can use it in their advertising, cooperation with the press has encouraged companies to achieve compliance in order to benefit from the positive publicity, the scheme has led to reduced insurance costs for companies in receipt of the award and enabled the regulator to reduce inspection frequency.
  - Similarly, in Canada, regulators have established a comprehensive scoring system for each industry sector and facility, this information is available on the Internet, one consequence of the wide dispersal of the information has been that companies have on their own initiative asked the regulator for guidance on how to improve their score.
  - In Puerto Rico, regulators also use an award scheme, here, information on compliant and non-compliant companies is published in national newspapers.

Success or failure of these schemes depends on them being carefully crafted to meet the needs and aspirations of the regulated community. For example, in Malaysia an economic incentive in the form of reduced tax liabilities, where investment in environmental technology has taken place, is no longer effective due to a collapse in investment rates following the Asia economic crisis. In the more economically developed countries, where consumers have a strong interest in environmental issues, environmental award schemes are very popular with the regulated community because they are confident that it will give their products the "edge" in the market.

3.2 Successful relationships between incentives, technical assistance, inspections, and enforcement responses

To make incentives successful, it is important for regulators to provide technical assistance, while at the same time, continuing to monitor the state of compliance through inspections and other means. However, the use of incentives must be backed up by a clear understanding on the part of the regulator and of the regulated that non-compliance will lead to appropriate enforcement action.

An example of a successful relationship between incentives, technical assistance, inspection and enforcement can be found in the operation of the Canadian scoring system on the softwood logging industry. Having established a public relations incentive scheme (the award scheme described under section 3.1), the regulator was asked by industry's leading environmental players, to provide technical advice on how they could improve their scored and even on how to achieve the maximum score. Was it time for the regulator to pack his bags and move on to the next industry? Certainly not, continued inspection and monitoring revealed that after a period of time, compliance began to fall. Tough enforcement action on the offenders was taken in order to send an unequivocal message to the regulated community that no back-sliding would be tolerated.

3.3 Government responses to Environmental Management Systems certified for conformity with ISO 14001 or other EMS standards

Although, in some countries, regulators are considering whether it would be sensible to adopt different enforcement strategies for companies using environmental management systems, to date, regulators have not done so because such systems do not provide a guarantee that accredited companies are not polluting the environment.

Of the two systems under discussion, ISO 14001 and EMAS (the EC Eco-Management and Audit Scheme), it was agreed that as the former only requires the establishment of environmental management processes, it appears to be less useful to regulators than the latter which also requires some measurement of actual environmental performance.

3.4 Conclusion

There are many different types of compliance incentive and they are becoming increasingly used by environmental regulators around the world. However, to ensure their success, regulators need to target them on the needs of the regulated community, to provide technical assistance in order to help the community benefit from the incentives offered, and to carefully monitor the state of compliance. Where non-compliance does occur within an incentive scheme, the regulator must be prepared to take firm and fair enforcement action.

Although, in some countries, regulators are considering whether it would be sensible to adopt different enforcement strategies for companies using environmental management systems, to date, regulators have not done so because such systems do not provide a guarantee that accredited companies are not polluting the environment.

4 DISCUSSION SUMMARY: WORKSHOP 3AA

Workshop participants first identified items they would explore with regard to structuring incentives. Several participants wanted to identify the balance between enforcement and incentives and potential limits associated with each activity in creating behavior change in environmental compliance. Some recognized that traditional command and control approaches were ineffective in environments attempting to attract economic development and wanted to identify incentives that could both encourage economic expansion and environmental protection. Command and control approaches were identified as inflexible for promoting incentives or helping in establishing motivators for positive behavior change.

Participants questioned the definition of "incentive" and believed that defining incentives only as positive was too narrow. They identified both positive and negative activities as definitional boundaries for incentives. For example, tax or fee reductions may be considered a positive incentive for the regulated community. While public release of information about poor environmental performance would be viewed by the regulated community as negative, it could be an incentive for poor performers to improve behavior or good performers to maintain their performance.

4.1 ISO 14001 and other EMS Standards

In analyzing ISO 14001 and other EMS standards, participants determined that such standards only put a management system in place. This system, when properly implemented, allows facility managers to control the various aspects of environmental management through the identification of environmental issues and thereby be more aware of environmental issues at the facility. In addition by identifying the issues, facility managers can set goals and objectives along with implementation activities to achieve these goals and objectives. The measurement of these activities and the associated success or failure enables facility managers the ability to make adjustments with an emphasis on continuous improvement. Such improvements can potentially allow facilities to go beyond compliance standards.

Workshop participants believed that ISO 14001 and other EMS standard have several helpful aspects. In addition to fostering beyond compliance behavior, these standards can create new company cultures and awareness of environmental issues, influence the environmental performance of other companies doing business with a company utilizing such standards (e.g. supply chain must meet same standards in order to do business), and create economic benefits such as insurance premium relief, favorable treatment by financial institutions, or investor confidence.

All participants agreed that ISO 14001 or other EMS standards will not produce or ensure compliance with environmental standards by itself. However, it was agreed that if implemented successfully, an EMS should bring the facility into compliance with environmental laws. The need for performance data was identified, and in developing countries participants believe that technical assistance in implementing these standards was a significant need. Several participants identified experiments and projects that are currently working to assess this performance. If this performance is indeed acceptable, participants believe that ISO 14001 or other EMS standards could be used as a component for positively rating environmental performance of facilities and potentially produce public recognition programs or reduced inspection frequency at high performance facilities.

4.2 Approaches to Motivate Compliance

Based on the modified definition of incentive, workshop participants explored various approaches that might motivate compliance with environmental requirements. They are:

- Publicizing enforcement and compliance data on both good and bad companies.
- Press releases for enforcement actions pursued against bad actors.
- Governmental economic support for good companies and facilities.
- Reduced liability from past activities at sites purchased for new usage.
- Favorable treatment from financial institutions in securing loans.
- Certificates of compliance recognizing good environmental performance.
- Voluntary agreements which guarantee no future regulatory requirements if agreement fulfilled.
- Tax relief.
- Environmental fees that stimulate compliance or a desired behavior change.
- Amnesty programs.
- Reduced penalties for companies that conduct audits and disclose violations.

Although workshop participants did not discuss the feasibility of the above mentioned approaches, most indicated that the implementation of these approaches would require a shift of resources by the regulator to be effective. Voluntary agreements must be constructed to promote a desired behavior, but must retain a protective provision for agreements that are not fulfilled. Many also felt that some level of technical assistance is needed regardless of whether an incentive is utilized or not.

4.3 Technical Assistance

Workshop participants agreed that there is a need for technical assistance, but were very concerned with the interaction between government advice and assistance verses enforcement. The group identified the following definitional boundaries, potential resources, and practices that may be considered:

- Purpose of assistance must be clear to the facility.
- Assistance should consist of general information only.
- Assistance should be requirement based and oriented toward interpretation and clarification of requirements.
- Use of public educational institutions to provide third party assistance.
- Hiring retired professional experts as consultants and advisors.
- Establishment of business clubs of like facilities to discuss common issues and solutions.
- Develop mentoring arrangements.
- Promote technical transfer of technology and best practices.

Several participants did not believe that enforcement personnel should provide technical assistance due to possible conflict of interest, resource limitations, and the abundance of other private and NGO resources. Enforcement personnel could provide

technical assistance on regulatory issues and interpretations. One participant identified the need to assist non-regulated entities that fall below the limits required of others to meet compliance standards, but still contribute an environmental impact.

4.4 Conclusion

Workshop participants analyzed the complexities and concerns posed by incentive programs and enforcement. Focusing on ISO 14001 and other EMS standards, approaches to motivate compliance, and technical assistance clearly demonstrated the continuing challenges facing both developed and developing country environmental programs. In order to ensure that the ultimate objective of environmental compliance and protection, workshop participants believe that successful demonstration and measurement will continue to allow for the exploration of creative approaches to compliance incentives. The participants believe that incentives can be both favorable or unfavorable to the regulated community, but should be designed to encourage excellence in environmental performance. They also identified that technical assistance is a continuing need, but care must be exercised in the development, delivery, and scope of such assistance.

STRUCTURING INCENTIVES FOR PRIVATE SECTOR COMPLIANCE: PILOT PROJECTS ON AUDITS AND LINKS BETWEEN ISO 14000 SERIES AND EMAS

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SUMMARY

September 15, 1997, saw the start of two pilot projects of the Bavarian State Ministry of State Development and Environmental Affairs involving transnational corporations that are members of the "Environmental Pact of Bavaria". We are conducting a pilot project with the BMW corporation at its Spartanburg plant in South Carolina and one with the Siemens corporation in Bavaria. The subject of these pilot projects is the combined validation and certification of the participant industrial locations in accordance with the EMAS Regulation, ISO 14001 and ISO 9000. The aim is to examine and evaluate the widened scope of a substitution (not deregulation) of environmental regulatory law and other sector-specific regulatory laws resulting from this procedure, for example, the law governing shop and factory inspection, occupational safety law, including the law governing the statutory industrial insurance institutions concerning accident prevention, the law governing hazardous materials, the law governing preventive maintenance, the law of the insurance industry, etc. This paper describes the pilots, how they developed and their status.

1 INTRODUCTION

The coalition government of the Federal Republic of Germany has agreed that a cardinal contribution of contemporary politics is to make government "leaner" and to prune the bureaucracy. In consequence, government activity in the normative, administrative, and judicial domain is to be reduced to the bare essentials. On July 18, 1995, the Federal German Cabinet decided to set up a "non-administrative, independent lean State committee of experts". The committee was constituted on September 21, 1995. The resolutions adopted by this body of experts - the Lean State Advisory Council - were submitted to Chancellor Helmut Kohl. The Federal Chancellery has put the Federal Ministry of the Interior in charge of coordinating the implementation of these resolutions. The President of the Federal Republic, Dr. Roman Herzog, has indicated just how important it is for the departments to implement these resolutions.

On November 29, 1996, the advisory council adopted a resolution on "Reinforcing private initiative: eco-audits and the means of transferring them to areas other than that of the environment." Sections 2 and 5 state the following:

Section 2. "On the basis of adhering to the law of the environment with the methodical approach of the functional equivalency, with a voluntary effort on the part of companies and sovereign activity, it is possible to reduce the burden placed on the companies and authorities in the areas of supervision, information and duties to report in a way which is legally unproblematic.

Restricting certain state supervisory or approval procedures in such a way is justified from the point of view of the prohibition of excess which is contained in the rule of law, which places state competencies or instruments of intervention under the reservation that such measures themselves must themselves be necessary and proportionate. If a private individual has demonstrated by possessing his or her own qualification (under professional law) or by carrying out certain more general preventive measures, for instance in his or her own company, that one may expect certain ecological standards to be maintained in general terms, it is not justified, particularly in the light of the prohibition of excess, to subject such entrepreneurs or traders, or the projects which they operate, to additional (project) controls. In this sense, the eco-audit is a significant step in a direction which is as correct as it is promising for the future - a course which one should also set outside of the area of the law of environmental protection."

Section 5. "In accordance with Articles 12 and 19 of the EMAS Regulation, it is possible to include international standards in the EMAS system of the EU after their recognition. With regard to the fundamental differences between the draft ISO standards 14001 on the one hand and the EC's EMAS Regulation on the other, and from the point of view of the requirements of the international competitiveness of the German economy, there is an urgent need to prepare a model to link the two systems. It would make sense once the model has been prepared to test it in practice in a pilot project at Länder level, and to involve the competent authorities, as well as to use it for inclusion of the system in accordance with ISO 9000 et seq."

The advisory council identifies itself with the guidelines of the Environmental Pact of Bavaria of October 23, 1995, a joint approach to protecting the environment, through a voluntary agreement between Bavarian industry and the Bavarian state government aimed at greater protection of the environment. On the other hand, it issues a high-priority recommendation for action, which is observed by the Bavarian State Ministry for State Development and Environmental Affairs in continuing the initiatives of the "Environmental Pact of Bavaria." In the further development of the legal maxims for action established there: Industry has long acknowledged the existence of the synergetic effects resulting from the association between quality and environment management systems and the EMAS Regulation - also known as "generic management systems" or "integrated quality assurance and environment management" or "occupational health and risk management." These synergies are now to be combined on the government side as well into a new, constitutionally correct concept that conforms with stipulated EC legislation, relieves industry and administration as a whole, and provides precise instructions for the enforcement agencies

on how this is to be carried out. Given all the political statements in the spirit of UNCED Agenda 21 and the "Shared Responsibility" doctrine of the EC's fifth Environmental Action Program, it is high time to put an end to the hyperbolic and haphazard development of corporate technical standardization at national (DIN), European (CEN) and international (ISO) levels, the self-reliant regime of the EMAS Regulation and state regulatory law, and to bundle all these functions.

2 THE MODEL OF SUBSTITUTION OF REGULATORY LAW IN THE "ENVIRONMENTAL PACT OF BAVARIA"

The legal framework for a system that combines the above functions is a difficult one:

Article 1 Section 3 of the EMAS Regulation stipulates that "*Existing EC and national laws or technical standards for environmental controls and the corporate obligations resulting from these laws and standards remain unaffected by this system.*"

In this way, the EMAS system of the European Community, the national regulatory law of the member states, and the regime of technical standards exist side by side as unrelated entities. The EMAS Regulation received ultimate approval, albeit "with some resignation" from the Federal Republic of Germany, by all accounts in full awareness of the systematic inconsistencies in the history of that Regulation, but this cannot begin to explain the fact that it articulated a broadly based option and an equally broadly based optimism concerning the use of the EMAS Regulation for "deregulating" regulatory law.

2.1 Reconciling: Substantive Environmental Requirements with EMAS Approach

On July 19, 1995, the Bavarian Minister President Dr. Edmund Stoiber entitled his government policy statement "Bavaria's Environmental Initiative: Cooperative Protection of the Environment, Sustained Development, Ecological Prosperity." Addressing the Bavarian State Parliament he referred to the negotiations, already under way, on the "Environmental Pact of Bavaria" by citing, among other things, the guiding principle underlying the EMAS Regulation:

> "*The more industrial companies are prepared to assume their own responsibility, the more we want to free them from state control.*"

Article 83 of the German Basic Law states that it is the business of the Länder to enact federal law in the way they choose - including directly effective stipulations of EC secondary law like the EMAS Regulation.

The administration therefore interpreted the guiding principle cited in the government policy statement of July 19, 1995, as a constitutionally correct approach to the solution, belonging to the class of choice-of-law rules with respect to Article 1, Section 3, of the EMAS Regulation. This was necessary in order to avoid the cumulation of the EMAS Regulation and regulatory law, and to link these two systems. Expressed in the categories of German Basic Law, the approach to the solution is based on the prohibition of excess, which places state competencies or instruments of intervention under the reservation that such measures themselves be necessary and proportionate. To that extent, there is full agreement with the formulation of the Lean State Advisory Council. Of course this approach is also the result of the principle of subsidiarity.

As its next vital step in conjunction with the EMAS Regulation, the administration introduced the term "substitution" of regulatory law in place of the term "deregulation" of regulatory law. This was to avoid misleading associations that might suggest a lowering of those material standards of protection defined by the German Basic Law and Article 130r of the EC Treaty - after all it is precisely this point that the "Environmental Pact of Bavaria" explicitly excludes. It makes it clear that the logic of this combined model resides in the definition of the union of sets between the EMAS Regulation and regulatory law.

2.2 Role of Compliance and Government Enforcement Responsibilities

2.2.1 Requirements for a Compliance Audit

The EMAS Regulation states that the "observation of all relevant environmental provisions" is a necessary condition for entry in the registry of industrial locations, Article 8, Section 4. The principles underlying this regulation, as well as Articles 2a and 3a of the regulation, are aimed at the observation of all relevant environmental provisions. The official English text reads: "... in addition to providing for compliance with all relevant regulatory requirements regarding the environment" - hence the usual expression "compliance audit" for an audit procedure of this type. The EC Commission has declared only this interpretation as conforming with the obligations and not a so-called "system audit" which essentially confines the audit to the corporate management system.

This compliance approach is the key to a "substitution" of regulatory law as such through the voluntary fulfillment of the regulations of environment law in accordance with this section of the article and the annexes to the Eco-Audit Regulation. It is an act for which the legal entity in question is directly responsible, instead of one that is subjected to nationally enforced environmental law. The only change is in the definition of the fulfillment of the obligation, not, however, the obligation itself. This makes it clear that, in fact, it is not the substantive "deregulation" of environmental law that is at issue here, but a partial privatization of the enforcement of environmental law. This "magic" formula can resolve the dichotomy involved in taking care of the industrial site and protecting the environment. Not last, this approach makes an effective contribution to reducing the much lamented deficit in the national enforcement system in the sphere of environmental law accompanied by the continued downsizing of human resources.

2.2.2 The Principle of Functional Equivalency: Retaining Independent Government Enforcement Role

This actual compliance with the regulatory requirements as the performer's own responsibility does not automatically lead, however, to a corresponding withdrawal and relinquishment on the part of the enforcement agencies. According to Article 4, Section 5, of the EMAS Regulation, state environmental control remains unaffected. Contrary to the certification of product safety, for example, the environmental assessment attested by an independent environmental auditor does not a priori imply that the respective company will permanently comply with all relevant provisions.

In order to keep a check on the problematic nature of parallel controls arising from this, we defined the principle of "functional equivalency" in cooperation with the Federal Ministry of the Environment. In November 1994, during the German Presidency of the EC Council, we discussed it at a plenary meeting in Munich of the IMPEL network of enforcement

officials of the member states (EU Network for the Implementation and Enforcement of Environmental Law). Its title was "The Relationship between Eco-Audit and Regulatory Controls." The basic outcome of the Munich IMPEL Plenary Meeting is as follows:

The substitution of the tasks of the enforcement agencies through voluntary corporate controls is only possible if the respective instrument of the EMAS Regulation and regulatory law is equivalent as regards its aims and the effectiveness of its controls, that is, if it is functionally and substantially equivalent. "Functional equivalency" works on this assumption - to distinguish the identity of two systems. These aims of regulatory law and of the EMAS Regulation are ascertained by interpreting the wording and the purpose of the provisions, i.e. by a comparison of the systems.

The term "functional equivalency," which originally comes from the structural-functionalist system theory of the American sociologist Parsons in the fifties, is especially apposite, because, although widely ignored in European literature so far, its central idea can be applied to European law and is immanent to the principle of mutual recognition derived from Article 30 of the EC Treaty. On the one hand, this is also based on the principle of Article 3b, Section 3, of the EC Treaty that the measures have to be proportionate and not excessive. On the other hand, an equivalency clause does not mean amending the legal situation to fit in with Community law, and is therefore neutral to competition. An equivalency clause is also different from an outline provision, because it requires the determination of factual equivalency by the competent enforcement official from case to case.

It has been assumed that for the entire monitoring sphere, there exists a reciprocal functional equivalency between regulatory law and the catalog of obligations of the EMAS Regulation, i.e. for the subsequent official controls (ex post) of the industrial plants at their respective locations and the companies' obligations to provide information (reporting and documentation) in support of these control mechanisms.

Given this assumption, however, preventive (ex ante) authorization provisions for new plants or modifications to plants are not functionally equivalent to the Eco-Audit Regulation. This fact, however, does not exclude the possibility of granting an exemption from certain types of audits, for example, the maintenance of the best available technologies (BAT), with the aim of "dove-tailing" Eco-Audit and authorization procedures.

The result is that the authorities can dispense with the respective requirements of regulatory law in cases of companies that have successfully participated in the system and have been entered in the registry of industrial locations.

3 PRACTICAL TESTING OF THE MODEL AND ITS INCORPORATION INTO THE SYSTEM OF ENFORCEMENT

From May to August 1995, the Association of the Chemical Industry - Bavarian Section - and the Bavarian State Ministry for State Development and Environmental Affairs worked together as members of a joint steering committee on the theoretical foundations of the project. In a so-called substitution catalog the pertinent provisions of federal and state law (emissions control, water, waste) were compared to the corresponding regulations from the body and annexes of the EMAS Regulation. The 84-page-long list refers to reporting and documentation, control and surveillance, as well as the authorization procedure. This catalog has legal status in the Free State of Bavaria. In order to ensure a standardized enforcement system we worked out appropriate administrative rules for the so-called lower-ranking enforcement bodies, thus opening up the Federal emissions control act, the law concerning water, and the federal act on recycling and waste to the EMAS System.

4 MONITORING VOLUNTARILY IMPOSED CONTROLS IN THE PRIVATE SECTOR: THE KEY ROLE OF THE ENVIRONMENTAL AUDITOR AND THE ULTIMATE CONSTITUTIONAL RESPONSIBILITY OF THE STATE.

The substitutions described above presuppose logically that only those persons can be licensed as auditors whose special skills (i.e. impartiality and reliability) guarantee a uniform interpretation and application of substantive environmental law. On account of these high demands, the human resources in this sphere must also be equivalent to those of the government's surveillance system. Another issue, of course, is the depth to which the audit is to be carried out by the environmental auditor as well as the sampling, checklist, and plausibility parameters.

5 SUBSTANTIVE FURTHER DEVELOPMENT OF THE MODEL OF SUBSTITUTION OF REGULATORY LAW IN ACCORDANCE WITH THE RESOLUTION OF THE LEAN STATE ADVISORY COUNCIL OF NOVEMBER 29, 1996

Currently the Bavarian State Ministry for State Development and Environmental Affairs is preparing a legislative initiative that aims at including opening clauses in federal environmental law within a new "Umweltgesetzbuch" (Federal Legislation Book in the field of Environment) to accommodate the EMAS. This is founded on the practical trials already described and the constitutional conformity of the substitution model in the "Environmental Pact of Bavaria" and complies with further pledges to industry made there. A further major step in the overall process has meanwhile been reached with the acceptance on principle of the "Environmental Pact of Bavaria" by the Directorate General XI of the European Commission and the basic prospect of an opening clause held out to us by the European Commission as part of its revision of the EMAS regulation this year. We intend to come to a good end on this behalf during the German presidency in 1999.

The above mentioned advance in the process of legitimization at the Länder, federal and EC Commission levels was reason and warrant for the decision described above to also tackle the pilot project at an international level with BMW in Spartanburg in the interest of globalizing the ecological conditions for industrial locations.

This is the reason and the basis for the joint pilot project of the Siemens AG and the Bavarian State Ministry for State Development and Environmental Affairs which is aimed at "testing management systems and plant audits for environmental protection, plant safety, and occupational safety with a view to strengthening companies' own responsibility in complying with regulatory requirements, and to replacing regulatory audits at plant level with compliance and systems audits."

In particular, the common objectives are:

- the further improvement of environmental protection, plant safety, and occupational safety;
- the testing and implementing of a management system interlinked as far as possible, and of a holistic auditing system for environmental protection, plant safety, and occupational safety, with particular regard to measures influencing behavior, and to conditions at the plant;

- the testing of a documentation system enabling the auditing, by the company itself and regulatory authorities, of the respective status of environmental protection, plant safety, and occupational safety;
- substituting the direct regulatory audit performed by government agencies for a company self-audit that has been agreed with regulatory authorities, is carried out on the company's own responsibility, and is perpetuated; and for an official systems and documentation audit;
- providing an estimate of the potential and actual benefits of the introduction of management and auditing systems for environmental protection, plant safety, and occupational safety (using, for instance, data indicating a decline in the number of work-related accidents and illnesses, improvement in production quality and production quantity, and improvement in the efficiency of regulatory bodies);
- developing suggestions for creating the regulatory framework for collaboration between companies, government agencies, and casualty insurers in accordance with the constitutional supervisory function of the state.

The experience gained within the framework of the pilot project will be documented in a joint final report which is to contain recommendations for companies of other industries and sizes as well. In this context, the final report is to mention possibilities of substituting monitoring functions on the part of the authorities while maintaining the constitutional supervisory function of the state, as well as suggestions with regard to deregulating the body of rules and regulations.

Within the meaning of the Agenda 21, chapter 8, "The Integration of Environmental and Development Objectives into Decision-Making," the results of this pilot project, together with the results of the pilot project conducted with the BMW AG in Spartanburg, are to be incorporated into the proposal for a national program made to the Federal Government, including the subjects of occupational safety and plant safety.

6 CONCLUSION

Our ultimate goal is to establish this methodological approach - i.e., of substituting regulatory law in the sectors of the environment, safety, and health for integrated management - with the Committee of Sustainable Development, CSD, as well as within the framework of the United Nations Environmental Program, UNEP.

I ask for your active support. To quote a Chinese circus motto: "May we succeed with our exercise."

ADDENDUM: THE LEGAL TERMS OF REFERENCE FOR THE PILOT PROJECT

However prolific the literature on the subjects of the EMAS Regulation and ISO standards already is, the academic argument relating to this concept of environmental-political control is only just beginning.

To do justice to the tasks set and to the way it sees itself - incidentally based on the broad and bitter experience of having to make conflicting concepts suitable ex post for purposes of enforcement - the Bavarian administration intends to take part in this discussion ex ante and at a practical level, backed by the mandate provided by the specifications of the political guidelines. The "Environmental Pact of Bavaria" has been shown to be the right method for subjecting control concepts to practical testing using attendant pilot projects and the enlistment of locally and technically competent authorities.

1 ARTICLE 12 SECTION 1A OF THE EMAS REGULATION

In its official German version in the Official Journal of the European Communities, the language of Article 12 Section 1a of the EMAS Regulation (which also contains a German printing error: "diese Verordnung" instead of "dieser Verordnung") is, on the whole, poorly formulated. The meaning of the German text becomes unequivocal only when compared with the official English version. But, after all, the legal classification is not exactly simple.

The regulation stipulates that national, European or international "standards for environmental management systems" may replace the provisions of the EMAS Regulation. A condition for this is that the locations that use them "have received, after suitable certification procedures, confirmation to the effect that they fulfill these standards." These "standards for environmental management" are different standards specifically related to organization, i.e. related to EMAS. By "technical standards" within the meaning of Article 1, Section 3, of the EMAS Regulation, on the other hand, we are to understand the standards of a subordinate set of rules in the monitoring domain already mentioned.

2 LEGAL EVALUATION OF THE REPLACEMENT OF THE EMAS SYSTEM BY STANDARDS FOR ENVIRONMENTAL MANAGEMENT

The standards in the context of Article, 12 Section 1a, of the EMAS Regulation are not supplemental but substitutive. To put it another way: Article 12, Section 1a, creates a compliance fiction in terms of EC law - also in favor of so-called low or sub-standards, i.e. those standards which are not qualitatively consistent with the contents of the EMAS Regulation.

3 THE DECISION OF THE EUROPEAN COMMISSION TO RECOGNIZE ISO 14001: EVALUATION

Just like the EMAS Regulation, even if the management structure is different, the international standard ISO 14001 imposes requirements on corporate environmental management systems and environmental audits. It is not the job of the authorized

environmental auditor to check certificates within the meaning of Article 12, Section 1a, of the EMAS Regulation if ISO 14001 is applied; he must rather use them as the basis for the company audit.

On April 16, 1997, the European Commission decided to recognize ISO 14001, as well as the certification procedures as part of the environmental audit. The text of this resolution defines the extent to which ISO standard 14001 corresponds with the demands of the EMAS Regulation.

Both systems have in common that participation is optional. Both systems establish an environmental management and an environmental plant-audit system. To that extent, both systems compete with each other. There are, however, several differences between ISO 14001 and the EMAS Regulation. In total, the contents of the ISO 14000 standard were considered to be less sophisticated. Aside from the much wider scope of applications of ISO 14001, a further difference lies particularly in the lack of elements having an effect on the outside. Under ISO 14001, neither the preparation nor the publication of an environmental statement is required. There is neither an audit by an environmental expert nor any official registration of a site by registration authorities. While under the EMAS Regulation the state has an indirect influence on validation through the admission of environmental experts, and the EMAS hence becomes an instrument of the state-supervised self-regulation of companies, this element of at least indirect state control is missing completely in ISO 14001. Furthermore, ISO 14001 does not contain any obligation to achieve an actual, continuous improvement in corporate environmental protection. Neither is there any obligation to conduct compliance audits. ISO 14001 hence lacks essential elements which in the EMAS Regulation bring about dynamic, pro-active corporate environmental protection. The effect of this is even intensified by the fact that ISO 14001, in contrast to the EMAS Regulation, does not provide for regular inspections. Therefore, it is fair to say that the requirements of ISO 14001 fall considerably behind those of the EMAS Regulation. Hence, the standard and the EMAS Regulation are not equivalent to each other. This statement is not intended to call into question the internal benefits of establishing an environmental management system under ISO 14001. In the opinion of the Environmental Council, however, the fact that essential elements are missing compared to the EMAS Regulation means that ISO 14001 cannot be used to justify measures of deregulation and substitution. The Environmental Council is in favor of the EMAS Regulation because it makes greater demands in terms of contents, and may hence serve as the basis for a strategy of deregulation.

The resolution - albeit open to many interpretations - identifies the approach of the EMAS Regulation, which relates directly to an improvement of corporate environmental protection as distinct from the system-related approach of ISO 14001. So, all in all, it is only possible to speak of a partial recognition.

4 THE DECISION OF THE EUROPEAN COMMISSION TO RECOGNIZE ISO 14001: CONCLUSIONS

Even so, companies may now link the two systems. This has the following legal basis:

There is no disputing that, after prior ISO 14001 certification, a subsequent EMAS procedure has only to check some further „trivialities" - which are defined by the resolution mentioned above - in order to be eligible for registration. The existence of an ISO 14 001 certificate therefore covers a certain portion — and especially the environmental management

portion - of the EMAS procedure, thus obviating the need for a further audit by the authorized environmental auditor and therefore simplifying, accelerating and standardizing the EMAS procedure. Recognition by the Commission can make ISO 14001 a component part of EMAS in the sense of the replacement mechanism described, or, in other words, the ISO certificate replaces part of the EMAS procedure.

The remaining parts of the EMAS procedure have to ensure the implementation of the compliance audit, which, according to the prevailing view, does not take place under ISO 14001.

The consequence of these considerations is that if the sequence of these procedures is reversed, then a prior EMAS procedure will include the ISO 14001 procedure. This means that the authorized environmental auditor may, if requested (and paid for), also issue an ISO 14001 certificate as part of a successful EMAS validation process.

Along with EMAS - whether on its own, whether applied beforehand, or whether facilitated by the prior ISO 14001 certificate , according to Article 1, Section 3, of the EMAS Regulation, regulatory law and its subordinate set of norms remain principally unaffected. So the application of the acknowledged ISO 14001 standard has a direct effect only on the EMAS procedure, but not the application of both regulatory law and its technical standards as specified by Article 1, Section 3, of the EMAS regulation.

With regard to the model of a combination of ISO 14000 and EMAS as described above, and the possibilities to grant enforcement relief ("relaxations," "added value effects," "incentives"), the intention is of course to decide the competition between the two systems in favor of both of them. It is true that otherwise ISO 14000 could succeed worldwide. A legally unobjectionable approach to the "cooperative enforcement of regulatory law in the field of the environment" would, however, not be opened up. I refer to Council Resolution No. 97-05, dated June 12, 1997, of the governments of the United States of America, the United Mexican States, and Canada, "Future Cooperation regarding Environmental Management System and Compliance:"

Private voluntary efforts, such as the adoption of Environmental Management Systems (EMSs) such as those based on the International Organization on Standardization's Specification Standard 14 001 (ISO 14 001), may also foster improved environmental compliance and sound environmental management and performance. ISO 14 001 is not, however, a performance standard. Adoption of an EMS pursuant to ISO 14 001 does not constitute or guarantee compliance with legal requirements and will not in any way prevent the governments from taking enforcement action where appropriate.

In my view, one of the primary functions of this suggestion is an exact operationalization of the guideline in Agenda 21 of the Conference on the Environment and Development of the United Nations in Rio de Janeiro of June 1992. Marginal note 28 in chapter 30, "Strengthening the Role of the Private Sector," the wording of which was based on proposals made by the International Chamber of Commerce, reads as follows:

"In conjunction with the private sector including transnational companies, governments are to develop and implement a suitable combination of instruments of economic policy and regulatory measures such as laws and regulations as well as norms...."

Now the obvious thing to do is to continue that combination model in a consistent manner. To that extent too, chapter 30 of Agenda 21 contains a guideline - marginal note 26 reads:

"The private sector, including transnational companies, is to guarantee a product and procedural management which, in terms of health, safety, and environmental protection, is a responsible management. For this purpose, the private sector is to intensify self-auditing, using suitable codes, statues, and initiatives integrated into all elements of business planning and decision-making...."

This UN Agenda 21 guideline, too, has only recently been adopted for a high-level recommendation within the Federal Republic of Germany which is addressed to politicians and administrative personnel: the "Expert Council on Environmental Affairs," in its "Environmental Survey 1998," has worded it as follows:

"In the discussion concerning the EMAS Regulation, demands are made time and again that quality assurance, occupational safety, and environmental management, as well as other management systems too should, if possible, be consolidated into one integrated management system. Such a holistic model would avoid the inefficient coexistence of various management systems without relativizing the objectives of the previous systems. The Environmental Council recommends that this idea should be taken into account in amending existing systems, or in creating new ones in future. Otherwise, the present state of affairs will pose the risk of a new management system being introduced only as an ‚appendage' to an established one. There is reason to believe that in many cases, the EMAS system was only grafted on an existing quality-management system (approximately 80% of the audited companies already have a quality-management system); this would reduce the independent status of corporate environmental protection."

5 ABBREVIATIONS/EXPLANATIONS

EMAS = Council Regulation (EEC) No. 1836 / 93 of June 29, 1993, allowing voluntary participation by companies in the industrial sector in a Community eco-management and audit scheme; Official Journal of the European Communities No. L 168 of July 10, 1993, p. 1 ff. — known as "Eco-Audit Regulation," herein also referred to as "EMAS Regulation."

ISO = International Standardization Institute

Resolution of the Commission of April 16, 1997, to recognize certification methods in accordance with Article 12 of the (EEC) Regulation No. 1836 / 93 ... (97/264/EC) and resolution of the Commission of April 16, 1997, to recognize the international ISO 14001 standard : 1996 and the European EN/ISO 14001 standard: 1996 for environment management systems in accordance with Article 12 of the (EEC) regulation No. 1836 / 93 ... (97/265/EC), Official Journal of the European Communities No. L 104, p. 35 ff.

Lean State Advisory Council

(on-line in the Internet): http:/www.bundesregierung.de/inland/ministerien/innen/sachverOO.html

AGENDA 21 of the Conference on the Environment and Development of the United Nations in Rio de Janeiro of June 1992 is the action program adopted by 178 nations for the 21st century on cooperation in the fields of environment and sustainable development.

"For a sustainable and environmentally compatible development. A program of the European Community for an environmental policy and measures aimed at a sustainable and environmentally compatible development," resolution of the Council and the representatives of the governments of the member states in the Council of February 1, 1993, Official Journal of the European Communities, No. C 138, p. 1 ff., Chapter 8: "Subsidiarity and joint responsibility".

WORKSHOP 3B
ENVIRONMENTAL CRIMES AND CRIMINAL ENFORCEMENT

Internationally, the role for criminal enforcement is very varied with some nations relying exclusively on criminal enforcement mechanisms for the full range of possible violations of environmental requirements and others reserving criminal enforcement for actions thought to be "criminal" in nature. Nevertheless, there is increasing recognition of at least a set of violations of environmental requirements that are recognized as "environmental crimes" worthy of treatment under criminal codes and criminal prosecution. The players involved in criminal enforcement sometimes differ from those in civil enforcement requiring different forms of cooperation both nationally and internationally.

Papers 1-9 for Workshop 3B and a list of related papers from other International Workshops and Conference Proceedings are in Volume1

SUMMARY OF WORKSHOP: ENVIRONMENTAL CRIMES AND CRIMINAL ENFORCEMENT

Facilitators: Workshop 3B: Earl Devaney, Ton Spel
Workshop 3BB: Andreas Gallas, Linda Spahr
Rapporteurs: Workshop 3B: Michael Penders
Workshop 3BB: Susan Hay

GOALS

Discussions were designed to address the following issues:

- How countries are using and developing criminal enforcement authority for addressing environmental crimes and for deterring and correcting violations of environmental laws.
- Kinds of sanctions and other consequences made available through criminal enforcement and how effective they are in achieving compliance.
- The proper role of criminal authorities and sanctions in environmental enforcement. The relationship between criminal and civil enforcement and for what types of violations criminal enforcement (rather than civil enforcement) is particularly well suited.
- National cooperation in criminal enforcement: government entities that might be involved in making criminal enforcement successful and how these different groups can be encouraged to work together.
- Training required to support criminal enforcement and training materials available.
- How INTERPOL works and how to access country contacts and INTERPOL..
- International cooperative efforts among countries to prevent, detect, and prosecute crimes: what has worked well and what has not worked well, what improvements can be made and what information needs to be shared.

1 INTRODUCTION

The Workshop started with general introductions from the participants and an indication of their expectations from the Workshop. The expectations were essentially to:

- gain from the experiences of others;
- make contacts;
- learn about strategies employed in other countries in relation to environmental crime; and
- obtain some clarification of the concept of environemental crime.

2 PAPERS

There were nine papers in Volume one of the proceedings of Monterey available. Earl Devaney et. al. reported about the G-8 Mandate that combat international environmental crime. Rob Bakx et. al. reported on the cooperation among the police, the judiciary and government to control crimes against the environment. The strategy on enforcing environmental law through criminal law was in the paper of Biezeveld et. al. The role of the criminal investigation in local enforcement was reported by Steven Drielak. Andreas Gallas et. al. gave the German experiences and approaches to transboundary environmental crimes. The position of the public prosecutor is the Netherlands in regard with the enforcement of environmental legislation was reported by Ton de Lange et. al. From Cameroon, Pierre Mbouegnong reported on environmental crimes and criminal enforcement. Linda Spahr explained local enforcement as a fundamental component of environmental compliance. Ton Spel reported on improving the quality of the environmental task of the police in the Netherlands.

3 DISCUSSION SUMMARY: WORKSHOP 3B

3.1 How countries are using criminal enforcement authorities and sanctions?

Unlike the Third conference workshop at which it was reported that many countries represented used some combination of fines, penalties, jail terms, closing the facility, negative publicity, requiring environmental audits and injunctive relief as sanctions in criminal cases at Monterey, all countries represented at the workshop reported having such criminal sanctions. Several countries had even enacted a death penalty for certain types of environmental crimes. Criminal statutes may also allow for the seizure of property related to the crime and environmental crimes may also be prosecuted under other charges such as tax fraud, racketeering, or giving false statements to government regulators.

The People's Republic of China and Hong Kong reported significant prison terms and some 30 cases involving illegal imports of waste. Other countries, such as Romania, had recently enacted criminal laws providing for up to six years imprisonment for knowing violations, but had not yet sentenced a defendant to jail. Several countries reported that the laws were on the books, but they had no resources or institutional capacity to enforce the laws.

It was noted that criminal enforcement is difficult in countries where the economy and development has a higher priority than the environment or there is a lack of public awareness about the adverse effects on health and the environment from serious violations. It was agreed that it is important to publicize environmental scandals as a means of public education and support. It was a general view that environmental enforcement may take years to develop. It is a long process of training, coordinating efforts and knowledge, developing laws and regulations, setting up permit systems, and then developing cooperative law enforcement capacity.

3.2 The Role of Criminal Enforcement Authorities and Sanctions within a Broader System of Environmental Enforcement and Compliance Assurance and the Society at Large

Criminal enforcement generally reserved for the most serious violations, particularly those that result from culpable individual or corporate conduct ranging from deliberate criminal conspiracies to illegally dump hazardous waste or smuggle CFCs to negligent operation of facilities or ships resulting in harm to the environment and human health, such as oil spills or releases of toxic chemicals to the environment. In most countries the number of administrative cases is much larger than the number of criminal prosecutions, and appropriately so. Criminal cases are the most resource intensive as the government must prove intent and satisfy the due process requirements of a criminal trial. Accordingly, the criminal sanctions should be selectively used to maximize their deterrent impact on society.

Past history of compliance is always an important consideration in determining whether criminal enforcement is warranted. Companies that view payments of civil or administrative fines as a cost of doing business and are repeat violators may be liable for criminal sanctions. It is important that guidance be developed to determine when it is appropriate to use criminal enforcement, and the regulated community should be made aware of what constitutes a criminal offense. In this way, not only is deterrence enhanced by public communication, but it becomes easier to make criminal cases against those who were on notice but violated the law anyway.

Who determines whether a particular violation may be prosecuted criminally, and whether the case is brought against a company, individuals, or both, varies from country to country. In some countries the determination is made by the public prosecutor, in other countries a screening committee or federal agency may make this determination on which type of sanction to bring in a given case; criminal, civil, or administrative. It is essential that the decision makers have all the relevant information from all the relevant agencies, including compliance data, to make an informed decision. Environmental enforcement task forces comprised of all relevant agencies pooling their resources and information to investigate violations in one geographic area have proved an effective method to ensure that all relevant information is available to decision makers in a collaborative process. Finally, a cooperative coordinated approach is needed between affected programs like the police, the environment agency, prosecutors, fire and hazardous materials teams. Defining roles, responsibilities and assigning accountabilities is essential.

In a number of places, a country's economics and culture influence whether and how they utilize negotiations, fines, warnings, or criminal prosecution. It was agreed that nations should emphasize the value of maintaining a level playing field between sources as a matter of national policy so that a polluter does not gain an economic advantage over a clean industry. In some instances countries have found support from law abiding industry for developing a criminal program if they believe it will protect their markets. There was also discussion about the importance of imposing sanctions on individuals as well as corporations. It was clear that severe sanctions have a preventive effect because of deterrence in all the countries represented.

3.3 Training and Law Enforcement Cooperation to Facilitate Criminal Enforcement

Many countries are in need of good training programs for investigators and prosecutors, and for judges as well. Many times environmental crimes are so complex that it takes full-time investigators and prosecutors to develop the requisite expertise to learn and apply the laws.

In countries where the police are not involved in environmental enforcement but should be, a basic awareness training is important for all law enforcement who may encounter environmental crimes in the course of their duties. In this way, patrolling officers will know what to do and who to call, and more importantly, what not to do when confronted with a hazardous situation as well as a potential crime scene.

3.4 Conclusion

Since the Third Conference there have been a consistent conclusion that "criminal sanctions play a fundamental role in environmental enforcement programs and send a strong deterrent message to industry and the public. In order for a criminal enforcement program to be effective, cooperation, including training and joint operations, among all agencies involved and the relevant law enforcement institutions is essential, particularly where there are limited resources devoted to environmental enforcement efforts as such." It is important that criminal enforcement programs target the most egregious violators to conserve limited resources and maximize deterrence of the worst behavior, while preserving proportionality in broad based enforcement and compliance regimes and building support for these cases within the criminal justice system.

4 DISCUSSION SUMMARY: WORKSHOP 3BB

4.1 Definition of Environmental Crime

The group found it difficult to agree on a definition of environmental crime. It was apparent that different legal systems in the different countries treated violation of environmental legal requirements in different ways. It was, however, agreed that one had to look at whom or what was intended to be protected (human health/environment), the seriousness of the damage/risk, the size of the geographical area or population affected and any financial gain accruing to the violator as a result of his action.

In some countries there had to be a criminal intention for negligence, in others a "strict liability" approach was adopted. Not all countries recognized the concept of corporate criminal liability which made it difficult to obtain judgements against companies. Some countries had a very clear list of what was regarded as "environmental crime", such as:

- water pollution
- soil pollution
- air pollution
- environmentally unsafe waste management
- unlicensed running of a facility
- unauthorized use of nuclear fuel or emission of radiation
- endangering protected species
- illegal handling of dangerous substances.

4.2 Sanctions

The type of sanction used (civil, administrative or criminal) varied according to the different countries' legal systems. In some countries all violations of environmental law were regarded as criminal offences. Others had found that fines (which were regarded more as administrative rather than criminal sanctions) worked more effectively. In other jurisdictions there was also the possibility of other administrative sanctions such as closing down a factory or business. In some countries where criminal sanctions were available, imprisonment was another option.

In some of the developing countries, the law was weak in that only very small fines could be imposed or there was no environmental law as such and recourse had to be more traditional charges such as theft or criminal damage to property.

Some countries provided for damages to be paid as a result of pollution and repayment of any financial gain or benefit to the violator resulting from the violation.

It was generally agreed that peer pressure or adverse publicity in the press worked as a very effective deterrent. Criminal prosecution seemed to be an effective deterrent in countries where administrative/civil enforcement was already firmly in place.

In certain countries the political will was not always present to protect the environment. In countries which had faced widespread natural disasters and problems of feeding, criminal enforcement was probably not a realistic goal. Education and implementation of basic environmental laws may need to be addressed before criminal enforcement of such laws was appropriate. Economic development was accorded greater priority than protecting the environment. Also, judges did not always regard environmental offences as serious and consequently handed down only small penalties.

4.3 Cooperation Between Different Authorities Within a Country

Again, there was a great divergence in practice according to the countries' individual systems and infrastructures. In some countries the police were the enforcing and prosecuting authorities, in others private prosecutors or officials brought charges.

It was considered essential that whatever the particular system, there should be close cooperation between all the relevant agencies and the police and judicial authorities.

The training of professionals in all the relevant sectors was regarded as highly desirable to make them aware of the scientific, technical and legal background to environmental law.

4.4 Conclusion

The diversity of legal systems and individual country approaches made it very difficult to find a general consensus as to what sort of violation could be regarded as "environmental crime". However, it was generally agreed that the following points should be addressed in all countries if enforcement of environmental law was to be effective:

- Education – the general public and "regulated" community should be well informed as to environmental law requirements and the benefits flowing from compliance with such requirements.
- Training – judges, police and prosecutors should be trained to enable them to properly assist the environmental agencies.
- Speeding up of the judicial process – delays in court proceedings were not conducive to deterrence.

- Politicians had to be convinced of the long term benefits of environmental protection rather than giving priority to economic development, particularly in developing countries.
- Flexibility – legal and administrative systems should be flexible enough to give the appropriate response in each case.

The group found it difficult to agree on a definition of environmental crime given the different legal systems in their respective countries and diversity of practices. However, factors to be taken into account included:

- Who or what was intended to be protected (human health/environment).
- The seriousness of the risk/damage.
- The size of the geographical area/population affected.
- Financial gain to the violator for ignoring the legal requirements.

Sanctions varied from country to country – in some (e.g. Germany) high fines of a civil rather than a criminal nature were a deterrent. In others the criminality aspect and adverse publicity were effective.

It was generally agreed that there should be cooperation between the different agencies in a country and that training was important, particularly for judges and lawyers. Politicians, the general public and the "regulated" community should be educated as to environmental legal requirements and the legal and administrative systems should be flexible enough to give the appropriate response in each case.

CRIMINAL LAW AND THE PROTECTION OF THE ENVIRONMENT IN BRAZIL

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SUMMARY

The author reviews the development of criminal instruments in the protection of natural resources in Brazil and the growing importance of criminal sanctions in setting up compliance and enforcement programs. Special attention is given to the 1998 Crimes Against the Environment Act, a piece of legislation containing highly innovative provisions that could have a considerable impact on how the environment is protected in Brazil.

1 THE WORLD SCENE

Over the past few years, criminal law has expanded its involvement in environmental protection exponentially, both through enactment of new laws and more effective enforcement of existing provisions. This phenomenon, initially limited to a handful of countries like the United States, is now an international trend.

In this regard, a major development was the UN General Assembly Resolution 45/121 on "The Role of Criminal Law in the Protection of Nature and Environment," which endorsed a report of the same title adopted by the Eighth United Nations Congress on Prevention of Crime and the Treatment of Offenders, held in Havana, Cuba, in 1990.[2] The Resolution stated, inter alia, "that in addition to measures provided by administrative law and liability under civil law, measures should be taken, where appropriate, in the field of criminal law.: In addition, it called upon Member States to "recognize the need to modify or enact, where necessary, and to enforce national criminal laws designed to protect nature and the environment, as well as people, threatened by their deterioration."

In 1995, the topic was again discussed at length during the Ninth United Nations Congress on the Prevention of Crime and the Treatment of Offenders, held in Cairo, from April 29 to May 8.

It was in this setting of renewed interest in criminal law as a powerful tool for the protection of human health and ecosystems that Brazil recently enacted Law no. 9605 of February 12, 1998.

2 OVERVIEW OF THE LEGAL PROTECTION OF THE ENVIRONMENT IN BRAZIL

Brazil is a world power in terms of natural resources. At the same time, however, it ranks among the leaders also in pollution[3] and irreversible destruction of habitats,[4] a fact exhaustively stressed by scientists and lately acknowledged by the government.

In spite of such an alarming assessment, the situation might have been even worse if the country had not made dramatic changes in its legal system during recent years to improve its struggle against pollution and environmental degradation.

Since the mid-sixties, several laws were enacted with a view to regulate several issues and activities that interface with the environment: the 1965 Forest Code;[5] the Fauna Protection Act,[6] the Fishing Act[7] and the Mining Act,[8] all adopted in 1967; the 1977 Liability for Nuclear Damages Act;[9] the 1980 Industrial Zoning Law for Critical Pollution Areas;[10] and the 1989 Pesticides Act.[11]

But it was the National Environmental Policy Act of 1981[12] that really set in motion environmental protection as such in Brazil. The legislators went beyond the piecemeal approach so typical of the legislation enacted prior to that date. The Act did more than establish the principles, goals and instruments of a national policy for the environment. It brought into the Brazilian legal system the environmental impact statement. In addition, the Act provided a regime of strict liability for environmental damage and gave the Offices of the Attorneys General standing to sue on this matter.[13]

An important step toward this legal development was the promulgation of a new Federal Constitution in 1988, right after democracy had been fully restored in Brazil. Among other innovations, the new Charter embodies a whole chapter on the environment,[14] aside from providing a social-environmental obligation inherent in property rights.[15]

3 FLAWS IN THE PREVIOUS CRIMINAL LAW REGIME AND THE DRAFTING OF THE 1998 CRIMES AGAINST THE ENVIRONMENT ACT

Even before the enactment of the Crimes Against the Environment Act and the efforts to give a more prominent role to criminal law in environmental policy, Brazil already had several legal provisions determining criminal sanctions for offenses in areas such as pollution control,[16] flora,[17] fauna,[18] fishing,[19] and pesticides.[20] The 1940 Criminal Code, still in force today, has a number of provisions that might (and can) be enforced to protect the environment.[21]

Such criminal offenses were open to criticism from several angles. First, because they had a double standard, treating wildlife and habitat differently. Behaviors harmful to fauna, for example, were defined as a felony and subject to heavy punishment (prohibition of bail, e.g.), while actions harmful to flora were classed only as misdemeanors, whether the offender had cleared one or 100,000 hectares of native forest. Second, because of several poorly worded provisions and a fragmented approach to the environment as such, it was easy for defendants to be acquitted. Third, nearly all criminal offenses would require intent. Plagued with so many flaws, it is no surprise that in describing the situation prevailing in the '80's, Roger W. Findley stated that "to date, criminal actions have been a negligible factor in the overall efforts to abate pollution in Brazil."[22]

My concern with the ineffective existing criminal laws and my conviction that they could be useful in affording adequate protection to the environment, I suggested to then-Minister of Justice Nelson de Azevedo Jobim in early 1996 that a Legal Experts Committee be appointed to draft a Crimes Against the Environment Act, to which I was appointed general rapporteur.

The bill moved along a somewhat thorny but fast course in the Legislature. Adopted with no major amendments by the Senate, the Legal Experts' draft lost several of its original provisions thanks to pressures from an extremely powerful lobby that rallied together industrialists, mining concerns, timber companies, and ranchers. The law was weakened even further subsequently by a number of presidential vetoes. President Fernando Henrique Cardoso turned a deaf ear to the pleas not to do so from legal scholars, environmental groups and the international community.[23]

Totaling 82 articles, Law no. 9605 is much more than a Crimes Against the Environment Act, as its title implies, but also deals with administrative sanctions.

4 KEY INNOVATIONS IN THE CRIMES AGAINST THE ENVIRONMENT ACT

Law no. 9605/98 brings several innovations, starting from the fact that Brazil has in a single piece of legislation the near totality[24] of criminal offenses against the environment.

It should be stressed also that the law has both provisions that are dependent on or accessory to administrative law, and others that are independent from environmental agencies, incriminating conduct that creates serious risk to human life or health or to the environment even when covered by a valid permit.

4.1 Criminal Liability of Corporations

One of the key innovations of Law no. 9605/98 was the introduction of corporate criminal liability in the Brazilian legal system. This idea subverts the Latin-American legal tradition, where only individual liability is contemplated.

Under the new system, both individuals (including corporate management) and legal persons are criminally liable, their liability limited solely to those cases where "the offense is committed by a decision of a legal or contractual representative or of its collegiate body in the interest or for the benefit of its organization."[25]

The criminal liability of corporation does not preclude "individual liability,"[26] and the same conduct may bring a verdict of guilty to the corporation, its management and other individuals involved.

4.2 Pollution Control

As explained above, the 1981 National Environmental Policy Act had a criminal provision added to its wording in 1989 dealing specifically with pollution. Law no. 9605/98 also embodies that offense, punishing with one to four years in jail and a fine anyone who causes pollution of any nature at levels that result or may result in injury to human health or that cause animal death or significant destruction of flora" (art. 54, first part).

It is also a crime to "build, remodel, expand, install or operate, anywhere in the Brazilian territory, potentially polluting facilities, works or services without a permit or authorization by the proper environmental agencies or in breach of the applicable legal or regulatory standards" (art. 60).

4.3 Crimes Against Flora and Fauna

Offenses against flora were classed as misdemeanors under the old Forest Act, which weakened deforestation control considerably.

The new law has a whole section devoted to the protection of flora, listing criminal offenses such as direct or indirect damage to protected areas,[27] destruction of or damage to specially protected native or planted forests, dune preserving or mangrove protecting vegetation,[28] or hindrance or obstacles to natural rehabilitation of plant life under protection.[29]

Restrictions on the use of fire was vetoed by the Brazilian President under pressure of some powerful landholders.[30]

As far as wildlife is concerned, the law copied the criminal offenses already included in the 1967 Fauna Protection Act and added a few more. For example, it is an offense punishable by six months to a year's incarceration and a fine for anyone to "kill, stalk, hunt, trap or use native or migratory wildlife specimens without the required permit, license or authorization from the proper authority or in breach of any such permit, license or authorization granted" (art. 29). If the offense occurs in the form of professional hunting — forbidden by the Fauna Protection Act anywhere in the country — the penalty may increase threefold (art. 29, paragraph 5).

It also constitutes an offense to "practice any type of abuse, mishandling, injury or mutilation of wild, domestic or tamed, native or exotic animals" under penalty of three months to a year's incarceration and a fine (art. 32, first part).

While in the case of flora the law is harsher than the criminal provisions in the Forest Code, on wildlife it moved backward in that applicable sanctions were considerably abated. Behavior that was punished by two to five years in jail under the Fauna Protection Act is subject to six months to a year's incarceration and a fine according to Law no. 9605/98. Not to mention that under the new law all such offenses are entitled to bail, which was not the case before. In other words, in the criminal protection of fauna we went from one extreme (too much) to the other (too little).

4.4 Crimes Committed by Environmental Officials

The change introduced by Law no. 9605/98 that has brought the heaviest and most immediate impact was the criminalization of certain types of behavior of environmental officials. It is now an offense — carrying one to three years; incarceration and a fine — for the "official to grant a permit, authorization or license in breach of environmental rules for activities, works or services that depend on authorization of a government agency" (article 67), whether the behavior is intentional or negligent (in the latter case, the penalty is three months to a year's incarceration and a fine).

Another new provision punishes "any official who makes false or misleading statements, omits the truth, or does not disclose technical and scientific information or data in applications for environmental permits or licensing," under penalty of one to three years incarceration and a fine (art. 66).

4.5 Sanctions

Individuals are liable to incarceration, fines and restriction of rights. Legal persons are liable to the last two penalties, in addition to providing community services (maintenance of public facilities, rehabilitation of degraded areas other than the directly damaged one)

20 Law no. 7802/89, articles 15 and 16.

21 The Criminal Code has several provisions that punish as felonies certain actions having indirect impact on the environment. Article 271, for example, which forbids pollution of potable water as a crime against public health, or Article 132 that broadly makes it a crime "to expose the life of health of another to direct and imminent danger." On the issue of forest protection, Article 250 imposes sanctions to anyone who causes "a fire, exposing the life, health or property of others." In softer terms, the 1941 Misdemeanor Act punishes as a misdemeanor whoever "causes excessive production of smoke, steam or gas emissions that may hurt or cause discomfort to others" (article 38).

22 Roger W. Findley, Pollution Control in Brazil, 15 Ecology Law Quarterly 51 (1988).

23 Expressing the concern of both the international community and Brazilian environmentalists, the New York Times printed an editorial stating that the President "now has on his desk new legislation that finally gives the county's environmental agency a modicum of power to enforce environmental laws," concluding that "Mr. Cardoso must refrain from further weakening an already weak bill" (Half-Measures to Protect the Amazon, NY Times, Feb. 2, 1998, A24 (Editorials).

24 When it was first submitted to Congress, the last provision of the bill listed expressly all criminal offenses that would be revoked. But in view of the firing power of the opposing members of the House of Representatives and the clear intent of the President of vetoing several other provisions, the Legal Experts Committee felt it would be wiser to simply end the text with "all other provisions to the contrary are hereby revoked." Through this artifact, preexisting criminal offenses not modified by Law no. 9605/98 would remain in force. Such is the case, among others, of the criminal offense status given to whaling where the penalty involves 2 to 5 years in jail plus a fine (Law no. 7643 of 12.18.87).

25 Article 3, first part.

26 Article 3, second part.

27 Article 40, first part.

28 Article 50.

29 Article 49.

30 The provision vetoed had already been considerably watered down by the powerful ranchers' lobby, and merely criminalized setting fire to forests and other plant life "without due precaution to prevent its spread" (article 43, first part).

31 To justify the generous deadline granted for polluters to make the necessary adjustments, the Sao Paulo State Secretary for the Environment, Stela Goldenstein, the main advocate of the highly controversial measure, said that it is not in the best interest of Brazil to suddenly shut down "such a sizable part of the Brazilian industry." See A SMA e a Medida Provisoria 1710, 12 SMA Esclarece 2 (August 1998).

32 "Medida Provisoria" no. 1710 of 08.07.98

2 A/CONF.144/L4

3 The case of the petrochemical complex of Cubatao, a city of over 100,000 people on the coast of Sao PauloState, made international headlines due to its staggering population levels in the eighties. Cf. Hoge, New Menace in Brazil's 'Valley of Death' Strikes at Unborn, NY Times, Sept. 23, 1980, at 2, col. 1.

4 "Brazil is the biggest deforester (in terms of area and speed), accounting for about three-quarters of total world rainforest clearance," Chris C. Park, Tropical Rainforests, London and New York: Routledge, 39 (1992). To illustrate the extent of the problem, take the state of Sao Paulo: when it was originally settled "88.8% of its lands were covered with forests. By the early 90's, it was estimated that the remaining forest cover barely reached 1.7 million hectares, or just 7.16% of the primitive area," Sao Paulo State Secretariat of the Environment, Do Rio as Ruas: a Insercao da Agenda 21 no Cotidiano Paulista, Sao Paulo: SMA (1997), 78.

5 Law no. 4771 of 09.15.65. Despite its title, this statute does not rule only on "forests" but extends to "other forms of plant cover" (article 1, first part).

6 Law no. 5197 of 01.03.67, also known as the "Hunting Code" until it was amended by Law no. 7653 of 02.12.88, when the word "hunting" was replaced by "fauna protection."

7 Law-decree no. 221 of 02.28.67

8 Law-decree no. 221 of 02.28.67

9 Law no. 6453 of 10.17.77

10 Law no. 6803 of 07.02.80.

11 Law no. 7802 of 07.11.89.

12 Law no. 6938 of 08.31.81.

13 This standing to sue was subsequently amplified by Law no. 7347/85, whereby other parties, including environmental associations, are entitled to institute a public civil suit demanding restoration of the damaged areas or pecuniary compensation for the damages done.

14 Article 225

15 Articles 170, VI, and 186, II.

16 In 1989, a new provision (art. 15) was added to the National Environmental Policy Act (Law no. 6938/81) whereby criminal sanctions would be brought against "a polluter who exposes human, animal, or plant life to hazards or who increases any existing hazardous condition."

17 Forest Code, article 26.

18 Fauna Protection Act, article 27. Law no. 7653 of 02.12.88 that rechristened the existing "Hunting Code" changed all of its criminal offenses, which had been mere misdemeanors, into felonies, with much heavier penalties.

19 Fishing Code, articles 61 and 64.

According to the law, restriction of rights means, among other things that the offender may not sign contracts with the government, receive tax incentives or any other kind of benefit or take part in public bids; the guilty party is also liable to partial or full suspension of its activities (articles 8, 10 and 22).

Redress for environmental damage may suspend or mitigate criminal sanctions if certain requirements are met.

5 AN ASSESSMENT OF THE FIRST FEW MONTHS OF ENFORCEMENT OF THE NEW LAW AND FUTURE CHALLENGES

In the State of Sao Paulo -- the most affluent and industrial unit of the federation and a pioneer in pollution control — environment permits have been mandatory since 1976, when State Act no. 997 of 05.31.76 was enacted.

But it was only after the Crimes Against the Environment Act that CETESB — the State pollution control agency — and the State Secretariat of the Environment, concerned with the threat of criminal liability for its officials, decided to fully enforce Law 997/76.

So, a few days before Law no. 9605/98 came into force, CETESB issued over 7,000 notices to polluter companies demanding that they either apply for or renew their environmental permits. Those who could comply with the environmental standards had new permits issued, but major steel, petrochemical, mining and automobile companies that had been operating illegally for years while officials and their inspectors turned a blind eye, would have to be shut down because they needed more time to install new pollution control equipment.

Surprisingly, the Secretariat of the Environment[31] and CETESB went to President Cardoso and asked him to make use of his constitutional powers for emergency action ("Medida Provisoria"), withdrawing enforcement of Law no. 9605/98 and giving polluters more time to make the necessary adjustments. A deferral of up to ten years was granted, postponing full enforcement of the environmental law in Brazil until the year 2008[32]. The presidential order and the attitude of the Secretariat favoring polluters were severely criticized by environmentalists, by officials of environmental agencies, and even by the more broadminded business leaders. It was indeed astonishing to see a decision like this right in the middle of the political campaign for the coming presidential and gubernatorial elections. In response to public pressure, President Fernando Henrique Cardoso reissued the emergency measure cutting the deadline back from ten to up to six years. In spite of these hurdles, however, Law no. 9605/98 will improve environmental protection in Brazil. The big challenge now is to enforce the law. Without effective enforcement, the law will become another piece of paper with little or no benefit to the people.

REFERENCES

1 Senior Assistant Attorney General, Head of the Environmental Protection Division of the Office of the Attorney General of the State of Sao Paulo, member of the United Nation's Legal Experts Committee on Crimes Against the Environment, Rapporteur of the Legal Experts Committee of the Ministry of Justice in charge of drafting the Bill on Crimes Against the Environment, President of Lawyers for a Green Planet Institute, and visiting Professor of Environmental Law at the University of Texas School of Law at Austin (1995-present)

USING COORDINATED ENFORCEMENT TO PROTECT FORESTS FROM ILLEGAL LOGGING IN THE PHILIPPINES

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1 INTRODUCTION

Fifty years ago, more than half of the Philippines' 30 million hectares of land area was old growth tropical rain forest. By 1988, satellite imagery indicated that only 800,000 hectares of the virgin forests remained – the millions of other hectares of forest being victims of illegal commercial logging and the slash and burn farming that follows in the wake of illegal logging.

In the 1980s, five critical regions were identified: four regions covered with virgin forests that were still subject to large-scale felling, and additional regions that served as marketplaces for illegal forest products.

The regions containing significant virgin forest resources included: the north-eastern Province of Isabela the eastern seaboard Province of Samar, and the south-eastern seaboard Provinces of Surigao and Agusan. Adjoining provinces were also identified as critical areas – not because they contained virgin forests but because they served as markets for illegal forest products.

The population was mostly indifferent to the decline in virgin forest areas. Those who were concerned felt generally helpless, as the perception was that powerful politicians and military personnel were behind illegal logging operations. In addition, people felt that the Department of Environment and Natural Resources, which is charged with oversight of the nation's forests, was also a part of the problem. The perception was that illegal logging could not occur without the cooperation of the Department of Environment and Natural Resources personnel. However, a closer look at the situation revealed that the forest rangers and other Department of Environment and Natural Resources personnel actually had little choice. In the milieu that they were working, they were forced to cooperate with wealthier groups. If they did not cooperate, they faced either transfer to another region or threat to life and limb. Moreover, such cooperation served to supplement their meager monthly income.

Although there were laws designed to control and manage the harvesting of timber, economic incentives facilitated the erosion of the reserve of virgin forest resources. Forestry (legal and otherwise) was the primary source of livelihood for many communities. Until 1992, there were only a handful of convictions for violations of the forestry laws. Hardly any of the worst offenders were ever apprehended, much less prosecuted.

This case study focuses on the efforts of a group of men who sought to utilize the law to reduce the environmental damage done by illegal logging. It describes in detail the effort to create a 'legal army' made up of personnel from different agencies of government which were critical in the effective enforcement of forestry laws. The unique quality of this group is that its factors were not united in a single common cause but rather wanted to address separate, though related, forestry issues. This case study details a massive law enforcement campaign that, at the very least, exhibited the political will to curb illegal logging.

2 SUMMARY OF THE LEGAL MECHANISM

Since 1975, the Philippines has had a comprehensive law on Forestry (Presidential Decree (PD) No. 795). The law and its regulations are voluminous and detailed. The law provides that:

"Any person who shall cut, gather, collect or remove timber or other forest products from any forest land without any authority under a license agreement, lease license or permit, shall be guilty of qualified theft...In case of partnership, association or corporation, the officers who ordered the cutting, gathering or collecting shall be liable..." (Sec. 68, PD 705)

The law was extremely difficult to enforce because, for all practical purposes, it was next to impossible to apprehend persons in the middle of the forest. Consequently, the point of contact was usually in the highway where the forest products were being transported and in the milling stations and lumber yards where the forest products were being readied for the market. Thus, Executive Order 277 (1987) made mere possession of illicit forest products an offense punishable as qualified theft."

As described below, criminal procedures allowed for inquest proceedings in the field. When a person has been apprehended in the act of committing an offense, he may be subjected to an immediate, on-the-spot hearing to determine probable cause and to temporarily detain violators pending release on bail.

In 1990, a major law enforcement campaign, called the Monitoring and Enforcement Component, was designed with funding from the World Bank. As part of this enforcement campaign, a forestry enforcement project was prepared and implemented. Following the presidential elections of 1992, a new Secretary of the DENR was appointed.

3 WHAT HAPPENED?

3.1 The August 1992 Raid

The first phase of the project was to test the provisions of the law and applicable criminal procedure. It was necessary to send a message to the illegal logging community that the law can be used against big-time offenders, and that the law could be applied in a swift and painful manner. Consequently, a raid was planned in Region IV, a known market and milling center. The initial raid was aborted due to an information leak, and a second raid was planned which allowed more time for preparations.

A team of dedicated and experienced officials from the Department of Justice, the National Bureau of Investigation and the Department of Environment and Natural Resources was assembled. To document and publicize the effort, a photo-journalist was invited to join the team. This would be the first time this type of team had been organized for the sole purpose of apprehending criminals behind the illegal forestry operations rather than merely intercepting the illegal logs and forest products. For security reasons, the legal team had to be small, mobile and hand-picked. This team was part of a bigger team of the Department of Environment and Natural Resources that was to conduct surveillance in Butuan City and included a light plane. The specific objective was known only to the Legal Team Leader, the Department of Justice and the National Bureau of Investigation.

To ensure that the raid would be legal, the team secured a special order from the Secretary of the Department of Justice authorizing the travel and participation in the conduct of operations by its personnel. To ensure secrecy in the event a search or arrest warrant was necessary, the Deputy Court Administrator of the Supreme Court prepared a letter

addressed to the concerned judges of the Region introducing the team, the team leader, and the team's mission. Upon arrival, the team coordinated with the local courts and the DOJ Prosecutor's Office to ensure their availability at all time in case the operation occurred during the night.

Late in the afternoon of August 13, 1992, the surveillance team spotted presumably illegal logs floating in the river at the back of a large plywood factory. The Legal team was mobilized into action.

Security guards bearing shotguns guarded the factory compound. It was important that the team also exhibit a show of force to prevent the guards from resisting and thereby avoiding violence; overpowering force is essential to foreclose even an attempt to resist. Thus, in coordination with the local Military and without disclosing the Team's intention, a squad of battle-uniformed soldiers, armed with Armalite rifles and rocket launchers, was secured as a back-up force.

Once the team verified that the suspected logs were in fact illegal, the team dispatched the local investigating prosecutor to the plywood factory's compound. Then and there, the team commenced inquest proceedings under the direction of a street-smart member of the Legal Team, State Prosecutor Reynaldo Lugtu. Before the formal proceedings began, the persons arrested – the General Manager, the Assistant General Manager, and the Procurement Officer – called for their counsel who arrived and asked for the team's 'authority.' At this juncture, the team showed the counsel their 'authority' – the Special Order from the Department of Justice Secretary.

Before midnight and barely six hours from the start of the operation, the corporate officers arrested were in jail. For the first time in the history of Philippine natural resources law enforcement, top officials of a logging company were arrested, subjected to an inquest, and jailed. Instead of the inquest being conducted in the Office of the Investigating Prosecutor, it was conducted in the field, in this case, at the sawmill.

3.2 Institutional Cooperation

Prior to this campaign, one of the chief complaints of the Department of Environment and Natural Resources personnel was the lack of understanding and cooperation from other concerned institutions that resulted in frequent dismissals of illegal logging cases. The success of the August 1992 raid demonstrated the benefits of agency cooperation, and pointed to the need to institutionalize the arrangements to ensure the success of ongoing enforcement efforts. This was accomplished through the use of a series of Memoranda of Agreement between relevant agencies and judicial offices. The Memoranda of Agreement process was designed to enlist the personal support of the concerned agencies and to educate them on the intricacies of forestry law enforcement. The critical agencies were the Department of Justice, the National Bureau of Investigation and the Courts of Law.

3.3 Creation of the National Steering Team

One major weakness of previous law enforcement efforts that the forestry enforcement project sought to remedy was that once a case was filed, the different agencies, including the Department of Environment and Natural Resources personnel, would lose initiative or become subject to undue and extreme financial or political pressures. This was addressed by creating a National Steering Team composed of senior members of the various governmental organizations with jurisdiction over illegal forest activities. The National Steering Team closely monitored enforcement efforts in the various regions. The National Steering Team would convene the local Department of Justice , the Department of

Environment and Natural Resources, National Bureau of Investigation, Police and Judges, and NGOs in a day-long meeting in their respective locales, rather than in the air-conditioned comfort of offices and hotels in Metro Manila. These meetings would run through each and every pending case and National Steering Team members with the problems in the field. Being high-ranking in their respective departments (Department of Environment and Natural Resources and Department of Justice), the National Steering Team members would be in a position to immediately address any problems encountered. Through the meetings, field personnel would be kept on their toes knowing that the higher-ups are watching and monitoring the flow of the cases. In addition, field personnel would develop the confidence to resist and have a convenient 'scapegoat' when being subjected to social or political pressures. They could easily point to the fact that the National Steering Team was monitoring every step of the way and that they would be held answerable in public for any mishandling of the cases. Above all, the National Steering Team was meant to deliver the message that the government was serious in its efforts to curtail illegal logging.

4 DID THE LEGAL MECHANISM WORK?

The success of the effort to enforce the forestry laws may be classified in two ways: the legal operation, and the overall effort to coordinate the actions of the concerned institutions.

The legal operation was meant to deliver the message that the law can be used to administer swift and decisive justice. To the extent that several agencies of government, cooperating with the media and NGO elements, were able to coordinate their activities and launch a massive operation with almost surgical precision was, in itself, an accomplishment unprecedented in the history of environmental law enforcement in the Philippines. That prominent persons were arrested and charged was by itself a singular achievement. Indeed, the law can be made to work when a few key people are determined to make it work. Creative application of the law can achieve the desired end of sending a message.

With respect to the total effort to educate the concerned agencies and to coordinate their functions, the statistics on the rate of convictions tell a compelling story. Since July 1995, 180 convictions for forestry law violations have been recorded. Virtually no violations were recorded prior to 1992.

To be sure, the legal enforcement effort has suffered numerous setbacks. Certain prominent suspected violators were eventually acquitted on technicalities and other reasons. For example, the suspected violators in the first Butuan raid (where inquest proceedings were held in the field) were acquitted on reasonable doubt. The law requires that for corporations, the officials who ordered the possession or cutting be held liable. In practical evidentiary terms, however, it is next to impossible to prove, for example, that the General Manager actually ordered the cutting or the possession of illegal forest products. The law needs to be amended to the effect that the General Manger or other responsible officer, being in control of the firms' operations, shall be presumed to have ordered the illegal operations.

In the end, it is noteworthy that many who violated the forestry law were prosecuted The fact that the number of convictions has escalated is a credit to the men and women who dared to uphold the law.

5 WHY DID THE LEGAL MECHANISM WORK?

The Memoranda of Agreement process contributed significantly to the success of the forestry enforcement project, by facilitating the interagency cooperation necessary to carry out the raids and follow through on the enforcement actions. Another major factor in the success of the enforcement projects was the creation of the National Steering Team. By creating a coordinated mechanism for monitoring enforcement efforts throughout the country, the National Steering Team was able to address the problem of undue influence on local officials charged with forestry enforcement.

Media attention was also important to the success of the enforcement effort. The success of the operation was publicized in order to send a message to those who profited from the illegal timber trade – the government was now committed and able to enforce the forestry law. The publicity also served to help solidify popular support for the forestry law enforcement effort. Although there are few statistics to prove it, it is reported that this single operation dramatically reduced illegal forest products trade in the area. The operation unquestionably showed that given cooperation by the various agencies concerned, illegal logging operations can be raided and shutdown.

6 CONCLUSION: LESSONS LEARNED

To strengthen the enforcement effort, the delivery of swift and substantial penalties must be coupled with maximum publicity. If law enforcement is to serve as a deterrent, those that violate the law must be aware of the consequences. The raid on the plywood factory in August 1992 and subsequent air, land, and sea raids conducted in June and July 1993 in other critical areas of the country (code named Oplan Jericho) received wide-spread media coverage. The broad media coverage ensured that others in the illegal logging community were aware of the increased enforcement efforts. In addition, the media coverage raised public awareness of the extent and environmental consequences of illegal logging. Oplan Jericho could, perhaps, be considered the turning point of public awareness in the campaign against illegal logging in the Philippines. Unfortunately, many subsequent phases of the enforcement campaign gained no publicity at all. Because of the lack of preparation and budget in this aspect of the operations, certain scenes that would have delivered a dramatic impact were not recorded in still or in moving pictures: rappelling down from a helicopter in the middle of the sea to arrest a boat, the airborne landing team in Isabela, and the bold braking of doors in Butuan. In addition, the National Steering Team follow-up meetings did not receive any media coverage.

This narrative focuses solely on the legal enforcement effort. Law enforcement cannot exist in a vacuum. It must not only be supported by governmental authority, but also by the local community and the public at large. This is possible only when the community is sufficiently aware of the importance of the campaign and is ready to support it. Educating the public on environmental issues is another reason to why media coverage is so important. Publicizing environmental campaigns and enforcement actions can provide a valuable opportunity to educate the public.

Another lesson to be learned is that in a highly personalistic society such as the Philippines, institutional efforts must be coupled with the development of personal relations by and among the players. There needs to be a 'champion' who has the leadership qualities and charisma to rally the different forces of government. He or she can be an NGO member, or better yet, a person who is clothed with official authority. If that champion is gone, the

institutional efforts are bound to falter. With a new management team at the helm of the Department of Environment and Natural Resources, a meeting between the Secretary and the Legal Team (of the Department of Justice, National Bureau of Investigation and the Office of the Solicitor General) is being arranged. Hopefully, the Department of Environment and Natural Resources Secretary can now assume the lead, and, with official authority in his hands, make things move forward.

WORKSHOP 3C
CITIZEN ENFORCEMENT

Discussions built on papers published in prior proceedings of the International Conferences. In addition, discussions benefited from a new capacity building support document on the subject of "Citizen Enforcement" which was commissioned for the Fifth Conference and which pulls together all the materials developed to date on the issue. This workshop sought to build upon the list of recommendations for public role in environmental enforcement developed by participants at the Fourth International Conference focusing in this workshop on the citizen as "enforcer" as distinguished from workshop 2B which examined the public role in promoting and monitoring compliance.

Papers 1 - 5 for Workshop 3C and a list of related papers from other International Workshops and Conference Proceedings are in Volume 1

SUMMARY OF WORKSHOP: CITIZEN ENFORCEMENT

Facilitators: Workshop 3C: Svitlana Kravchenko, John Bonine
Workshop 3CC: Mahesh Mehta
Rapporteurs: Workshop 3C: Susan Casey-Lefkowitz
Workshop 3CC: Michael Axline

GOALS

Discussions were designed to address the following issues:

- Mechanisms used to empower citizen enforcement: what authorities exist in different countries and how this authority has been exercised to provide for a citizen role as private enforcer of environmental law, including:
  - Citizen ability to bring enforcement cases (standing and other issues).
  - Citizen ability to ask for review of government decisions.
  - Remedies available to citizen enforcers.
- How these provisions are working and what impediments exist to realizing their potential; how such provisions can be supported and encouraged in countries without this citizen authority.
- Relationships that might be established between governmental agencies mandated to enforce requirements and citizens empowered to enforce the law and what are the advantages and disadvantages of different relationships.
- Citizen role as support to government enforcement efforts, including:
  - Government cooperation with citizens during enforcement proceedings.
  - Citizen ability to join government enforcement efforts.
  - Citizen review of government and violator settlements before they are finalized.
- How these kinds of opportunities for cooperation and support are working; what impediments exist to realizing their potential.
- "Meaningful access to information" and how important a role it plays as a prerequisite to effective citizen enforcement, including:
  - Access to monitoring information as discussed at earlier workshops.
  - Access to other relevant government-held information.
  - Access to information concerning government enforcement efforts.
  - Access to privately-held information.
- What would be needed to move countries in the direction of the set of citizen participation opportunities identified at the Fourth International Conference.

1 INTRODUCTION

Citizens around the world understand the importance of compliance and enforcement. Citizen goals are similar to government goals: to protect the environment through achieving compliance. Citizens also believe in the use of enforcement strategies to deter and punish when necessary. Citizens believe that they can contribute in an effective manner to this common goal of protecting the environment through achieving compliance among the regulated community and through holding the government accountable for implementing and enforcing the law. However, although in theory citizens in many countries have a range of options available to them from citizen enforcement suits in court to negotiation and lobbying, in practice, government enforcers often are wary of citizen enforcement efforts and citizens face this and other obstacles in their initiatives.

2 PAPERS

A Capacity Building Support Document was prepared by the Conference sponsors on Citizen Enforcement: Tools for Effective Participation with international examples. The document includes discussion on and examples of a range of approaches and tools for citizen enforcement from both the government and citizen perspective.

Papers related to this workshop include:

- Citizen Environmental Enforcement in Russia: The First Successful Nation-Wide Case, *V. Mischenko and E. Rosenthal*
- Environmental Compliance and Enforcement through Public Litigation in the Godavari Area in Nepal, *N. Belbase*
- Civil Enforcement of Environmental Laws in Australia, *J. Johnson*
- Public Interest Environmental Litigation: A Tool to Ensure Compliance and Enforcement, *E. Habib*

Finally, a cooperative coordinated approach is needed between affected programs like the police, the environment agency, prosecutors, fire and hazardous materials teams. Defining roles, responsibilities and assigning accountabilities is essential.

In addition, the Proceedings of past International Conferences on Environmental Compliance and Enforcement contain a wealth of papers on the role of citizens in environmental enforcement from the perspective of various countries. A full list of these papers is appended to the Capacity Building Support Document.

3 DISCUSSION SUMMARY: WORKSHOP 3C

3.1 Common Issues in Citizen Enforcement

Many of the participants acknowledged the important role that the ability of a citizer to go to court to enforce the law plays in overall environmental compliance and enforcemen efforts. Limited standing to enforce the law in court was identified as a common barrier tc the use of this tool. Many participants also wanted to explore how citizens could participate in environmental enforcement beyond the use of the courts and litigation. They acknowledgec

the many obstacles to effective citizen enforcement and identified a need to develop tools to strengthen citizen enforcement, including the implementation of the new Convention on Access to Information, Public Participation, and Access to Justice in Environmental Matters.

3.2 "Standing" for Citizens to Sue in Court to Enforce the Law

The participants discussed the diversity of the aspects of standing among the different countries represented in the workshop. In some countries, standing to enforce the law is granted exclusively in civil cases, while in other countries, standing to enforce the law is more common (at least in theory) in criminal cases. Citizens also derive the right to go to court to enforce the law from both constitutional sources and statutory sources. Finally, participants noted the role of the ombudsman in representing the public interest and in some cases, in facilitating standing.

Criteria for being granted standing also differ greatly from country to country. Some participants described standing based on actual damage to the plaintiff, while other participants described standing based on violations of procedures, such as public hearings, that affected the public. Many participants identified the need to have sufficient proof of harm and causation before standing would be granted and some participants described a system where the Attorney General allowed only cases concerning personal injuries to go before the court, on the theory that only the Attorney General can represent the public interest.

The trends described by the participants showed growing limitations on standing in some countries and broadening standing in others. Yet other participants described a lack of consensus among national courts in interpretation of standing rules.

Finally, the group agreed that broad standing is at the core of citizen enforcement. To facilitate future broadening of standing, the group identified the following needs:

- Solutions to the current burden on citizens to show harm and causation.
- Greater access to justice in domestic courts.
- Greater access to justice in international forums.
- Access to courts in the country where the violator originates.
- Law reform for clearer citizen enforcement provisions.

3.3 Non-Court Alternatives for Citizen Enforcement

Most participants saw citizen enforcement in court as an "end of pipe" solution to lack of enforcement or severe violations. In addition, participants noted the importance of alternative citizen enforcement mechanisms for times when the option of going to court is not the most appropriate to deter or halt a violation. Participants identified the following citizen enforcement strategies:

- Direct action, such as boycotts and blockades.
- Use of public opinion and mass media.
- Participation in negotiations, for example of compliance agreements or settlements.
- Lobbying for law reform and for stronger measures to deter or halt violations.
- Public access to information to raise citizen awareness.

- Pursue the funding source for projects with violations, for example through international financial institution complaint processes.
- Provide citizen complaint mechanisms, such as hotlines and green telephones.

3.4 Potential for Citizen and Government Cooperation in Enforcement Efforts

Many participants noted that government enforcers and citizen "enforcers" did not usually work closely together. The group identified a number of reasons for government enforcers to take advantage of citizen enforcement efforts, including heightened public support of government enforcement efforts, additional resources to government enforcement efforts (e.g., citizen monitors and inspectors), and achievement of environmental protection goals through improved compliance and enforcement.

The group also identified how citizen and government enforcers might work more closely together, including through:

- Coalitions or working groups to approach compliance problems.
- Adding citizen knowledge and public pressure to compliance or settlement negotiations.
- Providing greater public access to information about how to participate, as well as environmental information, such as discharge reports, monitoring data, etc.
- Direct communication among citizens and government enforcers.
- Delegation of certain monitoring and inspection tasks to citizens, for example in nature reserves.

3.5 Obstacles and Solutions

Common obstacles and solutions were identified by most of the participants, including a lack of funding, that citizens often do not know what their options are, institutional barriers in the judicial review process, the need for laboratory analysis and other scientific testing without technical and financial resources, a judiciary uninformed about environmental law, and a long judicial review time.

Common solutions for the future were also identified, including:

- Improved public access to information.
- Clear environmental standards, to ease the burden of proving harm and causation.
- Quicker judicial processes, including a judiciary well-informed about environmental law.
- Broad standing for citizens to go to court to enforce the law.

3.6 Public Participation Convention

Finally, the participants discussed the elements of the new Convention signed in June 1998 by the UNECE on the three principles pillars of public participation: access to information, public participation in decision making, and access to justice in environmental

matters. Participants from outside the UNECE region expressed an interest in seeing their countries join the Convention, while participants from the UNECE region expressed an interest in seeing accelerated implementation of the Convention.

4 DISCUSSION SUMMARY: WORKSHOP 3CC

4.1 Improving Workshop Relationships Between NGOs and Regulatory Agencies

We identified a set of problems and discussed possible solutions to these problems.

4.1.1 Problems

The participants felt that problems preventing better relationships between NGOs and regulatory included:

- agency personnel taking criticisms of the agency itself personally;
- NGOs who cooperate with regulatory agencies being accused by their colleagues of "selling out;"
- intolerance of opposing or differing views;
- excessive centralization of decision-making (so that field personnel who work more closely with NGOs can't make decisions);
- agencies viewing their role as helping industry, rather than regulating industry; and
- a reluctance by agencies to voluntarily share information with NGOs.

4.1.2 Solutions

The participants felt that solutions to these problems would have to include teaching more tolerance for discord, understanding the value of debate, dialogue and criticism as a process for developing better solutions to environmental problems, more recognition of the common environmental goals of regulators and citizens, a better understanding on the part of regulatory agencies of how citizen enforcement can make industry appreciate regulatory agencies, and more personal accountability within agencies.

4.2 Making Citizen Enforcement More Effective

4.2.1 Education

The participants felt that to be effective, citizen enforcement efforts should be part of a larger comparison to educate legislation, the public and regulatory agencies about the environmental problem being addressed through citizen enforcement.

4.2.2 Funding

The participants discussed various methods of funding citizen enforcement actions and agreed that funding is important for such actions.

4.2.3 Accountability for Multi-National

The participants also discussed that need for citizen enforcement actions to be able to hold multi-national corporations accountable in their home countries, and cited two examples of international instruments that recognized this principle:

- the North American Agreement on Environmental Cooperation; and
- the 1997 Convention on Uses of Transboundary Waters.

4.2.4 Access to Independent Scientists/Technical Experts

The participants recognized a need for more good and independent scientists to provide technical expertise and testimony in citizen enforcement actions, and a need for NGOs to participate from the beginning in the environmental laws and regulations, training judges, and developing a regulatory infrastructure in which citizen enforcement efforts can succeed.

5 CONCLUSION

Citizen participation in enforcement is an important part of a country's environmental compliance and enforcement strategy. Citizen enforcers have some tools available to them, but there is much further to go in creating opportunities for effective and useful citizen enforcement efforts that succeed in achieving the common goal of environmental protection.

BROADENING "STANDING TO SUE" FOR CITIZEN ENFORCEMENT

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> The law, in its majestic equality,
> forbids the rich, as well as the poor,
> to sleep under the bridges,
> to beg in the streets,
> and to steal bread.
> — *Anatole France* [1]

1 INTRODUCTION: EQUAL ACCESS TO JUSTICE

The worldwide move toward citizen enforcement of environmental laws and obligations is one of the most striking contributions that environmental law has made to civilization worldwide at the end of the 20th century. In the field of environmental enforcement, societies all over the world are broadening the possibilities for citizen enforcement of the rule of law. That movement has grown so that it is impossible to think of modern environmental law without it.

Widespread *access* to justice is more likely to result in *equal* justice. Of course, inequalities will always exist. Those with power and resources will always have a bigger effect on governmental and private decisions than those lacking power and resources. But this inequality is magnified where access to courts is restricted, because restrictions are less likely to affect powerful economic interests. They easily have access to the courts. As a result, they are treated with respect by government officials. Citizens and their organizations often do not have such equal access to justice and the effect is felt not only in the courts but in other governmental bodies as well.

The question of whether a citizen may enforce a statutory (or constitutional) obligation when a fellow citizen or government official is disregarding that obligation is labeled in many countries "standing to sue" or *locus standi*[2] The traditional law of standing in many countries, "in its majestic equality," forbade corporations as well as citizens, to sue the government unless they had direct economic "injury," or "invasion of a legal right" (or were "aggrieved" or had "interests affected" by a governmental action, or perhaps more moderately a "sufficient interest," — whatever term happens to be in vogue for "standing"). This purportedly neutral rule had the effect of usually letting business interests into court while often keeping other members of civil society out of court.

The battle over expanded standing to sue is not, in short, about whether everyone should have access to justice. Those with money and power already have access. The battle over standing to sue is about whether *other* citizens will have access as well. If democracy is for all, if the rule of law is for all, and if justice is for all, then standing should be for all. To put it in the proper order, where standing *is* available to all, democracy, the rule of law, and justice are more likely to be for all.

In my view, increased "access to justice," as the movement for broader standing is sometimes loosely labled, is an important component in building an application of rule of law that is applicable to the powerful as well as to the weak. Such an equal rule of law helps build civil society. It provides an essential element of participatory democracy.[3] By stressing communitarian values, the movement to broaden legal standing will provide important societal restraints on the rampant individualism that accompanies enhanced economic development. By stressing the importance of compliance with duties and not only rights, this expansion of the ability to sue will paradoxically build a stronger framework for the protection of individual rights.

Three approaches to granting standing are judge-made standing law, constitution-based standing, and legislation-based (statutory) standing categories which I find transcend different cultures and legal systems[4].

2 JUDGE-MADE STANDING LAW

2.1 England

As the home of Common Law, it is perhaps appropriate that much of the early judiciary-led movement to grant access to the courts occurred in England. The changes that took place starting in the early 1970s appeared so dramatic that one American scholar even stated:

> *"The House of Lords has all but eliminated the standing requirement, virtually converting the [judicial] review action into an actio popularis, which is available to any citizen who seeks to annul improper administrative action.... [T]here has been nothing comparable in the case law on this side of the Atlantic.[5]"*

The above quote may seem an excessively ambitious interpretation by someone from the outside, but it may not be far off the mark, at least at the level of theory, if not necessarily in actual practice.

The revolution in the law of standing can be traced both to the work of Lord Denning in the 1970s and to a revision in the procedure for judicial review of administrative actions in England. Order 53 came into force in January 1978, based largely on the recommendation of the Law Commission. The Commission took the position that a single, unified procedure for judicial review would be preferable to the time-encrusted and sometimes confusing system of "prerogative writs." It indicated that the law of *locus standi* should be liberalized as well. In Order 53 the issue for judicial review became no longer whether a person was "aggrieved." Instead review would be premised on a party having a "sufficient interest" in the matter sought to be litigated. The Order was given statutory grounding in Section 31 of the Supreme Court Act 1981.[6]

The new formulation, "sufficient interest," might still have been interpreted as restrictively as "person aggrieved" had been in the past. That is, the change might have been viewed as not intended to create a more liberalized, uniform rule of standing.[7] But any time that the applicable words change there is also the opportunity for a change in doctrine as well. The House of Lords subsequently decided what to do with *locus standi* in light of Order 53 and section 31 of the Supreme Court Act in *Inland Revenue Commissioners v. National Federation of Self-Employed and Small Businesses* [8] (known as the *Fleet Street Casuals* case). Reversing its position of four years earlier in a case known as *Gouriet*,[9] the Law Lords ruled that a group of taxpaying small businesses could sue the tax authorities in a complain

against what the authorities were doing with regard to a *different* group of taxpayers. Since the argument that these small businesses were specially damaged or "aggrieved" in a way different from other taxpayers could hardly be made while keeping a straight face, the ruling in the *Fleet Street Casuals* case became the basis for, in essence, accepting Lord Denning's view of dramatically lowered *locus standi* bars in English jurisprudence.

While *Fleet Street Casuals* could, indeed, be viewed as signaling a new day of "open standing" in important public-interest cases, such hopes were soon dashed in the *Rose Theatre* case.[10] The Rose Theatre will be familiar to those who have seen the motion picture *Shakespeare in Love* during the current 1998-99 season, for the action largely takes place in the Rose. During construction in the center of London in the late-1980s, a contractor digging a foundation struck the remains of the Rose Theatre. A group of citizens, scholars, and actors concerned with historic preservation, the Rose Theatre Trust, sprang up to defend this important archaeological find from destruction. The court ruled, however, that this group lacked the requisite *locus standi* because of what the court viewed as a lack of "sufficient interest." In order to have standing, individuals must show a greater "interest" than that of the rest of the public, according to the decision. The fact that the members of the Rose Theatre Trust were distinguished scholars and actors who had devoted their lives and careers to Shakespearean work was not enough to show that greater "interest."

Rose Theatre has been aptly termed the "low point of the standing issue" in recent English jurisprudence.[11] Very recently, a series of decisions has started to expand the right of legal standing again, at least in environmental cases. The environmental group Greenpeace was granted standing in the *Thorp* case to challenge a proposed license for a nuclear power plant. The High Court said that Greenpeace was a "responsible and respected body with a genuine concern for the environment" (recognizing, in a sense, standing as being conferred on the basis of ideological commitment, plus some efforts to follow up on such commitment) and that granting them standing to pursue the litigation would save the court's time. They would efficiently and effectively represent the interests of 2,500 of its supporters living in the area of the proposed nuclear plant. This may be seen as a kind of "representational standing," or perhaps "third party standing," in lieu of others who truly would have had traditional standing.[12] Judge Otton said:

> *"I reject the argument that Greenpeace is a 'mere' or 'meddlesome busybody.' ...I regard the applicants as eminently respectable and responsible and their genuine interest in the issues raised is sufficient for them to be granted locus standi."*[13]

A recent English decision in 1997, *Ex parte Richard Dixon*,[14] continued the liberalization, and continued the exposition of the viewpoint that public law is about duties, not rights. Justice Sedley wrote:

> *"Public law is not at base about rights, even though abuses of power may and often do invade private rights; it is about wrongs — that is to say, misuses of public power; and the courts have always been alive to the fact that a person or organization with no particular stake in the issue or the outcome may, without in any sense being a mere meddler, wish and be well-placed to call the attention of the court to an apparent misuse of public power..."*

The contest in England between those seeking to eliminate most barriers to standing and those seeking to re-erect them is not yet decided. It is apparent, however, that judges do feel free under Order 53 and the Supreme Court Act to liberalize standing. This

is based on a recognition that the term "sufficient interest" is consciously designed to permit them to do so in appropriate cases. Standing is seen as a matter of mixed legislative and judicial policy, with the judges having the discretion under the new language to permit far broader standing than had been possible in England in the years immediately prior to 1980.

2.2 Argentina

In Latin America, the issue of broadened legal standing-to-sue, on behalf of those whose personal interests are not injured in a traditional way, but instead who assert "public interest" (for example, the interest of protection of the environment), has largely been put under the title of "intereses difusas," or "diffuse interests." Usually the basis of diffuse interests is statutory or even constitutional. But judges have on occasion stretched the notion of judicial interpretation to find justification for "intereses difusas."

In Argentina, the late Dr. Alberto Kattan won some pioneering cases broadening standing for environmental cases for all of Latin America. The basis of his arguments relied upon Article 33 of the Argentine Constitution which protected his own human rights, and principles of ancient Roman Law that as a citizen he had a duty to protect the "dominio publico." Although such principles may still be applicable in Argentina, the success of Dr. Kattan's arguments depended significantly on a receptive judiciary.

In 1981 Dr. Kattan's seminal case utilizing these arguments was an "accion difusa" to protect penguins, but it failed. Two years later in *Kattan v. Federal State (Secretary of Agriculture)* (1983), Alberto was granted the right to sue the Government of Argentina to challenge a permit that authorized a Japanese company to hunt and capture six dolphins (members of an endangered species). Again, he argued the case on the basis of Roman law. Similar arguments were developed by Dr. Kattan in cases successfully banning pesticides (specifically Agent Orange), prohibiting tobacco advertising on the grounds that tobacco is a toxic substance, and prohibiting pharmaceutical sales in Argentina that are prohibited in the country of origin.[15]

In a case similar to the *Rose Theatre* case in England, Kattan persuaded a court to block destruction of an architectural masterpiece, a mansion whose picture graced the cover of the standard architectural history of Argentina. The Hyatt Hotels Corporation sought to send in the wrecking balls in order to build a high-rise hotel on the site in Buenos Aires. When Kattan took the case to court, he made an argument that placed the hotel in realm of a sacred national treasure, part of the patrimony of the nation. He told the court, "Everyone has a right to buy a painting by Van Gogh. But nobody has the right to wrap fish in it."[16] The propriety of such environmental actions is not yet settled in Argentina, but the path has been blazed in some cases. The future depends upon the courage and creativity of Argentine judges as well as a new generation of lawyers, for Alberto Kattan is no longer on the scene to press the issue. He died in 1993 as a result of the delayed effects of the electro-shock torture that the military dictatorship had visited upon him in the late 1970s, when he became for a while one of the "disappeared."

3 CONSTITUTIONAL LAW TO LIBERALIZE STANDING

The constitutions of many countries form the basis of increased access to justice. Sometimes these constitutions are explicit in their *locus standi* provisions. For example, in Colombia, the 1991 Constitution explicitly states in Article 88 that anyone who has a "collective right" can sue to protect it. Other constitutions state forms of actions (such as *amparo* in Costa Rica and Peru, or *recursode protección* in Chile) that have been interpreted

to allow *acciones populares* (popular actions by any citizen). In other instances, courts have found that the constitution embodies implied rights of access to justice. Examples of both explicit and implicit provisions will be presented here.[17]

3.1 Explicit Provisions in Constitutions

Some of the more interesting recent decisions have tossed aside old restrictions on standing because the courts became persuaded that amendments to their nation's constitution required broadening of standing to sue. Some of the amendments appear to address standing in so many words, while some do so only indirectly.

3.1.1 Nepal

Like its nearby neighbors in South Asia, Nepal has embarked on a jurisprudence of widespread citizen enforcement of laws, particularly on issues involving constitutionality. Nepal has done this through explicit provisions in its constitution. Article 88(2) of the Nepalese Constitution provides that the Supreme Court of Nepal shall have the extra ordinary power to issue necessary and appropriate orders to protect rights in suits of "public interest or concern."[18]

As one U.S. scholar has noted, under the Nepal Constitution, any citizen may petition the courts, "not only someone harmed under the law in question or some designated office holder or holders . Few issues are likely to escape the scrutiny of a Court with such wide open standing requirements."[19]

In *LEADERS v. Godavari Marble Industries Private Ltd., Ministry of Industry, Dept. of Mines and Geology, Cabinet Secretariat*,,[20] the Supreme Court of Nepal said that "as environmental conservation is indirectly related with life of the human being, this matter is included in Art 12(1) of the Constitution of the Kingdom of Nepal 1990." Specifically regarding standing, it said, "As the present constitution has established public interest as a fundamental right, whether the petition has *locus standi* is no more an issue." Actually, the *LEADERS* case could be categorized as one of "implicit" constitutional provisions, for it grounded standing for the protection of the environment on a "right to life" that was not written explicitly into the Constitution, but that was inferred from various other rights found there.

3.1.2 Botswana

Constitutional provisions such as the one mentioned above are not limited to South Asian countries. Section 18(1) of the Botswana Constitution, allows any person who alleges a violation of the Constitution to apply to a court for redress. In *Attorney General v. Unity Dow*, the Botswana Court of Appeal held the Citizenship Act of 1984 unconstitutional. The Attorney General had challenged the standing of the woman who brought the lawsuit, who was seeking to assert the rights of her children. He argued that the Roman doctrine of *actio popularis,* which gives individuals the right to sue in the public interest, was not part of Roman-Dutch common law, which Botswana had inherited as part of its legal system. Judge President Amissah relied on section 18(1) of the Constitution for part of his holding. According to a report of the case,

He stated that this provision gives broad standing rights and should not be whittled down by principles derived from the common law, whether Roman-Dutch, English, or Botswanan.[21]

The court also found that the mother suffered injury if her children's rights were limited,[22] and stated that a person who is injured can also "protect the rights of the public," citing precedent from South Africa to that effect.[23]

3.2 Implicit Provisions in Constitutions

An even more interesting basis for the broadening of standing on a constitutional basis has been those countries whose constitutions do not appear to address standing as such, but in which seemingly substantive constitutional norms have been used to grant the procedural right of access to the courts.

3.2.1 India

India has long been a leader in finding standing rights implicit in a constitution. The Supreme Court of India has largely abolished restrictions on legal standing in cases that it is willing to recognize as "public interest cases." Other countries in South Asia have followed this approach although to a lesser degree.

The Constitution of India does not explicitly refer to standing, but both judicial policy and certain provisions of the Constitution have been used as the basis for a dramatic change in the law of standing in India. The Supreme Court of India decided in 1982, after some preliminary movement toward liberalized standing, that the legal system should no longer be a system for "men with long purses."[24] The dramatic breaking down of barriers to legal standing has been premised in part upon the reasoning of the judges and in part on the mere existence of fundamental rights provisions in the Indian Constitution (not special provisions directly relating to legal standing).

The watershed case for standing is known as the *Judges' Transfer Case*.[25] The Supreme Court ruled that bar associations of lawyers had the right to sue against transfers of judges during the "Emergency" that had been declared by Prime Minister Indira Gandhi — even though none of the lawyers would actually suffer economic harm from loss of clients by having different judges hear their cases than those originally assigned to a given court. There were a number of opinions, totaling 600 pages, quoting from law journal scholarship and cases from several nations. Amongst the opinions, Justice Bhagwati, who had previously served on a Law Reform Commission that called for looser standing rules, declared that "any citizen who is acting bona fide and who has sufficient interest has to be accorded standing." Lawyers, who as a profession seek to preserve people's faith in the legal system were such a group, he decided. He stated that a "public-minded person" or organization can act directly in the Supreme Court "even though they may not be directly injured in their own rights."

In a later case the Supreme Court of India wrote explicitly about how it understood the role of the courts in the social and economic reality of India and in the face of "public interest litigation" to be different from courts in ordinary litigation:

> *"In a public interest litigation, unlike traditional dispute resolution mechanisms, there is no determination or adjudication of individual rights. While in the ordinary conventional adjudications the party structure is merely bi-polar and the controversy pertains to the determination of the legal consequences of past events and the remedy is essentially linked to and limited by the logic of the array of the parties, in a public interest action the proceedings cut across and transcend these traditional forms and inhibitions.[26]"*

Lawyers have even been regularly recognized as entitled to act themselves, as both petitioner and attorney, on behalf of a public interest. For example, M.C. Mehta has sued in his own name to have hundreds of children released from jails; to prevent employment of children in dangerous match factories,[27] to protect the Taj Mahal from air pollution; and to clean up the length of the Ganges River from industrial and municipal pollution,[28] among many other cases. In another of his many cases the Supreme Court of India has ruled that any citizen could sue to remedy harm from a leak of chlorine gas.[29]

Similarly, law professors and lawyers have filed cases on behalf of mistreated mentally ill women,[30] journalists have sued on behalf of women in the Bombay Central Jail,[31] and suits by motivated citizens have sued to protect orphans being sent abroad for adoption and possible enslavement.[32]

The Supreme Court of India has set an example to courts and lawyers around the world of how a legal system can take an entirely new look at enforcement of the rule of law. It has simply set aside restrictions on access to the courts that had theretofore been accepted almost without thinking among the lawyers of that society. I recall discussing the dramatic developments of the law of standing in India with a private lawyer acting mostly for industry, during a sabbatical visit in 1987. He confidently predicted that, with a change in the membership of the Supreme Court of India, standing would soon return to the more comfortable and traditional categories with which he was familiar. In fact, however, each succeeding generation of judges have gained self-confidence in the work of their Court as blazing new trails for public-interest litigation. The Court has established a special office just to process public-interest petitions and has, to a remarkable degree, used its powers in the environmental area to stimulate action by the world's most bloated and reluctant bureaucracy.

3.2.2 Tanzania

The influence of India's progressive stance towards interpreting its constitution has extended beyond the Asian continent into Africa. An amazingly comprehensive and progressive court opinion was issued in Tanzania by the High Court at Dadoma in 1993. In *Mtikila v. Attorney General*,,[33] the court made a survey of standing law in England, Nigeria, India, and elsewhere and then stated rules for standing in Tanzania. It concluded:

> *"In matters of public interest litigation this Court will not deny standing to a genuine and bona fide litigant even where he has no personal interest in the matter . . . . [S]tanding will be granted on the basis of public interest litigation where the petition is bona fide and evidently for the public good and where the Court can provide an effective remedy."*

After discussing the social conditions of Tanzania, the history of one-party politics and repression such as detention without trial, the court said further:

> *"Given all these circumstances, if there should spring up a public-spirited individual and seek the Court's intervention against legislation or actions that pervert the Constitution, the Court, as guardian and trustee of the Constitution and what it stands for, is under an obligation to rise up to the occasion and grant him standing."*

This case may well be little more than a straw in the wind of standing jurisprudence in Tanzania. Future cases will determine whether other judges are willing to follow its lead and the example of the Indian judges. But it is at least remarkable that some judges are willing to take a risk in nudging their legal system toward the kind of open standing suggested by this case.

4 STATUTORY LAW

It is perhaps in the realm of statutory expansion of access to justice that the greatest diversity in approaches exists.

4.1 Europe

In Europe, Parliaments have increasingly granted groups with registered interests the right to participate in legal actions related to their interests. For example, in Italy, Articles 13(1) and 18(5) of Law No. 349 of 1986 give environmental associations the right to sue in administrative courts if they have been recognized for this purpose in a ministerial decree.[34] This model is also mirrored in Germany. Although the German federal government has occupied a special, extraordinary conservative, position in legal doctrine concerning *locus standi* for some time, the *Lander*, or States, have been notably more progressive and open toward granting standing to sue, particularly for established environmental nongovernmental organizations (NGOs).

In the Netherlands legislation has taken a slightly different statutory track, following the model of allowing "anyone" to participate in the consultation process with a public authority, and then affording anyone who has lodged objections at the consultation stage the right to ask a court for judicial review of the decision. See the 1994 General Administrative Law Act's (GALA's) Title 3.5, "Extended Public Preparation Procedures."[35] Additionally, the Netherlands also extends standing to NGOs in civil law suits much like Italy or the German *Lander*.[36]

4.2 The United States

In the United States, statutory provisions in federal and state laws regarding standing to sue in specific legal contexts has generally been quite progressive. Many environmental laws contain provisions granting access to the judicial system. However this is being affected by some regressive constitutional standing requirements recently created by the United States Supreme Court.[37]

4.2.1 Statutory Expansion of Standing in the U.S.

Lawsuits against U.S. federal government agencies can be brought under the Administrative Procedure Act, the Freedom of Information Act, under "judicial review" sections of every environmental statute, and under the "citizen suit" provisions that exist in most environmental statutes. Lawsuits against State and Federal government agencies proceed under many similar statutes. The statutory provisions for standing range from broad authorization for "any person" or "any citizen" to file certain suits to narrower requirements that a potential litigant be "adversely affected" in some way. The broader provisions for statutory citizen enforcement suits under most environmental laws generally also apply in

cases against government agencies. These "citizen suit" provisions first appeared in modern U.S. environmental laws with the Clean Air Act of 1970, but forerunners appeared in early U.S. histrory and even in England as long as 700 years ago.

Famed American administrative law scholar Louis Jaffe showed through historical research published in 1961 that "the public action — an action brought by a private person primarily to vindicate the public interest in the enforcement of public obligations — has long been a feature of our English and American law."[38] In 13th Century English law, anyone could sue on behalf of the king.[39] In the 14th Century, "popular actions" (or qui tam [40] actions) could be prosecuted by any citizen. If a fine were levied, it would be divided between the king and the private prosecutor.[41]

This practice was still in effect at the time the United States of America was founded in 1787 and for the first 50 years nearly all criminal prosecutions were brought by private individuals. Qui tam actions, also known as "informers' suits," were authorized in early legislation of the new U.S. Congress. For example, the Trade and Intercourse Act of 1793 prohibited encroachment on Indian lands and provided that private prosecutions could be initiated. Half of the recovered penalty would go to the citizen who filed the prosecution.

Moreover, informants' suits, "called, as Blackstone says, 'popular actions, because they are given to the people in general,'"[42] were the pre-twentieth century counterpart of citizen suit provisions in environmental statutes.[43]

In the field of environmental law, qui tam statutes were enacted in the U.S.A. as long ago as in the Refuse Act of 1899, under which citizens could sue private parties who violated the Act. They were to be awarded 50% of any fine levied by a court.[44] Private citizens choosing to act as "bounty hunters" were authorized by law throughout the 19th Century to arrest and bring in criminals, leading to several Hollywood movies dealing with the practice.[45] Private bail bondsmen have this right today in most States of the U.S.A.

4.2.2 Recent Judicial Limitations on Standing in Statutory Law in the U.S.

While the U.S. Congress has made strong efforts to expand standing for all persons under many environmental laws,[46] the U.S. Supreme Court, has made equally strong efforts in recent years to cut back that expansion, making claims of "unconstitutionality." The ultimate outcome of this tug-of-war is uncertain. Several State legislatures have also expanded standing widely, sometimes with a better fate far their legislation in the State courts that what is now happening with U.S. statues in the U.S. Supreme Court.

Remarkable developments in recent years position the United States as one of a handful, at most, of countries where the Supreme Court is starting to assert the power to reject efforts by the democratically elected legislative branch of government to specify who may bring lawsuits to court — that is, who may have access to justice.

In 1970, at the same time that Congress was broadening standing, the Supreme Court did the same. The Supreme Court interpreted the federal Administrative Procedure Act (APA) of 1946 in a new manner, essentially attempting to allow persons to sue federal agencies without first finding a specific "legal right" to sue in some specialized statute. It did so by reading the Administrative Procedure Act to allow persons who have actual "factual injuries" to sue, without having to have a "legal injury."[47] This was subsequently extended to include various intangible injuries, including aesthetic injuries to environmental groups.[48]

But what had been designed by a liberal Supreme Court initially to liberalize standing was soon used by ascendant conservatives to cut it back. To put it another way, the use of a judicial sword by one group of Justices to attach apparent legislative restriction on standing soon gave way to the use of the same "injury of fact" sword to attack legislative efforts

that expanded standing. For this to happen, the doctrine was changed from being an interpretation of the APA to one of the Constitution. The doctrine of factual injuries — or "injury in fact" — then was used not merely as a sufficient basis for a court to recognize standing, but as a necessary basis, without which the legislature would have no authority to allow standing. Since the identification of an "injury" was now in the hands of the judges and labled "constitutional", they were then free to define injury in narrower and narrower terms, harking back largely to Nineteenth Century notions of rights and law. Unless an injury satisfied the judges, the legislature was powerless to grant standing.

Among the strongest influences leading to the constitutional shrinkage of the right of standing (and rights of the Congress) in environmental law has been Justice Antonin Scalia. He is a former law professor, who disclosed in a 1983 law journal article his intense dislike for law suits brought by public-interest environmental lawyers. He wrote at that time, before his appointment to the federal courts, that it was desirable to put an end to the federal judiciary's "love affair with environmental litigation."[49] At the time of Justice Scalia's appointment, one commentator predicted what would happen to the law of standing under him: "Scalia has advocated a position on standing that could severely limit the ability of litigants to obtain judicial review where they allege an environmental injury."[50]

When Justice Scalia joined the Supreme Court, the tools for ending public interest law suits were already at his disposal. First, Supreme Court jurisprudence since about 1968[51] had been viewing standing-to-sue as (to quote the title of then-Professor Scalia's law review essay), "an Essential Element of the Separation of Powers."[52] Second, the Court had asserted since 1970 that standing turned to a large degree on "injury"[53](although largely as a statutory matter). Third, the jurisprudence transformed "injury-in-fact" (as compared to injury "in law") into a constitutional requirement since about 1973.

If someone were so inclined, standing doctrine could be used in ways that one scholar has called "Machiavellian."[54] After surveying most of the scholarly commentary on the Supreme Court's standing jurisprudence as of 1993, one young scholar concluded, "There is virtual unanimity among constitutional law scholars that the Court's public action analysis is seriously flawed."[55]

The current membership of the nation's highest Court has achieved a modification of legal doctrine regarding access to justice and the Constitution[56] in the face of unrebuttec research by a number of legal scholars demonstrating that the basis for their constitutional interpretations is ideology riding under the colors of history.[57] No scholars seem to have argued to the contrary.[58] The historical research has shown that the basis for this "Constitutional anti-standing" doctrine is thin at best and intellectually questionable at worst The research has shown that the better view is that the Constitution was written in ar atmosphere of liberal standing-to-sue, both in terms of legal philosophy and historica practice. Other research has suggested that, if anything, the U.S. Constitution is bette read as requiring open standing for the vindication of the rule of law and the protection o collective rights and interests.[59]

The sword continues to cut ever more deeply into "citizen suit" provisions enacte by the Congress in a decision in March 1998 denying the Congress the right to confer ope standing on citizens to aid in the collection of civil penalties that might help dete lawbreaking.[60]

Despite the best intentions of Parliaments and legislative bodies, and despite th most progressive legislation, the true state of access to justice must be assessed with a eye on the jurisprudence of the courts. Nowhere is this more true than in the United State

where the "citizen suit" provisions adopted in a wide variety of U.S. environmental laws, starting in 1970 with the Clean Air Act amendments of that year, are being chopped back by the actions of the Supreme Court under the leadership of Justice Scalia. Nowhere is the broadening of environmental standing to sue in more peril than in the United States of America at present. If a conservative majority on the U.S. Supreme Court, sitting tall in the saddle for the past few years, has its way, the U.S. Constitution will be interpreted, almost uniquely in the world, as prohibiting the U.S. Congress from broadening access to justice. On the other hand, attrition in the ranks of the current members of the Supreme Court[61] could put an end to this challenge to Congressional power, which has appeared relatively recently in U.S. law.

5 CONCLUSION

Barriers to law enforcement by citizens and NGOs are falling in countless countries of Africa, the Americas, Asia, Europe and the Pacific. Courts and legislatures are recognizing that citizens and citizen groups can and should play an enforcement role. The current author's worldwide study of the law of standing-to-sue has not yet found any nation in which the country's Constitution has been interpreted to limit the right of the national legislature to broaden access to justice. In sharp contrast to the conservative judicial interpretation of the U.S. Constitution, courts in a large number of countries have interpreted their constitutions as broadening access to justice in environmental and other matters, not restricting it. A partial list of countries where judicial decisions have been handed down by apex or near-apex courts that recognized broad standing, based on constitutional interpretation, would include Bangladesh, Botswana, Costa Rica, Chile, Colombia, India, Ireland, former Yugoslav Republic of Macedonia, Nepal, Pakistan, Peru, Philippines, Slovenia, and Zimbabwe. (A future phase of the current study will analyze these cases.)

Legislatures also have an important role to play. The trend nearly eveyrwhere is to broaden locus standing for citizen enforcers, against both polluters and government departments that violate the law. It is reasonable to believe that the law will forbid the rich and powerful, as well as the poor from despoiling the environment. Citizen enforcement through broadened standing-to-sue will supplement often inadequate government enforcement resources. And this enhanced involvement of citizens in the implementation of environmental laws will move us toward societies of voluntary compliance.

ENDNOTES AND REFERENCES

1 http://www.aphorismsgalore.com/author/Anatole_France.html. Anatole France (1844-1924) won the Nobel Prize in 1921.

2 Many other terms are in use as well — *actio popularis* (people's legal action, *acciones populares* , *acciones difusas*,*intereses difusas*, *acao populare*., *jus tertii* (third party rights), "next friends," "informers' actions," "citizens suit," *la capacite' d'ester en justice*., "legal capacity to litigate," *Verbandsklagerecht,* "right of access to justice,"

3 For some thoughts on this broader agenda, *see* Bonine, "Synopsis," DOORS TO DEMOCRACY (A Pan-European Assessment of Current Trends and Practices in Public Participation in Environmental Matters) (Regional Environmental Center, Szentendre, Hungary, June 1998), http://www.rec.org/REC/Publications/PPDoors/EUROPE/synopsis.html.

4 Several of my colleagues from civil law countries firmly maintain that a distinction between civil law and common law countries must be made within my three categories because they insist that in civil law countries, judges do not "make law." Clearly I disagree with these colleagues, yet always enjoy our debates on this matter.

5 Bernard Schwartz, LIONS OVER THE THRONE: THE JUDICIAL REVOLUTION IN ENGLISH ADMINISTRATIVE LAW (New York Univ. Press 1987) at 6.

6 Supreme Court Act 1981, s 31, Application for judicial review:

(1) An application to the High Court for one or more of the following forms of relief, namely—

(a) an order of mandamus, prohibition or certiorari;

(b) a declaration or injunction under subsection

(2) shall be made in accordance with rules of court by a procedure to be known as an application for judicial review

(3) No application for judicial review shall be made unless the leave of the High Court has been obtained in accordance with rules of court; and the court shall not grant leave to make such an application unless it considers that the applicant has a *sufficient interest* in the matter to which the application relates. [Emphasis added.]

7 Such a view was expressed in 1980, just before the most important, modern case of standing was rendered by the House of Lords, holding the opposite. P. Cane, *The Function of Standing Rules in Administrative Law*, 1981 Public Law 332 (1981), reprinted in D.J. Galligan (ed), ADMINISTRATIVE LAW 303, 326 (1992). The opposite view, which prevailed, was expressed by Lord Denning in THE DISCIPLINE OF LAW 133 (1979), cited *Id.* n. 99.

8 [1981] 2 All ER 93; [1982] AC 617.

9 Gouriet v. Union of Post Office Workers and Others [1977] 3 All ER 70; [1978] AC 435

10 R. v. Sec. of State for the Environment, ex parte Rose Theatre Trust [1990] 1 QB 504).

11 Stephen Grosz, *Access to Environmental Justice in Public Law*, in Robinson and Dunkley, eds., PUBLIC INTEREST PERSPECTIVES IN ENVIRONMENTAL LAW (Wiley Chancery 1995) at 196.

12 R. v. Inspectorate of Pollution, ex parte Greenpeace, Ltd. (No. 2) [1994] 4 All E R 329 (High Court, by Justice Otton).

13 Quoted in Fiona Darroch, *Recent Developments in UK Environmental Law*, In A WORLD SURVEY OF ENVIRONMENTAL LAW at 293, 300. Judge Otton said, however, that standing would be granted on a case by case basis, not that all interest groups would automatically be granted standing. This comes under the rubric of "leave to appeal," something provided in the Supreme Court Act 1981 sec. 31(3). *Id.*

14 CO/3410/96 (High Court of Justice, QB Div., Crown Office) (20 April 1997).

15 http://www.igc.apc.org/elaw/americas/arg/kattan.html.

16 Personal conversation with author, 1993.

17 This paper presents a sample of cases from Commonwealth countries. Research on cases from Latin American civil law countries, also based on constitutional provisions, are not covered in this paper.

18 Article 88(2)-The Constitution of The Kingdom of Nepal 1990. Cited in e-mail message from Prakash Mani Sharma, Forum For Protection Of Public Interest (Pro Public) Nepal, Nov. 20, 1996, on file with author.

19 Richard Stith, *Unconstitutional Constitutional Amendments: The Extraordinary Power of Nepal's Supreme Court*, 11 Am. U.J. Int'l L. & Pol'y 47, 52 (1996).

20 S.Ct. of Nepal, 31 Oct. 1995.

21 Dow v. Attorney General [1992] LRC (Cons) 623 (3 July 1992), cited in Michael P. Seng, *In a Conflict Between Equal Rights for Women and Customary Law, the Botswana Court of Appeal Chooses Equality*, 24 U. Tol. L. Rev. 578 (1993). Case also cited in M.D.A. Freeman, *Botswana: Bucking the Backlash,* 33 U. of Louisville J. of Fam. L. 293, 293 (1995).

22 The Botswana decision can be seen, of course, as narrowly granting standing to the mother because of the special familial relationship, and parental obligations, but the language used was broader than that. As for the family relationship being a basis for standing, this decision may be compared to the view of a judge in England who, in an unreported opinion, refused to grant *locus standi* to the son of a woman detained under the Mental Health Act 1983, to contest a decision to apply electro-convulsive therapy to her. Cited in Stephen Grosz, *Access to Environmental Justice in Public Law*, in Robinson and Dunkley, eds., PUBLIC INTEREST PERSPECTIVES IN ENVIRONMENTAL LAW (Wiley Chancery 1995) at 196 n.7.

23 Seng. *supra* note 12, at 658 (quoting Rumpff C.J. in Wood v. Ondangwa Tribal Authority, 2 S.A. 294, 310 (S. Afr. App. Div. [1975])).

24 S. P. Gupta v. Union of India, AIR 1982 SC 149 (known as the *Judges' Transfer Case*).

25 S. P. Gupta v. Union of India, AIR 1982 SC 149.

26 Sheela Barse v. Union of India, 1988 4 SCC 226, 234, 1988 AIR (SC) 2211, 2214, quoted in Susman, *Distant Voices in the Courts of India: Transformation of Standing in Public Interest Litigation*, 13 Wis. Int'l Law J. 57, 66 (1994).

27 M.C. Mehta v. State of Tamil Nadu and others, 1 SCC 283 (1991).

28 M.C. Mehta v. Union of India, 4 SCC 463 (1987).

29 M.C. Mehta v. Union of India, 2 SCC 176 (1986); 2 SCC 325 (1986); 1 SCC 395 (1987).

30 Uppendra Baxi v. State of Uttar Pradesh, 2 SCC 308 (1983).

31 Sheela Barse v. State of Maharashtra, 1983 AIR (SC) 378.

32 Lakshmi Kant Pandey v. Union of India, 1984 AIR (SC) 469.

33 Civ. Case No. 5 of 1993.

34 Fuhr, Gebers, Ormond, and Roller,*Access to Justice: Legal Standing for Environmental Associations in the European Union*, in Robinson & Dunkley, PUBLIC INTEREST PERSPECTIVES IN ENVIRONMENTAL LAW 89 (Wiley Chancery, London 1995). Granting standing to nongovernmental organizations, or NGOs, through legislation originated in Switzerland, in Article 12 of the Federal Nature and Heritage Conservation Act 1966. *Id.* At 79.

35 Gerrit Betlem, *Environmental Locus Standi in The Netherlands*, 3 Rev. of Eur. Comm. & Int'l Envir. L. 238 (1994). (Another article by him appears in A WORLD SURVEY OF ENVIRONMENTAL LAW, edited by Stefano Nespor, published in Milan.)

36 P. Klik, *Group Actions in Civil Law Suits: The New Law in the Netherlands*, 4 Eur. Envtl. L. Rev. 14 (1995) (analyzing Articles 3:305a, 305b of the Dutch Civil Code).

37 See part 4.2.2 of this paper.

38 Louis Jaffe, *Standing to Secure Judicial Review: Private Actions*, 75 Harv. L. Rev. 255, 302 (1961).

39 Mich. 11 Hen. 4, pl. 24, fol. 11 (1409) (stating that anyone could sue on behalf of the king); Mich. 5 Edw. 4, Long Quinto fol. 141, 142 (Exch. Ch. 1465) (equating indictment with a "popular action"), cited in David J. Seipp, *The Distinction Between Crime And Tort In The Early Common Law*, 76 B.U.L. Rev. 59, 74 n. 99 (1996).

40 "Qui tam" is short for "*qui tam pro domino rege, etc., quam pro se ipso in hac parte sequitur.*" This translates to "who prosecutes this suit as well for the King, etc., as for himself." United States ex rel. Stinson, Lyons, Gerlin & Bustamante, P.A. v Prudential Ins. Co. (1990, DC NJ) 736 F Supp 614, affd 944 F2d 1149 (3d Cir. 1990).

41 Seipp, *supra* note 35, citing Mich. 13 Hen. 7, pl. 1, fol. 4, 8 (1497).

42 Huntington v. Attrill, 146 U.S. 657, 673 (1892).

43 Daniel M. Crane, *Congressional Intent or Good Intentions: The Inference of Private Rights of Action under the Indian Trade and Intercourse Act*, 63 B.U.L. Rev. 853, 877 (1983).

44 A more recent statute was passed by the Oregon Legislature granting 50% of any fine levied on persons throwing out litter.

45 See, e.g., THE BOUNTY HUNTER.

46 See part 4.2.1 of this paper.

47 Assoc. of Data Processing Org. v. Camp, 397 U.S. 150 (1970).

48 Sierra Club v. Morton, 405 U.S. 727 (1972); Students Contesting Regulatory Agency Procedures (SCRAP) v. Interstate Commerce Commission , 412 U.S. 669 (1973).

49 Scalia, *The Doctrine of Standing as an Essential Element of the Separation of Powers*, 17 Suffolk U.L. Rev. 881, 884 (1983).

50 Michael A. Perino, *Comment: Justice Scalia: Standing, Environmental Law, and the Supreme Court*, 15 B. C. Envtl. Aff. L. Rev 135 (1987).

51 Flast v. Cohen, 392 U.S. 83 (1968).

52 Scalia, *The Doctrine of Standing as an Essential Element of the Separation of Powers*, 17 Suffolk U.L. Rev. 881, 884 (1983).

53 Association of Data Processing Service Organizations v. Camp, 397 U.S. 150, 152 (1970) (issue of standing turns on whether plaintiff has suffered injury in fact).

54 J. Vining, LEGAL IDENTITY 10 (1978).

55 Eric J. Segall, *Standing Between the Court and the Commentators: A Necessity Rationale for Public Actions,* 54 U. Pitt. L. Rev. 351, 402 (1993).

56 See, for example, Lujan v. Defenders of Wildlife, 504 U.S. 555 (1992).

57 See, for example, Gene R. Nichols, Jr., *Justice Scalia, Standing, and Public Law Litigation*, 42 Duke L.J. 1141, 1151-52 (1993). See, e.g., Louis L. Jaffe, JUDICIAL CONTROL OF ADMINISTRATIVE ACTION, 462-67 (1965); Raoul Berger, *Standing to Sue in Public Actions: Is It a Constitutional Requirement?,* 78 Yale L.J. 816 (1969); William A. Fletcher, *The Structure of Standing*, 98 Yale L.J. 221 (1988); Henry P. Monaghan, *Constitutional Adjudication: The Who and When*, 82 Yale L.J. 1363 (1973); Gene R. Nichol, Jr., *Injury and the Disintegration of Article III*, 74 Calif. L. Rev. 1915 (1986); Cass R. Sunstein, *What's Standing After Lujan? Of Citizen Suits, "Injuries," and Article III*, 91 Mich. L. Rev. 163 (1992). at 173-76; see also Evan Caminker, *Comment, The Constitutionality of Qui Tam Actions*, 99 Yale L.J. 341, 341-44 (1989); Gene R. Nichol, Jr., *Rethinking Standing*,72 Calif. L. Rev. 68 (1994). Perhaps also: Erwin Chemerinsky, *A Unified Approach to Justiciability*, 22 Conn. L. Rev. 677, 694 (1990).

58 In response to Gene Nichols' historical exegesis on the subject, Gene R. Nichol, Jr., *Justice Scalia, Standing, and Public Law Litigation*, 42 Duke L.J 1141, 1142 (1993), the lawyer who represented the government Lujan v. Defenders of Wildlife subsequently asserted that "practice prior to the framing of the Constitution — and perhaps constitutionally dubious remnants persisting thereafter — thus is not an infallible guide to the scope of judicial power under Article III." John G. Roberts, Jr., *Article III Limits on Statutory Standing*, 42 Duke L.J. 1219 (1993). Taking this position, the lawyer did not find it necessary to provide any countervailing historical research.

59 For example, see Donald L. Doernberg, *"We the People": John Lock, Collective Constitutional Rights, and Standing to Challenge Government Action*, 73 Calif. L. Rev. 52 (1985).

60 Steel Company v. Citizens for a Better Environment, 118 U.S. 1103 (1998)

61 Justices of the U.S. Supreme Court are appointed for life. Presidents Ronald Reagan and George Bush strived to put relatively youthful conservatives on the Court. President Bill Clinton has appointed two Justices, Ruth Bader Ginsburg and Steven Breyer. Their views on access to justice are far more temperate than that of Justice Scalia, as are also the views of a couple of other sitting Justices.

LEGAL AND INSTITUTIONAL CONSTRAINTS TO PUBLIC INTEREST LITIGATION AS A MECHANISM FOR THE ENFORCEMENT OF ENVIRONMENTAL RIGHTS AND DUTIES IN KENYA

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SUMMARY

This paper seeks to examine the constraints, both legal and institutional, that impede the effective use of public interest litigation in the protection and enforcement of environmental and natural resource rights in Kenya. Legal constraints are those problems that exist within the legal framework; while institutional constraints are those problems that reflect the lack of capacity, opportunity and resources, whether in the legal profession or within civil society for taking up and prosecuting cases of this nature.

1 INTRODUCTION

Both laws and institutional mechanisms for addressing the problem of environmental degradation have been in existence in Kenya since the colonial times. Yet in this long history also lies the major weakness of this framework for the protection of the environment. Because the laws were conceived and introduced during the colonial era, they were informed by the political economy of colonialism; and even when they were adopted by the independence government, they retained major characteristics of their colonial antecedents. They have thus for instance remained sector specific, mostly focused on pollution control and the conservation of nature. This has resulted in a problem by problem approach to environmental policy and law making which ignores the relationships between particular environmental problems, and the systematic connectivity between various components of the environment[1].

Over the years however, the inadequacy of this system has become obvious, especially when compared with the evolution that has taken place in the area of environmental management elsewhere in the world. The 1972 United Nations Conference on the Human Environment triggered heightened global activity in the area of environmental awareness and management. While a lot remains to be done, there is clearly an appreciation on the part of the Government of Kenya that the management of the environment is an important input into the development process. Both policy and legal initiatives continue to be promulgated to address the problem of environmental management. Part of the framework being considered for this includes the use of public interest litigation to advance the cause of environment and natural resources management.

2 CONTEXT

Public interest litigation is a new phenomenon in Kenya's legal system. As recently as 1986, the then Acting Chief Justice observed that the case of *Public Law Institute v. Kenya Power & Lighting Company Limited* was the first public interest case ever lodged in Kenya.

By public interest litigation we mean such suits as are filed in pursuit of the public interest. Such suits may be filed by a public-spirited individual or group of individuals or by a civil society organization whose mission covers the issue in relation to which the action is filed. In the quest for effective environmental stewardship, public interest environmental litigation has proved a major tool in the hands of concerned individuals and groups the world over[2].

It is clear that successful public interest litigation requires a motivated and capable citizenry with sufficient interest and commitment to the issues at stake; a legal framework with rules that facilitates this kind of litigation as a means of enforcing the rights of citizens; a judiciary that is sympathetic both to this method and the issues pursued thereby and a policy framework that will respond positively to the dictates of courts arising from such actions. We shall examine these factors in turn in the Kenyan context.

3 THE LEGAL FRAMEWORK

The major problem with the legal framework lies in its sectoral approach to the management of the environment. It has been observed that this approach has created problems in that some grey areas are not regulated and there are overlaps between mandates of existing authorities. Apart from this, a sectoral approach has resulted in passage of 66 pieces of legislation addressing environmental concerns, each with its own provisions relating to enforcement.

Absent from this framework is any provision for coordination between various organizations and individuals involved in the various aspects of environmental protection. The need for coordination cannot be overstated, as only with coordination can there evolve a uniform application of the law, leading to uniform standards in the management of the environment.

The nature of this legal framework, especially its fragmented and disjointed character is explicable by the colonial background of the legislation. The colonial resource management system and laws were primarily concerned with resource allocation and exploitation, informed by an extractive mentality that sought to maximize what the colonialists would appropriate from the natural resource base. Behind this mentality was the presumption of natural resource abundance; so that the concern of policy and law was restricted to the allocation of access rights, with little or no concern for sustainability. This explains the enactment of separate laws concerned with the use of these resources rather than with sound management for sustainability.

A major constraint within the legal framework relates to the vexing question of standing. *Locus standi*, or standing to sue has been used by courts in Kenya to defeat a number of initiatives aimed at securing the public interest. The Civil Procedure Rules, which govern the process of civil courts, provide by Order 1 rule 8(1) that one or more persons may sue on behalf of a number of people who have the same interest in one suit. A person who files such a suit, known as a representative suit, is enjoined to give notice of the filing of the suit whether directly or by advertisement in the press to all persons interested in the matter. Any person on whose behalf a suit is so filed may apply to be joined as a party.

While this provision appears to provide an opening for the pursuit of public interest litigation, this matter is not so straight forward, especially with respect to public interest environmental litigation. The law suggests that such a representative action is envisaged on behalf of a determinate class of persons "having the same interest in one suit". The nature

of environmental litigation is such that it is hard to be so specific about the class of persons on whose behalf an action would be brought; and this has hampered the use of this rule to facilitate public interest environmental litigation.

It is also possible however, to file what are known as "relator" actions under the provisions of Section 61(1) of the Civil Procedure Act. This type of action is specifically designed to enable citizens to move the courts to act in cases of public nuisance. The section provides that,

"In the case of public nuisance, the Attorney-General, or two or more persons having the consent in writing of the Attorney-General, may institute a suit though no special damage has been caused, for a declaration and injunction or for such other relief as may be appropriate to the circumstances of the case".

The use of "relator" actions for the enforcement of environmental rights is constrained by the requirement of written consent of the Attorney-General before instituting suit. Apart from the bureaucratic delays inherent in the procedure, the Attorney-General is a political officer and a member of the Executive and has proved singularly incapable of taking action on sensitive issues that involve conflict of interest. The cumulative effect of this is that the Attorney-General will hardly move on his own, while private individuals are discouraged by the need for consent; thus rendering this section virtually useless for the purposes for which it was otherwise intended.

Even though it has been held by the court of Appeal[3] that an aggrieved member of the public can himself seek relief in the courts if the Attorney-General unreasonably or improperly refuses to exercise his powers, or there is insufficient time for him to do so, such a member of the public would still have to show that he has 'sufficient interest' which remains undefined by decided cases. It is submitted that the tenor of decisions to date suggest that the courts are likely to define 'sufficient interest' in a manner that denies rather than permits actions by individuals in the prosecution of the environment.

That *locus standi* should be such an impediment to public interest litigation in Kenya is evidence that the legal system is tied down with English common law concepts even where the statutes have provisions that if interpreted liberally would advance the interests of Kenyans. The statutory provisions of the Civil Procedure Rules rank hierarchically above the common law concepts to which they are referred.

Perhaps this inadequate legal framework is a consequence of the absence of a constitutional basis for public interest litigation in the protection of the environment. The Constitution of Kenya does not have any provisions guaranteeing a healthy and wholesome environment. It is imperative that as the Constitution is reviewed, this guarantee be built into the Constitution.

4 LEGAL PROFESSION AND JUDICIARY

Whereas the legal framework clearly constitutes a major constraint to public interest environmental litigation, it is equally obvious that even the best legal framework would not in itself guarantee to the citizens the benefits of protection inherent therein, unless there is in existence within the country a corps of legal professionals, both in the Bar and the Bench that have an active interest in using the legal framework to advance environmental rights.

Professor C.O. Okidi, a leading Kenyan environmental lawyer has suggested that the inadequate legal framework notwithstanding, there is a sense in which the failure of public interest environmental litigation in Kenya is a function of an inept legal profession and

judiciary. Yet it is the advocates for the environment who can activate the lawyers and prompt a change in the attitudes of judicial officers. Okidi submits that "court judgment—may also depend on the cogency of the arguments as well as the quality and the judicial temperament of the courts. Therefore the chances of success may well depend on the creativity, commitment and persistence of litigations"[4]. He further suggests that there has not been a sufficiently strong, persistent and consistent pressure brought to bear on the judicial system to force the environmental agenda into the court process. He observes that "advocates of environmental protection and human rights in Kenya may not have challenged the courts over related matters sufficiently. Courts must be moved and convinced, and once more, the efforts should be creative, committed and persistent"[5].

For the legal profession and the judiciary to rise to the challenge of public interest litigation in the advancement of environmental rights, it is necessary that capacity be built within the profession for public interest litigation generally, and for environmental litigation in particular. The training of lawyers in Kenya has to date been geared toward producing private practitioners with an eye on commercial activity rather than public service. The lawyers who end up in the public sector are equally constrained by an attitude that puts emphasis on specific client interest. Public interest litigation does not fit well into this mould and attitude. Apart from addressing the curriculum of law schools and university faculties of law as a long term measure, such capacity building should in the short-term be in the form of continuing legal education to qualified and practising lawyers.

5 CIVIL SOCIETY

It has to be appreciated however, that the effectiveness of lawyers will depend largely on the mobilization and commitment within civil society to the protection of the environment. The commitment and persistence of litigation called for by Professor Okidi can only be assured by civil society environmental advocates. It is the existence of a strong and committed lobby for the environment, and one that is committed to the use of the legal process in the protection and enforcement of environmental rights, that will in turn create and maintain a capable legal profession.

In the past, the political environment in Kenya, as in much of Sub-Saharan Africa, has not been conducive to the organization of civil society around such issues as environmental rights. In the single-party era, which was characterized by autocratic governance and emasculation of civil society, advocates for environmental rights became targets of intimidation and harassment by government. This has greatly hampered the evolution of serious environmental advocacy groups that would effectively mobilize public opinion and resources in the protection of the environment[6].

There have however, been significant changes since the early 1990s. The reintroduction of a multi-party political system has reasserted pluralism and civil society organizations continue to emerge, addressing specific interest. Environmental advocacy groups are being created all over Kenya, and public interest environmental law firms are now in the works. These too need training, advice and general capacity building to become effective means for environmental protection.

6 THE POLICY FRAMEWORK

When all is said and done however, it is the political process that will ensure the effectiveness of public interest litigation in the protection and enforcement of environmental rights. The policy framework is a function of the political process, and in the past this has not been conducive to such citizen initiatives as public interest litigation.

A number of changes that have occurred within the political system since the beginning of this decade have, however, augured well for the policy framework. Economic and structural adjustment programs introduced at the behest of international financial institutions and the donor community, have forced the government to become more receptive to ideas and initiatives that emanate from the citizenry. The reforms instituted by these programs have resulted in much leaner governments, with a reduced capacity and presence in natural resource management. As a result it is in the interest of government to allow the effective involvement of the citizenry in environmental protection.

Moreover, the political space created by the greater democratization that has been introduced as part of the reforms in the political system has translated into a more empowered civil society. It has also translated into a government that is more ready to listen to its people as accountability and transparency find root.

These developments provide an opportunity for the strengthening of public interest environmental litigation.

7 CONCLUSION

Public interest litigation generally, and environmental litigation in particular, are new phenomena in Kenya. The legal and institutional framework that has existed in the country since colonial times is one that is not at all conducive to the effective use of public interest environmental litigation as a means of securing environmental and natural resource rights. The limited scope of common law remedies available for environmental degradation and the personal nature of those remedies are a major legal constraint to the widespread use of public interest litigation to enforce environmental rights. The absence of a constitutional provision guaranteeing a healthy environment creates a serious gap in the enforcement mechanism. Additionally there is lack of capacity within the legal profession and the judicial system for the use of public interest litigation, and an absence of organized civil society institutions to pursue environmental rights through the courts.

The situation is however changing rapidly as there is increased awareness both in and outside government of the need for environmental stewardship as an input in the development process. Reforms in the legal framework and the governance system are beginning to translate into opportunities for increased use of public interest litigation to advance environmental and natural resource rights.

Nevertheless there is a critical need for capacity-building initiatives to ensure that these opportunities will be translated into benefits for environmental and natural resource governance. Such capacity building should aim at providing resources and ideas, sharing experiences form elsewhere and creating institutional frameworks for public interest litigation within civil society, in government and the entire legal profession in Kenya.

ENDNOTES AND REFERENCES

1 The word 'environment' is understood throughout this paper to mean the totality of nature and natural resources, including the cultural heritage and the infrastructure constructed by human beings to facilitate socio-economic activities. See Okidi, C.O. 1994. Review of the Policy Framework and Legal and Institutional Arrangements for the Management of Environment and Natural Resources in Kenya. (A Report prepared for the Government of Kenya with the support of the United Nations Environment Program).

2 Gleason, Jennifer M. and Johnson, Bern A., 'Environmental Law Across Borders' *Journal of Environmental Law and Litigation,* Vol. 10, 1995, pp. 67-83. See also, Environmental Law Institute, 1992. The Role of the Citizen in Environmental Enforcement. (A Working Paper prepared under the auspices of the Environmental Law Institute's Environmental Program for Central and Eastern Europe).

3 Njau, Alfred and 5 Others v. City council of Nairobi (1982-1988) 1 KAR 229.

4 Okidi, C. O., 1996. 'The Practice and Principles in Environmental Law for Kenya'. (A Paper prepared for the KNAS/IDRC Public Lectures at the Kenya National Academy of Sciences), page 13.

5 ibid. page 14.

6 Such individual efforts as those of world renowned Kenyan environmental advocate, Professor Wangari Mathai, though commendable, have had limited long term impact on the overall system.

WORKSHOP 3D
STRUCTURING FINANCIAL CONSEQUENCES IN ENFORCEMENT: PENALTY POLICIES, RECOVERY OF DAMAGES, RECOVERY OF ECONOMIC BENEFIT OF NON-COMPLIANCE

As fundamental as the "polluter pays principle" is to environmental policy generally, economics is also a powerful incentive for compliance behavior. Many if not most environmental compliance and enforcement programs make use of economic sanctions, incentives and/or disincentives to motivate compliance. To be effective, however, the use of monetary fines or recovery of damages must be well grounded in practical realities of actual costs of control or prevention of pollution and also in theoretical underpinnings which can garner support and acceptance by the public and those potentially affected.

Papers 1 - 2 for Workshop 3D and a list of related papers from other International Workshops and Conference Proceedings are inVolume 1

SUMMARY OF WORKSHOP: STRUCTURING FINANCIAL CONSEQUENCES IN ENFORCEMENT: PENALTY POLICIES, RECOVERY OF ECONOMIC BENEFIT OF NON-COMPLIANCE

Facilitator: Nancy Marvel
Rapporteur: Connie Musgrove
Expert Economic Benefit Modeling: Jonathan Libber

GOALS

Discussions were designed to address the following issues:

- Factors countries have used to construct penalty policies or practice in assessment of penalties for violations of environmental law.
- Approaches which have been most successful or have posed problems andwhy.
- The role for the "recovery of economic benefit of non-compliance" or other relevant theories in country enforcement response and penalty approaches. (Including a demonstration of models used to support such calculations).
- Approaches used to assess damages to human health or the environment and/ or recover costs of clean up or control. Level of difficulty, cost, credibility of these approaches and how that affects the ability of governmental officials or affected parties to recover costs and deter future action which caused damages.
- Principles and approaches for structuring penalty policies and recovering damages.
- The implications for enforcement economics of "Take back laws" and related market approaches to make generators of pollution accountable for their pollution contributions.

1 INTRODUCTION

The participants of all nations represented are struggling with the dual issues of how to drive polluters and potential polluters to compliance and what sanctions to impose on those caught violating the law. The concept of imposing monetary fines is not universally embraced in all cultures; but where imposed, the amount may not be within the control of the environmental authority or the penalty may be pre-fixed e.g. written into the permit.

2 DISCUSSION SUMMARY

2.1 Defining "Economic Benefit of Non-Compliance"

Jonathan Libber, a legal and economic expert in calculating "economic benefit," explained the philosophy and approach used in the United States for establishing the minimum penalty to impose to prohibit a violator from profiting from his violations. How does one establish a penalty structure so that the polluter cannot merely pay the fine, but still saves money? Economic benefit calculation involves determining four areas: 1) what were the "delayed expenses," i.e. the costs to comply with the law; 2) when did the violation begin in relation to when costs needed to be incurred; 3) when did the violation end; and 4) when did the violator pay for the necessary expenses to come into compliance.

Many participants expressed concern about the ability to impose very high — million dollar penalties — especially if other types of crimes are considered worse. They requested further understanding on when and how the United States addressed such high penalties. Further clarification described the concept of graduated penalty formulas that included calculating the above economic benefit and the "gravity" or seriousness of the harm to the public or the environment. Those penalties are then adjusted "downward" for such factors as "ability to pay," cooperative spirit of the violator, and "Supplemental Environmental Projects" — monies spent on projects that go beyond compliance and are tied (i.e. a nexus exists) to the original violation.

The participants developed and discussed a hypothetical example of an air pollution violation — failure to install a bag house (a large cleaner which captures particulate matter). The bag house was not installed on time it was delayed 5 months. During the five months, the facility had uncontrolled releases of 100 percent above permit levels. If it costs $1 million to install a bag house and one year to build it, the polluter has the use of $1 million for one year and five months longer than his competitors. In addition, he avoided operation and maintenance costs equal to 10 percent of his capital costs. The "harm" established for the violation which was 100 percent over limit was set at $10,000 per month. These penalties are added and then a series of negotiations with the company takes place to attempt to resolve the key assumptions and penalty amount prior to preparing for a trial in front of a judge in the hopes that the matter could be settled between the parties and the judge ratify the results.

2.2 Negotiation

Countries offered their experience with negotiation. Some negotiations are not successful or take too long. In some cases claims are made that costs are not accurate. Requesting tax returns was offered as an approach for cost differences. Questions arose as to why one should negotiate if policies are justified. One answer given was "litigation risk" how likely one will succeed or fail if the matter is taken to a court. This risk can be estimated if policies have evolved for years successfully. If they are developing, there may not be a lot of information or analytic background that supports challenges to the standards.

Negotiation is not always an option. If speed and a quick response is needed, some action must stop the damage quickly. One participant indicated they do not have the basis to negotiate. The judge sets fines. Any analysis of costs in that case would help establish a plea to the judge. Other participants also discussed the authority of the judges. In some

cases, the judes can add to a penalty, in others, they can negotiate different amount. In the U.S. context, judges have made direct use of these policies to recover economic benefit in their own decision making, and also in support of judgements sought by NGOs.

2.3 Alternatives to Economic Benefit Calculations and Penalty Policies

One country expressed the approach of considering the impact on the environment first. For a "front runner" company, there would be no penalty. For a "straggler" one who will not cooperate or repeatedly violates there may be extra punishment in terms of money, stopping operations or closing. Factors need to be considered between recapturing economic benefit and the seriousness of the violation. A determination needs to be made on how much, how toxic, what specific area is affected and if the violation occurred before receiving authority to operate e.g. without a permit.

Several countries agreed that if industry threatens health or the environment, it must be shut down. One participant added that if the agency does not shut it down, the director can lose his job.

2.4 Effectiveness of Penalties

Many participants discussed the issue of the ineffectiveness of some penalties and the lack of public support for punitive damages. One country offered that some companies prefer to pay the penalty and the fee rather than comply. An example was offered of hazardous waste drums spilling into a river and killing tons of fish. The penalty associated with this would address strict liability. Alternately, if the drums spilled into a yard and the berm broke and contaminated the river, one could address the prevention plans. For small routine violations the penalty can be graduated based on seriousness of the harm and doubled if repeated.

One country stated that they embrace the concept "polluter must pay" and their fines go into a fund. It is considered a tax collection function. The penalty charges, themselves, are written into the permit. However, these preset penalties do not serve as disincentives as they are too low. Another participant described their country's ability to charge three to five times the cost of treatment for that chemical to meet water quality standards depending on the context of the violation. For example, focusing on discharges (BOD or chemicals that can interfere with the treatment system) can levy greater fines with good response. However, they do not recover damages. They also have the authority to close the plant, but it does not work well.

Countries believed that if the problem is very diffuse and widespread, then it shows society is accepting of the problem. When there is not general support for enforcement or it is not a high priority, then solutions must be negotiated with companies. This can include advising how to comply and negotiating standards for new plants. One participant offered that focused sustained enforcement be targeted at the stubborn non compliers and shut them down if necessary. Another country believed shutting down is not a very good option if jobs are at risk. It is important to try to change attitudes while keeping factories open. Penalties do have a role and they need to be kept high enough. Another country strongly supported the need for cooperation and prevention, that penalties do not work. It is important to talk to the company, work with them step by step. Establishing permits is crucial. If they violate the permit, send letters and do inspections. Fines are not effective, but publicity is most important. If necessary, close the factory.

Several countries discussed the problem with dealing with municipalities that pollute. There was general agreement as to the difficulty in getting municipalities to comply. There may be national support for municipalities depending on how effective they deal with

pollution. Municipalities are also governed by elected officials who will not be re-elected if they raise taxes to pay for violations. A mayor who doesn't raise taxes gets elected and others may lose their job.

3 CONCLUSION

Most countries are developing integrated approaches to punishment for environmental violations. imposing stiff monetary penalties is not universal and the ability to assess penalties with the calculation of "damages," restoration costs or economic gain by polluting is limited. Many countries value high fines. For some countries, however, the information to dó this type of analysis is only emerging, for others penalties are preset in law or permits or by the judiciary. Most countries also acknowledged the difficulty of catching, much less fining the activity of widely-diffused small operators. Several countries emphasized the need to seek cooperation with their industry, negotiating compliance problems with the ultimate authority to shutdown operations. In a few cases, the culture itself served as powerful deterrence as society condemns such behavior and not all problems are equal to being addressed by fines.

WORKSHOP 3E
ROLE OF NEGOTIATION IN ENFORCEMENT

This workshop addressed the appropriate role of negotiation in environmental enforcement. t is a subject on which there are strongly held views both in favor of and against a role for negotiation. In favor of negotiation is the view that unilateral orders to compel violators to correct existing practice may not necessarily lead to compliance if they are unrealistic in regard to steps needed to correct or prevent a facility from violating its environmental requirements or ability to pay fines assessed. Indeed the kind of information needed to make these determinations is often either only known to the violator or may require extended communications between the violator and the government. Furthermore, negotiation may lead to solutions that better balance environmental, economic and social concerns. In favor of no role for negotiation is that it may allow exceedences from environmental law and therefore make problems worse, encourage favoritism, bribery and inconsistent practice which can undermine the program and encourage deviations from legal requirements which must be strictly followed.

A list of related papers for Workshop 3E from other International Workshops and Conference Proceedings is in Volume I

3.4 Advantages of Using Negotiation in Enforcement

Countries that have been using negotiation with regulated entities reported significant advantages.

- Saves time and energy, particularly if expense of litigation can be avoided.
- Reduces risks inherent in litigation.
- Allows parties to address the most important issues and avoid marginal issues.

3.5 Barriers to Use of Negotiation that Need to be Studied Further

The group identified some particular problems that bear further study.

- Find ways to increase transparency to avoid "smokey room" perception and corruption.
- How to enforce negotiated agreements (e.g. U.S. turns agreement into judicial order).
- How to involve and educate public (e.g. New Polish legislation will allow NGOs to become parties).

4 CONCLUSION

There is a role for negotiation at various stages of compliance and enforcement, even in countries that do not provide a role for negotiation in adversarial circumstances. It is a subject on which there are strongly held views both in favor of and against a role for negotiation. Although the use of negotiation between government and regulated entities varied considerably among countries, all countries acknowledged some use of negotiation with regulated entities and all countries acknowledged the use of negotiation among governmental colleagues and jurisdictions. Public involvement in the process of negotiation, either directly or indirectly, is critical to a successful outcome.

WORKSHOP 3F
ADMINISTRATIVE ENFORCEMENT MECHANISMS: GETTING AUTHORITY AND MAKING IT WORK

Empowering administrative environmental agencies to impose legal requirements and/or sanctions directly to violators without having to go to a court of law or other department or agency for prosecution has been an important development in many countries, resulting in faster and less costly response to violations. Discussions drew upon workshop papers from the Third International Conference on "Field Citations".

Paper 1 for Workshop 3F and a list of related papers from other International Workshops and Conference Proceedings are in Volume I

- Compliance orders and/or cleanup or response orders.
- Penalties.
- Ability to order tests or studies.
- Ability to seize items in commerce.

3.2 Participants' Experience with Administrative Authorities

These summaries reflect the reported perceptions of the individual participants and do not necessarily reflect the full picture in any identified country.

- Ecuador - Can remove or suspend licenses. Administrative authorities are not yet integrated on a national level.
- Estonia - 17 local enforcement units; would like to centralize and reduce number of units.
- Germany - Has licensing and control authorities; can lead to administrative orders when facilities fail to comply with terms of license. Government can impose penalties, but does not usually do so.
- Slovak Republic - Fines, orders for improvement (with deadlines) - negotiated; fee system for discharges/emissions.
- Gambia - Fines imposed only with reference to fisheries law. Polluters have option of settling or going to court. Government also can confiscate materials.
- Laos - Has new law. Looking at implementation, rather than enforcement. Will provide economic incentives, such as bottle deposit refunds and tax deferral.
- Bonaire - No industrial pollution. Needs rules to address pollution from tourist related facilities, such as photo labs, and oil storage facilities. Would prefer to have administrative tools.
- Ethiopia - No current administrative tools to address deforestation problems. Can confiscate materials after the fact.
- Tanzania - Currently, forms technical committees to develop acceptable solutions to compliance problems. Also uses public meetings and negotiations. Could use stronger administrative tools to enhance effectiveness.
- Greece - Has administrative and criminal penalty authority, used at discretion of inspector. Separation of permitting and inspection is new development. Can impose penalties, fines and orders. Two types of orders: Greenbill – for environmental works; Bluebill – for marine sources. Can provide economic incentives to improve environmental conditions. Source can challenge penalties imposed administratively by paying 1/4 and going to court to challenge and recover penalty.
- Australia - Recent increase in enforcement matters going to court. Uses a range of administrative enforcement tools, including pollution abatement notices, cancellation or suspension of licenses, warnings, restricted conditions for operation, use of other agency mechanisms for control, penalty infringement notices for non-compliant auto emissions.

SUMMARY OF WORKSHOP: ADMINISTRATIVE ENFORCEMENT MECHANISMS: GETTING AUTHORITY AND MAKING IT WORK

Facilitators: Marcia Mulkey, Adam Parker
Rapporteur: Gail Ginsberg

GOALS

Discussions were designed to address the following issues:

- Kinds of authorities administering agencies have been granted, how have these authorities evolved and why, including simple traffic ticket-types of systems, ability to assess and collect penalties, establish compliance schedules, recover economic benefit, assess damages, shut down operations etc.
- Effective use of administrative authorities and key factors in success or failure.
- The importance of the administrative program of support of the judicial system and other governmental forms of legal response for the administrative program.

1 INTRODUCTION

Participants universally support administrative enforcement mechanisms as an effective way to achieve environmental goals. However, many countries, especially developing nations, have new laws and environmental management systems, which have not yet developed administrative authorities, or where such authorities exist, they have not been used long enough to acquire the respect and effectiveness of more mature administrative programs. It is recognized that there is a need for effective underlying legal power in order to make administrative enforcement systems work.

2 PAPERS

A paper by A. Enkhbat reported about the administrative enforcement mechanisms in Mongolia.

3 DISCUSSION SUMMARY

3.1 Definition of Administrative Enforcement

Administrative enforcement can be defined, initially, by what it is not. It is not criminal enforcement or civil judicial enforcement, both of which involve the court system. The distinguishing feature of administrative enforcement is that it does not involve the courts, although all administrative enforcement systems provide access to the judicial system at some point in the process.

An administrative enforcement process is administered by the environmental ministry or agency and may have available a variety of enforcement tools including:

- Sweden - Has orders and administrative fees. Fees can be waived when source comes into compliance. Also has environmental protection charges - unlimited in amount - which are designed to recover economic benefit; these charges are issued through the National Licensing Board. However system is difficult to administer because of difficulty of proving economic benefit. New environmental code includes environmental sanction charge which is the equivalent of a traffic ticket.
- Benin - Historically, lack of collaboration between competing ministries with environmental authority. Moving toward collaboration and creating administrative procedures for new industrial plants, starting with environmental assessments. Existing industries will get time to comply with new legislation.
- Malaysia - Moving from an agricultural to an industrial economy. Laws require environmental assessments, administrative fines, and criminal fines. Also, laws permit facility to violate standards, through payment of fee and coming into compliance.
- Latvia - Administrative penalties are available. Civil courts can provide compensation for environmental damages. Noncompliance with permit limits can lead to higher taxes (natural resource tax). Money collected goes to environmental fund or to government budget. Tax can be lowered in recognition of environmental improvements by polluter.
- Papua New Guinea - Issues licenses for dischargers. Can enforce license conditions criminally, but is examining use of a hierarchy of responses - from warnings and orders to prosecutions.
- St. Lucia - Lack of standards makes administrative enforcement difficult. Effluent standards are contained within public health legislation. Has authority to close down facilities for ongoing nuisances.
- Portugal - Provisional notices are written on-site, to be signed by facility representative. Notice then goes to inspector general who imposes fines. Also, can use voluntary agreements, known as contracts, which are enforced by warning notices. Inspector general sets deadlines; can request cutting energy to facility to stop pollution.
- Taiwan - Has permit system. Provides economic incentives. Also uses administrative remedies, with range of penalty values. Each day of violation is basis for extra penalty. Has found administrative tools are ineffective to address non-point sources.

Other concepts mentioned included:

- Closing of facilities, denial of access to sewer system, and revoking of licenses were all mentioned as available administrative authorities.
- Participants raised issues regarding the quality of administrative orders or actions, defensibility of such orders or actions in court, who issues the orders and with what safeguards, and avoidance of undue influence on administrative regulatory personnel.

3.3 Experiences with Use of Administrative Enforcement Tools

Making administrative enforcement work effectively requires underlying legal authority. Where there is a lack of environmental protection laws, enforcement pressure can be provided through development of partnerships with other government departments that have legal powers. This approach can also be useful when environmental protection laws exist and increases the number of administrative tools that can be employed for enforcement.

Use of administrative authorities against public entities is problematic. For example, administrative penalties against publicly-owned treatment works and other public facilities are less effective because the money comes from the government and is funded through taxes. There is some deterrent value to issuing administrative notices to these entities because of the element of embarrassment. Public outcry can have a positive effect on public entitles.

There is substantial disparity, from country to country, in the effectiveness and ease of using administrative enforcement tools. In some counties, compliance with orders is almost automatic; in others, companies which receive such orders usually challenge them in court.

A benefit of using administrative tools is that there is often an immediate sanction for environmental non-compliance. Administrative programs can demonstrate a consequence of lack of compliance. Often a staged approach to enforcement can be used through the administrative system before moving to the judicial forum.

4 CONCLUSION

There is consensus that it is preferable to have available administrative, civil judicial, and criminal enforcement tools for an effective environmental enforcement program. Among the benefits of using administrative enforcement tools is the potential for immediate sanction for environmental non-compliance. Although the environmental law systems of many developing countries have not yet matured to the point where they can evaluate the effectiveness of administrative enforcement tools, representatives of these countries recognize the advantages provided by having the discretion to act administratively. Underlying all these conclusions is the assumption of a lawful basis for the administrative enforcement system, which can withstand the inevitable legal challenges from those who are on the receiving end of the administrative enforcement actions.

WORKSHOP 3G
COMPLIANCE SCHEDULES AND ACTION PLANS: CONTENT, ENFORCEABILITY AND USE IN COMPLIANCE AND ENFORCEMENT

An enforcement program must return violators to compliance, prevent continued and future violations, and send a broad message of deterrence to others who are or may violate environmental requirements. A practical component of most enforcement responses other than one of ignoring a violation or shutting down a facility or operation is the use of a schedule or action plan for compliance where additional time is required for a violator to reasonably take the necessary steps to come into compliance. This is true for voluntary agreements as well as legal orders. This is particularly important in the instances in which corrective action requires the purchase, construction and installation of pollution control equipment but can also be a factor in the redesign of workplace practices, removal of toxic or hazardous substances, clean up of spills or contamination etc. One paradox posed by the very use of government sanctioned schedules for this purpose is that it condones continuance of operations in violation of the law. Nevertheless, the use of compliance schedules and action plans, particularly in conjunction with sanctions, is a pragmatic way of recognizing the realities of what it takes to correct a problem once government has gotten the source's commitment to do so.

Paper 1 for Workshop 3G and a list of related papers from other International Workshops and Conference Proceedings are in Volume I

SUMMARY OF WORKSHOP: COMPLIANCE SCHEDULES AND ACTION PLANS: CONTEXT, ENFORCEABILITY AND USE IN COMPLIANCE AND ENFORCEMENT

Facilitators: Tom Maslany, Joost Buntsma
Rapporteur: Craig Hooks

GOALS

Discussions were designed to address the following issues:

- How enforcement officials justify the use of compliance schedules and action plans. Key elements of compliance schedules and action plans that make them enforceable, more likely to succeed, more likely to be able to monitor progress, and/or support efficient escalation by enforcement officials if they are not followed.
- Examples of the use and content of compliance schedules and actions plans in different countries and programs and how they have evolved. What is common to each of these and what is different and why.
- What difference it makes whether a schedule or action plan is developed by government, by a court, by negotiation with a violator, by a violator, in the law.
- What role should or can negotiation play.
- The use of sanctions in conjunction with compliance schedules or actions plans.
- Whether action plans or schedules should be made public.
- How to ensure administrative officials are accountable for fair, predictable, consistent application of their authorities.

1 INTRODUCTION

An enforcement program must return violators to compliance, prevent continued and future violations, and send a broad message of deterrence to others who are or may violate environmental requirements. A practical component of most enforcement responses other than one of ignoring a violation or shutting down a facility or operation is the use of a schedule or action plan for compliance where additional time is required for a violator to reasonably take the necessary steps to come into compliance. This is true for voluntary agreements as well as legal orders. This is particularly important in the instances in which corrective action requires the purchase, construction and installation of pollution control equipment but can also be a factor in the redesign of workplace practices, removal of toxic or hazardous substances, clean up of spills or contamination, etc. One paradox posed by the very use of government sanctioned schedules for this purposes that it condones continuance of operations in violation of the law. Nevertheless, the use of compliance schedules can be used to correct a problem.

2 PAPER

A paper was prepared in support of this topic. The paper was prepared by Fred Huisman entitled, "Law Enforcement on Military Sites in the Netherlands", *Fifth International Conference on Environmental Compliance and Enforcement Proceedings Volume 1*. This paper described the unique relationship between the Ministry's of Defense and the Environment in the issuance of permits to carry out law enforcement. The paper also addressed the issue of confidentiality.

3 DISCUSSION SUMMARY

The discussion began with participants describing what part negotiation plays in the development of compliance schedules. An example of the range of uses of negotiation included: negotiation used in developing compliance schedules, negotiation is used when producing EISs and/or permits to develop compliance schedules, negotiating is not used at all for a variety of reasons (not legally provided for, society view and fear of corruption).

The group discussed the need to think of compliance schedules in terms of a timeline and establishing specific requirements or standards and a compliance date or time when the regulated entity must achieve compliance. Once achieving this common understanding, the group then organized the remainder of their discussion around 5 different questions. They were:

- What is the need for a compliance Plan?
- What should be in compliance plan?
- Should there be public and local (City Officials) involvement in the development of compliance plans?
- How do compliance plans influence the relationship between the government and the polluter?
- How does a compliance plan affect penalties or fines?

Below is a summary of responses by each question provided in the order discussed.

3.1 What is the need for a compliance plan? Responses included:

- to ensure that regulated entities make the necessary corrections;
- to encourage compliance;
- to allow commitments to be made publicly by companies;
- to ensure the government is making progress toward compliance;
- to put pressure on other companies to come into compliance; and
- compliance plans could also include incentives.

3.2 What should be in compliance plan?

- Present compliance status should be described.

- Compliance schedules could be developed for a class of industries, place based and/or by individual facility.
- The consequences for not achieving compliance should be included (Question 4).
- Written commitments with signatures of affected parties should be included.

3.3 Should there be public and local (City Officials) involvement in the development of compliance plans?

There was much variation in the point of reference from the workgroup participants on whether the public was involved in developing compliance schedules. The workgroup generally thought it was a good idea for outside parties to be an active participant in order to make the best decisions. The EIS process did serve as a mechanism for some countries for capturing public comment. It was clear that public and local involvement would be influenced by a country's cultural standards, environmental awareness and laws.

3.4 How do compliance plans influence the relationship between the government and the polluter?

Negotiating compliance plans teach all parties their respective industries and how government works. This cooperation can yield better results.

4 REVIEW OF MODEL AGREEMENT

Workgroup participants were given a model agreement to control environmental pollution whose parts included identifying parties, providing background and indicated authority under which agreement is undertaken, definitions, describe actions government agencies will take, specifically describe measures enterprise will implement to reduce pollution, establish time schedule for implementing the measures, provide for monitoring of performance under the agreement, specify funding commitments, identify responsible individuals who will act for the parties to implement the agreement, provide for penalties and identify mechanisms for resolution of disputes about the agreement.

5 CONCLUSION

The use of compliance schedules and actions plans, particularly in conjunction with sanctions, is a pragmatic way of recognizing the realities of what it takes to correct a problem once government has gotten the source's commitment to do so.

COMPLIANCE PLANS: CREATIVE NEGOTIATIONS FOR CORRECTIONS AND PENALTY

DABROWSKI, BOGUSLAW

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SUMMARY

This paper provides a status report on an experiment underway in Poland to try to introduce negotiations of compliance plans as a new enforcement tool for heavily polluting industries which are in violation of the law. In the Polish Environmental Legal System there is no place for negotiations with the polluters in a case of violation of environmental law. The only thing to do is to start the legal procedure just to force them to obey environmental law and established conditions for environmental use which often can result in little progress being made.

In order to change this situation a little bit negotiation procedure was adopted in Poland as an experiment for heavy polluters. The National Environmental Protection Inspection (from January 1, 1999 The Environmental Protection Inspection) in Poland produces "the list of most environmental nuisance plants in a national scale" called "The List 80." In the end of 1997 we have got 70 plants on that list.

In 1998 the four experiments with the polluters from "The List 80" were under way. The negotiations procedure is based on the free will of the participants (the polluters and administrative organs) and existing environmental law.

To make things easier "The regulations about conditions for removal from the list of the most environmental nuisance plants in a national scale" were elaborated.

The realization of the compliance program cannot exceed five years.

1 HISTORY OF "THE LIST 80"

In April 1989 the Chief Environmental Protection Inspector asked the Voivodes to bring up to date characterization of the most environmental nuisance plants. The first polish environmental one was enacted in January 31, 1980 and before that we had environmental issues in several separate acts (for example: The Water Act, The Air Protection Act). Taking into account environmental behavior of the environmental users the ranking list was created. The first lists were based on statistical data on environmental use as a main factor (amount of water intake, discharged load of pollutants into the surface waters, ground or air, amount of wastes produced by plants). The rank had three levels:

- A - the heavy environmental users.
- B - the medium environmental users.
- C - the lower environmental users.

In May 1989 characterizations were made and sent to the Chief Environmental Protection Inspector. It appears that about 200 plants should be recognized as a heavy polluters so new criteria were set and after a verification procedure it was established that 80 plants should be on the list. So in the end of 1989 the up-to-date "The List 80" was created.

2 THE ECONOMIC CHANGES FORCED A NEW WAY OF THINKING

After the first free election in Poland a new democratic government initiated economic changes from so called "socialistic command economy" to a free market economy. A result of those changes there was a collapse of some industrial sectors mainly responsible for environmental pollution. We used to joke in Poland that Vice-Prime Minister Mr. Leszek Balcerowicz (who was responsible for economic changes at that time) is the best Environmental Protection Minister because the collapse of some industrial sectors caused a 30% to 40% reduction of total pollution load discharged into the environment. It is plain to see that recovery of the polish economy would be a very hard task to do without foreign capital investment. During the negotiations procedure about potential investment a standard issue was about environmental problems in a plant in question. Part of the feasibility studies were environmental measurements carried out by potential foreign investors as well as environmental impact assessment. After that the conditions of the contract were negotiated. It is obvious that the price of the plant should be lower if the environmental problems were serious. In some cases the foreign investors withdrew from negotiations because of the environmental problems. After that lesson most of the plants have learned that it pays to be environmentally friendly.

3 THE COMPLIANCE PROGRAM EXPERIMENT

Cooperation between The Polish National Environmental Protection Inspection and US Environmental Protection Agency has a long history and one of the fruits of this cooperation was an idea about the compliance program experiment. The essence of that idea is that the plants with serious environmental problems have a chance to negotiate environmental improvement programs with the voivodes given that correction of their environmental compliance problems were complex and that negotiation would help to develop pragmatic schedules for remedial action and financing of pollution control, local self-government authorities and voivodeship environmental protection inspectors. The basis for asking to take a part in this experiment was "The List 80." Very careful selection had be done before four of the plants were chosen. They were:

- Czestochowa Iron Foundry.
- Zinc Foundry in Miasteczko Slaskie.
- Petrochemical Works in Plock.
- Nitrogen Fertilizers Works in Kedzierzyn-Kozle.

The next step to implement the experiment was to train the participants in negotiation procedure. It was done with a help of US Environmental Protection Agency in June 1997 a training course about negotiation techniques involved in compliance with environmental requirements included the participants from:

- chief environmental protection inspectorate above mentioned plants;
- voivode offices;
- self-governmental offices; and
- voivodeship environmental protection inspectorates.

Because earlier the papers about accession to the experiments were signed so the negotiation procedure would be ready to start the negotiation procedures had different progress depending on the plant in question but all of them were crowned with final agreement about realization of the compliance program.

I had a chance to be one of the representatives from the part of Opole Voivodeship Environmental Inspector in negotiations about the compliance program involved in Nitrogen Fertilizers Works in Kedzierzyn-Kozle. The negotiations procedure was in an atmosphere of understanding and good technical knowledge. We had several meetings and during the one meeting in the middle of negotiation procedure there was one breaking point that the plant was about to break the negotiations but after a half hour pause they returned to the table and agreement was achieved. The results of the agreement have found their reflection in the administrative decision issued by a voivode on a legal basis of the polish environmental law.

The decision was issued in August 1998 and contained the following conditions:

- shut down outdated nitric acid, sodium nitrate and nitrite installation and construction a new nitric acid installation instead;
- urea installation modernization;
- shut down of two outdated phthalic anhydrite installation and construction a new one instead;
- oxo-alcohols installation modernization;
- waste water treatment plant modernization;
- ash heap reclamation;
- waste disposal stoppage and implementation wastes incineration;
- dewatering and conditioning installation construction for sewage sludge;
- sewage sludge dumping site reclamation; and
- sulfur dioxide emission reduction.

After that decision the plant will be taken off "The List 80." The measures mentioned above have to be done within five years if not the plant in infamy will return on "The List 80." The negotiations procedure and a final agreement have met a good public opinion response. Nowadays the monitoring process of compliance programs implementation in all four plants is under way.

4 THE COMPLIANCE PROGRAMS IN A NEW POLISH ENVIRONMENTAL LAW; WHAT WILL BE A STICK AND WHERE IS A CARROT?

In 1998 "The regulations about conditional taking off the list of the most environmental nuisance plants in a national scale" were corrected according to the experiences gained during the experiment with four plants.

According to the polish negotiations about our accession to European Union we are obliged to adapt our environmental law to the Union requirements. A response to those requirements is a bill about new environmental law and the ordinance drafts to that bill which were elaborated according to The Program PHARE/TACIS No. EC/EPP/91/1.2.4. One chapter of that bill is about compliance programs. The negotiations procedure and compliance programs in the bill are similar to those which were used in our experiment about conditional taking off "The List 80" but the sticks and carrots are different.

Nowadays in Poland we have the following sticks:

- a fees system (one has to pay for water intake, waste water discharged into the surface waters or ground, pollution discharged into the air, waste disposal and cutting off the trees and greenery); and
- a fines or penalties system (for waste water discharged without a permit or with permit violation, exceeding allowable air pollutants or noise limits, illegal waste disposal).

One of our carrots is the possibility of postponing penalties or to arrange installments for penalties payments when the plant is going to make an investment involved in removing the reason for the penalty. Another one is a conditional taking off "The List 80."

In the bill a new possibilities appear.

The carrot are:

- postponing the environmental fees up to five years;
- agreement that 50% of environmental fees will be invested in the environmental protection measures; and
- conditional taking off the list of most environmental nuisance plants on a national scale.

The sticks in a case of failure of the compliance program realization are:

- the plant has to pay four times higher penalty;
- one year environmental fees calculated on the base of the day they were required; and
- the plant returns on the list of the most environmental nuisance plants in a national scale.

We hope that our new environmental law will be enacted before the end of the year 2000.

THEME #4

CAPACITY BUILDING

An effort to build domestic, regional and international capacity to design and implement effective environmental compliance and enforcement programs is at the heart of the purpose for both the Fifth International Conference and ongoing international network. Each of the workshops offered within this theme addressed one of several fundamental aspects of developing capacity: management and organization issues, funding and resource management issues, training and skill development issues and design of targeted strategies for unique categories of sources. In addition, papers and exhibits were solicited to address programs offered by various countries, NGOs and international organizations addressing the following issues:

- Capacity building goals for this organization.
- Expertise, materials, training and/or support available or planned.
- Priorities established for supporting capacity building needs.
- How requests are made.
- Successes achieved.

Priorities for global and regional capacity building were discussed based upon self assessments of country progress submitted by each conference participant and refined during the regional networking meetings at the Conference.

Theme #4 Workshops:

4 A *Managing Centralized and Decentralized Programs; Achieving the Right Balance of Roles and Relationships for Key Functions; Accountability Measures, Compliance Indicators and Reporting*

4 B *Budgeting and Financing Environmental Compliance and Enforcement Programs: How Much Enforcement is Enough*

4 C *Training Programs for Compliance Inspectors, Investigators and Legal Personnel*

4 D *Setting Up and Managing Compliance Assistance Programs and Information Outreach on Regulatory Requirements*

A list of related papers for Theme #4 from other International Workshops and Conference Proceedings are in Volume I

SUMMARY OF THEME #4 PANEL DISCUSSION: CAPACITY BUILDING

Moderator: Michele de Nevers
Rapporteurs: David Mowday, Jo Ann Semones

1 INTRODUCTION

The effort to build domestic, regional and international capacity to design and implement effective environmental compliance and enforcement programs is at the heart of the purpose for both the Fifth International Conference and ongoing international networks. Each of the presentations offered within this theme addressed one of the several fundamental aspects of developing capacity: management and organization issues, funding and resource management issues, training and skill development issues and design of targeted strategies for unique categories of sources.

2 PRESENTATIONS

Mr. Antonio Gonzalez Pastora, Director of the Central American Commission on Sustainable Development discussed the establishment of a regional network for environmental cooperation in Central America. The goal was to establish a regional environmental cooperation regime, promote the creation of national environmental agencies, support efficient environmental legislation and ensure appropriate levels of environmental enforcement throughout a whole region. A Central American Alliance for Sustainable Development (ALIDES) was created. They did this through the establishment of regional networks of legal experts, support for legislators, the conduct of training, provision of legal assistance and promotion of partnerships, facilitation and dissemination of information, including establishment of regional information centers. Included in the targeted groups to build capacity were environmental prosecutors, environmental Attorneys General and environmental police. To date 700 judges have been trained and there is now a Masters degree program in environmental law. There is a regional technical body for Environmental Impact Assessment and an independent body to deal with transboundary environmental issues, including 3 binational water basin commissions.

Mr. Ken Macken, Acting Manager for the Environmental Protection Agency of Ireland discussed how they evolved an Environmental Management System (EMS) into an integrated permitting and licensing program, along with the funding mechanisms. A young agency created only in 1992, they have been able to jump to the forefront of integrated environmental management. Like most permitting bodies target setting and compliance monitoring is conducted by the licensee. Now an EMS is included as a standard condition in every permit along with the requirement for a Pollutant Release Transfer Register. The permit creates both general objectives and long term targets. Though they are self imposed by the licensee, they must be approve by the EPA. Examples of objectives contained in the permits are solvent recovery programs, reduction of landfill load, and organic solvent replacement. The goal is to install a self-regulating process loop through the permit system. The universe of potential facilities is 800 and to date 400 permits have been processed. The system is funded through permit fees and annual enforcement fees which include document processing fees (monitoring reports), site visit fees including travel costs and biannual audit fees.

Mr. George D.O. Asiamah, Senior Program Officer for the Environmental Protection Agency of Ghana discussed the establishment of an internal compliance and enforcement network of the environmental and law enforcement agencies in their country. Called the CEN, the network comprises representatives of all law enforcing agencies, including the Ghana Police Service and all military services, the Attorney General's Department, eight separate national regulatory bodies, such as the Departments of Forestry, Mines and Health, the Ghana News Agency and the Ministry of Environment, Science and Technology. The Network is chaired by the Executive Director of the Environmental Protection Agency. The CEN is also broken down into subcommittees, each with a particular focus, such as small and medium scale manufacturing, small and medium scale mining enterprises and noise nuisance, which are chaired by a lead agency. The network is a problem solving forum for potential environmental pollution cases that are referred to the Network. Its functions include establishing common complaints and investigation procedures, creating public awareness, coordination of joint inspections and verifications, capacity building for each of the member bodies and assuring collaborative actions to ensure effective compliance and enforcement. The referral procedure is that the EPA sends difficult cases to the CEN along with a detailed investigative report. The appropriate CEN subcommittee then undertakes an independent investigation to assess environmental impacts, which laws of which agencies have been broken so as to coordinate joint prosecution, and periodic compliance monitoring if appropriate. If violations are determined, the legal department of the EPA in cooperation with the Attorney General's Department initiates prosecution proceedings. A total of 45 complaints were received in 1997 up from 16 in 1995 and 39 in 1996. Within the short period of its existence the CEN has speeded up permitting, resolved contentious pollution issues faster, increased public awareness, and assured that prosecution proceedings of violators are conducted more expeditiously. In the year and half of its existence the CEN has brought about tremendous change to improve regulation, encourage voluntary compliance by operators, assure better understanding and collaboration among law enforcement agencies and is recommended for countries with limited resources allocated for environmental issues.

Mr. Christopher Currie, Chief of the Enforcement Management Division for Environment Canada, described the critical role that a central government agency can play to build capacity through training programs. In Canada responsibility for environmental protection is divided between the federal and provincial governments with much of the actual regulatory activity in the provinces. Even the federal agency is highly decentralized with no line authority over its regional offices. While the federal agency as a whole tends to concentrate on criminal and transboundary issues, the Headquarters enforcement office has decided to focus on training as a central part of its mission. A nationwide tiered training approach has been established for all environmental enforcement officials with general and minimum competencies for certain job categories (e.g. legal, technical support, management) and specialized competencies for particular types of regulations (e.g. for hazardous waste inspectors). Following a critical parliamentary report this emphasis on training and minimum competencies has been reinforced. Also, given the importance of transboundary issues, such as hazardous waste, it has encouraged inter-agency in-country networks for training with such agencies as Customs and the Royal Canadian Mounted Police. Further, given current success within Canada, the Agency is now looking toward to the establishment of external training networks with other countries.

3 DISCUSSION

In response to a question about the prospects for utilization of electronic means for regional networking, Mr. Pastora said that so far this has been difficult in Central America, but that a web page and CD ROM had been created to hold all relevant environmental legislation. To assist increasing the capacity of individual countries other regional bodies were being created such as a regional technical body of EIA and independent bodies to deal with transboundary environmental issues, including 3 proposed bi-national water basin commissions.

When asked how a small country like Ireland can deal with complicated and complex industrial sectors, Mr. Macken said that their best advantage was to "play off" one company's information against another. As to enforcement itself arising from their EMS and permitting strategy, they rely on the reports coming in as part of the EMS requirement and if such reports do not appear the Agency will pursue the company in a graduated scheme of enforcement which seldom results in the need to go to court as most companies see EMS as to their own economic advantage

One questioner noted that the Ghanian CEN model was one for the central government and wanted to know the role of local government in environmental enforcement. Mr. Asiamah responded that there were 110 districts in Ghana, each with an environmental management commission with their own authorities and which were using the same networking model at the local level. Regarding funding on the most common type of enforcement order which are orders to relocate polluting industries away from encroaching urbanization, Mr. Asiamah said that the offending facilities must pay for their own relocation.

4 CONCLUSION

There seem to be several models that may be employed to build capacity for environmental enforcement. Central America demonstrates the utilization of multi-national regional networks for information sharing and assistance. Ghana, on the other hand, utilizes internal networks among all law enforcement agencies within a particular country to expedite the enforcement process and make it more efficient in addition to building the individual capacities of each cooperating agency. Ireland has adapted the EMS through inclusion in permits to provide critical information to the enforcing agency. And finally Canada demonstrates the critical role that a central government agency can play through coordinated training programs to build the capacity of provincial and local entities as well as other federal agencies involved in environmental enforcement.

WORKSHOP 4A
MANAGING CENTRALIZED AND DECENTRALIZED PROGRAMS; ACHIEVING THE RIGHT BALANCE OF ROLES AND RELATIONSHIPS FOR KEY FUNCTIONS; ACCOUNTABILITY MEASURES, COMPLIANCE INDICATORS, AND REPORTING

Around the world organizations have gone through stages in which some decentralize key functions related to environmental compliance and enforcement and some choose to centralize some or all key functions related to environmental compliance and enforcement. Decentralized management and public interest also demand improved ways to measure progress and ensure accountability for results. The CEC in North America is producing a report on compliance indicators which should also enhance discussions of this issue along with the results of workshop discussions on measuring success at the Fourth International Conference.

Papers 1 - 3 for Workshop 4A and a list of related papers from other International Workshops and Conference Proceedings are in Volume 1

SUMMARY OF WORKSHOP: MANAGING CENTRALIZED AND DECENTRALIZED PROGRAMS

Facilitators: Tom Maslany, Jit Peters
Rapporteurs: David Mowday, Chris Booth

GOALS

Discussions were designed to address the following issues:

- Basis for country decisions to mange the compliance and enforcement functions in a centralized or decentralized manner and what has motivated change from one system to another.
- Advantages and disadvantages posed by centralization and decentralization.
- Program relationships among levels of government in implementing environmental permitting, compliance and enforcement programs that have proven effective or ineffective.
- How priorities and strategic targets are defined, communicated and implemented in both centralized and decentralized management systems.
- How to develop and coordinate expertise and authorities across different organizations that might have jurisdiction over an environmental problem.
- How program personnel are held accountable and results reported in decentralized versus centralized systems.
- Use and development of compliance indicators.

1 INTRODUCTION

There are a variety of arrangements for delivering environmental programs. In most countries there is a role for regional and/or local organizations as well as national. However, even where there is just one national organization, there often are regional and/or local departments. Whatever the arrangements, there are similar problems, in particular:

- roles and responsibilities;
- consistency;
- information sharing; and
- misunderstandings and mistrust.

2 PAPERS

Papers related to this workshop include:

- Compliance and Enforcement in Ghana, *W.Y. Ahorttor and G. D. O. Asiamah*

- Decentralized Agencies with Overlapping Jurisdictions -- A Problem for Enforcement, *F. Grenade-Nurse*
- Local Enforcement: A Fundamental Component of Environmental Compliance, *L. Spahr*

3 DISCUSSION SUMMARY

The group agreed that there is a need for certain issues to be addressed centrally. However, there was some disagreement over some issues. Agreement was reached that the following were functions for the national bodies:

- Setting minimum ambient standards, to ensure human health and the environment are adequately protected and to prevent "pollution havens" (although regional or local bodies could set tighter standards if they wished).
- Enacting basic legislation which can apply generally, (it may implement international conventions protocols for example), or legislation which acts as a framework under which regional or local legislation can be enacted.
- Developing and publishing test methods.
- Providing national reports on, for example, the state of the environment, compliance.

There was no consensus over whether the following functions were matters for central or devolved control:

- Procedural requirements for application and determination of permits. For example the information needed to be provided by the applicant, or time scales and consultation arrangements by the permitting body.
- Emission standards for certain substances and classes of industry.
- Technological requirements of design and operation of industrial production processes and abatement systems. E.g. BAT (best available techniques) as used in the European Union.

National guidance / rules / standards need to include an explanation of the circumstances in which discretion can be applied locally and the scope of any such discretion.

There was a discussion on how to make our management systems work better. It was agreed that there needs to be clear roles and responsibilities and good information systems. However, whatever the system, it was agreed that human interaction between different levels is essential to make any system work. This works best when mutual understanding, trust and respect are established. The concept of "trust and verify" was raised. Verification is needed in both directions. For example for regional / local levels to show to National what they are doing and for National level to show why a protection measure is really needed and then (later) to show that it has worked. Regular formal meetings and informal contacts are essential to ensure things work smoothly.

Compartmentalization of environmental issues is artificial but widely practiced. As well as compartmentalization into each media (air, water, land) and geographic compartmentalization, there is the frequent separation of environmental protection and natural resource protection. Recognizing the holistic continuum of environmental issues is

essential for successful environmental protection. Administrative boundaries often prevent the development of optimal or sustainable environmental solutions. Whatever the administrative arrangements, a mutual focus on achieving specific environmental goals, will greatly assist the smooth working and success of different levels of organizations, and the people within them. Perhaps in future we should look to a new model for administrative structures for environmental decision making, which recognizes the continuum of the environment.

4 CONCLUSION

There is a diversity of arrangements for decentralizing some or all environmental regulation. None of the systems work smoothly.

There is a need for certain issues to be addressed centrally, for example:

- ambient standards;
- basic legislation; and
- test methods.

There were some issues where opinions varied as to whether they should be addressed centrally, for example:

- procedural requirements for application and determination of permits;
- emission standards; and
- best available techniques.

National guidance/rules/standards need to include an explanation of the circumstances in which discretion can be applied locally and the scope of any such discretion.

Human interaction between different levels is essential to make any system work. This works best when mutual understanding, trust and respect are established.

Compartmentalization of environmental issues is artificial. Recognizing the holistic continuum of environmental issues is essential for successful environmental protection. Whatever the administrative arrangements, a mutual focus on achieving specific environmental goals, will greatly assist the smooth working and success of different levels of organizations, and the people within them.

KEYNOTE: RELATIONSHIP BETWEEN THE LEGAL ARM OF GOVERNMENT AND THE LINE ENVIRONNMENTAL AGENCY OR MINISTRY

SCHIFFER, LOIS J.

Assistant Attorney General, Environment and Natural Resources Division, U.S. Department of Justice, 950 Pennsylvania Avenue, NW, Room 2718, Washington, DC 20530

Good afternoon. It is a great honor to participate in this INECE conference and to meet so many distinguished and committed people working throughout the world to use effective enforcement to ensure that we protect our environment for ourselves, our children, and our grandchildren. Our presence here, and the level of discussion and evident enthusiasm for our task, underscores that pollution knows no borders and that both the pollution and the cleanup that occurs in one part of the globe ripples across the world. Also, our world's natural resources, our forests, minerals and wildlife, cross the boundaries of our nations. Certainly the human relationships we form here encompass the globe and will contribute to a cleaner planet. I want to start by particularly thanking Cheryl Wasserman, whose hard work, persistence, and great charm have made such a contribution to getting this event to happen.

I will address the topic of the relationship between the legal arm of government and the line environmental agency or ministry. I come to this topic as the Assistant Attorney General in charge of the Environment and Natural Resources Division in our United States Department of Justice. We represent the United States and federal agencies in court, on environmental cases. Our client agencies include pollution protection agencies, public land management agencies, agencies responsible for natural resource management and protection, and federal government agencies that undertake activities subject to pollution regulation themselves. I supervise 400 lawyers and we handle cases that arise under well over 100 federal laws. My theme—and a secret to at least some success—is communicate, consult, coordinate, cooperate—the 4 Cs. It may not work as the 4 "seas" in other languages, but in English, at Monterey on the Bay, in this U.N. year of the oceans, it is an easy-to-remember theme. It is an aspect of in-country networking. While the structure and exact relationship between the legal arm of government and the environmental protection ministry may vary from country to country, the fact is that some kind of such an institutional arrangement occurs worldwide.

In the United States, our federal agencies have a decentralized component. At the Justice Department, my office is mostly in Washington, DC. Separate from us, but also working on many issues including some environmental cases, are the 93 United States Attorneys' Offices, one in each judicial district, which is a state or subdivision of a state, and which I do not supervise or control—with which we communicate, consult, coordinate, and cooperate. And our nation's environmental protection agency, the Environmental Protection Agency (EPA), has ten regional offices throughout the country that have a fair level of autonomy and that require, as we work together, the 4 C's. Further, in the United States, and in many countries, pollution control is handled by a combination of the federal/national government, and states or other subnational units of government. Often, these subnational governments—and in the United States that includes some sovereign governments of Indian

tribes—have their own departments of justice, and a version of the relationship between the justice ministry and the pollution control agency occurs at that level. All of us must address the potential for disagreements, disjunctions or overlap between the national governments and the subnational units. Because those relationships as well require communication, consultation, coordination, and cooperation, and because they are of interest to so many of us, I will discuss those as well. So, my theme is 4 C's times three—it is about relationships between and among environmental agencies and justice agencies at the national and subnational level.

I will focus on the system in the United States not because I think it is the only way or even the best way, but because I am most familiar with it. The 4 C's approach we are using, and the specific steps we are taking to implement those 4 C's, may be of some help in your own systems and countries. So fasten your seat belts, and let's set sail.

1 DEPARTMENT OF JUSTICE WORK

First, what is the work of our Environment and Natural Resources Division of the federal Justice Department? The purpose of a central Department of Justice in my country is to assure that the United States, with its many agencies, laws and points of view, takes one position and speaks with one voice when we go to court. Part of our job, therefore, is to work with agencies to assure a consistent and unified position. Further, in our system, criminal cases can be prosecuted only by prosecuting agencies—the Justice Department at the federal level, state attorneys' general offices at the state level, and district attorneys at the local level. At the federal level, EPA has its own lawyers, and they do important work, including administive enforcement but when the case goes to court it requires Justice Department action.

The work of the Environmental and Natural Resources Division at the Justice Department falls into five categories:

First, we litigate pollution cases. These include civil enforcement actions, where we go to court to get orders requiring companies to come into compliance with the pollution protection laws, or to clean up hazardous waste sites, and orders to pay a civil money penalty. We work to be sure that the penalty recovers the economic benefit of non-compliance—what the company saved by breaking the law, plus, so that others will be deterred from unlawful conduct, and so that we create a level playing field—that is, companies that break the law do not get economic advantage over law-abiding companies. We also prosecute polluters criminally if the environmental harm is serious; if the conduct impairs the integrity of the system, such as falsifying reports; or there is repetitive misconduct. These pollution cases are referred to us by EPA, the Coast Guard, the Department of Transportation, which is responsible for pipeline safety and pipeline spills; the Army Corps of Engineers, which protects wetlands; the FBI, which investigates some environmental crimes; the Customs Service, which polices shipments into and out of the country; and other agencies.

We also defend pollution cases when the regulated community or the NGO environmental community challenges EPA regulations; or they challenge pollution-related decisions. We also defend other agencies that have the same obligations as private companies to comply with pollution protection laws (such as the Departments of Defense and Energy and the Interior).

Second, we handle cases related to the management of our public lands and natural resources. In the United States, the federal government owns and manages about 30% of our lands, including national forests and national parks. The management of these areas, including oil and gas leasing, grazing permits, and strip mining, is often controversial—for example, the Forest Service sets the balance between timber cutting and wildlife protection in our national forests. Our client agencies include the Department of the Interior, the Forest Service, and the National Oceanic and Atmospheric Administration—and we work hard to assure one voice in court. A component of this work is handling cases, and advising agencies, related to environmental impact statements.

Third, we bring and defend cases under the federal fish and wildlife laws. These cases include civil and criminal enforcement actions to protect endangered species and to stop the illegal smuggling of birds and other protected wildlife; and to defend challenges to agency decisions that implement the Endangered Species Act. An important part of this work is defending cases related to fisheries management and the coastal zone. In this International Year of the Ocean, this work is noteworthy.

Fourth, we handle cases to carry out the United States' trust responsibility to Indian Tribes; and defend federal agency actions related to tribes and individual Native Americans when they challenge decisions in court.

Finally, we handle cases to acquire private property for public uses, including establishing compensation for federal government actions which in effect constitute a "taking" of property as required under our Constitution.

It is a wide range of cases, and our docket sometimes puts us in the middle of disputes between and among federal agencies. On the pollution front, for example, EPA and the Army Corps of Engineers sometimes have different ideas about what the wetlands protection law means, and a court deadline helps us force a resolution of the issue.

As you can see from this description of our duties, there is a great need and opportunity for the 4 C's of communication, consultation, coordination, and cooperation. So that you may have a specific sense of steps we use to apply the 4 C's, I will focus on our work with EPA on enforcement of the pollution protection laws. EPA is charged by law with protecting our waters, drinking water, air, and land, as well as with regulating pesticides and other chemicals, and related work. To carry out our task of representing EPA in Court, and to facilitate EPA in its work, we have communicated, consulted, coordinated and cooperated in at least 12 concrete ways:

1. We have a framework Memorandum of Understanding, put in place in 1977, which commits our two agencies to work together, gives the Justice Department certain schedules for reviewing cases, requires reports on case status, and gives EPA certain rights if we decide not to bring a case. This is a clearly communicated basis for our work together.
2. Steve Herman and I, as heads of our respective components at the enforcement office of EPA and the Justice Department, have made clear that we will not tolerate fights over which agency has the right or authority to act we call these turf fights and that our staffs should work cooperatively in handling cases.
3. We have collaborated to develop a series of policy and guidance documents that inform our case decisions. An example is guidance about calculating penalties in Clean Water Act cases resolved by negotiated settlements. This guidance helps ensure consistency in cases, and agreement between the staffs at the two agencies.

4 We have monthly meetings with senior managers in both agencies. The meetings have an agenda agreed to in advance, and provide a regular opportunity for sharing information and exchanging views. Any problems or disagreement can be put on the agenda, and solved at the meeting. We get to know each other, so that working together and solving problems during the remainder of the month is made easier.

5 We have regular docket review sessions. Justice Department enforcement lawyers are assigned to particular EPA regions, and supervisors for those Justice Department enforcement lawyers go to the EPA Regions every few months to review all existing and prospective enforcement cases on the docket. Discussions cover what these cases are, how to handle them, whether they should be settled, and any policy problems that need resolution.

6 We help train each other's staffs. Training covers technical matters and legal and litigation issues. The common knowledge and understanding this training promotes among the people who do the work is a great contributor to smoother relationships.

7 We "detail," or assign, a few lawyers to each other's offices for six-month periods. This exchange creates greater appreciation for the work of the other office—a direct example of walking in someone else's shoes, or should I say paddling the other person's boat.

8 We have what I call an early warning request. If EPA is considering taking a major or difficult action, or, on the defense side, is working on a controversial regulation or action that is sure to be challenged in court, we urge EPA to let us know early, so that we can discuss approaches and how to assure that the case will be one we can win in court.

9 One of my deputies or I, as well as other supervisors, attend the periodic meetings EPA holds of regional directors for particular media "air, water and land" programs. At the meetings, we can identify and resolve issues, and work to assure consistency across the country. This also helps address some of the problems that decentralization can cause. This has been especially successful for our Superfund hazardous waste cleanup program, where we have created a real partnership between the staffs.

10 We invite EPA officials to speak and teach at training sessions we conduct for Assistant United States Attorneys. Again, this helps to ensure enthusiasm for working together and nationwide consistency in the Justice Department's somewhat decentralized system.

11 Our attorneys work with EPA to train state and local prosecutors, investigators, and technical personnel in the development of environmental enforcement cases.

12 We have established a number of task forces on enforcement, and invite EPA participation. These include task forces on CFC smuggling and on cleaning up our Mississippi River I will discuss these more fully in a moment.

Now, let's take a break from this list implementing communication, consultation, coordination and cooperation, and look at three concrete examples of how it has worked.

Our CFC initiative is an international environmental enforcement initiative that depends on significant cooperation between EPA, the Justice Department, and other agencies. As I am sure most of you know, the Montreal Protocol of 1988 requires phaseout of CFC manufacture, so that use of this ozone-depleting substance will be gradually eliminated. After the United States essentially stopped manufacture of the substance, a black market of illegally imported CFC's developed to serve the ready market of 80 million American cars built before 1994 that generally use CFC's in their air conditioning system. An Assistant United States Attorney in Miami, Florida, prosecuted several smugglers of CFC's. Based on the example of those prosecutions, we invited investigators from EPA, the Customs Service, the Internal Revenue Service, and our FBI, as well as Assistant U.S. Attorneys from key geographic areas, to take part in a national CFC enforcement meeting. The Customs Service used its tracking systems to identify likely ports of entry. The successful meeting established networks and led to seizures of CFC's in five states and Puerto Rico. Our CFC workgroup now meets every three months, and has expanded to include investigators from most major U.S. ports and representatives from Canada. We have obtained 62 convictions with an aggregate 36 years of prison time, and more than $58 million in fines and restitution for CFC smuggling. We have since brought additional charges, including charges related to Halon 1301, another ozone depleting substance used primarily as a fire suppressant. These efforts are a tribute to effective communication, consultation, cooperation and coordination among EPA, the Justice Department and other federal agencies.

Another case we worked on with EPA was a civil enforcement action against Texaco Pipeline and its subsidiary for 17 separate oil discharges from its pipelines, spilling more than 4800 barrels of oil into waters and land in the State of Kansas, in violation of the Oil Pollution Act. The case settled with the company agreeing to pay a civil penalty of more than $900,000, and closing more then 580 miles of old pipeline. The company agreed that it would prevent future spills by burying pipeline of water crossings and improving inspection and maintenance programs. We developed the case and the settlement through close cooperation and coordination between EPA and the Justice Department.

Finally, there is a good example of close cooperation between EPA and the Justice Department in a series of cases where citizens' groups or NGO's played a critically important role. We actively support the citizen suit provisions of our laws, and encourage working with citizens groups on enforcement actions. Three major U.S. cities: Atlanta, Birmingham and New Orleans, had sewage treatment systems that were seriously impaired, with raw untreated sewage in the streets and streams. Citizens' groups brought suit against Atlanta and Birmingham, and eventually we worked with EPA to join in those suits with the consent of the NGO's. We have now accomplished major settlements in both cases, with the cities undertaking major steps to improve their treatment systems, and major special projects to benefit the community by purchasing riparian lands and greenways to protect the river systems. In New Orleans, EPA and we brought the suit, which we settled for a program of New Orleans completely revamping its sewage piping, and a citizen's group played an important role in developing a wonderful special project.

These cases and initiatives were carried out under our programs that are informed by the 4 C's, and are the result of those approaches.

2 RELATIONSHIP WITH STATES

While it is not strictly within the topic of relationships between the environment ministry and the justice ministry, relationships between federal environmental and justice ministries on one hand, and state environmental and justice agencies on the other, is also an important component of environmental protection that depends, similarly, on the 4 Cs. Our federal environmental laws set a national standard for pollution protection, and provide that a state can assume primary responsibility for the pollution program if it adopts laws that are at least as stringent as the federal laws. This assures all those who live in our country a certain level of environmental protection. Many states have assumed this responsibility through delegation of specific programs. The federal government continues to have enforcement authority in all cases, and our EPA has oversight responsibility over the states' activities. EPA enters into written partnership agreements with delegated states that include enforcement. Some states are vigorous in their enforcement efforts, and others are not. Some challenge our federal government, and some are cooperative.

Nevertheless, we have made it a point to try to work cooperatively with the states to better achieve effective enforcement and environmental compliance. Implementing the 4 Cs, we have another, shorter, list of examples that you may find useful.

First, I established a position in my office, a Counsel responsible for state and local environmental affairs. That person acts as a point of contact for state officials, and for our lawyers who are handling cases that affect states, to maximize the 4 Cs.

Second, we wrote a letter to each state Attorney General and each state environmental agency telling them about our Counsel and our commitment to communication and cooperation. We encourage the states to get in touch with us if they have a problem, and urge them to work jointly with us on enforcement actions.

Third, we notify the state attorney general or pollution agency before we file a civil enforcement action in that state, absent special circumstances. We use the opportunity to invite the state's participation in the case.

Fourth, in our civil docket, we are bringing more cases jointly with states. The state acts as co-plaintiff and works closely with our attorneys.

Fifth, on the criminal side, we have an especially noteworthy approach. With the United States Attorneys Offices, we establish task forces or committees, comprised of federal, state, and local, prosecutors and investigators, including EPA employees, that meet regularly to exchange information, develop leads, and use the most effective enforcement laws. The task forces and coordinating committee have been terrifically successful, and there is a strong criminal program in almost every jurisdiction that has a task force.

Sixth, senior members of my office and I participate in meetings with EPA and state environmental offices to exchange information and views, establish networks, and keep channels of communication open.

A good example that reflects the 4 Cs of communicate, consult, coordinate, cooperate, with both EPA and the states, is the final enforcement initiative I will mention the Mississippi River initiative.

The Mississippi River is a major river that flows from one of our northern states—Minnesota—the length of the country to the Gulf of Mexico. It is one of our national treasures, famous in literature—Mark Twain's famous novel Huckleberry Finn is set on the river—and in history and commerce.

Together with its tributaries, the Mississippi drains over 40 percent of the land in the United States, the second largest drainage of any river in the world. The river provides millions of people with drinking water, serves as the flyway for multitudes of the continent's migratory waterfowl, as a swimway for may fish species, and is a tremendous economic resource. The river is highly polluted, ending in the Gulf of Mexico with a hypoxic dead zone.

The Mississippi River initiative is a comprehensive enforcement effort to protect and restore the River, its tributaries and the surrounding communities. To protect the resources, we have begun a coordinated effort to pursue polluters to the farthest corners of the watershed. The Initiative employs the cooperative efforts of federal and state agencies: the Washington Department of Justice, the local United States Attorneys, EPA's civil and criminal enforcement offices in Washington and the EPA Regions, the United States Customs Service, the United States Coast Guard, the United States Fish and Wildlife Service, the Federal Bureau of Investigation, and States—including state attorneys general, state environmental agencies, and other state and local agencies. We have had a series of meetings with all of these people—an expanded in-country network—to work on identifying violators, sharing information, and bringing enforcement actions. Together, these agencies have successfully brought criminal, civil and administrative cases to get violators to comply with the law and encourage others to comply as well.

To give you a flavor of the magnitude of this effort, Attorney General Janet Reno—for whom I am extremely proud to work and who loves the environment and natural resources—announced this past September the following results of our collective work over the prior year:

- 54 criminal convictions, over ten million dollars of criminal penalties and restitution, and over eight years of prison terms;
- 18 civil judicial actions worth over 18 million dollars in civil penalties;
- 93 administrative cases involving 104 facilities obtaining $900,000 in civil penalties; and
- extensive injunctive relief to remedy past problems.

These cases address violations that included illegal dumping from barges, illegal filling of wetlands, spills of oil and other hazardous materials, sewer overflows, and discharges of chemicals such as cyanide, heave metals, and hydrofluoric acid into the Mississippi River or its tributaries.

By combining forces across agencies at the national and subnational level, we are sending a clear message that if a company or person unlawfully pollutes the nation's premier river, that entity will be held accountable. Together, riding the 4 seas, we are moving towards accomplishing our shared goal of protecting human health and the environment and restoring this important national resource C the mighty Mississippi River.

3 CONCLUSION

I hope our voyage over the 4 seas of communication, consultation, coordination and cooperation has provided you with a picture of steps that can be taken to address some of the tensions and possible difficulties inherent when multiple agencies—at the federal/national and subnational levels, work together as our ministries of justice and of the environment do in the United States. I am moved by the work and commitment of the people at this conference, who literally cover the world, to the voyage of effective environmental enforcement.

In conclusion, in the field of environmental protection, we frequently refer to a Native American concept known as "seventh generation" decision-making. Seventh-generation thinking forces us to consider the future, to take into account not only our children and our grandchildren, but their children and so on, seven generations out. It compels us to take the long view. In everything we do to protect the environment, the Justice Department seeks the wisdom that comes from taking the long view. I look forward to our continuing voyage together, on the four seas, to the protection and preservation of our world's natural resources, and to a clean and healthy environment. Thank You.

U.S. ENVIRONMENTAL PROTECTION AGENCY NATIONAL PERFORMANCE MEASURES STRATEGY FOR ENVIRONMENTAL COMPLIANCE AND ENFORCEMENT

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SUMMARY

In January, 1997 EPA's Office of Enforcement and Compliance Assurance initiated the National Performance Measures Strategy to develop and implement an enhanced set of performance measures for EPA's enforcement and compliance assurance program. This article discusses the results of this effort and Office of Enforcement and Compliance Assurance's plans and goals for performance measurement in the future.

1 INTRODUCTION

EPA's Office of Enforcement and Compliance Assurance is responsible -- along with state environmental agencies -- for enforcing and ensuring compliance with the nation's environmental laws. During the last two years (FY 1996-97) EPA regional and Headquarters enforcement personnel conducted approximately 36,950 inspections of regulated facilities and entities, referred about 721 civil judicial enforcement cases and 540 criminal enforcement cases to the U.S. Department of Justice, issued about 2,183 administrative penalty orders and 2,354 compliance orders and assessed approximately $436 million dollars in criminal, civil and administrative penalties. For many years, these aggregate "numbers" have been the sole measure of EPA's enforcement and compliance assurance program performance. While they remain an important measure of program performance and accountability to the public, they do not reveal the state of compliance among regulated entities, the environmental results and impact from enforcement and compliance assurance activities, nor the extent to which important environmental objectives and problems are being addressed.

Therefore, in order to present a more comprehensive picture of the impact of enforcement and compliance activity nationwide, Office of Enforcement and Compliance Assurance initiated the National Performance Measures Strategy in January of 1997. The goal was to develop and implement an enhanced set of performance measures for EPA's enforcement and compliance assurance program. This article describes those measures and Office of Enforcement and Compliance Assurance's goals for the future.

2 COMPELLING TRENDS AND THE NEED FOR ENHANCED PERFORMANCE MEASURES

EPA identified the need to develop enhanced performance measures for its enforcement and compliance assurance program as part of the Agency's September 1993 report announcing the reorganization of its enforcement program. That report cited the need to develop "better ways to measure (the) impact" of enforcement and compliance assurance

activities as an improvement desired by both external stakeholders and EPA enforcement personnel. In addition, certain national trends in government, environmental protection and enforcement and compliance assurance programs also compelled Office of Enforcement and Compliance Assurance and the Agency to develop more systematic and comprehensive performance measures.

The trend in government is toward results-based management and greater accountability to taxpayers. At the Federal level, this trend is being realized through the implementation of the Government Performance and Results Act, which requires Federal agencies to develop strategic plans with goals, objectives, and performance measures. Consistent with Government Performance and Results Act requirements and goals, EPA initiated other related strategic planning and performance measurement efforts, including the development of EPA's Strategic Plan and the development of Office of Enforcement and Compliance Assurance's own strategic plan known as the National Enforcement and Compliance Assurance Plan. States and local governments have also moved toward greater accountability for results.

Some of the key elements of the trend in enforcement and compliance assurance programs include strategic targeting for noncompliance problems, assessing risk to set priorities, creating effective deterrence, and using a wider range of tools (i.e., not solely inspections and enforcement actions) to increase compliance. Regulatory and law enforcement agencies of many kinds -- not just those whose jurisdiction covers the environment -- are developing and integrating these approaches in order to optimize their impact on compliance levels and/or human health and safety. The trend in environmental protection is evidenced by a more sophisticated model of protection which integrates incentive-based methods and traditional regulatory approaches, empowers the public with more information about environmental problems and industry performance, and focuses on a second generation of more diverse environmental problems and sources.

The Office of Enforcement and Compliance Assurance began to develop and implement additional measures which capture outcomes in 1994. Over the last three and a half years, the Office of Enforcement and Compliance Assurance convened a "Measures of Success" work group, comprised of EPA headquarters and regional officials; developed and implemented a Case Conclusion Data Sheet to gather new types of information about environmental improvements resulting from completed cases; developed and implemented a reporting measure for compliance assistance activities and realigned single-media data bases to enable collection and analysis of compliance information by industry sector.

These initial activities enabled the Office of Enforcement and Compliance Assurance to make progress in developing and implementing an enhanced set of performance measures. The Office of Enforcement and Compliance Assurance can now supplement traditional enforcement measures with more result-based measures, including: actions taken by regulated entities as a result of enforcement; quantitative environmental impact and qualitative environmental benefit of those actions; and industry-specific information about noncompliance. Despite this progress, we still had "gaps" in our ability to measure environmental impact. Enforcement output measurement needed to be further supplemented by measuring improvements in environmental quality and the state of compliance among regulated entities. We also needed to develop performance measures for new tools and approaches being used to solve environmental problems, e.g., incentive policies to encourage self-disclosure by industry, and compliance assistance efforts to help small businesses understand and meet their compliance obligations. The National Performance Measures Strategy is designed to fill in these "gaps."

3 PRINCIPLES OF THE NATIONAL PERFORMANCE MEASURES STRATEGY

The Office of Enforcement and Compliance Assurance began the public discourse on performance measurement by asking regulatory partners, interested parties and stakeholders, to provide ideas on a variety of issues related to performance measurement.[1] Among the areas the Office of Enforcement and Compliance Assurance asked participants to discuss were how to measure industry compliance with environmental laws and regulations, and innovative approaches regulated entities used to measure their own compliance efforts. The Office of Enforcement and Compliance Assurance also sought new ideas being used by other environmental, regulatory, or law enforcement agencies to measure the effects of their enforcement and compliance assurance programs, especially the deterrent effect of enforcement activities. The Office of Enforcement and Compliance Assurance also requested input on how to measure the effectiveness of its compliance assistance and incentive activities, as well as the impact of its program in low income/minority population communities.

Through the public meetings and focussed round table discussions in which the full range of stakeholders, regulatory partners and interested parties participated, the Office of Enforcement and Compliance Assurance gleaned these general guiding principles about measuring the performance of its enforcement and compliance assurance program.

- There are diverse and multiple audiences for enforcement and compliance assurance performance measures.
- A combination of measures -- quantitative and qualitative, statistical and narrative, cumulative and categorical, national and localized -- is necessary to measure performance, inform management and serve the full range of audience and purposes.
- The value of individual performance measures and systems of measures should be judged by whether they are relevant, transparent, credible, feasible, functional and comprehensive.
- Performance measures are most effective when they reflect management priorities and are linked to a limited number of program goals and objectives.
- Increased use of performance measures presents many challenges because agencies or programs may influence -- but not necessarily control -- outcomes.
- Problem-specific, tailor-made performance measures are effective for evaluating performance in solving specific environmental and noncompliance problems.
- Performance measures are principally used to evaluate effectiveness and manage more strategically, rather than simply reporting accomplishments to the public in more interesting and informative ways.

The Office of Enforcement and Compliance Assurance used these guiding principles and the ideas and suggestions about performance measurement and specific measures received from stakeholders, regulatory partners, and experts to develop a measurement framework called the "Performance Profile for Enforcement and Compliance Assurance" which it will begin to implement in fiscal year 1998.

4 ENHANCED PERFORMANCE MEASURES: THE PERFORMANCE PROFILE FOR EPA'S ENFORCEMENT AND COMPLIANCE ASSURANCE PROGRAM

4.1 Definitions

In formulating the Performance Profile, the Office of Enforcement and Compliance Assurance uses a standard set of definitions developed by EPA and the Environmental Council of the States (ECOS) and first used as Core Performance Measures contained in Performance Partnership Agreements between EPA and individual states. The definitions consist of three categories of measures -- outputs, outcomes and environmental indicators.

- Outputs are defined as quantitative or qualitative measures of important activities, work products, or actions taken by EPA or by states under delegated Federal programs.
- Outcomes are defined as quantitative or qualitative measures of changes in the behavior of the public or regulated entities caused, at least in part, by actions of government.
- Environmental indicators are defined as quantitative or qualitative measures over time of progress toward achieving environmental or human health objectives.(2)

The National Performance Measures Strategy framework uses all three of these categories of measures. Besides providing important information individually, the categories also are interrelated --each category is strengthened by the other two, and each category would be weakened or prone to misinterpretation in the absence of any of the others.

4.2 Environmental Indicator Category -- Impact on Environmental, Human Health, and Noncompliance Problems

The first category of the Profile analyzes the impact of the enforcement and compliance assurance program on *selected* environmental or human health problems. Impact will be measured by conducting annual evaluation studies of how the enforcement and compliance assurance program contributed to the achievement of selected Agency objectives included in the EPA Strategic Plan. The objectives selected for evaluation will be from among those targeted through an Office of Enforcement and Compliance Assurance enforcement and compliance assurance strategy developed in consultation with the relevant EPA media program(s). Evaluation studies will examine the Agency's overall progress in achieving the objectives, identify the outputs and outcomes that contributed to the progress, and draw plausible conclusions about the use and effectiveness of various enforcement and compliance assurance tools and initiatives. Over time, these studies should help the Office of Enforcement and Compliance Assurance clarify the links between its actions and improvements in environmental quality, human health or compliance with environmental requirements. [Measure: Annual evaluation studies of selected EPA objectives.

4.3 Outcome Category -- Effects on Behavior of Regulated Populations

The second category describes changes in the behavior of regulated populations. The outcome category includes quantitative or qualitative measures of external behavior by regulated entities caused, at least in part, by actions of EPA. This category includes three types of measures: Levels of Compliance in Regulated Populations; Environmental Improvements by Regulated Entities and Responses of Significant Violators.

4.3.1 Measure: Levels of Compliance in Regulated Populations

The measure is the rates of noncompliance for populations that are fully-inspected, required to self- report compliance information, targeted for special initiatives, or designated as priority industry sectors. This set of measures provides an indication of the state of compliance among regulated entities. Compliance levels can provide a broad measure of the behavior of populations affected to some degree by enforcement and compliance assurance activities.

4.3.2 Measure: Environmental or Human Health Improvements by Regulated Entities

The measure is the environmental and human health improvements initiated as a result of EPA enforcement actions. This set provides an indication of the scope and type of environmental improvements which can be attributed directly to completed EPA enforcement actions. This data will be aggregated and presented by type of improvement, industry sector, statute, and EPA Region. [3] Supplemental measures in this set will include pounds of pollutant reductions from enforcement cases and the results and dollar value of injunctive relief. A recent example of our new ability to develop and display this type of information can be found in the Annex to this paper.

4.3.3 Environmental or human health improvements from compliance assistance tools and targeted initiatives

This set of measures provides an indication of the scope and types of improvements resulting from compliance assistance tools and the delivery of compliance assistance through targeted initiatives. Because these outcomes are very specific to the tool or initiative, aggregating them nationally will be difficult. Instead, this measure will produce a set of accomplishments which would be expressed in quantitative or qualitative terms.[4].

4.3.4 Environmental or human health improvements from integrated enforcement and compliance assurance initiatives

This set attempts to demonstrate the scope and types of improvements resulting from initiatives which use some combination of compliance assistance, compliance incentives, and enforcement. These outcomes are very specific to the initiative, and it may not be possible to aggregate them in a national total. This measure is likely to produce accomplishments described in both qualitative and quantitative terms. Establishing a measure for integrated initiatives creates an incentive for the Office of Enforcement and Compliance Assurance managers and staff to develop and conduct such initiatives, and to design them in a way that facilitates measurement of outcomes.

4.3.5 Self-policing efforts by regulated entities using compliance incentive policies

This set indicates how many companies or facilities are identifying, correcting, and disclosing violations under the terms of EPA's self-policing incentive policies. These data will be presented by industry sector, statute, and EPA Region. This measure includes the number of self-policing companies and facilities since the inception of the policy, and the number doing so for the most recent fiscal year.[5]. This measure will also include data about companies and facilities participating in other incentive programs designed to increase compliance with specific requirements in exchange for a reduced penalty.

4.3.6 Measure: Responses of Significant Violators

4.3.6.1 Average number of days for significant violators to return to compliance or enter enforceable plans or agreements

This measure provides an indication of the behavior of significant violators regarding their timeliness in addressing violations. This data will be aggregated and presented by industry sector, statute, and EPA Region.

4.3.6.2 Percentage of significant violators with new or recurrent significant violations within two years of receiving previous enforcement actions

This measure provides an indication of whether significant violators continue to violate after a previous enforcement action. This data will be aggregated and presented by industry sector, statute and EPA Region.

4.4 Output Category -- Enforcement and Compliance Assurance Activities

The third category of the Profile describes activities undertaken by EPA as part of the enforcement and compliance assurance program. The output category includes quantitative or qualitative measures of important activities, work products or actions taken. There are four types of measures in the output category: Monitoring Compliance; Enforcing the Law; Providing Assistance and Information; and Building Capacity.

4.4.1 Measure: Monitoring Compliance

4.4.1.1 Number of inspections, record reviews, responses to citizen complaints, and investigations conducted

This set will provide an indication of EPA's monitoring "presence" among regulated populations. Inspections, record reviews, and investigations are fundamental tools for identifying instances and recognizing patterns of noncompliance. Data from this measure will be aggregated and presented by industry sector, statute, and EPA Region. Supplemental measures will include percentage of individual industry sectors inspected, and percentage of inspections occurring in low income/minority communities or at previously uninspected sites.

4.4.2 Measure: Enforcing the Law

4.4.2.1 Number of notices of violation issued, civil (administrative and judicial) and criminal enforcement actions initiated and concluded, and number of self-policing settlements concluded

This set will provide an indication of EPA's enforcement "presence" among regulated populations. Enforcement actions provide a powerful deterrent to noncompliance, provide incentives for voluntary compliance, and prevent noncomplying entities from getting an unfair economic or competitive advantage over entities who invest resources in compliance.

Data from this measure would be aggregated and presented by industry sector, statute, and EPA Region. Supplemental measures will include percentage of cases in low income/minority communities, types of environmental impact from concluded cases, types of Supplemental Environmental Projects from concluded cases, the number of significant

violators relative to the number of inspections and number of regulated facilities, and jail time and penalty amounts by statute. These measures can serve as "intermediate outcomes", information about compliance that can be especially useful until valid compliance rates are determined.

4.4.3 Measure: Providing Assistance and Information

4.4.3.1 Number of facilities/entities reached through: compliance assistance tools and initiatives; distribution of compliance information.

This set will provide an indication of the amount and types of regulated entities potentially affected by compliance assistance efforts, and the number and types of recipients potentially empowered by information about facility or sector compliance. A supplemental measure will be the number and types of compliance assistance and information tools developed.

4.4.4 Measure: Building Capacity

4.4.4.1 Capacity building efforts provided by EPA to state, local or tribal programs.

This set will provide an indication of efforts made to build enforcement and compliance assurance capacity among other levels of government. Capacity building efforts include assistance with investigations or cases, and training programs to build specific skills. Capacity building by EPA has a "multiplier effect" by positioning other levels of government to identify and address noncompliance. Data from this measure could be aggregated and presented by type of assistance, type of recipient, and EPA Region. Supplemental measures could include some indication of the quality and use of the capacity building effort.

5 THE PERFORMANCE PROFILE AS A MANAGEMENT AND ACCOUNTABILITYTOOL

The framework of activities (outputs), effects on behavior (outcomes), and environmental impacts (indicators) forms the Performance Profile for EPA's Enforcement and Compliance Assurance Program. When implemented and utilized, the Profile will be a valuable tool for EPA program managers and staff, the general public, environmentalists, environmental justice advocates, regulatory partners, Congress, oversight agencies, and regulated industries.

The Profile offers many advantages to measuring performance. The previous approach focussed on a limited set of outputs and did not emphasize development and analysis of outcome measures. The Profile improves upon that approach in several ways:

- The Profile measures the full range of program outputs, including compliance assistance, providing information to the public, compliance incentives, along with the traditional output measures for compliance monitoring and enforcement. Through the use of supplemental measures, the Profile moves beyond mere counting of outputs to measure important operational aspects of those outputs.

- The Profile begins to illustrate the links between activities and effects by combining outputs and outcomes in the same measurement system. Outputs can be examined in conjunction with outcomes and managers can build their understanding of combinations of outputs that might influence certain outcomes.
- The Profile connects program outputs and outcomes to EPA's Government Performance and Results Act goals and objectives by more systematically measuring the contribution of the enforcement and compliance assurance program to the achievement of Agency objectives. It moves those objectives to the forefront of management attention and thereby promotes more strategic approaches to program management.
- The Profile increases the power and value of each measure by combining them in a set which can be used to meet a wide range of needs. Each measure provides an important piece of information about the performance of EPA's enforcement and compliance assurance program. But no single measure or type of measure conveys enough information to evaluate fully the performance of the program. The individual measures are similar to pieces of a puzzle or mosaic: individually, the pieces do not describe very much about the whole; together, the pieces can convey a coherent picture.
- The Profile provides an instrument for improved program management. The Profile measures activities and their results, and promotes evaluation of program effectiveness. It provides an action tool for managers to develop and modify strategies through fact-based analysis.
- The Profile provides a window for improved accountability. The Profile makes transparent to stakeholders, Congress, oversight agencies and the public the key activities and results of the enforcement and compliance assurance program, as well as the performance of regulated entities in complying with the law.

6 CONTINUING IMPROVEMENT OF PERFORMANCE MEASURES

One of the Office of Enforcement and Compliance Assurance's objectives is to continue to seek and implement enhanced performance measures. This objective reflects an understanding that developing and using performance measures is an ongoing and iterative process. The Office of Enforcement and Compliance Assurance will pursue this objective through a variety of means designed to ensure that performance measurement contributes effectively to the continued improvement of the enforcement and compliance assurance program. The Office of Enforcement and Compliance Assurance's goal is to fully implement or conduct pilot projects (possibly with state regulatory agencies, external stakeholders, and other interested parties) for each of the measures during FY 1998.

As part of this process, the Office of Enforcement and Compliance Assurance will continue working with state environmental agencies to align performance measurement efforts, review current data reporting and collection systems, and explore ways to provide the public with electronic access to Profile data. The Office of Enforcement and Compliance Assurance has also undertaken a review of significant noncompliance policies to determine if revisions of definitions or other features are necessary. Potential changes to current policy

may have an impact on some of the measures. The Office of Enforcement and Compliance Assurance will also continue to examine ways to measure the deterrent effect of its activities. A number of the studies, articles, and reports which EPA reviewed in developing the Strategy describe approaches to measuring the deterrent effect of enforcement strategies or tools, including many used in regulatory programs other than environmental protection. Some of these approaches deserve further review for their applicability to environmental enforcement and compliance assurance programs.

The Office of Enforcement and Compliance Assurance will also explore how best to translate the performance measures in the Profile into personnel performance standards that will motivate and (if necessary) change behavior of the EPA managers and staff to emphasize important activities and results, and will continue to actively pursue and learn from other regulatory and enforcement agencies' efforts, such as GPRA implementation efforts, to develop and use performance measures. Valuable lessons can be learned from their efforts and from oversight agencies' reviews of them.

As the Office of Enforcement and Compliance Assurance gains more experience and confidence in using the performance measures it will better be able to analyze the relationship of resource inputs, such as dollars and personnel utilization, to outputs and outcomes. It seems clear that the Government Performance and Results Act envisions this linkage between activity and performance. The Strategy will enable EPA to more effectively evaluate the results and impact of its enforcement and compliance programs, strategically plan and target its activities, and apply resources in more efficient and cost-effective ways.

The National Performance Measures Strategy is an important step in the Office of Enforcement and Compliance Assurance's continued efforts to establish more meaningful and comprehensive performance measures. Implementation of the Performance Profile has been a major priority of the Office of Enforcement and Compliance Assurance throughout Fiscal Year 1998, and the use and refinement of the Profile will be a priority for the foreseeable future. This is an ambitious undertaking that will require a significant commitment of resources. However, given its importance for helping EPA assess how it is carrying out its fundamental mission to protect human health and the environment, it is an effort that must -- and will -- be made.

For a more in-depth discussion about the National Performance Measures Strategy, please refer to "Measuring the Performance of EPA's Enforcement and Compliance Assurance Program" the final report of the Measures Strategy released December 22, 1997. This report, as well as more information and related documents about the Strategy, can be found on OECA's web-site at: http://www.epa.gov/oeca/perfmeas. Annex 1 contains excerpts from an April 13, 1999 Memorandum from Frederick F. Stiehl, Director of Enforcement Planning, Targeting and Data Division in the Office of Compliance, Office of Enforcement and Compliance Assurance, on the subject of "FY 1998 RECAP Measures of Success Management Report." RECAP Stands for Reporting for Enforcement and Compliance Assurance Priorities. The Annex includes a master list of Tables and Graphs in that report and selected tables and graphs.

ENDNOTES AND REFERENCES

1. The Office of Enforcement and Compliance Assurance conducted more than 20 public meetings and round table sessions, consulted with experts and practitioners, and reviewed dozens of studies and articles. Ideas about better performance measures have been offered by representatives of national and local environmental organizations, environmental justice advocates, regulated industries

and companies, state environmental protection agencies and associations, state attorneys general offices and associations, federal oversight and management agencies, federal regulatory and law enforcement agencies, environmental policy institutes, Congressional staff, and academic experts. See Steve Herman, "Environmental Performance Data Helps EPA measure the Impact of its Environmental Enforcement and Compliance Assurance Program," National Environmental Enforcement Journal, April 1997. This paper draws directly from a paper published in the National Association of Attorney General's Journal article already published (Stahl, Michael M., "EPA's National Performance Measures Strategy," National Association of Attorneys General (NAAG) Environmental Enforcement Journal, December 1997/January 1998).

2. These definitions are also consistent with similar definitions used in the Government Performance and Results Act.

3. The Office of Enforcement and Compliance Assurance collected this type of information for FY 1996 and FY 1997 on the Case Conclusion Data Sheet. For FY 1997, for example, about one-third of all activities ("tasks") required by civil judicial and administrative enforcement settlements called for regulated entities to physically change the way they operated their facilities or reduce emissions or discharges to the environment. Another one-third of the activities ("tasks") required by civil enforcement settlements called for regulated entities to improve their environmental management systems, take preventive actions to avoid noncompliance or enhance the "public's right to know" through such actions as conducting tests or environmental audits, complying with the Toxic Release Inventory or other reporting or record keeping requirements, properly manifesting hazardous wastes, etc. The data also indicated that about 43 percent of the injunctive relief and 54 percent of the Supplemental Environmental Projects provided additional human health/worker protection. Similarly, 27 percent of injunctive relief and 24 percent of Supplemental Environmental Projects protected natural ecosystems.

4. EPA and several state environmental agencies (e.g., Massachusetts, Connecticut, Washington, Oregon, Illinois) have conducted assistance initiatives targeted at specific industry sectors. Some of these initiatives have produced outcome data about environmental improvements at facilities receiving compliance assistance. For example, some initiatives documented increased use of environmentally-beneficial business practices at facilities receiving compliance assistance

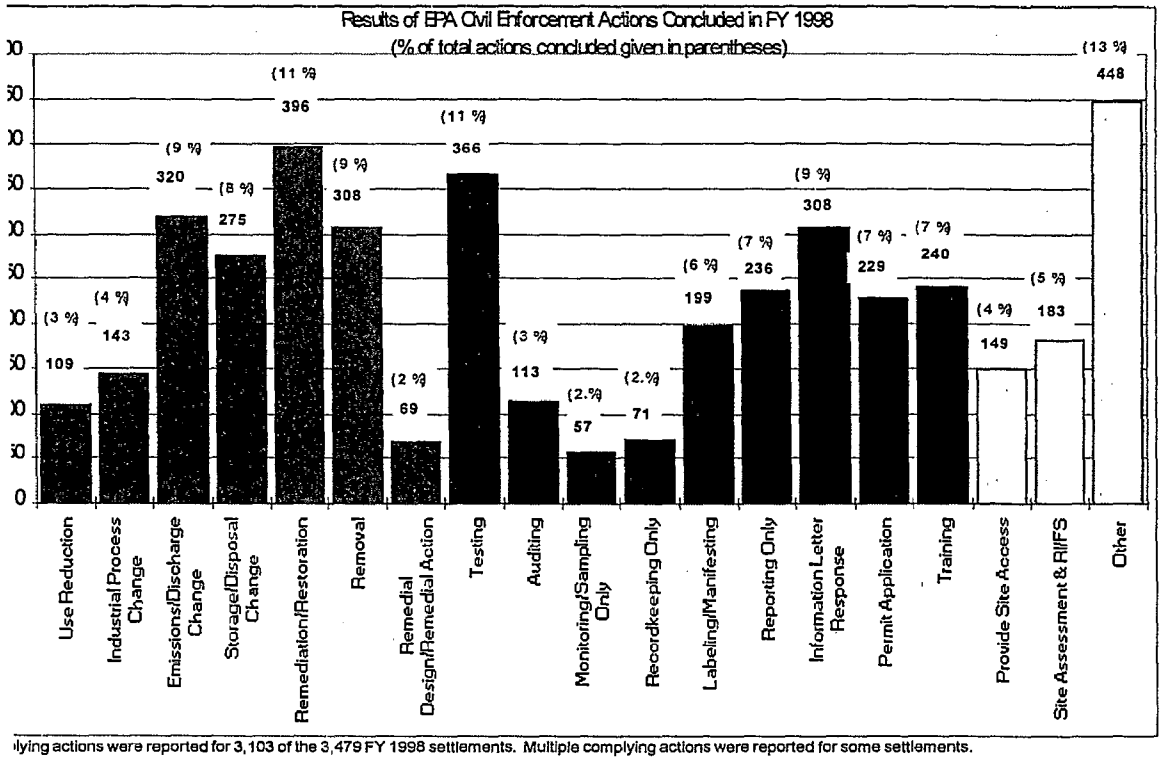
5. For example, since the inception of the self-policing policy 234 companies voluntarily disclosed violations at more than 750 facilities nationwide and EPA has settled with 78 companies at 423 facilities.

ANNEX 1 ENFORCEMENT ACTIVITY AND ENVIRONMENTAL RESULTS MEASURES IN THE UNITED STATES, 10/97-10/98: EXAMPLES

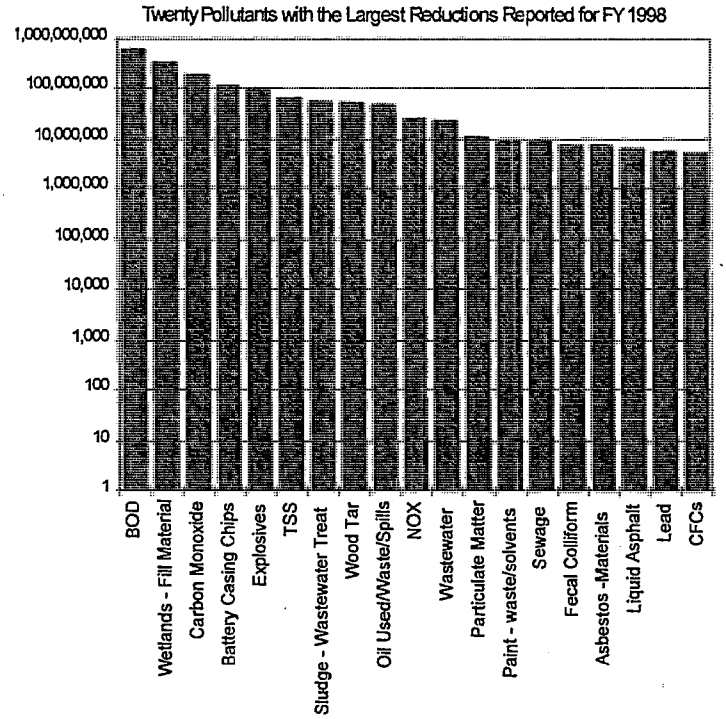
FY 1998 Measures of Success Management Report: List of Tables and Graphs

FY 1998 Measures of Success Management Report: List of Tables and Graphs (continued)

Environmental Results Measures for Enforcement



lying actions were reported for 3,103 of the 3,479 FY 1998 settlements. Multiple complying actions were reported for some settlements.

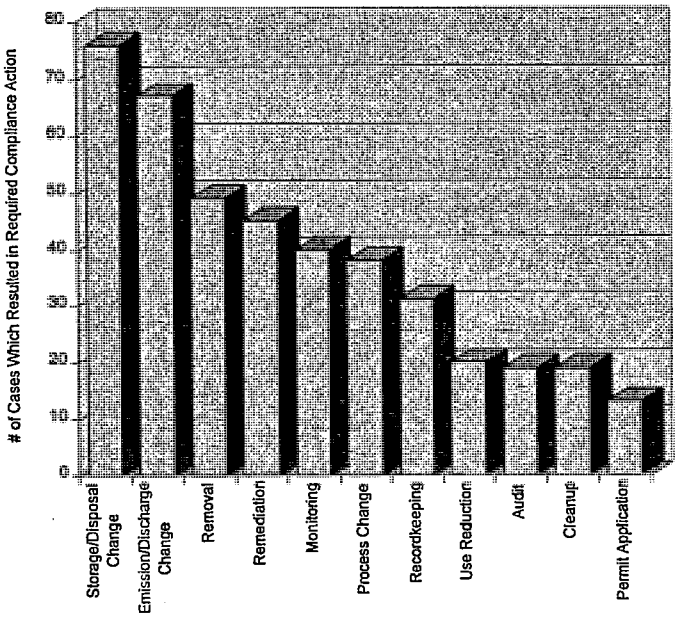


Pollutants	Lbs. Reduced
Contaminated Soils	16,340,993,624
BOD	610,832,822
Wetlands Fill Material	344,216,000
Carbon Monoxide	188,434,000
Battery Casing Chips	112,000,167
Explosives	96,000,000
TSS	63,547,926
Sludge	53,400,000
Wood Tar	50,000,000
Oil Used/Waste/Spills	46,129,576
NOx	23,656,162
Wastewater	21,473,824
Particulate Matter	10,946,000
Paint-waste/solvents	8,662,038
Sewage	8,413,300
Fecal Colliform	7,364,280
Asbestos-Materials	7,139,733
Liquid Asphalt	6,300,000
Lead	5,415,642
CFCs	5,039,470

January 11, 1999 - OECA/OC/EPTDD

Criminal Enforcement: Examples of Activity and Environmental Results Measures

Compliance Activities Resulting from FY 1998 Criminal Investigations/Resolutions

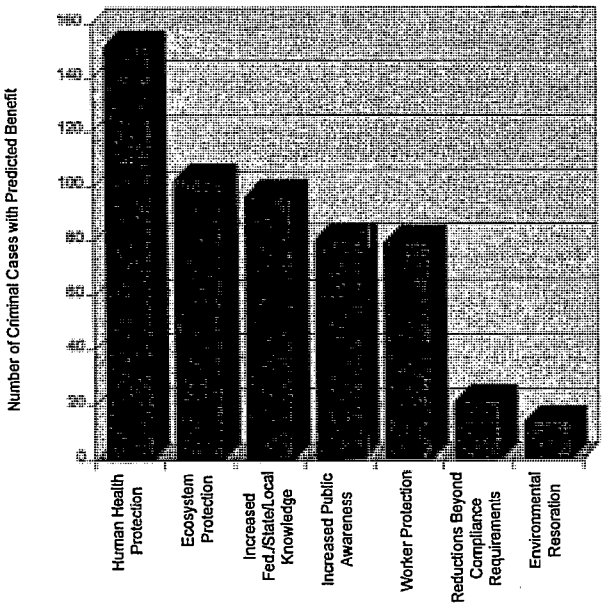


Storage/Disposal Change	76
Emission/Discharge Change	67
Removal	49
Remediation	45
Monitoring	40
Process Change	38
Recordkeeping	31
Use Reduction	20
Audit	19
Cleanup	19
Permit Application	13
Cases Requiring Compliance	295
Total No. of Cases	417
% Requiring Compliance	0.707434

OECA/OC/EPTDD/TEB - December 10, 1998

Data reflects the compliance activities resulting from 420 criminal investigations/cases concluded during FY 1998.

Qualitative Environmental Impacts of FY 1998 Criminal Cases

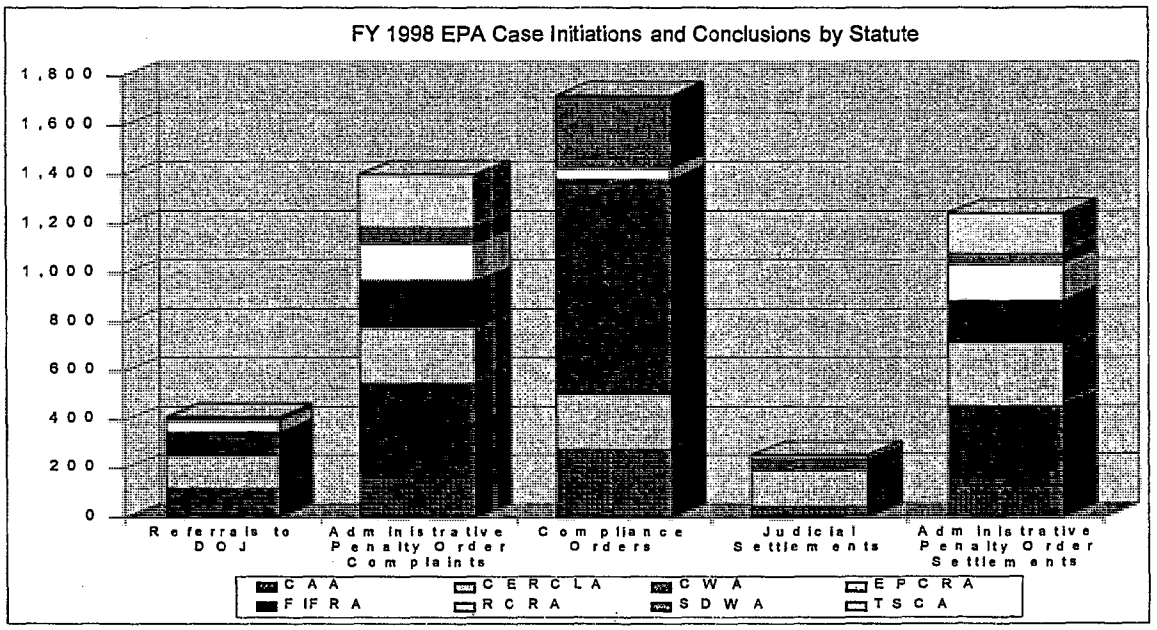


Human Health Protection	151
Ecosystem Protection	102
Increased Fed./State/Local Knowledge	96
Increased Public Awareness	80
Worker Protection	79
Reductions Beyond Compliance Requirements	21
Environmental Resoration	13

OECA/OC/EPTDD/TEB - December 10, 1998

Data reflects the predicted benefits of 420 criminal investigations/cases concluded during FY 1998.

Examples of Enforcement Activity Measures



CAA: Clean Air Act
CWA: Clean Water Act
CERCLA: Comprehensive Emergency Response and Cleanup Liability Act
EPCRA: Emergency Planning and Community Right to Know Act
FIFRA: Fugicide, Insecticide, Fungicide and Rodenticide Act
RCRA: Resource Conservation and Recovery Act: solid and hazardous waste
SDWA: Safe Drinking Water Act
TSCA: Toxic Substances Control Act

FY 1998 Inspections at Regulated Facilities (RECAP Inspections)

		I	II	III	IV	V	VI	VII	VIII	IX	X	Totals
CAA [EPA & State]	(SIP/NSPS/NESHAP) # of Class A, SM and NESHAP Minors						BREAK DOWN BY REGION					40,850
	# Coverage inspections											18,676
	% Inspected (coverage)											46%
	Total Inspections											35,800
	% NOT inspected last 3 years											(33%)
Optional Voluntary Reporting	# of non-NESHAP Minor Sources Inspected*											11,524
	Total Inspections at non-NESHAP Minors*											15,421
CWA [EPA & State]	# of majors											6,750
	# Inspected											5,106
	% Inspected (coverage)											(76%)
	# pretreatment programs											1,457
[EPA & State]	# Inspected											533
EPCRA [all EPA]	Section 313											584
	non-Section 313											804
FIFRA	- State											25,700
	- EPA											264
TSCA	- EPA											1,537
	- State											1,137
RCRA	- State											12,018
	- EPA											2,727

Inspections at Regulated Facilities = 101,631

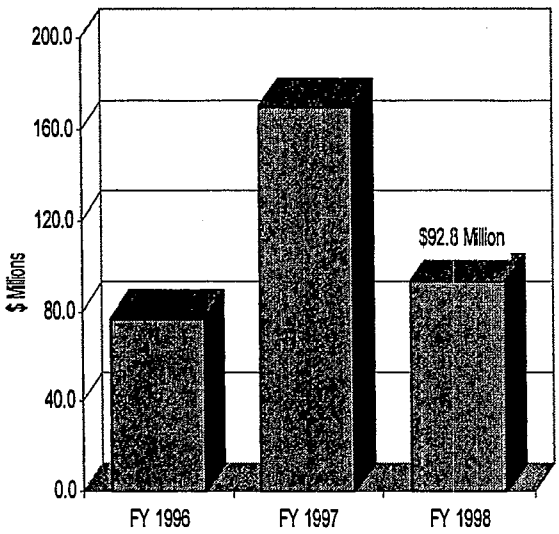
In addition, there were 96 HQ Good Laboratory Practices Inspections
14 HQ TSCA inspections included in totals.

* Data pulled from AFS, although these inspection data are not required to be reported.

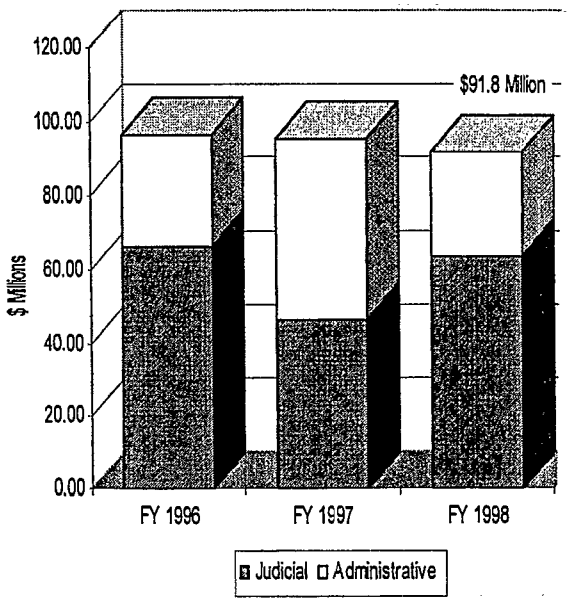
March 8, 1999 - OECA/OCE/PTD/TEB

Dollar Value of EPA Enforcement Actions Concluded in FY 1998

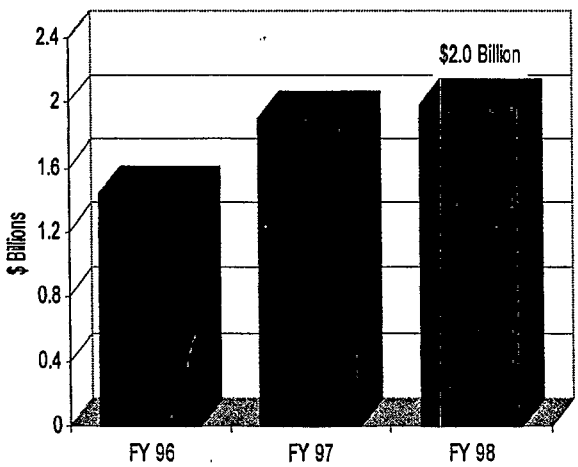
EPA Criminal Penalties



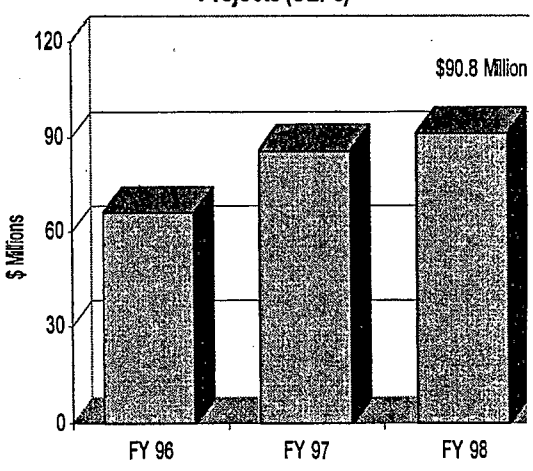
EPA Civil Penalties



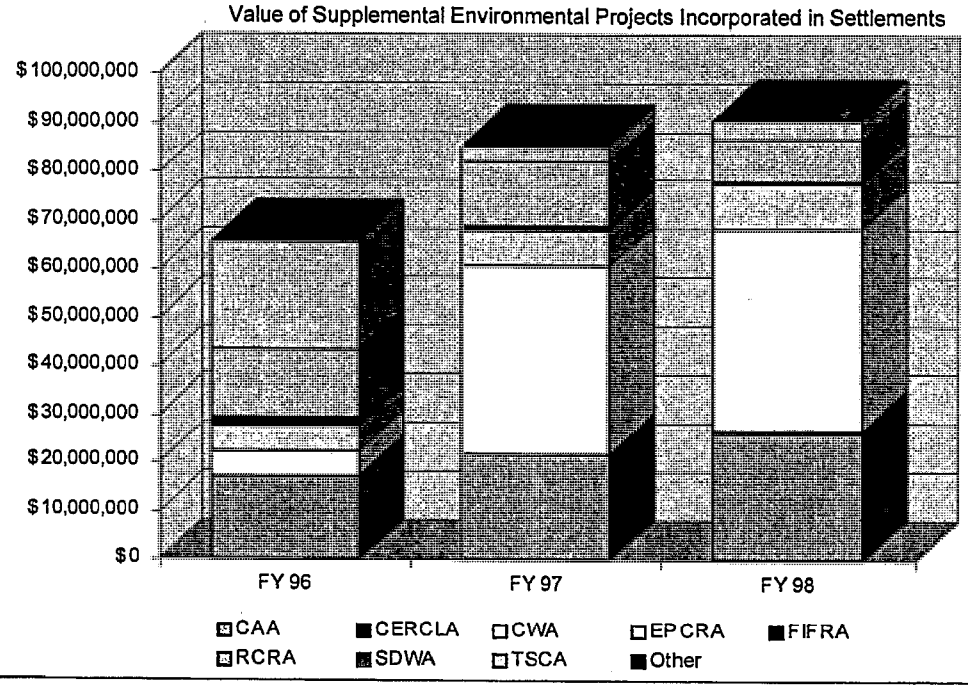
Value of Injunctive Relief



Value of EPA Supplemental Environmental Projects (SEPs)



EPA Enforcement Case Values Beyond Penalty Assessments - FY 1996 to FY 1998



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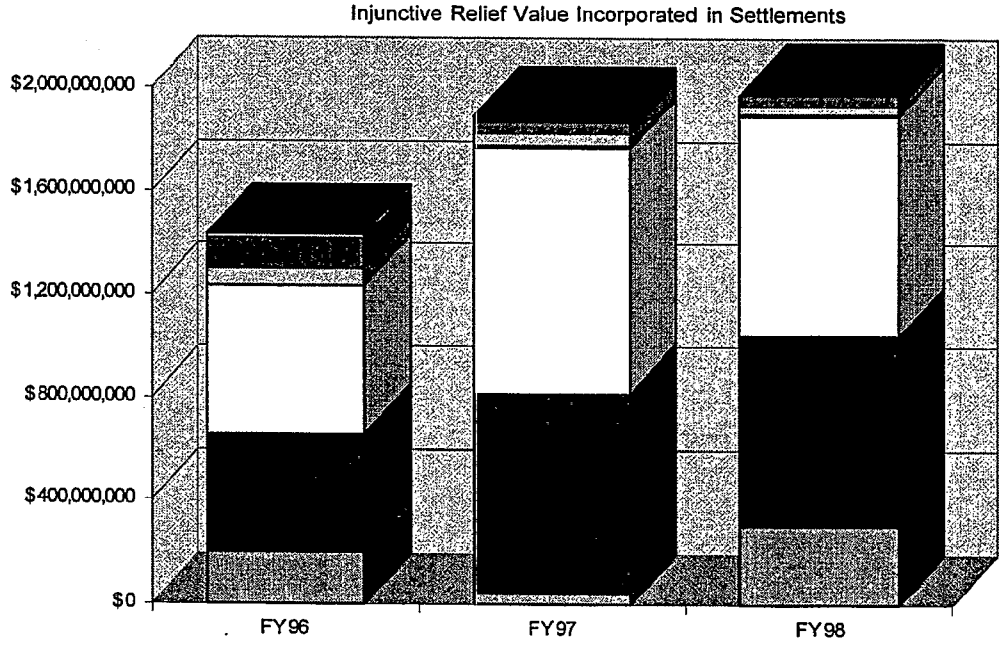
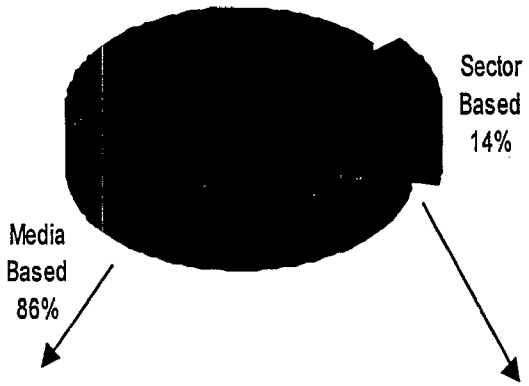
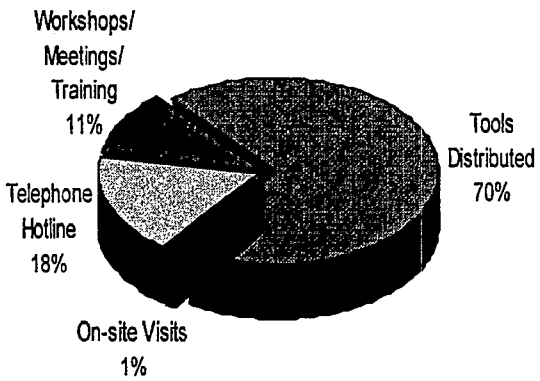


EPA Compliance Assistance Efforts Reach 246,602 Regulated Entities During FY 1998

Nature of Compliance Assistance Activities

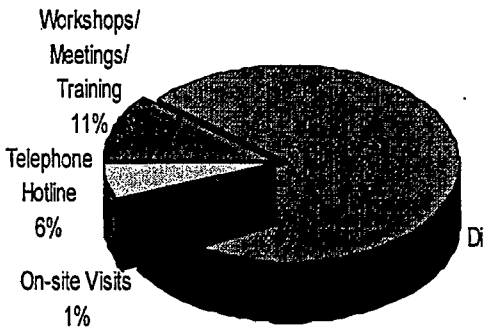


Distribution of Media-based Assistance Activities



Represents 211,696 media-based assistance activities

Distribution of Sector-based Assistance Ac



Represents 34,906 sector-based assistance

WORKSHOP 4B
BUDGETING AND FINANCING ENVIRONMENTAL COMPLIANCE AND ENFORCEMENT PROGRAMS: HOW MUCH ENFORCEMENT IS ENOUGH

Any environmental compliance and enforcement program is a highly leveraged undertaking in which limited resources are expended to wield even greater influence over the behavior of regulated sources of pollution, illegal practices or illegal use of resources. This discussion benefited from two capacity building documents, one entitled, "Financing Environmental Permit, Compliance Monitoring and Enforcement Programs" prepared for the Fourth International Conference and the second, "Strategic Targeting for Environmental Compliance and Enforcement Programs" commissioned for the Fifth International Conference.

A list of related papers for Workshop 4B from other International Workshops and Conference Proceedings is in Volume 1

SUMMARY OF WORKSHOP: BUDGETING AND FINANCING ENVIRONMENTAL COMPLIANCE AND ENFORCEMENT PROGRAMS

Facilitators: Harley Laing, Ken Macken
Rapporteur: Ron Kreizenbeck

GOALS

Discussions were designed to address the following issues:

- The minimum human and capital resource needs for starting an environmental compliance and enforcement program: can it be defined, if so, what they are. How those needs change over time to that of a mature program.
- On what basis officials responsible for environmental compliance and enforcement programs have made a successful case for funding those programs.
- How officials have ensured an effective balance in funding program elements needed to support:
  - Personnel versus equipment.
  - Technical versus level support.
  - Field personnel versus policy and management support.
  - Inspection and related compliance monitoring activities designed to detect violations versus legal and other program personnel to respond to and follow up on violations detected.
- What creative financing schemes countries and NGOs have developed.
- Financing schemes designed to also provide incentives for compliance and how well have these worked.
- Cost cutting measures program officials have developed when faced with budget cuts to maintain program integrity and how ell they have worked, including:
  - Use of third party inspectors or purchase of laboratory support.
  - Use of self-certifications and monitoring.
  - Automation in enforcement.
  - Strategic targeting schemes.

1 INTRODUCTION

The session of approximately 23 participants opened with a discussion on the type of budgeting process each participant employed in their respective location. The overwhelming majority of those present were from emerging programs who relied upon

outside sources of funding for the environmental enforcement program at the current stage of their development. The discussion centered on maximizing the use of the donor program, while funding a self-sustaining program for the future.

2 PAPERS

No new papers were prepared for this workshop.

3 DISCUSSION SUMMARY

3.1 Securing Donor Funding from Out of the Country Areas

The issue of sustaining funding in developing nations, or developed nations undergoing financial difficulties was a salient one, given the present work market conditions. The need to continue donor aid from developed countries and organizations such as the World Bank is critical for a base program. In addition to the World Bank, specific mention was USAID and UNEP funding.

3.2 Other Country Funding of Environmental Programs and the Role of NGOs

The role of NGOs and the need to work cooperatively with them to secure public support and attention to environmental issues was acknowledged as critical to environmental program success. It was also acknowledged that the NGO assistance may come in the form of legal actions against the government environmental agency. A NGO action in India brought attention to shortcomings in environmental law protecting natural resources was highlighted as a force for positive change. The result was a modification of the law and renewed support for the environmental agency to enforce it.

The NGO reinforced the need to secure donor aid to initiate activities until a proven record could generate support and funding from other sources. In most situations a need for base level funding is essential to maintain the organization. The World Bank Environmental Institution Development Fund was cited as a good model for building capacity.

3.3 Financing Scheme

Ireland has developed a permitting and audit program in which the regulated entity pays a fee for the issuing agency to review the environmental management system (EMS) on a regular basis. Several other examples were offered of country financing schemes including:

- Penalties from NGO action retained in a designated trust fund.
- Reduced taxes on air, waste, and water treatment technology.
- Natural resource usage fees.
- Prescribed set-aside from timber harvest from an environmental agency.
- Fees on imports such as tires, batteries, etc.
- National fee schedule for government services, permits, inspections and consultations.

3.4 Efficient Use of the Funds

Ensuring limited resources are used efficiently is important. Specific mention was made of two actions to ensure program efficiency:

- Training and capacity building.
- Use of monitoring and assessment tools.

3.5 Priority Setting Considerations for Maximum Efficiency for Use of Funds

The limited general revenues allocated to environmental programs, and within that allocation to enforcement and compliance programs place a heavy burden on the programs to show immediate results. Given the time frame between legal actions and the resulting deterrent effect or environmental improvement, the need to be strategic in selecting actions is paramount. Common elements of this strategy include: 1) initially selecting projects that have a high potential for early success, 2) targeting efforts regionally to focus both public input and expert information, 3) maximize the use of relatively inexpensive expert information from outside sources or other governments such as GIS or satellite imagery, 4) flexibility to adjust the scope of the project to meet budget and completion targets. During discussions, the following approaches were identified by participants:

- Obtaining full input from stakeholders.
- Collecting expert information (use of GIS satellite imagery).
- Built in mechanisms for periodic review and adjustment.
- Select projects that have high potential for early success.
- Set priority for each region to obtain a public buy in.

4 CONCLUSION

Building effective environmental programs requires a solid core funding mechanism to succeed. Innovative financing schemes along with clear priority setting mechanism are essential to the success of the program. The principle that the polluter pays is an accepted basis for developing a sustainable funding mechanism for funding environmental programs. However, in difficult financial times, these sources of revenue for environmental programs diminish along with the rest of the economy. Even designated revenue streams such as permit fees can be diverted to non-environmental programs.

WORKSHOP 4C
TRAINING PROGRAMS FOR COMPLIANCE INSPECTOR, INVESTIGATOR AND LEGAL PERSONNEL

Discussions built upon a capacity building support document commissioned for the Fifth International Conference: "Inspector Training Compendium, Course comparison and International examples of formal Training Programs" as well as the results of projects within Western Europe and North America to exchange and develop training materials and a project within Western Europe to define standards for training of environmental inspectors. A complementary project undertaken by Interpol is developing a compendium on environmental training for police.

Papers 1 - 2 for Workshop 4C and a list of related papers from other International Workshops and Conference Proceedings are in Volume 1

SUMMARY OF WORKSHOP: TRAINING PROGRAMS FOR COMPLIANCE INSPECTOR, INVESTIGATOR AND LEGAL PERSONNEL

Facilitators: Workshop 4C: Earl Devaney, Chris Currie
Workshop 4CC: Susan Bromm, Alex Steinmetz
Rapporteurs: Workshop 4C: Reggie Cheatham
Workshop 4CC: Andrew Lauterback

GOALS

Discussions were designed to address and consider the following issues:

- How different countries define training needs for environmental inspectors, for legal enforcement personnel, for criminal investigators, or other personnel, and what is similar or different and why. How different countries defined the skills and knowledge needed to perform enforcement related functions well.
- Approaches countries have taken in training personnel:
  - How training programs have evolved and whether there are common patterns.
  - For those countries who have established formal training programs; what was the impetus, how were funding needs and programs defined and implemented.
  - How funding needs and programs are defined.
  - How training is delivered in various countries. What approaches countries have developed to train personnel in a manner which meets budget constraints.
  - The potential for innovative technology in training enforcement personnel (e.g. satellite training and interactive CD-ROMs).
  - The relative importance of and reliance on classroom training, reading material, on-the-job training, field work observation.
- Identification of needs and opportunities for sharing training materials among nations which are not country-specific and how that can best be done, including a role for INECE.
- How countries assess the qualifications of enforcement personnel. What mechanisms work best under what circumstances including consideration of performance appraisals, written tests, observation of practice, and other forms of testing or use of qualifications?

1 INTRODUCTION

The issues associated with training programs for compliance and enforcement personnel has appeared at all five International Conferences on Compliance and Enforcement. The continuous need for training as a starting point for building an enforcement and compliance program or the need for training to address advanced or complex issues appears

to be a reoccurring theme among environmental enforcers world wide. The goals and objectives listed above represent a sample of many challenges identified by previous and current conference participants. Workshop participants identified the need to learn from each others training experiences, the basics of establishing training programs and the identification of current opportunities and available resources for training as the fundamental elements of expectations from this session. The variety of participants from both developed and developing environmental programs proved invaluable to addressing the above mentioned expectations.

These workshops discussed how different countries define training needs for their regulatory inspectors, law enforcement officers, the regulatory community, judges and magistrates, prosecutors and the general public. Training needs are dictated, in part, by the level of expertise in the target group, the size of the country and the environmental program, the indigenous culture, and the available resources. Participants exchanged ideas on methods to meet the training needs of their programs under these challenging conditions.

2 PAPERS

Several authors developed topic papers associated with training programs for compliance inspectors, investigators, and legal personnel. The following are presented in the Fifth International Conference on Environmental Compliance and Enforcement Proceedings:

- Enforcement Training Programs, Currie, Christopher (Volume 2)
- Synopsis of International Inspector Training Course Compendium, Course and Program Comparison (Volume 1)
- UNEP Judicial Symposia on The Role of Judiciary in Promoting Sustainable Development, Kaniaru, Donald, Kurukulasuriya, Lal, and Okidi, Charles (Volume 1)
- Enforcing Environmental Law in Central America: Regional Environmental Law Program experience, Gonzalez Pastora, Marco A. (Volume 1)

3 DISCUSSION SUMMARY: WORKSHOP 3C

In addition to the expectations identified for this session, workshop participants presented specific training issues and needs confronting their environmental programs. The establishment of training programs that train everyone from inspectors to judges was a common theme, and the need for establishing training contacts and approaches continued to emphasize that the base of successful training efforts will always be dependent on resource availability and usage efficiencies.

3.1 Defining Training Needs

Workshop participants identified training needs associated with knowledge, skills, and attitude of all enforcement personnel. From an inspector perspective, science and engineering backgrounds were considered more favorable backgrounds for inspection personnel to have since the skills of inspection and investigation could be more readily integrated more efficiently because many of the requirements associated with environmental

protection are technically based. Prosecutors and Judges training needs were viewed more in the context of awareness and appreciation of the many complex issues to allow for more effective presentation and rulings. In addition to the pure regulatory and technical training needs for all groups, communications, ethics and basic investigative techniques were considered the highest priority. Health and safety training was also considered significant in order to insure the protection of inspection personnel from serious harm.

3.2 How to Train the Various Groups in the Enforcement Process

The general consensus on how to train the various groups in the enforcement process clearly identified that each group should be trained separately. However, the group also recognized the need for joint training sessions so that all participants in the enforcement process will gain a greater understanding and respect for the roles and limitations of each actor in the enforcement process. In several countries, joint sessions have shown demonstrated success by increasing awareness and responsiveness to environmental issues. Regardless of whether the training is delivered separately or jointly, the need for training at all levels in the enforcement process is in high demand.

3.3 What Kind of Training is Needed?

In order to assess the various types of training needed, the workshop participants identified seven areas of training needs and delivery mechanisms. They are:

- Basic inspection, investigation and environmental requirement training.
- Advanced inspection, investigation and environmental requirement training.
- Refresher training.
- Technology training.
- Key ingredients training for processes and problems.
- On-the-job training to build capacity and experience.
- Citizen training to support tips and complaints.

Both those with developing and developed environmental programs agreed that the above training needs would further enhance their efforts to ensure environmental compliance. The mere fact that in all programs the transition of environmental personnel in and out of specific roles in the enforcement process constitutes the need for continuous training opportunities. As environmental requirements change and issue become more complex, training will always be in strong demand.

3.4 Financing Training

Resources continue to control the success of training efforts of all workshop participants. Developed environmental programs tend to have more resources allocated to training efforts than emerging programs. Many participants identified the need for training partnerships with other countries with greater capacity to assist their emerging programs. Train-the-trainer approaches were identified as an opportunity to maximize the efficiency of resource usage. This delivery mechanism is one of many currently being utilized to limit the impact on resources. Technology based training such as satellite and computer based training as well as partnership efforts similar to those currently used by INTERPOL are all providing more training to those in need at a reduced cost.

3.5 Conclusion

Workshop participants clearly identified the need for training as a starting point for building an enforcement and compliance program. The fundamental need for environmental knowledge, skills and attitudes outline the overall categories of training needs. These needs may be both basic or advanced, but will generally involve regulatory requirements, investigative techniques and other environmentally related issues. Understanding the fact that training is dependent upon resource commitments, money and access will continue to be a challenge in the development and delivery of training. To more efficiently utilize the limited resources currently available, partnerships, train-the-trainer, and innovative technology should all be considered to effectively deliver training.

4 DISCUSSION SUMMARY: WORKSHOP 4CC

4.1 Training Needs and Status of Training Programs by Participating Countries

Although training needs can vary from country to country there was consensus that training demands were not being met. One participant stated that training was the weakest link in the environmental program. Some countries have no formalized training programs at all, but rather rely on on-the-job training, often with an examination at the end of period of time. It was recognized that some educational information and materials may exist, it is often not accessible due to the unavailability of necessary technology or competing demands. In Ecuador and other countries, one of the greatest challenges to an effective environmental training program is the widely divergent cultures and languages that are prevalent.

A few countries prioritized generalized training for environmental inspectors in order for them to be familiar with the panoply of environmental offenses that could be confronted. Others prefer training on specific environmental offenses or programs that are of particular concern in the country; for example, air pollution from stacks and automobiles. In addition to training on substantive environmental matters, it was felt that inspectors should also be trained on how to deal with politicians and the general public and how to maintain a high level of professional ethics. Personnel dealing with hazardous waste, especially those providing initial emergency response need to be trained on personal safety. In addition to substantive environmental training, inspectors need to be informed of the responsibilities of colleagues in order to facilitate communication, coordination and a general appreciation of one another.

Training should not be limited to inspectors, investigators, and staff lawyers. There are others within government that need to be educated about environmental enforcement. In Nepal and other countries, judges, local governmental officials and NGOs are trained on environmental enforcement. In the Bahamas, there is a training program for magistrates and prosecutors. It is believed that uneven training of magistrates leads to uneven imposition of sanctions for environmental violations. In Uganda, not only are judges and prosecutors trained on environmental programs, but so are private attorneys. Personnel within environmental ministries who draft the laws and regulations need to be trained in order to ensure that provisions are enforceable.

In addition to training for governmental inspectors and other personnel, one participant stated that the regulated community and the public also needed to be trained. The regulated community should be trained in order to learn how to comply with the environmental laws. The public should be trained to recognize environmental offenses and who to call when such offenses are observed. This is being done in Nigeria. The public needs to be informed of the environmental risks that are faced. Community-right-to-know laws

should be enacted. Another important reason for providing training to the public is to boost the appreciation and reputation of environmental enforcement personnel, which it was believed to be quite low. Also, it was stated that NGOs could play an important role in providing training to the governmental authorities and the general public. It was also advocated that industry could provide training to the environmental inspectors on the engineering and operation of some systems.

4.2 Possible Structural Methods to Meet Training Needs

Resources have been provided through private funding sources, like the World Bank and through regional efforts and other countries. Some participants shared experiences whereby inspectors traveled to other countries to learn about environmental enforcement. There were also instances where environmental enforcement personnel traveled to host countries to provide training. The Bahamas, for one, has participated in environmental enforcement training via satellite link, although not all of the islands within the country have that technological capability. There was consensus that CD ROM is a more viable technology than the internet because it is more readily accessible at the present time. One participant stated that the CD ROM method should be supplemented with experienced trainers, but others felt that that may be too costly. Train-the-trainer courses are a cost effective approach to train a larger audience and ensure that cultural, programmatic and language concerns are taken into account.

It was widely believed that regional approaches to training were best; this approach allows for training to be tailored to meet the specific demands of the region. It was also believed that INECE could provide an indispensable service in being the link with regional networks on training. It could find trainers and funding sources and facilitate contacts.

It was mentioned that Interpol is developing a train-the-trainer course for local law enforcement in order to sensitize police to environmental violations, how to recognize them and provide first response; in most instances, this means contacting the appropriate administrative agency. The course will also give an elementary overview of personal safety concerns that the law enforcement officer may encounter. The first Interpol training course is scheduled for March, 1999 for the countries of Central and Eastern Europe. Thereafter, the course will be offered in other regions of the world. Those countries interested in participating in this course should contact the Interpol representative present at this conference or their Interpol National Central Bureau.

4.3 Conclusion

Training for inspectors is considered to be the weakest link in an effective environmental enforcement program. It lags behind demand for many reasons, mostly insufficient resources to provide it to enforcement personnel. Training needs vary depending upon the size of the country, the size of the enforcement program, the expertise of the staff, and the cultural and language considerations within the country. Training is not only needed for enforcement personnel; i.e., inspectors, staff lawyers and investigators. It is also needed for judges, magistrates, prosecutors, NGOs, the regulated community, and of course, the general public.

Although training needs frequently are not being satisfied, several approaches are available and others suggested in order to bridge the gap. These proposals include new technology like satellite links and CD-ROM, teaching methodologies like train-the-trainer

programs, and exploring sources for funding and training. In this last regard, it is believed that INECE could play a vital role in establishing a link with regional networks to assist in locating training programs and funding.

ENVIRONMENT CANADA'S NATIONAL ENFORCEMENT TRAINING PROGRAM - BUILDING CAPACITY

CURRIE, CHRISTOPHER

Office of Enforcement, Enforcement Management Division, Environment Canada, Place Vincent Massey, 17th Floor, 351 St. Joseph Boulevard Hull, Quebec K1A 0H3, Canada

SUMMARY

Environment Canada began a "needs analysis" study in 1995 to determine the skills and knowledge needed for enforcement officers. This resulted in an overall view presented in a working catalogue. The results are presented in this contribution just as the future plans in a formal "Human Resource Plan."

1 INTRODUCTION

Canada is a country of much cultural, physical and geographic diversity. It is at present the second largest country in the world, second only to the Russian Federation. It ranks 32nd in terms of population, with 30.3 million citizens, the vast majority of whom live within 100 kilometers of the border with the United States. Its total area is almost 10 million square kilometers, which by way of comparison is equal in area to 28 united Germanys, 13 Chiles, or 25 Zimbabwes. Our coastline spans three oceans - the Atlantic, the Pacific and the Arctic - and is almost 250,000 kilometers long. The land border with the United States (including Alaska) is approximately nine thousand kilometers, and has been undefended since 1814. An average annual snowfall in Charlottetown, on the Atlantic coast, is 339 centimeters, while in Victoria, on the Pacific coast, it is but 47 centimeters. We have, without doubt, more hockey rinks - both indoor and outdoor - than any other country in the world.

2 THE CONSTITUTION

Environment as a subject is not addressed in the Canadian Constitution, which was and continues to be the basis of the federation created in 1867. Responsibility for environmental protection is shared between ten provincial governments, three territorial governments, and the federal government. The national Parliament is located in the capital city of Ottawa, in the province of Ontario. In very general terms, provincial governments have jurisdiction over matters relating to land and natural resources. The federal government is responsible for the criminal law, international affairs and all matters of a transboundary (interprovincial or international) nature. It is also largely responsible for legislation affecting activities undertaken in the northern territories.

3 ENVIRONMENT CANADA'S ENFORCEMENT PROGRAM

Despite the fact that Environment Canada was created in 1973, in recognition of the need to protect our natural heritage, no specific office was charged with the responsibility for enforcing the offence provisions of the early legislation. In 1988 the *Canadian Environmental Protection Act* (CEPA) became law, combining innovative provisions relating to the control of toxic chemicals with existing legislation on clean water and air, environmental contaminants and ocean dumping. New enforcement powers were also included. Inspector designations were provided to a large number of staff. The increasing visibility of the enforcement function eventually prompted the creation of an Office of Enforcement in 1990.

This Office, now comprised of four divisions, remains the largest component of an expanded Headquarters Enforcement Branch. Its key roles relate to ensuring national consistency and in providing support to our five regional enforcement operations. Because Environment Canada is a decentralized department, constructed on the principles of "matrix management", the headquarters Enforcement Branch has no line authority over regional enforcement officers. It does, however, retain functional responsibility for the enforcement program. Regional operations are essentially independent, subject to consensual arrangements reached to achieve national consistency in policy, priorities and operational approaches.

4 DESIGNATION OF INSPECTORS

The Office of Enforcement is responsible for approving the designation of each and every inspector, on behalf of the Minister of Environment. The policy context for doing so - indicating when a designation will be approved - has been formalized. Headquarters and regional managers have agreed to follow a designation policy document which clearly delineates the circumstances and requirements of such requests.

The training division of the Office of Enforcement maintains a database which records and tracks all training received by individual enforcement officers, as well as the future dates when refresher training is required. Designations are confirmed on a regular basis to ensure that the required skills are maintained. Members of the division recognized, early in 1995, the need for greater national consistency in terms of the "competencies" that both existing and new enforcement officers must have and maintain over time. The focus was on knowledge-based competencies, generally defined as including formal and informal education, intelligence, degree of knowledge, experience and skill, which determine how well a person performs his or her job. Four general categories of knowledge were identified: Technical, Occupational Health and Safety, Legal and Management. Candidates are traditionally recruited, and promoted, based on these competencies. Particular attention was given to matters involving Occupational Health and Safety - the result of a national "job hazard/job risk" analysis performed after three work related fatalities. Members of the National Training Committee, representing Headquarters and all regions, pollution and wildlife programs, agreed that competencies must be clearly identified.

5 NEEDS ANALYSIS STUDY

A comprehensive "needs analysis" study began in 1995. The objectives of the study were as follows:

- Determine the skill and knowledge sets required of wildlife officers, inspectors and investigators, on both a regional and national level, in order for them to accomplish their jobs.
- Determine the skill and knowledge sets that wildlife officers, inspectors and investigators currently possess.
- Identify gaps between these two areas on both a regional and national level.
- Develop a strategy for addressing these gaps.
- Identify training needs common to all three positions.
- Determine the basic core competencies required by each position.
- Relate these core competencies to a system of minimum standards.
- Research training programs and standards in other jurisdictions.
- Make recommendations regarding general training issues.

Pollution inspectors and investigators and wildlife officers were requested to respond to questionnaires designed for the functions of each category of officer. They provided in detail all training that they received in their careers, both formal and informal. Focus groups were organized in all regions of the country, enabling a representative cross-section of enforcement staff to meet together and discuss with each other the substantive information being provided and compiled. The individual "job descriptions" of each enforcement officer were also gathered and reviewed, to compare theoretical tasks with the real work that people conducted on a day to day basis.

The result was a tiered approach, completed in 1996. "Threshold competencies" - those that must be possessed by a person when applying for a position, the minimum standard - were defined as "Primary Core Competencies". These are the competencies which represent the first level of skills required to adequately perform job duties. These competencies were as noted above divided into four general categories: Legal, Technical, Occupational Health and Safety, and Management.

The second level of skills are those of a specialized nature, which officers will aspire to and achieve over time as experience and training are gained. These were called "Secondary Core Competencies", the second level of skills which vary according to each of the four category of officer. Although described using the four general categories noted above, and although many of the same advanced skills are required by all four types of officer, there are many that are quite different.

6 MINIMUM STANDARDS AND TRAINING OF INSPECTORS

6.1 Linkage of Training to the Inspector Designation Process

Since the completion of the Needs Analysis in 1996, significant efforts have been made to link the competencies to specific elements of each training course in order to ensure that the training program accurately responds to the actual needs of all officers. Designation occurs only after the minimum standard has been successfully achieved. Each individual must successfully complete his or her basic training.

6.2 Training Catalogue and Schedule of Offerings

A training catalogue is updated annually which provides detailed information to all staff on the most current information on course content and scheduling. General skills training is conducted regularly, for example with regard to sampling techniques and forensic accounting. Course modules are specifically linked to Primary and Secondary Core Competencies.

Regulations created under the various pieces of legislation for which Environment Canada is responsible are the focus of other training sessions. These courses focus on the specific elements and requirements of each regulation, which address a wide range of topics falling within federal jurisdiction. Many of the highest profile regulations reflect in a domestic sense the commitments made by Canada under such international agreements as the *Basel Convention* (hazardous wastes), the *Montreal Protocol* (ozone-depleting substances), and the *Convention on International Trade in Endangered Species* (CITES).

6.3 Development of Course Materials

The majority of all course materials are prepared by departmental staff. The Headquarters training division chairs a national working group, comprised of at least one representative from each of our five regions, which is responsible for the development and delivery of each course. Course development and design is achieved through consensus. As has been mentioned at the Monterey Conference in a different context, the importance of "in-country networks", working together to address a common challenge through consensus, is essential. Innovative means are required to overcome barriers and ensure continuous and long term improvement.

Departmental staff who do not work in the enforcement program are relied upon to provide expertise in developing materials and in delivering certain modules of regulation specific training. They are involved in assisting enforcement staff in addressing the substantive and often highly technical aspects of the regulations.

7 INVOLVEMENT OF ENFORCEMENT WITH OTHER FUNCTIONS

7.1 Regulation Development

In addition, the enforcement program itself is getting more involved in the regulation making process, working with subject matter experts to ensure that the policy aims of the regulation are achievable. Legal requirements must be enforceable. The text must be well written and clear, to ensure that enforcement field staff can both understand and apply the law.

In addition, the Department's Legal Service provides invaluable input not only in terms of drafting regulatory text, but also in terms of assisting us in the development of training materials.

7.2 Customs

Environment Canada is a small organization, currently possessing approximately 100 field staff for both pollution and wildlife enforcement nationally. Partnerships with other agencies are essential. Our Customs counterparts are our "eyes and ears" at the border,

and we are working with them to develop computer based, self-taught training programs on the Department's priority regulations - export and import of hazardous wastes, ozone-depleting substances, and endangered wildlife.

7.3 Police and Law Enforcement Training

We work regularly with the Royal Canadian Mounted Police at their training centre in Regina, Saskatchewan. Courses offered and under development include an advanced training package for wildlife officers, firearms training for wildlife officers, and beginning in the fall of 1999 peace officer training for all of our existing pollution inspectors and investigators whose status is about to change with amendments to *Canadian Environmental Protection Act.* Provincial and territorial governments are participating with us in an effort to develop a national curriculum for inspector training, one that would be modular, portable, and flexible.

7.4 External Partnerships

External partnerships are also important. Within North America we work with our counterparts in the United States in a great many bilateral enforcement associations, and participate often in joint workshops and training exercises. The Commission on Environmental Cooperation in Montreal, established in a side agreement to the *North American Free Trade Agreement,* results in many trilateral initiatives with Mexico. The Secretariat of the *Basel Convention*, *Montreal Protocol* and CITES are important partners. INTERPOL and the member countries of the G-8 have in recent years recognized the growing importance of environmental crime. Many bilateral agreements have been signed between Environment Canada and individual countries, often including obligations with regard to sharing enforcement expertise and knowledge on a reciprocal basis. The immense potential of regional networks established through INECE is well recognized by those attending this Conference.

8 THE FUTURE

A Parliamentary Standing Committee on Environment and Sustainable Development conducted hearings in the spring of 1998 which focused on Environment Canada's enforcement program. A series of comprehensive recommendations resulted. The Department prepared a formal response to the Committee, on behalf of the Government. One element of this response dealt with the training of enforcement staff. In the months that followed the Response, a number of specific enforcement projects were approved by senior management within the Department. One of these involves building upon "ongoing efforts to provide a national framework for the hiring, training and advancement of enforcement officers and managers through completion of a formal Human Resource Plan".

The strategy for developing this Human Resources Plan for enforcement personnel involved the organization of a workshop in March of 1999. The objectives of the workshop included the following:

- Agree on components of a Human Resources Framework and how they fit together, including but not limited to competencies, organizational structure, career development, recruitment and retention, and succession planning.
- Establish knowledge based competencies for enforcement managers, including but not limited to skills, knowledge and education.

- Establish behavioral based competencies for enforcement management and staff, including but not limited to motives, values, attitudes, and self-image.

The Needs Analysis completed in 1996 now forms the foundation for additional work and improvement. The Department has recognized that identifying knowledge based competencies for enforcement officers alone is but one approach. It has acknowledged that managers in headquarters and in regional offices must also have the appropriate knowledge, experience and skills to make good enforcement decisions.

Similarly, the move to identify behavioral based competencies for both managers and staff recognizes that knowledge must be applied, that superior performers must also exhibit behavioral competencies that positively affect job performance. The general categories of behavioral competencies address:

- Problem solving - analytical thinking, conceptual thinking, strategic thinking.
- Personal and corporate effectiveness - building partnerships with stakeholders, concern for health and safety, direct communication, ethics and values, impact and influence, information seeking, listening/understanding and responding, planning/organizing and communicating, results orientation, self-confidence, self-control, teamwork and cooperation.
- Leadership - leadership of organizational change, developing others, team leadership.

Work continues to advance the Human Resource Plan in its entirety. The immediate focus has necessarily been on updating the knowledge based competencies for enforcement staff, identifying those that should apply to managers, and identifying for the first time the most appropriate behavioral competencies for both. Much remains to be done.

WORKSHOP 4D
SETTING UP AND MANAGING COMPLIANCE ASSISTANCE PROGRAMS AND INFORMATION OUTREACH ON REGULATORY REQUIREMENTS

Technical assistance and outreach programs are significant ways governments have to offer encouragement for compliance. Many nations and local communities have established programs offering technical assistance to business and industry in environmental control, pollution prevention and/or cleaner production. Few of these are actually focused on assistance related specifically to regulatory compliance for reasons which include lack of institutional linkage, lack of enforcement motivation, a desire to avoid shifting the burden of responsibility for compliance from those regulated to the government and/or the level of training required to actually offer compliance assistance. In other cases a range of means of trying to communicate about regulatory requirements have been tried with mixed results.

Papers 1 - 3 for Workshop 4D and a list of related papers from other International Workshops and Conference Proceedings are in Volume 1

SUMMARY OF WORKSHOP: SETTING UP AND MANAGING COMPLIANCE ASSISTANCE PROGRAMS AND INFORMATION OUTREACH ON REGULATORY REQUIREMENTS

Facilitators: Elaine Stanley, Marco Gonzales
Rapporteur: Dean Paige

GOALS

Discussions were designed to address the following issues:

- What methods are used to communicate and reach out to the regulated community about environmental requirements.
- Which have proven to be most effective, have not worked well and why.
- What programs have been developed to offer compliance assistance, what circumstances initiated the program.
- What are the resources required to implement the program and how are successes or results addressed.
- How are programs for assistance and/or outreach linked to enforcement practices, what policy or program design alternatives were considered and why was the approach selected.

1 INTRODUCTION

Around the world national, state and local environmental authorities are striving to balance the responsibility for aggressive environmental enforcement with the equally imperative need to provide assistance to the business community in the areas of knowledge of the requirements of environmental law, and resources available to business to aid in establishing and maintaining compliance. Many small and medium sized business operators have limited knowledge of the requirements of the environmental regulations that apply to their businesses. A lack of available resource material, technical expertise and even literacy problems are only a few of the obstacles that confront small business owners worldwide. Many types of small businesses, including job shop plating operations, vehicle repair shops, and small textile manufacturers use hazardous materials and/or produce hazardous waste and can therefore pose great risks to local environments. The environmental inspector has, as a primary responsibility, the determination of the ongoing compliance status of the businesses under the environmental agency's jurisdiction. It is also the inspector's responsibility to take appropriate enforcement action when environmental requirements are not met. Attempts to integrate compliance assistance activities into the enforcement role that must be played by the environmental inspector has led to debate as to whether the inspector can be both an effective enforcer and at the same time provide assistance to a business in meeting the requirements of the law. The type of assistance which can be provided has also been the subject of discussion. Certainly, an inspector must be expected to provide a business with a clear understanding of the requirements of the law and a knowledge of

which agency's and which agency personnel are assigned to monitor that business. The provision of technical advice on subjects such as waste treatment technologies or choice of treatment systems however take the inspector into uncharted waters.

2 PAPERS

A paper prepared by Ellepola Ramani describes the government of Sri Lanka's recent implementation of national Industrial Pollution Control Programs. A paper by Dean Paige and John Garn describes the implementation of the Sonoma Green Business compliance incentive program and concurrent environmental enforcement and prosecution in Sonoma County California USA. A paper by Lynn Vendinello describes the development of national virtual Compliance Assistance Centers on the World Wide Web by the US Environmental Protection Agency

3 DISCUSSION SUMMARY

3.1 A Global Snapshot of the State of Compliance Assistance

Participants described their individual experiences and the overall status environmental compliance and assistance efforts in their respective countries. A broad range of situations were described. Ms. Marlen Dooley of New Jersey USA discussed an aggressive enforcement program in her state and indicated that recently state agencies have been exploring the possibility of adding an assistance component to their efforts. Various options were being considered. A *Green Start Program* was in development in an attempt to encourage businesses to ask for assistance when they need it. Dean Paige discussed the Sonoma Green Business compliance incentive program, which has been successfully integrated into local compliance enforcement regimes. Ms Vera Mischenko of Russia and Ms. Namsrai Sarantuya of Mongolia detailed conditions in their newly independent countries in which the National Environmental Compliance Ministries had collapsed along with the collapse of the USSR and were only now being rebuilt. Ministry territoriality, graft and bribery and the influx of powerful multinational corporations had left few options for effective environmental enforcement. She described how NGO's and volunteer lawyers had taken up the cause and were at present the first line of defense against the environmental criminal. With no effective enforcement apparatus there is no disincentive to environmental crime and very little demand from industry for compliance assistance. Dr. Marco Gonzales described similar conditions in 7 Central American Countries with very new environmental laws, a high rate of illiteracy and a huge influx of multinational corporations. Mrs. Kasemsri Homchean of Thailand described a situation in which only informal assistance is provided and the assistance aspect is not institutionalized. Ministries make use of out of country assistance when possible and will provide seminars on environmental requirements for businesses wishing to do business in the country.

3.2 Breaking Institutional Barriers

Participants were unanimous in their insistence that institutional barriers must be broken in order to maintain effective compliance assistance efforts. The territorial imperative that is a given circumstance in the Ministries of many Central American countries and other developing nations, and that is not unknown in the developed nations, is a large impediment to the efforts to administer both effective compliance incentive programs. Ministry heads

that consider themselves dictators or tsars impede the flow of information between and among ministries and between the ministries and the business community. Such situations also impair the ability to allocate scarce resources among agencies in a manner that leads to efficient enforcement and compliance efforts and maximization of each ministry's own resources. The reform of these ministries is essential. Experience such as that presented on Sonoma County show that when agency's or ministries work together, all benefit. In addition the business sector benefits by the efficient operation of the regulatory agencies. Those that do well are recognized while those who continue to flaunt the law are punished in a swift and serious manner.

3.3 Breaking Functional Barriers

Traditionally inspection and enforcement personnel performed those duties to determine compliance and initiate enforcement activities and no more. The worldwide proliferation of ever more numerous and ever more complicated environmental legislation has left the business community staggering under the burden of identifying, understanding and meeting environmental requirements. A new paradigm must be developed to deal with these circumstances. Some environmental agencies have been able to successfully integrate compliance assistance with compliance enforcement. Typically this has been accomplished by close cooperation between environmental agencies and the regulated community and between environmental agencies and, law enforcement and prosecutors. Enforcement personnel must make it very clear that while they may be able to provide assistance they will not flinch in taking civil action as required to insure compliance when deliberate and/or ongoing violations occur. Further, the business community must be made to understand that it will be provided with a level playing field. Those who make the effort to maintain compliance must be assured that the competing environmental outlaw will be prosecuted not only civilly but criminally as well. In some cases when a particular agency has exhausted its recourses in dealing with an errant business it may be useful to join forces with other agencies including police and prosecutors in joint investigations and prosecutions. In this situation an environmental enforcer may maintain his/her persona as an investigator only while the police and prosecutors accept the role of enforcer.

Resource issues were also related to functional barriers. In some countries local police agencies are being pressed into service and being trained to carry out basic inspection activities. They in turn make referrals based on their inspections to environmental ministries, which then conduct the scientific investigations necessary in cases where environmental crime is suspected. The need for cross training in all aspects of environmental enforcement was also highlighted. A basic understanding of multi media issues by an agency involved with enforcement of only specific media requirements is a beginning. Under such a condition appropriate referrals can be made when necessary thus maximizing resource utilization. Development of multi media knowledge and skills leading to single multi media environmental inspections was also put forth as a desirable goal.

3.4 Communication Methods and Challenges

Participants agreed that the target audience for Assistance information should include not only businesses but also the public and NGO's. It was pointed out that we also must remember that the business community is part of the public not a separate entity unto itself. Therefore, in order to fully serve the public we must also meet the need of the business community for clear unambiguous information about environmental requirements. It was agreed that in order to provide effective assistance an inspector must be fully aware of the raw materials, operations, waste treatment requirements and the wastes generated by a

business. Services provided must include what information is available, where to find it and who to call for clarifications, explanations and details. Information should be tailored to consider the needs of the regulated community. Wherever possible materials should be specific to industry sectors.

A wide variety of communication strategies were discussed. Dr. Marco Gonzales pointed out that in Central America a high rate of illiteracy made it necessary to tailor information to the average small businessperson with a limited education and that many assistance materials must thus be presented in a comic book form. Dr. Gonzales also pointed out that he finds it useful to sometimes use outside sources to present seminars and recommended that trade organizations are many times a great source of information. Ms. Elaine Stanley noted that using comic books and similar easy to read materials is often also used in the United States as the visual component of assistance materials had been found to be very important and effective in some small industry sectors. She also described the establishment of Virtual Internet Compliance Assistance Centers by the US EPA. Dean Paige described the components the Sonoma Green Business Program and presented an informational brochure for businesses that briefly describes federal state and local regulations applicable to a number of business types and indicates which local agencies administer the regulations and how to contact those agencies as well as a listing of acronyms that are well known to environmental regulators but beyond the knowledge of most businesses. Another booklet set out a checklist that a vehicle repair operator could use to determine whether the operation was in compliance with regulation and which described Best Management Practices for such a business.

Some challenges to effective communication raised in the discussions were; tailoring the materials to the sophistication level of the target audience, how local authorities can reach multinational corporations doing businesses in developing nations and how various ministries can evolve from a "Territorial" attitudes about the agencies to an open communication with other ministries and facilitate improved enforcement cooperation.

4 CONCLUSION

The integration of compliance assistance programs into environmental enforcement strategies is an emerging trend around the world. The differing levels of development of environmental law, the apparatus to enforce environmental regulations and the sophistication of the regulated community all have a bearing on the methods which will be employed to meet both the needs of the regulated and regulatory communities. What works in the industrialized countries will not necessarily be successful in countries with developing economies. Worldwide experience in this area is still limited. Questions remain as to resource allocation, the separation of compliance and assistance activities, the role of law enforcement and prosecutors and capacity development. Participants left this workshop with a better understanding of ongoing current efforts and the need for further sharing of information.

WORKSHOP 4E
THE SCIENCE IN ENFORCEMENT: SETTING UP AND FINANCING LABORATORIES; ENSURING THE INTEGRITY OF SAMPLING AND DATA ANALYSIS; SCIENTIFIC SUPPORT FOR ENFORCEMENT

Successful enforcement rests on sound science for its credibility and successful resolution of violations and resultant damage to the environment. This workshop was directed toward developing a firm basis for understanding the science of enforcement, that is, the need for scientific support and data management.

A list of related papers for Workshop 4E from other International Workshops and Conference Proceedings is in Volume 1

SUMMARY OF WORKSHOP: THE SCIENCE OF ENFORCEMENT: SETTING UP AND FINANCING LABORATORES;ENSURING THE INTEGRITY OF SAMPLING AND DATA ANALYSIS; SCIENTIFIC SUPPORT FOR ENFORCEMENT

Facilitators: Nancy Marvel, John Rothman
Rapporteur: Michael Penders

GOALS

Discussions were designed to address the following issues:

- Identification of scientific issues and support required for compliance monitoring and enforcement response.
- Defining the needs for laboratory support.
- Laboratory certification and auditing programs to assure quality of data and analysis.
- Need for and how programs acquire supplemental scientific support for environmental assessments associated with enforcement cases.
- Distinguishing needs for forensics laboratory support for criminal cases and laboratory support for civil enforcement cases.
- Creative means of financing and managing needs for laboratory support: opportunities for regional cooperation, mobile laboratories, purchasing support from multi-purpose laboratories or third parties.

1 INTRODUCTION

All nations and organizations recognized the need for sound scientific and laboratory support to measure ambient environmental conditions, develop meaningful standards, analyze impacts to water, land and air, monitor compliance with environmental requirements and to enable successful prosecution of environmental law under the legal standards that apply for admission of evidence. The discussion centered on exchanging information on existing laboratory capacity, good practices for sampling and analysis to be admissible as evidence, and developing regional approaches to share capacity where it is lacking.

2 PAPERS

See related papers from other International Workshop and Conference Proceedings:

- Pesticide Export and Import Enforcement Programs in the United States, *Hofmann, A. and Musgrove, C.*, Volume 1, Utrecht, The Netherlands, 1990, pages 237-245.

- U.S. Experience and Differences between Civil and Criminal Investigations and Use of Central Elite Force to Supplement Local Inspectors, *Gipe, D. and Wills, C.*, Volume 1, Budapest, Hungary, 1992, pages 445-452.
- Synopsis of UNEP Manual on Institution Building, Volume 1, Chiang Mai, Thailand, pages 275-279.

3 DISCUSSION SUMMARY

3.1 Identification of Scientific Issues and Support Required for Compliance Monitoring and Enforcement Response

Participants immediately agreed on the need for sound scientific and laboratory work (and resources) to support environmental enforcement and compliance efforts. Indeed, there was preliminary discussion of the necessity of good science to develop environmental standards, evaluate ambient conditions, and formulate environmental requirements which address pollution problems of greatest risk in the first place. The workshop quickly focused on how to achieve the requisite laboratory capacity to support the enforcement of environmental laws in regions where it was lacking.

As a first step, many participants urged the identification and publication of existing facilities, whether they are run by government agencies, universities, health organizations, NGOs, or the private sector. It was recommended that INECE consider setting up a task force or regional subgroup to explore these issues and to facilitate electronic exchange. A representative from the Environmental Law Alliance Worldwide agreed to set up an E-mail network to facilitate information exchange on science in enforcement among all the participants of the workshop, INECE affiliates and anyone else with information relevant to laboratory support issues. At the next morning's plenary, the representative reported that the electronic network was up and running with the E-mail addresses of everyone at the workshop as well as others identified for this purpose.

3.2 The Regional Approach versus Single Country: A Case Study, Limitations and Hybrid Approaches

3.2.1 Regional Approach

Among the approaches discussed for maximizing laboratory capacity, various regional approaches were considered. Mr. Vincent Sweeney from the Caribbean Environmental Health Institute in St. Lucia, made a compelling case for a regional network of laboratories in areas like the Caribbean, where any single island may lack the resources to develop adequate capacity, but collectively the region as a whole can sustain facilities such as the Caribbean Environmental Health Institute. Because the island nations in the region have a long history of trade, travel and capacity sharing in other areas, they are well suited to regional approaches in addressing common problems.

Again, it is essential for a network to be meaningfully established to assure that all islands' governments are aware of the collective regional capacity and the fact that laboratories set up for other purposes may be used as well for environmental enforcement and compliance monitoring. It was recommended that any INECE network set up in the Caribbean incorporate laboratory issues as a first priority, though it was noted that so far the

CARIB-INECE was not yet operational. Enhancing the Caribbean regional approach has become more important of late, with the role of laboratories increasing for environmental protection purposes. It has also become important to cross reference quality assurance and quality control procedures, calibration standards, and address Caribbean-wide certification issues. Thus, to the extent the islands' standards and procedures can be harmonized, it will assist in maximizing the efficient use of laboratory resources and therefore enhance regional environmental enforcement capacity.

While the regional approach is well suited to the geography, culture and currents of the Caribbean, it's limitations became apparent with the observations of some African and other nations, where the scale of the countries and geography make international capacity sharing impractical. In such countries, laboratory capacity must be developed nationally, often with limited resources. The question then becomes how to assure adequate capacity within one nation's borders and what are the resources and regional mechanisms available to facilitate that.

3.2.2 National Approaches

For example, in Botswana, two laboratories were set up within the Department of Mines in the 1970s to monitor for air pollution control. Botswana is currently trying to upgrade these laboratories to analyze more pollutants, but the cost exceeds four million dollars. Thanks to Norwegian cooperation, Botswana is moving ahead with the training of inspectors in Norway and has become part of the Air Pollution Monitoring Network and is developing better methods to use laboratory results in court for enforcement cases.

Brazil, a larger country, presents a hybrid of a national system with a regional structure. Brazil has three central and six regional laboratories run by the states, all of which are certified to national standards. Malawi, on the other hand, has no national laboratory and relies on a university laboratory. Other countries rely upon private sector laboratories or combinations of public and private laboratories. Whatever the type of laboratory arrangements used, all agreed upon the need to take steps to manage the analysis according to national or international standards, and assure the integrity of the data.

3.3 Assuring the Quality of Data and Analysis

Several nations' experience demonstrated the necessity of assuring the integrity of environmental protection regimes which require self-monitoring and reporting by regulated entities. Inherent in this system of environmental protection is the integrity of the sampling and analysis required by the statutes and ensuring against falsified or misleading laboratory analysis. Several countries posited the importance of establishing criminal liability for individuals, laboratories and regulated entities that falsify or misrepresent laboratory analysis. It was noted that several of the biggest criminal investigations in the United States involved laboratories which falsified data for corporate clients. Brazil and other countries had similar experiences.

Most countries had deployed or were developing national standards and certification processes for laboratories. Some required certification under international standards such as ISO 25, World Bank requirements, and other standards as well. Auditing of the laboratories was required for some certification processes and in order to receive government contracts.

3.4 Distinguishing Needs for Laboratory Support

While there was broad recognition of the need for specific types of sampling and analysis that would stand up in court for either civil or criminal enforcement, the immediate concern for most nations was to establish the infrastructure for doing what was feasible in a standard laboratory rather than setting forth immediate standards for what might stand up in court. There was acknowledgment that chain of custody issues and the integrity of sampling and analysis were critical for most enforcement purposes, but particularly for criminal enforcement.

In that regard, it was noted that inspectors, laboratories and prosecutors must be aware of the legal issues that relate to sampling and the use of analysis as evidence. All encouraged additional training in this area and highlighted the need for government enforcers to become more aware of the science upon which their cases are predicated. It was hoped that such awareness could help build support for the necessary laboratory resources.

In terms of priority, it was agreed that the "biggest bang for the buck" could be had by laboratory focus on basic compliance monitoring. If subsequently there was evidence of serious violations, it was hoped that additional resources might then be brought to bear to establish the violations under whatever legal standards prevailed. The most immediate concern, however, was identifying violations that posed the greatest risk, whatever the appropriate sanction turned out to be.

As more cases came to court, it could then be anticipated what the legal challenges to sampling and analysis were in a given country, and if necessary the laboratory would then develop the process required by courts. It was noted that in most countries, the science develops first and then the courts decide what is admissible in the case sub judice. In many of the countries represented, there had not been many cases where the sampling had been successfully challenged and so the priority of most was establish basic laboratory capacity first, before focusing on the potential legal standards.

3.5 Creative Means of Financing and Managing Needs for Laboratory Support

Possible methods of financing the necessary laboratory support to assure compliance with environmental laws include:

- Using portions of fines for violating companies for a dedicated laboratory fund.
- Assessing taxes on regulated industries to provide for laboratory analysis, compliance monitoring and enforcement capacity generally.
- Self-financing for regulated industries and international grants and cooperative arrangements, including with the private sector and NGOs.

The World Bank representative noted that the Bank is embarking on its second and third generation of environmental projects and observed that compliance monitoring regimes and the creation of laboratories are difficult to build and maintain. All participants urged full consideration of all options to provide for laboratory support on a local, national, regional, and international basis. They reiterated that adequate laboratory capacity is essential to assure environmental compliance. It was agreed that INECE would provide a valuable service by further identifying and publishing scientific resources and facilitating international and regional access to laboratories for enforcement purposes.

4 CONCLUSION

All participants recognized the need for sound scientific support for environmental enforcement. In particular, they acknowledged the importance of inspectors, investigators, laboratories and prosecutors collecting, handling, and analyzing samples in a manner which maximizes their utility in assessing compliance and assuring probative value and admissibility in a court of law. For most countries, the question comes down to: How do we get there from here?

The workshop identified existing electronic networks which provide access to laboratory and information resources, including those set up by NGOs and other international organizations. The participants explored financing options for enhancing scientific and laboratory support and agreed to set up an Internet network among the participants, INECE, and others, with E-Law (the Environmental Law Alliance Worldwide), on Science in Enforcement, which was on line by the end of the conference in Monterey. They also recommended that INECE set up a subgroup on laboratory capacity issues generally which could provide a resource for regions and nations which need assistance in this area.

Methods for international networking, regional resource sharing, training, building national capacity, financing laboratory work and ensuring data integrity were examined at some length. It was agreed that "Science in Enforcement" was one area where INECE could facilitate useful exchanges on laboratory techniques and available support, particularly on a regional basis.

WORKSHOPS 4F-4J
TAILORED STRATEGIES FOR ENVIRONMENTAL COMPLIANCE AND ENFORCEMENT

4F Government/Municipal/Military Compliance and Enforcement Strategies

4G Small and Medium Enterprises Compliance and Enforcement Strategies

4H/4I Mobile Source Compliance Strategies and Enforcement/ Non-Point Source Compliance and Enforcement Strategies

4J Geographic or Resource-based Compliance and Enforcement Strategies

Although the principles and frameworks for developing environmental compliance and enforcement programs and strategies apply to all types of sources and situations, to be most effective they must still be tailored to the nature of the regulated community, laws and customs of a particular situation. Conference planners defined capacity building broadly to include this set of workshops for participants to be able to focus their discussions on different strategies for addressing several unique categories of pollution sources. For example:

- Military installations often pose problems of restricted access for environmental inspectors or may not be subject to the same levels of scrutiny or the same types of sanctions despite the fact that they can be significant violators of environmental requirements with substantial risk to public health and the environment. Government owned or operated facilities have different cost and financial motivations because they are nonprotein entities than do private enterprises which affects the choice and effectiveness of sanctions.
- Small and medium sized enterprises are often too numerous to inspect, lack the resources for pollution control and/or dedicated management staff for environmental management that may be found in larger enterprises.
- Because mobile sources are by definition mobile, monitoring compliance and responding to violations of required controls on automobiles, trucks, trains, airplanes, ships and the like, pose opportunities for unique solutions for how and when to inspect, monitor compliance and even how to know who is in the inventory of controlled sources. Many nations are first establishing inspection and maintenance (I/M) programs for automobiles and this is an opportunity to speak about enforcing those program requirements.
- Non-point sources of pollution are often controlled by best management practice requirements and do not always demonstrate the kind of problem for which there is environmental concern such as those that occur only after heavy rains and droughts.

- Geographic or resource based strategies such as those needed to prevent illegal logging or settlements on national forests or reserves or poaching of wildlife pose still other types of challenges given the size and terrain of many such locations and inability to establish well defined borders for such controls. Other requirements for ecosystem protection also lack well defined boundaries to clearly demarcate where requirements must be adhered to, etc.

Papers 1 - 3 for Workshops 4F-J and a list of related papers from other International Workshop and Conference Proceedings are in Volume 1

SUMMARY OF WORKSHOP: TAILORED STRATEGIES FOR ENVIRONMENTAL COMPLIANCE AND ENFORCEMENT: GOVERNMENT/ MUNICIPAL/MILITARY COMPLIANCE AND ENFORCEMENT STRATEGIES

Facilitators: Paul van Erkelens, Craig Hooks
Rapporteur: Kees Boekel

GOALS

Discussions were designed to address the following issues.

- Particular challenges on problems posed by designing effective compliance strategies and enforcement responses.
- Institutional requirements and design requirements for the program that would help in:
  - compliance promotion;
  - compliance monitoring; and
  - enforcement response.
- Training and inspection approaches useful to detect violations and compliance problems.
- How those challenges might be overcome.
- Unique challenges of compliance by Government owned or operated facilities.
- Military installation problems of restricted access for environmental inspections and how are those problems overcome.

1 INTRODUCTION

A starting point is that the principles and frameworks for developing environmental compliance and enforcement programs and strategies apply to all types and sources and situations. However, to be most effective they must still be tailored to the nature of the regulated community, laws and customs of a particular situation. This is especially the case for several unique categories of pollution sources such as Government, Municipal and Military installations. Government owned or operated facilities have different cost and financial motivations because they are non-protein entities than do private enterprises which effects the choice and effectiveness of sanctions. Military installations often pose problems of restricted access for environmental inspections or may not be subject to the same levels of scrutiny or the same types of sanctions despite the fact that they can be significant violations of environmental requirements with substantial risk to public health and the environment. Especially these categories of installations are subject of strong political influence.

2 PAPERS

A paper prepared by Fred Huisman describes the enforcement of military sites in The Netherlands for which the Minister of the Environment is the competent authority. Besides the fact that adequate enforcement is very important to keep the attention of the military sites on environmental issues, also the implementation of more self regulation, for example environmental care systems, have a high potential to reach higher performance on compliance.

3 DISCUSSION SUMMARY

3.1 The compliance level of the Government

The first question in the discussion was "should the Government comply or are there situations or circumstances that an exception on compliance is acceptable." The unanimous answer was that as a starting point also and especially the Government at first should comply the environmental legislation. With respect to compliance, a faithful and transparent Government is necessary to be an example and a good teacher. Only in very exceptional situations (as disasters) non-compliance could be acceptable.

3.2 Compliance promotion

3.2.1 Legal Authority

In some countries the legislation is not yet complete concerning the permitting and enforcement of Government and Military installations. In some countries governments at some or all levels cannot be prosecuted , inspectors cannot get in to investigate and/or fines cannot be levied. So logically a first step in that cases is to construct the legal possibilities to demand and enforce the environmental requirements for these installations. In other countries the legal basis is present but in practice these installations are not enforced in an adequate way because of political and financial reasons.

3.2.2 Political Will

An important condition to achieve compliance is that the political attention and will must be motivated. Therefore the following means are presented to build political pressure:

- make the environmental problems and effects of these installations visible and make it public;
- try to use the NGO's as catalyst, and mobilize the environmental conscience in the public opinion; and
- choose and use specific cases of non-compliance and violations of the regulations and prosecute at the court; this gives publicity and a broader effect in awareness of the problems.

3.2.3 Capacity to Comply

Also for the Government and Military installations the capacity building is a relevant factor:

- education and training at Governmental installations by environmental agencies (training programs) and convince them that bad compliance will influence their (economic) situation negatively on the long term;
- finance and manpower has to be made available by the responsible competent authorities to enforce the requirements and improve compliance; and
- make a program for permitting and enforcing of the Government and Military installations.

3.2.4 Recognize Responsibility to Comply and Adopt Environmental Management Systems is same as Private Sector

In fact a Governmental installation (including Military) in its approach on compliance and enforcement should not differ from private owned facilities. So also for these installations Environmental Management Systems could be brought in. Especially for military bodies this system is expected to have high potential because of the organization and discipline in this sector.

3.3 Prosecution and Sanction

Countries discussed experiences in prosecuting government and military operations. Reported were experiences that even if there is authority to prosecute and violators are brought to court there were a high number of cases at court with a low rate of prosecution in the absence of a concerted effort to obtain strong public and politics support and an educated judiciary.

4 CONCLUSION

In general it was unanimous that especially Government/Municipal and Military installations should comply at first the environmental legislation as an example for the private sector.

To promote compliance the logical first step, if not yet regulated, is to construct the legal possibilities to demand for and enforce the environmental requirements for these installations.

To fulfill the condition of political will and motivation to achieve compliance, political pressure can be built up by using NGO's as a catalyst to mobilize an environmental conscience. The environmental problems and effects of these installations have to be made visible and public and/or could be brought at the court for prosecution to attract attention and publicity.

Capacity building remains an important factor in this sector including the need for education and training of the responsible people at the installations and programming of the permitting and enforcement by the competent authorities. Also in this sector, adoption of environmental care systems by government installations can be a help to promote compliance.

The main conclusion is that Government installations (including the military) in fact should not differ in their approach to compliance and enforcement from privately owned installations.

SUMMARY OF WORKSHOP: SMALL AND MEDIUM ENTERPRISES COMPLIANCE AND ENFORCEMENT STRATEGIES

Facilitators: Connie Musrove, Cor Lamers
Rapporteur: Linda Spahr

GOALS

Discussions were designed to address the following issues:

- Particular challenges or problems posed by designing effective compliance strategies and enforcement responses.
- Institutional requirements and design requirements to help in compliance promotion, compliance monitoring, and enforcement.
- Training or inspection approaches useful in trying to detect violations or compliance problems.
- How those challenges might be overcome.

1 INTRODUCTION

Participants in the workshop shared experiences from their own countries and learned from the experiences of others. In one case, the information gained was specifically intended for use in a planned regional network program in a particular region. In another, there had been an increase in new and small enterprises. One country which had been previously promoting small and medium sized enterprises without concern for environmental issues, was now interested in addressing those issues. In some countries most of the environmental enforcement problems are related to small and medium enterprises. It was recognized that enforcement in this area included special problems such as social issues. One issue set forth for discussion at the outset proved to be related to a central "theme" of government enforcement response which developed during the discussion: What is the relationship between the physical location of similar enterprises (geographical clustering vs. scattered locations) and the effectiveness of environmental compliance and enforcement in small and medium enterprises?

2 PAPERS

Several papers were published in the Proceedings relating to the topic of enforcement and compliance strategies. They included:

- Law Enforcement on Military Sites in the Netherlands, *F. Huisman*
- Waste Reuse: Legislation and Enforcement in China, *X.J. Wang*
- The Overview of Water Pollution Control in the Huaihe River Basin, *Q. Shi*
- Achieving Ecosystem Protection Through Environmental Compliance and Enforcement, *N. Bircher*

- Enforcement and Encouragement: An Investigation in the Brick and Roofingtile Industry, *J.M.J. Schoenmakers*

3 WORKSHOP DISCUSSION

3.1 Problems in Enforcement

The group identified several unique challenges to enforcement and compliance in small and medium sized enterprises:

- The large numbers of enterprises.
- The low level of technical competence.
- Small "loads" of waste as related to high exposures and/or high toxicity of waste.
- The need for increased awareness and training of the enterprises about:
  - Regulations.
  - Problems with the environment.
  - How to comply with regulations.
- The production process is often very basic.
- There is sometimes "mouse and cat" play with regulators. For instance, inspectors may not be able to get access to a small business because "the boss is not here," and have no means of going in with police authority absent some evidence of an actual violation.
- There may be no physical space for improvement at small industrial sites.
- Lack of communication and sharing among competitors in the industry.
- Businesses are too small to take advantage of "economies of scale" to make improvements affordable.
- Small enterprises are sometimes "vulnerable" to inspectors, since they have no political clout and may be treated less fairly than large enterprises.

3.2 Possible Solutions to Those Problems

Participants initially identified a variety of possible solutions to the problems, all of which have been attempted and were found to be successful to the problems to one degree or another. They included:

- Contact and specifically inform the enterprises of requirements, in addition to just inspecting.
- Exercise flexibility.
- Utilize special permit requirements geared to the small businesses.
- Prepare simple industry "fact sheets," for both businesses and the inspectors.
- Work with "associations" and their members to help achieve compliance in a particular type of industry.

3.3 Working with Associations

The idea of government working with associations to foster compliance had been explored by a number of countries, with notable success. The term was used to mean industry associations, or cooperatives. While only one country *overtly* encouraged the formation of associations, another did so by offering "softer" treatment to members of associations which had entered into agreements which foster environmental compliance, so long as they are making movement toward compliance. Several reasons for favoring associations were identified in the discussion.

- Associations can help small companies learn from bigger companies.
- They can work together with government to solve problems.
- They may provide an opportunity for joining together to share expenses for environmental improvements, such as waste treatment. This advantage of "economies of scale" may be more easily applied where the companies are located in geographical "clusters."
- They may be extremely helpful in developing simple technologies.
- In some countries (perhaps highly industrialized countries), industry associations take a leadership role in promoting compliance due to their concern for the " reputation" of the industry. In those countries, they may actively assist small companies and publicly support enforcement actions against violators to protect the industry reputation.

Participants identified a need to talk to small companies about their problems of access to technology. It was suggested that local authorities should be involved in the process, since the local government will be interested in helping companies in order to keep jobs, and also concerned about compliance because of the local environmental affect.

One specific example was shared which utilized working with associations to solve the problem of access to technology. The issue was the efficient use of energy in the brick kiln industry. The government surveyed the kilns to see what steps had been taken to better utilize energy. The information about improvements tin technology was brought back and shared with members of the association. While the marketplace was preparing to supply the new technology, arrangements were being made to make money available – through loans – so that the kilns would be able to afford necessary improvements. By utilizing associations to help develop simple improvements and also making money available to put those improvements in place, the government was able to take the final step of the "stick" of enforcement for kilns which were not in compliance after the deadline was imposed.

In another example, a country successfully addressed effluent damage to fisheries through a plan which included an agreement with the association of industry responsible for the damage, and the release of information, through the media, to the public.

3.4 Other Means of Encouraging Compliance

Incentives for the development of better technology for small businesses were also discussed, including:

- Interest free loans.
- Technology development grants.
- Possibility of export of the new technologies after development. Some reluctance was noted about providing too much technology support, noting that there was still a need to "level the playing field" and that "the polluter must pay," even among small enterprises.

A wide variety of other approaches were identified which have achieved varying degrees of success under different circumstances:

- When companies were given the right to sue for "unfair competition" in international trade, one participant observed that competitors, companies doing business with each other, and the market itself actually "forced" companies to comply with environmental laws. This compliance even trickled down to small suppliers. For example, associations or cooperatives have built treatment plants to be used by members, in order to continue doing business. It was noted that without an export market, this won't work. It was also noted that "internal" business dynamics and political/social issues may make this an ineffective means of encouraging compliance.
- Encouraging "clustering" of businesses and other suggestions for reducing costs by utilizing the "economies of scale" to achieve compliance.
- Provide tax breaks for land and machinery.
- Use the community as a resource to encourage small businesses to comply. For this to work, a system of response must be in place to respond to complaints.
- Include in Environmental Management Systems of large businesses the requirement that their suppliers be in compliance.
- In one country, a law was passed establishing individual "vicarious liability" on the operator for acts committed by employees. Though this was described as possibly "Draconian," it was developed due to public pressure and political will because of very serious problems created by a particular industry.
- In some countries, there is individual liability for employees who commit particular acts.
- It was noted that big operations sometimes remove "problematic" activities from their businesses and give those parts of their production process up to the competitive market place. Metal refinishing, for instance, is a simple process with major disposal problems. Because of expense, small companies may be particularly unsuited to handling the problems. Possible solutions include forcing the bigger companies to take responsibility, allowing the competitive market pressures to do so, and extending liability to companies for the acts of their suppliers.

3.5 Enforcement Responses and Policies

The participants identified some important issues for successful enforcement for small and medium sized enterprises.

- Establishing a legal basis for small and medium enterprises.
- A need to measure environmental problems and developing the legal basis.
- Establishing a means or system for enforcement.
- Be more flexible with regard to the size, nature and pollution risk of companies.
- Focus first on major problems, concentrate on movement toward compliance and establish a "culture of compliance."

- Be aware of the cost of compliance for small and medium businesses.
- Be aware of the difficulties they face.
- Try to simplify requirements. The complex requirements imposed on large businesses may not be necessary for a particular size or type of business.
- Train enforcement personnel to do the best job possible under the laws of the jurisdiction, to minimize the "mouse and cat" game.
- Train management of enterprises.
- Try to develop ways to influence "the culture."

4 CONCLUSION

It was generally agreed that the problem of compliance and enforcement for small and medium businesses is not simply an environmental problem. It is a political and economic problem as well. Because the problem of compliance is an "integrated one," the solution must be integrated as well. It must involve environmental, political, cultural, economic, social, governmental, societal, private sector and NGO input.

There is no way to reduce the number of such businesses, and in fact the numbers are growing in most countries. Enforcement solutions seemed to focus on responding through organizations of several varieties:

- Encouraging "clustering" to provide for shared treatment systems.
- Utilizing associations to communicate with, influence and provide improvements or assistance.
- Utilizing social systems to influence behavior.
- Using "economies of scale" to make improvements and development affordable.
- Developing laws to get companies to enforce against other businesses.

In the end, it appeared to the participants that the most viable approaches appeared to involve some means of *avoiding* dealing with large numbers of enterprises on an individual basis to achieve compliance. This "theme" developed from the very rich experiences of the participants, many of whom had been using thoughtful and creative means to make the best use of limited governmental resources in the environmental enforcement field.

SUMMARY OF WORKSHOP: NON-POINT SOURCES OF WATER POLLUTION COMPLIANCE

Facilitators: Joost Buntsma, Susan Casey-Lefkowitz
Rapporteur: Susan Casey-Lefkowitz

GOALS

Discussions were designed to address the following issues:

- Main areas of concern for non point source regulation and enforcement.
- The extent of country experiences with non-point source compliance strategies.
- How to get started in building an enforceable system for non-point source pollution control.
- Enforceable mechanism for non-point source pollution control.

1 INTRODUCTION

Non-point source pollution or pollution from diffuse sources generally consists of polluted runoff from farms, forests, land development and other activities. Often these sources for water pollution are not regulated under the water discharge permitting system of a country due to their diffuse nature. Regulation of pollution that runs off the land with rainfall is much more difficult than regulation of pollution that comes from an identifiable pipe outlet. Non-point sources of water pollution are typically difficult to identify and to monitor. Yet, there is an increasing interest in methods for controlling non-point sources of water pollution. Few countries are using enforceable mechanisms to control and prevent non-point source water pollution. Instead, non-point source discharges are addressed primarily through non-regulatory means, such as planning, incentive and cost-share mechanisms, voluntary best management practices, and other approaches.

2 PAPERS

The Proceedings of past International Conferences on Environmental Compliance and Enforcement include the following paper covering non-point source pollution.

- Potassium and Nitrate Pollution of Surface Water in the Catchment Area of the "Blankaert" Water Production Centre in Flanders (Belgium), Baert, Sc. Robert, Loontiens, Roland and Devos,M. Sc. Marc, Volume II, Chiang Mai, Thailand

3 DISCUSSION SUMMARY

3.1 Defining Non-Point Source Pollution

Non-point sources of water pollution of primary concern to the workshop participants were agricultural sources, including pesticide and fertilizer runoff. The workshop also addressed problems with runoff from forestry and construction work sites.

3.2 Country Experiences with Non-Point Source Compliance

The workshop participants discussed their country experiences with non-point source water pollution regulation and enforcement. For example, Taiwan is struggling to regulate agricultural non-point sources. They are requiring best management practices for fertilizer application, buffer zones and other aspects of agricultural production that contribute to water pollution. Taiwan faces certain barriers in that its best management practices are primarily based on voluntary compliance. It combines education with incentive programs, such as subsidies for proper fertilizer application. The Taiwan Environmental Ministry and the Agricultural Ministry have realized that cooperation is crucial in this area to minimize water pollution. The challenge remains how to combine effective enforcement with a program based on voluntary compliance, technical assistance and incentives.

India also is exploring the appropriate mixture of tools to reduce pollutant runoff from agriculture. The challenge is especially strong in the rainy season when agriculture runoff including cattle waste, fertilizers, and pesticides inundates local rivers. India has traditionally depended on a voluntary program, but they are exploring the use of incentives and regulation, along with strengthening the voluntary program for the future.

3.3 Implementation Issues for Non-Point Source Compliance

The workshop addressed how to get started in establishing a program for non-point source water pollution control and prevention. The following elements were seen as necessary prerequisites to any such program:

- Effective monitoring of water quality.
- Identification of the sources of the problem pollutants.
- Scientific research to identify best management practices for different sectors and different geographical areas.
- Coordination mechanisms between the environmental agency and other agencies such as forestry, agriculture, and mining.
- Public awareness, education, and training programs on non-point source pollution and best management practices.

Workshop participants agreed that while education, training, and technical assistance programs could be housed with the sectoral agencies, regulatory and enforcement programs needed to remain with the environmental agency. The group discussed requirements for the creation of an effective regulatory program, including:

- Requirement of operating permits for potential non-point sources of water pollution.
- Set back and buffer zone requirements from watersheds.

- Requirement of plans, such as nutrient management plans for agricultural concerns or erosion and sedimentation control plans for forestry and construction sites.
- Requirement of environmental impact assessments to help set technical mitigation tools.

3.4 Potential Tools for Non-Point Source Compliance and Enforcement

Most countries have authority to deal with non-point source discharges that can be shown to result in water pollution in their water pollution prevention laws. However, few water pollution control laws contain actual enforceable mechanisms for non-point source pollution. Permitting is the most common mechanism for establishing clear standards with which a regulated non-point source must comply. Yet, as non-point sources are typically numerous, small enterprises, environmental agencies rarely have the resources to monitor and enforce against illegal water discharges, even when they do have the authority.

The workshop discussed the following compliance and enforcement approaches:

- Watershed or catchment approach of identifying the water quality problems and their sources in a particular watershed and then targeting the non-point sources as a group.
- Inspections of non-point source sectors and facilities.
- Government support through technical assistance for citizen monitoring programs of non-point sources.
- Penalties and closures of facilities still not in compliance after opportunity for joining voluntary and technical assistance programs has been offered.

4 CONCLUSION

As countries have increasing success in reducing water discharges from industrial facilities, they are realizing that a substantial portion of water pollution does not come from these "point sources" but from runoff from diffuse or non-point sources. Regulation of these typically numerous and small facilities has been difficult due to lack of resources, inherent problems in monitoring runoff, and lack of reliable best management practices. Countries are now approaching non-point source water discharge reduction and prevention through a combination of voluntary, technical assistance and regulatory programs. Enforcement may well prove to be the needed "stick" to encourage farmers, foresters, mining companies, and developers to adhere to the best management practices and join the voluntary programs.

SUMMARY OF WORKSHOP: GEOGRAPHIC OR RESOURCE BASED COMPLIANCE AND ENFORCEMENT STRATEGIES

Facilitators: Nancy Bircher, Gail Ginsberg
Rapporteurs: Michael Alushin, Nancy Bircher

GOALS

Discussions were to address the following issues:

- Where and when geographic or resource based strategies have been used, for example:
  - Prevent illegal logging or settlements on national forests or reserves.
  - Prevent poaching of wildlife.
  - Sensitive ecosystems (lakes, rivers, coastal resources).
- Particular challenges or problems posed by designing effective compliance strategies and enforcement responses.
- Institutional requirements and design requirements to help in:
  - Compliance promotion.
  - Compliance monitoring.
  - Enforcement responses.
- Training or inspection approaches useful in trying to detect violations or compliance problems.
- How those challenges might be overcome.

1 INTRODUCTION

Geographic or resource based compliance and enforcement regimes require an ecosystem approach and focused strategies to deal with the special challenges of downstream and cross-boundary impacts and protecting wilderness with limited resources.

2 PAPERS

The following papers in the proceedings relate to geographic or resource based compliance and enforcement strategies:

- Law Enforcement on Military Sites in the Netherlands, *Huisman, Fred*
- Waste Reuse: Legislation and Enforcement in China, *Wang, X.J.*
- The Overview of Water Pollution Control in the Huaihe River Basin, *Shi, Quichi*
- Achieving Ecosystem Protection Through Environmental Compliance and Enforcement, *Bircher, Nancy*

- Enforcement and Encouragement: An Investigation in the Brick and Roofingtile Industry, *Schoenmakers, John M.J.*

3 DISCUSSION SUMMARY

3.1 Challenges

In China, local governments generally own the factories and implement standards. Local governments are more concerned with economic development than with the effects of the pollution in downstream jurisdictions. Further, the local, provincial, and national governments all tend to interpret the standards differently.

In Brazil, multinational industries exercise influence over the government to establish polluting industries in formerly pristine areas with insufficient environmental protection measures. Once an industry is in place, it is difficult to apply new, more stringent standards. Once the harm has been done, it is difficult or impossible to restore the land and water quality.

Since 1990, the number of gold mining operations in Mongolia has undergone a ten fold increase to 149 operations, having a significant impact on 300 rivers and the adjacent lands. Rapid industrial expansion, dominated by foreign industry, has meant that government inspectors need to learn about new technologies and have not had the time or resources to obtain the necessary training.

All nations present experience the challenge of dealing with different standards in different states creating "pollution havens" and an unequal playing field for established industry.

Common training problems include, once inspectors are trained, they move to better paid jobs in the private sector and training being applied in an "ad hoc" manner to address single issues.

3.2 Solutions

Implementing environmental protection measures on a watershed basis involves attention to the entire system and not only the river itself. The Czech Republic employs an "Ecological Stability System" to ensure that all impacts and aspects of natural systems are considered when working to restore them. Austria has amended its legislation to redefine the meaning of the word "river" to include the riparian area as an aid to controlling impacts and maintaining the integrity of rivers systems.

To address the issue of downstream impacts across administrative boundaries, the Chinese central government sets national standards to which provinces must adhere. The watershed that provides drinking water for Beijing is protected from upstream pollution by paying compensation to upstream users so they will not have to depend on polluting industry for their survival. The Slovak Republic has installed "Alert Stations" along the Danube to detect hazardous materials spills. This measure facilitates timely notification of countries downstream and implementation of coordinated response activities in compliance with international emergency response agreements.

In Canada, the challenge of enforcing environmental law in remote areas is partially met by welcoming tips from the general public and undertaking covert operations where appropriate. Enforcement resources are targeted toward known offenders and successful prosecutions are publicized as a deterrent to others.

It is important to implement a comprehensive, structured training system with basic training and regular refreshers and updates. Case studies are very useful as training exercises. Training capacity can be improved in developing countries by sharing of training systems internationally, which may then be customized as needed for the region. Mongolia is sending selected inspectors to foreign countries to learn new technologies. Those inspectors then return to train their co-workers. Some training issues are addressed in the Czech Republic by assigning new inspectors to those with more experience for an "apprenticeship" period. Implementation of new legislation can be improved if government provides training to industry operators.

To provide a buffer against ecological destruction in the face of rapid industrial expansion, Mongolia has committed to increase protected areas from 6% to 30% of the land base by the year 2000.

4 CONCLUSION

The nations represented at the workshop shared the need to focus compliance and enforcement activities toward geographic areas of concern, particularly watersheds. There was recognition that an ecological approach must be employed when protecting drinking water sources due to the downstream impacts of upstream activities. Often, watercourses cross international or internal administrative boundaries, requiring complex and co-operative approaches to problem solving. Protection of resources in remote areas sometimes requires specialized enforcement responses such as covert investigations. Implementation of a system of protected areas can ensure that nature is protected while economic development continues on the remainder of the land base.

Industrial globalization has resulted in the presence of multinational industries developing nations that may not yet have the legislative or technical capacity to prevent pollution of formerly pristine areas. International assistance in development of training systems and also provision of direct training in the developed world can be used to overcome these issues.

ENVIRONMENTAL REHABILITATION OF SUMGAIT, UNDP PROJECT

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SUMMARY

This paper analyzes the "ecological pathology" which has developed in major industrial cities, in particular, Sumgait, Azerbaijan Republic. From a historical perspective, the intense and extensive development of Sumgait failed because of the intense concentration of heavily polluting industry which did not ensure safe industrial systems and well founded requirements for their use. Neither the appearance nor the infrastructure of Sumgait was adequately planned and implemented to address the demands of this concentration of development. The development character of Sumgait and its subdivisions, especially industry, has already predetermined in many respects the ecological situation in the city and in the region. As a result, Sumgait has been listed as one of the priority cities of the former USSR with the most contaminated environments. Ecological rehabilitation of the Sumgait region has been considered, in particular, by establishing a Special Ecological Area and following through on all that follows from that designation to correct past problems and properly plan for the future.

1 SUMGAIT - PROBLEMS AND MEANS OF ECOLOGICAL REHABILITATION

"All is connected with all"; "All must somewhere disappear"; "You get nothing for nothing"; "Nature knows better" - so has formulated Barry Commoner, the author of the remarkable book "Closed Circle," the main laws of ecology in the manner of four aphorisms. Without taking into account these laws, we humans can ruin all alive and ourselves in addition. Regrettably, in many circumstances, we do not take this potential impact into account, but simply underestimate or, like the ostrich, having dug his head into the sand, do not notice them. Then ecological crises arises with all their resulting consequences.

Practice shows that in many circumstances, the obstacles to solving ecological problems often are not found in the technical or financial possibilities of solving a problem, but in weaknesses characteristic to human nature. It is impossible to attribute this to human egoism. Such behaviour is a result of failure to understand what is going on, is shortsighted and insufficient thinking. We should all understand that natural resources protection is key to future prosperity, much more reliable than any inconsistent course of policies. It not only guarantees a country the power required to protect against any threat, but ensures prosperity after threats are addressed.

By calling our ecological crisis a pathology, it corresponds to having been created in ecologically adverse cities. Pathology — is a science, dealing with causes, mechanisms and live organisms in disease situations. One can maintain that cities are subject to the pathology process as well as industrial processes, regardless of their sizes, as a product of a social organism. This phenomena, reflecting deviations from existing ecology-economic, and social, law and moral standards, can be named city pathology.

What are the reasons for this negative ecology-pathological phenomena arising in cities? There are two somewhat contradictory reasons, which can explain the emergence of ecological pathology. According to the first version, cities, originally having been established in order to provide safe and suitable conditions for people functioning and living, at the end turned out to be uncontrollable, while ecology-economic and social processes, once upon a time having begun, continue to evolve , regardless of human being will, preventing its normal development.

The second reason explains the causes of the ecological pathology in the nature of society. Those governing according to "managing groups", who organize a town space and its structure in accordance with their own interests. In this instance for maximum increase of production and profit.

The partial contradiction between these two explanations is based only on the fact that ecological processes are developing simultaneously, spontaneously, and systematically. Only both versions, taken together, can explain ecological pathology.

Historically poor methods and intense development reflected on Sumgait's appearance and its infrastructure, and great mistakes were made when designing safe industrial systems and requirements for their use. This, in its turn, has brought about concentrations of industry, unacceptably large amounts of extremely dangerous chemicals and technologies, which resulted in negative impacts on the population and environment. From the first, the industry of Sumgait, a main source of environmental pollution, developed intensively, covering all aspects of industrial production. High rates of industrial development over an unusually short time (1950-1965) allowed Sumgait to rank among the leading industrial centres of the former USSR. In this period all major industrial enterprises were commissioned, but after there were intensive increases of basic production capacities.

2 MULTIDISCIPLINARY SOLUTIONS

The multidisciplinary nature of the industrial development and accumulated irregularities in its structured subdivisions has created a problem of one-sided development of industry that substantially affected the ecological condition of the city. So, over a period of 1970-1985 the industrial infrastructure including primary development of chemical and petrochemical industries increased threefold, the assortment of products being manufactured also increased considerably. Increases in production capacity and the amount of produced product, has resulted in expanded use of raw material and a growing challenge of cargo turnover, water-energy balance, and amount of industrial waste disposal in the surrounding area.

The nature of Sumgait development and its structured subdivisions, particularly industry, in many respects, has already predetermined the ecological situation in the city and the region, resulting in Sumgait's placement on the list of priority cities of the former USSR with the most polluted environment. Excessive industrialization has also brought deformation of the population urbanization process, where an intensive transition of the labor force from rural regions of the Republic (especially west, adjacent to a border with Armenia) into the industrial area took place. When the main factor of economic growth is industry, into which main capital investments within a long time are channeled, production dominates simple and extended labor force.

Under the socialist planned economy, when in a literal sense all is planned and financed from one Center, this means that strategies bring profit to the Center. This inevitably leads to losses to everybody involved in this strategy. When a certain level of industrialization

is exceeded, the damage, inflicted by polluting the environment, exceeds profits from industrial production. Despite having reached huge economic successes, the extensive way the city was industrialized has already brought by the middle of the 1970's, extensive environmental pollution in the region:

- First, the industrial complex of the city is characterized by a high degree of concentration of industrial production, that is 6 times greater than any corresponding factor in the Apsheron economic region. This is true for the capital Baku as well, also, in contrast with many other industrial centers of the former USSR.
- Second, factories are characterized not only by low technical and economical factors, but by high materials consumption, energy consumption and low share of product, generated the effect of which became a greater amount of non-utilized by-products and wastes.
- Third, extended exploitation of physically worn-out equipment leads to unstable work, frequent damage, and increases of uncontrolled and volley exhausts. The absence of goal-directed work on modernization and renovation of operating industries in "stagnant" times has brought about the fact that more than a half of industrial complex equipment is in use more than 20 years, 7 percent more than 30 years and etc. The collapse of the former USSR founded on the communist ideas has left an inheritance both in achievements and its problem. The negative development of social-political processes on this enormous territory, economic relationships' breach have brought about significant isolation of not only sovereign Azerbaijan, but its industrial base as well. In particular, Sumgait became the reason for rapid decline of industrial production, loss of traditional raw materials markets, intensification of the economic and financial crisis, reduction of social-ecological programs, etc. Having been established over the years as the industrial center it faced the threshold of inconvertible destructive processes, further development of which might have become a catastrophe on a national scale.

In these complex conditions, in the Spring of 1994 in accordance with the initiative of the president of Azerbaijani Republic Heydar Aliyev, a global scale of work was started to create a "Free economic area" on the territory of Sumgait on the basis of new economic relations. One might think this bold idea, aside from solving greater social-economic problems, has enormous political value in recovering the prestige of Sumgait in the eyes of the world. Azerbaijan's political and economic independence and organization of "Free economic area" on the territory of Sumgait has put in principle a new system of goals in solving ecological problems of the city, achievement of which requires complex consideration of economic problems from the point of view of environmental requirements and radical change in the forms and methods of identifying optimal options of city development.

One can speak about problems facing us only after having answered a question - what and how are we going to rebuild? "Serious problems, which we face, cannot be solved on the same level of consciousness, which characterized when we generated these problems". These words of great Albert Einstein can serve as a starting point where the first difficult step has already been made. In the opinion of foreign and local experts, one of the most important documents, when creating free economic areas is their ecological safety. This concept that must be defined by:

- Ability to understand the situations created by new conditions.

- Prevention of ecological crises prevention with the cardinal change of goals, priorities for development and interactions.
- Complexity and systematic character of the work being conducted.

3 APPLICATION OF ECOLOGICAL CONCEPTS

The application of ecological concepts is designed to solve these problems as well as provide rational natural resource usage and demographic problems. With democracy and a market economy, a new approach must raise the economic and environmental work of the city to a higher qualitative stage, rationalizing economy of all types of resources, material, raw material and energy, integrated economic development decision-making. Practice shows that it is impossible to achieve success in natural resource protection, by solving only selective problems or trying to save some resource separately from the rest. It is impossible to solve ecological problems piece-meal. We often ignore this important principle and never completely use it in practice. Which is why future development should be based on the following basic ecological policy principles:

- Not analysis, but an action oriented program must be the final product of ecologically sensitive development planning.
- Priority must categorically be attached to programming and to scientific studies more closely related to activity and activity types studies, in the first place, programming and organizational management.
- Changing city facilities and structure with an orientation on scientifically based resource saving, wasteless technologies, which solve the ecological crisis. No matter how many treatment facilities we build, commissioning them behind by 10-15 years we only enlarge the polluting of the environment.
- Rebuilding of city facilities should be based on new value systems: scientific, religious and artistic. Only new, ecology-based value systems can ensure a radical rebuilding and only such rebuilding is capable to lead out us from the ecological dead end.
- Transition from natural prevention to activist approach in forming ecological policy.

Programming regional facilities with ecology-based technologies are much more effective, than attempting to build large-scale often delayed and of poor quality-treatment facilities.

- It is necessary to change the basis of our activities, rather than helplessly fight with the mounting environment pollution.
- It is necessary to do more programming and less building.
- It is necessary to think on a global scale, but act locally.
- It is necessary to change our environmental strategy, based on a natural approach, on activist strategy.

- Ways of ensuring of Sumgait ecological safety with the account of prospect and nature of development of industrial production complex should be a result of ecological safety concepts. Guidelines on how this complex can work are as follows:

  - Priority capital investments, as well as foreign investments should be directed to the reconstruction and technical renovation of operating industries for a maximum renovation from main funds.
  - Further specialization of enterprises on the basis of local raw material resources using modern technology in combination with integrated processing to avoid product wastes.
  - Realization of measures on the environmental protection, ensuring major improvement of ecological situation, including mainly development of processes with technological recycling etc.
  - The ecological concept under development must be targeted on the struggle with causes of disasters, rather than with disasters themselves.

Causes are to be eliminated in time to avoid consequences. This process should be thought-out, unceasing and systematic, rather than be dictated by emergency and be forgotten in regular conditions. The only thing is clear that, demolition and transformation of what we got in inheritance is a rather complex task, which will require from us a new thinking, patience, hard and purposeful work.

FOREST POLICY IN EL SALVADOR

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SUMMARY

As a result of the 12 year long armed conflict that was finally ended by the signing of the Peace Treaty on 16 January, 1992, El Salvador entered a new process of democratization and interest in the local environment, this only by the intervention of the United Nations. It is thus a completely new atmosphere in which environmental organizations are trying to contribute to creating awareness of environmental issues.

There is still a big effort needed to change the sad fact that El Salvador is one of the most deforested countries in all Latin America (together with Haiti). As part of the peace process, an ombudsman institution was created in 1992. One of its departments was dedicated for the purpose of protecting fundamental environmental rights (3rd generation of human rights, the right to live in a healthy environment). This right has been taken in seriously by a number of Salvadorean non-governmental organizations that are struggling to break with the traditional structures of the society, where only business and economic issues are relevant.

Finally after years of lobbying and with a new political constellation of the National Parliament, an Environmental Law was adopted in the beginning of this year (May 4, 1998), actually the first Environmental Law that has ever existed in the country. Also, several international treaties and conventions that earlier were only signed, are now in the process of being ratified by the Parliament and the President, which represent a big step forward for El Salvador. As an example of this, can be mentioned the United Nations Treaty on Desertification, that was signed and ratified last year.

The question now is, whether we are really facing a spirit of good intentions, or rather a simple compliance with the international trend in order to capture international funding. Only the future will reveal if necessary steps are taken to implement drastic changes as are required. In the following pages, we present the results of the proposed forest policy that soon will be subjected to approval. Due to the large production and consumption of timber and firewood in El Salvador, this policy it is often identified as an economic policy not an environmental one. Thus, the environmental aspect of this policy is marginal. However, this is precisely why it is believed necessary to begin giving the environmental benefits preeminence.

1 INTRODUCTION

The forest policy has priority in El Salvador, amongst other issues, due to its critical ecological importance in the integrity of Salvadoran life, now and in the near future. Also, through public declarations and statistics that identify El Salvador as the most deforested of the subcontinent, various government officials have recognized the gravity of the deforestation problem. For 5 years, the government and private businesses have been talking

about the necessity of creating a Forest Law and incorporating it into forest incentives to outline the roles between the government and private business for management of the forest resources.

Although a forest policy isn't explicitly written yet, it is the forest law that has been used as "policy" to establish objectives and programs, and as a mechanism to regulate the use and/or exploitation and/or protection of forest resources. The current situation for implementing the forest law, or creating the forest policy is not ideal. The International Treaties signed and ratified by our country relating to forests, although they are republican laws, are almost unknown by the population and many times by the same officials in charge of applying them.

The participants in all the process of Forest Policy, including the definition of the problem, establishment of objectives, goals, strategies and elaboration of the document, were:

- Direction of the Green Project (USAid).
- Ministry of the Environment and Natural Resources (MARN).
- and Ministry of Agriculture and Livestock (MAG).

Further institutions of private businesses include:

- 2 People of the Forest Corporation, private wood business.
- FUSADES (Salvadoran Foundation for the Economic and Social Development that amalgamates the big private businesses of the country).
- Representatives from the Bank.

2 WHAT BASIS AND STRATEGIES STIMULATED THE CREATION OF THE FOREST POLICY?

The basis of, and strategies which stimulated, the creation of the forest policy began through popular present and past interests for the realization of this policy. Amongst these there has been pressure for the country to define and/or subscribe a forest policy through international agreements, some by means of regional, subregional and universal agreements. The principal one was "Agenda 21" of the Earth Summit, Rio de Janeiro 1992, of which followed agreements that later transferred into Treaties of Conventions. Three of these were signed and ratified by the country and are known as:

- Agreement For the Struggle Against Desertification and Drought.
- Agreement of Climate Change.
- Agreement of Biodiversity.

Further pressure for a forest policy came from the creation of the Central American Commission of the Environment and Development and other agreements celebrated in other international forums, such as the Summit of the Americas.

However, the focus and direction contained in the forest policy is given by the neo-liberal market, representing the private timber business with very evident links with members of the government in power. In addition to the listed participants in the creation process, there were strategies used by organizations and individuals from civil society to further the forest policy, including:

- The declarations made through the media to the forest service of MAG, to the Ombudsman for the Defense of Human Rights, that there exists a fundamental problem of logging forests in rural and urban areas.
- Pressure before executive body and legislation from CESTA for the government to sign the convention of Struggle Against Desertification and Drought.

In knowledge obtained from recent political documents, Ministry of the Environment and Natural Resources and Ministry of Agriculture and Livestock were called non-governmental institutions to obtain a facade of "environmentalism". However, despite this front, we know that the interest of directors and managers for the forest policy was obtained through the policy or the law of "Green Stamps", so that they would be able to export without problems and sell their products on the international market. In this situation, the campesinos, who are most in need of credits, are not subject to either benefits or credits.

The group responsible for the Forest Policy (Ministry of the Environment and Natural Resources and Ministry of Agriculture and Livestock) had prepared a "Forest Action Plan" of reforestation to "delay the campesinos" after the Post-War as part of the actions of policy. However, the campesinos showed no interest — they expected some advantage of credit, labor in their community or economic support.

In the final document made in Dec. 1997 in Monte Cristo, one of their paragraphs says: to "define the role of the state as to the protection, conservation and restoration of natural resources, generation and dispersal of technical information to orient forest production, mechanisms of community self-administration for the management of the forest, promote forestry that stimulates the private forest sector to dedicate resources for reforestation, management, harvest, industrialization and commercialization of forest products. Also, it is proposed that the activities of standardizing and facilitating the orientation to the forest sector must be left to the state to make a free market economy."

Regarding the forestry problem, according to the World Bank in 1997, the actual vegetative cover is between 3-5 % of the national territory and the protected zones are under 0.2 % of the territory. For the "National Environmental Strategy" the situation of forests is the following:

- The national land possesses 2 % original forest, 12 % of forest cover, 2 % mature forest.
- A large part of the soils suitable for forest and lands of protection are deforested, covering 48% of the land cover of the country, contributing to the loss of natural resources.

The annual consumption of forest products totals 4.9 million m3 of which 93.5 % (4.6 m3 cubed) is consumed as firewood, signifying the major volume of forest products is destined for the production of energy. Of this, 3.9 millions of m3 is generated in rural and urban hearths and 0.7 m3 is industrial energy used for brick and salt factories. In regards to the "salt forest" and the exploitation of the mangroves, of the 100,000 hectares that existed in 1950, it is estimated that in 1989 only 26,000 hectares of mangroves existed.

Documents prepared and distributed by the Ministry of the Environment in collaboration with USAid say that these figures coincide with increasing population and suggest that overpopulation is the principal cause of deforestation. According to these documents, this is due to excessive use of firewood; "*it is the growing population that

demands the firewood, wood for construction and for rural infrastructure, paper, resins and others. This situation leads to the loss of approximately 98,485,131 metric tonnes of eroded soil per year."

It is determined that the repercussions of these phenomenon stretch across the productive sector, in particular to agriculture, industry and the rest of the population. Further, loss of forests and soils also damage to the productive infrastructure, particularly by the sedimentation of rivers by hydroelectric dams. Even though the ecological impact of deforestation is evident, studies have not been done to quantify their magnitude. (Estrategia pp. 33).

These repercussions listed by the Ministry of the Environment don't concur with those of the workers of the Forest Service who say that the rural population is the most affected sector of the forest problem. As the rural population lives directly from these resources, the lack of water affects them on their cultivated lands promoting erosion and lowering cultivated outputs. As a consequence they need to use more insecticides and fertilizers to be able to obtain higher outputs and resources to combat plagues and sicknesses.

Continuing with facts of the National Environmental Strategy, deforestation causes various ecological problems including:

- Erosion of the soils, therefore lowering the productive capacity.
- Deterioration of the capacity of ground water storage in hydrological reserves.
- Noxious and harmful alterations to the climate.
- Deterioration of the countryside and loss of tourism opportunities,recreation and education.
- Loss of biodiversity.

Although the problems are detected by the population, there has been no emphasis placed on the causes of such harms nor the real magnitude of such drastic changes. Official facts published in the documents of National Environmental Strategy, Forest Policy, include a discussion about politics and forest incentives but don't identify problems found by civil society, especially those found by environmental groups and by neighboring associations. CESTA, among other environmental groups, has been declaring abuses of forests in El Salvador since 1987 especially those made in the metropolitan area of San Salvador. These areas have been logged primarily by construction companies within which, activists found representatives of the big capital members of the ANEP (National Association of Private Business).

In the controversial issue of El Espino Farm (a forest in the metropolitan region of San Salvador) being an area of dispute between one family and the cooperatives (the actual owners), there were two orders declared constitutional that divided the land and permitted logging for urban development. In this way, the petition made by environmental groups, including CESTA, that was put before the conservative-dominated Legislative Assembly requesting that this area to be declared as an "Ecological Reserve Zone" or Forest Reserve, was refused. This demonstrates, once again, that the environment is merely a theme of conferences and of multinational agreements, but in reality, the government and private business sector represent the big capital investors, not the forest nor the general population.

COOPERATION BETWEEN LEVY-INSPECTORS AND ENFORCEMENT INSPECTORS: A MORE EFFECTIVE WAY OF ENFORCEMENT

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SUMMARY

In 1994 an investigation was carried out by the Dutch Court of Audit on the control policy of the levy-system of the Pollution of Surface Water Act by Rijkswaterstaat.

It showed that -according to the Court- the control policy was not clear about the whole range of possible financial revenues for the State. A special action showed that there is a cost-effective way to get more certainty of the possible revenues.

Also it showed that more communication leads to a more intensive cooperation between levy-inspectors and enforcement-inspectors and so to a more effective way of enforcement.

1 INTRODUCTION

1.1 Water Management in The Netherlands

The Netherlands is an area of 34,000 square kilometers where land and water meet. A large part of the land is artificially developed, cultivated by people and made suitable for living, building, agriculture and horticulture, industry and recreation.

The many dikes, locks, pumping stations, flood barriers, canals and ditches keep the Netherlands habitable. Without these water engineering works more than half the country (where more than half of our fifteen million people live and work) would not exist.

National government and the Water Boards are largely responsible for the important aspects of water management. Nowadays this goes a lot further than constructing dikes and building pumping stations. The activities of the Water Boards are now much more closely related to other activities which include land-use planning, nature conservation and environmental protection, and recreation, etc.

The National Government is largely concerned with legislation, policy-making aid funding. However, national government also handles the licensing of the larger polluters, the subject of this paper.

1.2 Water Management: Organization

The Water Boards are responsible for local and regional water management. This is stated in the Constitution and the Water Authorities Act.

The provincial authorities are able to set up and abolish Water Boards, determine the water management tasks which have to be done by each Water board, the area in which it will work, the structure of the governing body and how its members will be chosen. The Province also supervises the work and the finances of the Water boards.

The national government, which has authority over the Provinces, is the final body which is responsible for proper water management throughout the country. The government (in particular the Minister of Transport, Public Works and Water management) is responsible for water management affairs of national concern, the main water system or State waters: the North Sea and the Wadden Sea, the major rivers, the water in the estuaries and the Delta Works. The Ministry of Transport, Public Works and Water management has its own executive body for this: the Directorate-General for public works and water management, Rijkswaterstaat. This Directorate-General is responsible for policy-making, legislation, policy-evaluation and maintenance of the main water system.

1.3 Water Quality Management

The tackling of water pollution problems actually started well after the Pollution of Surface Water Act was put into operation in 1970. This law forbids the discharge of polluted substances into surface water without a license. Besides that, the law includes a charge system according to 'the polluter pays principle'. The pollution index is based on the content of organic pollution measured in Biological Oxygen Demand or Chemical Oxygen Demand and the content of heavy metals.

In 1970 water quality management mainly meant making sure that water was clean enough for people to use again. The water should be suitable for conversion to drinking water, for use in agriculture, horticulture and in industry. Nowadays the water authorities are responsible for water as part of the ecosystem; i.e. water must be clean enough for the plants and animals which live in it. Nevertheless water management is still occupied with reducing water pollution. A lot is being done to reduce waste water. The discharge of industrial and other wastewater has been reduced by the use of strict controls as stated in discharge permits. These measurements have resulted in better water quality. Besides licensing and enforcement, the use of 'the polluter pays principle' has had a great influence on the results that have been gained until now.

1.4 Water Quality Management by Rijkswaterstaat

Carrying out water quality management of the State waters by Rijkswaterstaat means licensing, enforcement and levying. Approximately 225 men and women are taking care of that task. They are responsible for 3600 discharges of waste water varying from households to complex industries. Besides that some 150 men and women work on policy making, evaluation, research and monitoring water quality.

During the last ten years the public and political attention to enforcement of environmental acts and licenses has grown .

Before that enforcement did not draw as much attention as licensing and levying. Now the instrument of enforcement is just as important as licensing.

Enforcement of the Pollution of Surface Water Act for the State Waters by Rijkswaterstaat is carried out by about 100 men and women from the regional offices. Enforcement is now based on national policies and the results are reported back to the members of Parliament.

Enforcement of environmental laws is thereby an organizational and substantial responsibility of national and local government.

Each year Rijkswaterstaat makes 7,000 visits to industries, takes about 12,000 samples of wastewater and has the laboratory in Lelystad make more than 82,000 analyses.

2 LEVIES

2.1 Renewed Attention to Levying

An important element within the framework of the Pollution of Surface Water Act was and still is, the levy system according to 'the polluter pays principle'. From the beginning in 1970, polluters, mostly households and industries, have been paying for water quality management in the Netherlands. As mentioned before, the pollution index is based on organic pollution and heavy metals. From the seventies until now households and industries which discharge into State waters, have paid levies of more than 2 billion Dutch guilders.

Initially levying and licensing was much more important than enforcement.

In the eighties political attention focusing on an environmental scandal emphasized the importance of a good operating system of enforcement. Everywhere in the country new sections were created for the enforcement of the Pollution of Surface Water Act. Because enforcement follows naturally from licensing the attention paid to levying became of secondary importance.

Policy is executed by the levy-inspectors of the technical institute RIZA of Rijkswaterstaat which is situated in Lelystad.

In 1994 an investigation by the Dutch Court of Audit on the policies for the levy-system of the Pollution of Surface Water Act by Rijkswaterstaat showed that according to the Court the policy in regard to monitoring and oversight of the levy system was inadequate. It did not give enough oversight of the whole range of possible financial revenues for the State.

The level of assessment is based on the analyses of the waste water by Rijkswaterstaat but also on an application form returned by the polluters.

The consequence of this is that there is a certain risk of fraud and possible uncertainty of the revenues for the State. This uncertainty must be limited as much as possible by an adequate control policy.

As a result of the research of the Court of Audit, levying has again got the attention it deserves.

2.2 'Action Storage'

In 1995 and 1996 'Action Storage' was carried out to investigate the effectiveness of the control policy of the Surface Water Pollution Act by Rijkswaterstaat and to investigate if intensification is a cost-effective way to obtain more certainty about the possible range of revenues.

2.2.1 Execution

The investigation was executed in seven companies of the same industry. Within this sector Rijkswaterstaat expected the highest risk of fraud. All the companies were asked for their cooperation without informing them completely about the purpose of this action. The application forms of the seven companies are all based on their own measurements.

Sampling-apparatus of Rijkswaterstaat were placed during a longer period so that it was impossible to hold up the discharge of the waste water. These sampling-apparatus were placed in a closet that was locked. Those closets, sampling-apparatus and tubes were all sealed. Of course the pieces of apparatus were as far as possible operating independently

of the companies, for instance making use of batteries. The waste water as well as the surface water was sampled continuously. At different moments the discharge measurements of the companies were checked with measurements by Rijkswaterstaat.

2.2.2 Results

Normally the total load of pollution of those seven companies together amount to 10,000 Inhabitants Equivalents. The returns of the companies were corrected to a total of 14,500 Inhabitants Equivalents due to this special investigation. This means an extra income for the Dutch State of fl. 250,000. The direct costs amounted to fl. 100.000.

The yield of the levy with these companies was increased by 45 percent. Take notice of the fact that more than half of it can be attributed to one of the seven companies alone. If you keep this in mind it proves that this cannot be an average for the total yield of all industries in the Netherlands.

During the preparation and execution of this action the industries were visited frequently by levy-inspectors as well as by enforcement-inspectors of the regional offices of Rijkswaterstaat. This intensive cooperation revealed for both inspectors unknown situations. Apart from the fact that some industries appeared to be so complex that only after an intensive and total investigation could differences from a normal situation be detected. Meanwhile appointments have been made to continue this cooperation between levy-inspectors and enforcement-inspectors.

Levy- and enforcement-inspectors have different responsibilities. During the execution of this action it became clear that a gray zone existed. It was for instance not obvious who was responsible for the communication with the company. Since then the responsibilities have been described and a course book has been written with special attention to enforcement-inspection and the issuing of permits. During the summer of 1997 eighty percent of people concerned have taken a special course

In certain cases there was not enough information on the normal conduct of businesses to determine differences. This was due to the fact that these companies were not visited enough. Since then, the frequency of visits to more risky companies has been increased to a more acceptable level.

During this 'Action Stage' it appeared that important information about the conduct of businesses was not only gained by the regular contact persons but also from employees present on the site/on the work floor. Those are often less suspicious and more open than the official representative of the company.

In summary, actions like this form an important addition to the normal and routine-controls by the regional offices of Rijkswaterstaat.

3 CONCLUSIONS

Special targeted intense investigations in which activities for selected targets are undertaken over an extended period of time are both financially and otherwise a success. Especially the learning process of the regional offices and the RIZA was of great value. With the newly obtained knowledge more specific targeted monitoring and enforcement are possible.

The costs are relatively high. Due to the intensity it is not to be expected that the costs of further actions will be lower. The obtained knowledge and experience cannot be quantified in monetary terms, but is certainly valuable.

Since then Rijkswaterstaat has decided that these kinds of actions have to be part of the control policy for the levy-system of the Surface Water Pollution Act.

The more intensive communication between the enforcement-inspectors of the regional offices and the levy-inspectors of the RIZA in Lelystad has led to a more effective cooperation between those two parts of Rijkswaterstaat.

THEME #5

INTERNATIONAL COOPERATION/TRANSBOUNDARY COMPLIANCE AND ENFORCEMENT ISSUES

International cooperation has become an essential element of most environmental protection and enforcement programs due to: 1) globalization of trade raising the needs for both fairness and sustainability, assuring that the benefits of free trade are not eroded by unacceptable environmental and related social costs, 2) shared environmental resources whose quality is affected by the ability of border states to achieve the environmental benefits and protections of regulatory compliance, 3) patterns of pollution, illegal waste and illegal chemical transport that cross many borders and 4) the seemingly exponential growth of criminal activity which seeks to take advantage of both perceived and actual weaknesses in environmental enforcement internationally to avoid legitimate costs of environmental protection.

The discussions used as a point of departure results of consultations on enforcement undertaken at the direction of G-8 environmental leaders on problems and initiatives to address illegal trade in CFC and hazardous waste, results of experience in international cooperation in environmental enforcement through bilateral and multilateral networks such as IMPEL in the European Union, the CEC in North America and INTERPOL on a global basis. Discussions will build on papers and results of workshop discussions at the Third and Fourth International Conferences. Discussions also benefited from the "Potential Projects List" commissioned by the Executive Planning Committee to promote global and regional networking. This document lists and contains descriptions and results of actual and potential projects for international cooperation in networking, capacity building and enforcement cooperation. Discussions also drew upon the technical support document prepared for the Fourth International Conference on "Transboundary Illegal Trade in Potentially Hazardous (Waste, Pesticides, Ozone Depleting) Substances."

Theme #5 Workshops:

- *5 A Illegal Transboundary Shipment of (Hazardous) Waste*
- *5 B Compliance with International Environmental Agreements: Focusing on Montreal Protocol and CITES: Illegal Shipments of CFC and Other Ozone Depleting Substances and Illegal Trade in Endangered Species*
- *5 C Illegal Shipments of Dangerous Chemicals Including Pesticides*
- *5 D International Enforcement Cooperation to Protect Shared Resources and Prevent Transboundary Pollution*
- *5 E Collaborative Targeting of Enforcement on an International Scale*

SUMMARY OF THEME #5 PANEL DISCUSSION: INTERNATIONAL COOPERATION/TRANSBOUNDARY COMPLIANCE AND ENFORCEMENT ISSUES

Moderator: Andreas Gallas
Rapporteur: Jo Gerardu

1 INTRODUCTION

International cooperation is an essential element of most environmental protection and enforcement programs. This is due to:

- globalization of trade and fairness and sustainability not causing unacceptable environmental and social losts;
- shared environmental resources;
- pollution and waste crossing borders; and
- growth of criminal activities to avoid legislative costs.

The results and needs for international cooperation will be reported.

2 PRESENTATIONS

2.1 Experience of the People's Republic of China with Illegal Transboundary Waste

Mr. Hongjun Zhang provided an overview of the experience of the People's Republic of China in handling several instances they discovered of illegal shipment of hazardous waste from other nations within Asia, from Europe and the United States. Specific cases were described from both the detection and resolution of the cases with international cooperation in removing the illegal wastes from the country. Priority was given by the government to strengthening China's laws addressing legal disposal, treatment and storage of hazardous waste and to train and equip government staff to address the problem. After some very high visibility cases with a strong response to the violators, these instances of illegal shipment have decreased dramatically, but they continue to be vigilant.

2.2 UNEP Support for Enforcement in International Environmental Agreements

Mr. Lal Kurukulasuriya described UNEP's support in helping negotiations of international environmental agreements including Basel, on transboundary movement of hazardous waste, ozone regimes including the Vienna Convention and Montreal Protocol, biodiversity and desertification at the global levels, and at the regional levels a wide range of issues such as the regional seas program and the Convention of Southern African States on promoting the conservation of Wildlife. Now UNEP support is directed at the Convention Secretariats to implement decisions of the Conference of Parties commemorated in these conventions. Another effort on the part of UNEP is to help coordinate the work of the Secretariats to ensure the efforts are cost-effective there has been a fair amount of overlap. In more recent times, there has been a request to UNEP for assistance in helping with regional agreements relating to transboundary issues such as air pollution and management of international water resources. This is an area of focus in years to come. When one talks

of international cooperation among the nations implementing a regime that relates to addressing a particular environmental concern the role that UNEP plays is to galvanize support to the parties and strengthen their capacity to implement these conventions. In the last 10-15 years UNEP has been involved in both areas of support. Mr. Kurukulasuriya provided examples of how UNEP promotes collective action and cooperation under the CITES, Montreal Protocol and Basel conventions to support the member parties to the conventions. In regard to CITES, on a regional basis the Secretariat receives information from various sources on possible shipments of prohibited species and sets in place alerts to customs departments to manage and control the situation. Efforts of the Secretariats have succeeded on a number of occasions. The Basel Convention implementation involves an active role in disseminating information on impending possibilities of illegal shipments of hazardous waste. Information and support are used to mobilize resources to deal with transgressions. In the case of the Montreal Protocol, the Secretariat helps through multilateral fund to help support achievement of cutoff limits on ozone depleting substances. This has resulted in a significant decrease in the use of Ozone depleting substances. International registrars for toxics, IRTPC, Secretariat in Geneva collected a significant body of information on chemicals and other substances traded within the purview of this instrument. Support of implementation of multilateral Agreements involves four strategies: 1) responsiveness to the demands of the states; 2) help support the development of authorities and activities that are country driven; 3) partnership among international organizations; and 4) development of practical, results oriented activities within the absorptive capacity of the countries. The International Network for Environmental Compliance and Enforcement (INECE) process provides a huge reservoir of information, materials, expertise and experience at a global level dealing with implementation of international conventions. We will be discussing tomorrow how we can take this one step further to the national and regional levels.

2.3 Lessons from IMPEL Projects

Mr. Kees Boekel noted that the specific topics of hazardous waste and ozone depleting substances had been discussed at previous conferences. There are many steps in the right direction but at the same time an adequate level of compliance and enforcement has not been achieved worldwide. The question is how the efficiency and effectiveness of enforcement can be improved and in particular how cooperation among relevant official bodies in each of these areas be reinforced to achieve this. Out of the meeting of the G-8 leaders this year came a strong statement on a commitment to develop cooperative efforts to combat environmental crime, specifically ozone depleting substances and transboundary movement of hazardous waste. The statement stressed the importance of formal and informal networks such as INECE, IMPEL and those of the UN. Since illegal affairs are still being discovered in transboundary transport, pilot projects in the European Union in the context of IMPEL were set up to harmonize enforcement of European Environmental Legislation. The Transboundary Projects were set up to learn to cooperate despite differences to achieve a more permanent network. All European Union countries now are participant in the transboundary project carried out with monitoring of selected waste flows, visiting companies and carrying out transport inspections in a coordinated manner. This year a project year a project was carried out between The Netherlands and Germany in the River Rhine, a major transport route connecting Rotterdam with inner Europe. Environmental authorities worked together with police and customs officials. The Basel Secretariat was also involved to link to information on worldwide activity. It represented a considerable strengthening of enforcement efforts with inspections of facilities and transport up and down the length of the Rhine.

In Europe through Impel they have also set up and starting an initiative on CFC's to address ozone depleting substances. Mr. Boekel recommended several areas where increases in cooperation for enforcement of Basel and the Montreal Protocol are necessary based on these experiences. First, a large number of participants are involved and the efficiency and effectiveness of enforcement needs more structure. Specifically joint enforcement targeting is needed to specific sources. We must embark on these structure projects to learn to know each other and learn by doing within the context of existing mechanisms for cooperation such as within the European Union. Three components are important: a) enforcement strategy, b) cooperation in practice and c) provision of information. In regard to enforcement strategy, each project should have established priorities, targets and desired outcomes. A unified approaches is needed as well including provision for prosecution, return of the waste, and publicity. In regard to cooperation, more joint enforcement is needed to show progress specifically inspection activity. Multi-year workprograms are needed and the focus placed not only on transport but also on disposal. The technical and administrative aspects of working arrangements have to be specified throughout the chain including customs and police. Education and training are needed along with harmonization of inspector protocols. Finally, in regard to information, the Secretariats of Basel and the Montreal Protocols have an important role which could be expanded. From notification to material stream, to processing capacity we need to operate off of this information. To make this happen, INECE needs to put this before the regional INECE networks as well to develop specific enforcement cooperative projects.

2.4 The Role of INTERPOL and Criminal Enforcement to Address Illegal Shipments Under International Environmental Agreements

Mr. Earl Devaney noted that there is now general agreement that without strong laws and consistent fair enforcement that environmental objectives cannot be achieved. It is also clear that international public opinion and most nations have reached a consensus that knowing violations of environmental law are properly viewed and prosecuted as crimes. The G-8 ministers specifically highlighted the role of both enforcement and criminal enforcement in particular to address these crimes. The common basis for these crimes is a deliberate attempt to save money or to make money. INTERPOL has been in existence a very long time. In 1992 it embarked on the mission to address environmental crimes and has held an annual meeting in Lyon to address it among the 177 nations now part of the INTERPOL network. One of the most successful developments is the creation of the Eco-message system to aid in creating secure communications among law enforcement personnel of the various nations. Because of the high degree of cooperation among the law enforcement community internationally, Mexico was able to shut down a sham recycling operation and the U.S. was able to stop a waste broker from illegal movement of hazardous waste exported from Belgium. Because of this system, the U.S. was able to cooperate with the People's Republic of China by communicating through Interpol about illegal shipment of hazardous waste coming from California to the PRC. More important, because of these communications and cooperation we were able to identify a bigger problem and formed regional networks involving federal, state and local environmental and law enforcement officials to thwart additional attempts to illegally export hazardous waste.

Mr. Devaney emphasized that within the U.S. networks are essential for effective criminal enforcement. Even within his own office, he needs to draw upon and unify investigators, prosecutors, forensics specialists and training functions.

3 DISCUSSION

A question was asked of Mr. Kurukulasuriya concerning the Trade and Environment. UNEP's Division in Geneva is working in close collaboration with the Environmental commission of the World Trade organization to bring into focus environment and trade issues. The opposite is also true that they regularly review the impact of multilateral agreements on trade. A question was also asked about whether UNEP is involved in the Multilateral Agreement on investment that is being drafted. Mr. Kurukulasuriya indicated that he was unfamiliar with this agreement but was sure that UNEP would be consulted. A question was asked about the potential loss of sovereignty and how that was addressed within the European context when they cooperated on enforcement, indicating that these concerns have been raised within the Americas in the Amazonian and also the Andean Pact countries. The response by Mr. Boekel indicated that the answer comes from cooperation and not a loss of sovereignty. Once these nations have come to work closely together and help each other reach common goals this is not an issue.

A further question was asked about whether the enforcement projects involving coordinated inspections and have resulted in real enforcement with real consequences including fines or penalties. Mr. Boekel indicated that there has been general agreement in conducting these projects that the violators should be fined given the seriousness and impact of illegal movement of hazardous waste, for example. They reached agreement in advance with public prosecutors to gain their support and cooperation in following through on violators that were detected.

During the discussions, the importance of NGO participation was stressed in regional, national and global networks for enforcement. UNEP will develop more programs to involve NGOs in the near future. Also it was pointed out the new Prior Informed Consent Convention (PIC) will have to develop enforcement mechanisms and strategies.

WORKSHOP 5A
ILLEGAL TRANSBOUNDARY SHIPMENT OF (HAZARDOUS) WASTE

This topic has been addressed at previous international conferences, has been monitored by the Basel Secretariat within UNEP and specifically reviewed in a consultation of enforcement officials commissioned by the G-8 environment leaders. The INECE wished to make progress at this Fifth International Conference workshop by defining specific measures that enforcement officials around the globe believe are needed to create a more effective deterrent to put a stop to illegal activities in the shipment of hazardous waste and household waste that is mischaracterized or contaminated with hazardous waste.

Papers 1 - 5 for Workshop 5A and a list of related papers from other International Workshops and Conference Proceedings are in see Volume 1

SUMMARY OF WORKSHOP: ILLEGAL TRANSBOUNDARY SHIPMENT OF (HAZARDOUS) WASTE

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GOALS

Discussions were designed to address the following issues:

- Ways violators are circumventing provisions of the Basel convention and other laws governing the legal shipment of waste and how violators are being detected.
- How procedures and other requirements could be better communicated, understood and followed.
- How illegal activities are identified and the experience of enforcement personnel in defining the information that is needed to identify such violators.
- Responses taken to address violators and why, and how effective they have been.
- The need for formal and informal lines of communication and the nature of information and to whom it must be shared among law enforcement personnel, customs officials, environmental managers and environmentally enforcers domestically.
- Types of bilateral and multilateral international cooperation and information sharing and whether they have been useful. The level of cooperation and information sharing between and among national enforcement organizations necessary to support effective enforcement.
- Design and implementation of waste tracking systems for transboundary shipments and linkages of domestic systems to those of other nations.
- Recommendations for initiatives to fill gaps, identify the institutions and actions needed to facilitate effective enforcement and overcome particular problem areas in enforcing these types of requirements.

1 INTRODUCTION

Participants from 16 countries met to discuss their experience with methods for limiting, detecting, and enforcing regulations on the illegal import and export of hazardous wastes, toxic chemicals, or contaminated products. They presented views on the most important aspects for countries to consider in implementing programs to limit and respond to illegal shipments of hazardous waste. The discussion ranged from views on the networks needed within governments for effective compliance promotion and enforcement to the need for international access to high quality information on illegal waste shipment activity. While

some nations argued for an international regime that banned all trade in wastes, other recognized that existing strict controls and high costs for lawful disposal drive the black market in illegal shipments and disposal and urged the improvement of enforcement mechanisms and technologies.

The importance of enforcement of laws and international agreements governing trans-boundary waste shipments was apparent to many countries as a result of specific instances of unlawful shipping and the recent dumping of waste reported by India, Brazil, Nigeria, and China. All those present were interested in increasing international cooperation and information exchange on these issues.

2 PAPERS

Papers dealing with the subject can be found in Volume 1 of the proceedings under headings as follows:

- China's Control Over Illegal Shipments: Legislation and Enforcement, Zhang, Hongjun, p. 623.
- Hong Kong's Experience in Control of Illegal Shipments of Waste, Lei, Patrick C.K., Wong, C.F., and Kwong, Vincent Y.P, p. 627.
- Liquid Waste Management in Western Australia: A Case Study in Enforcement and Compliance, Parker, Adam J., Davies, N. J. and Rychner, H p.221.
- The G-8 Mandate for Expanded Cooperation to Combat International Environmental Crime, Recent Developments in the United States, and a case study: Project Exodus Asia, Devaney, Earl E. and Penders, Michael J. p.337.
- Transboundary Environmental Crimes: German Experiences and Approaches, Gallas, Andreas and Werner, Julia, p. 375.

On page 620 of Volume 1 are listed another 25 papers from previous International Workshop and Conference Proceedings on the same subjects.

3 DISCUSSION SUMMARY: WORKSHOP 5A

3.1 Methods of Detection for Shipments of Waste with Potential Environmental Hazards

Participants acknowledged the difficulties in detecting illegal shipments of hazardous waste crossing their borders and the importance of swift communication and continuing cooperation between law enforcement and regulatory agencies on both ends of an illegal shipment. Shipments outside the regulatory scheme altogether and shipments where the contents were misrepresented in accompanying documentation present challenges to governments and their various specialized law enforcement units with responsibility for waste and export and import controls.

Although many felt that the techniques used by those involved in illegal activity make it difficult to detect illegal shipments, a number of methods have proven effective in detecting and deterring this illegal activity. In the discussion of methods for detection, emphasis was

placed on establishing networks and central contact points for the gathering of intelligence, timely and routine exchange of information, central analysis of intelligence, and coordination between the different levels of government with relevant information.

In addition to customs officials and inspectors focusing on illegal waste shipments, illegal trans-boundary shipments are detected through the border activities of police departments, task forces, and other state, national, or local agencies such as state regulators and public prosecutors, the BKA in Germany, as well as local health and fire departments. Hazardous waste shipments may be only one part of the illegal activity carried out by individuals or organizations, and so operations that smuggle drugs, weapons, stolen automobiles, should be scrutinized for waste shipments as well, including chemicals and their waste products used for the manufacturing of illegal narcotics. Coordination, training, and information sharing among those governmental bodies likely to uncover illegal waste import/export activity is essential.

3.2 Understanding and Implementing Hazardous Waste Import/Export Requirements

It was stressed that the understanding of hazardous waste import/export requirements should be improved at customs agencies and among law enforcement within a single country and between nations. A continuing concern is the definition of "hazardous waste" and that many countries and international organizations have adopted different definitions and interpretations.

Given the fine distinctions between some of the definitions, categories for expedited trade and repatriation, and exemptions for various purposes, it remains difficult to maintain the technical expertise to identify contraband shipments at the border crossing itself. This convinced many of the need to broaden the range of cooperation between agencies in making these determinations, so that remedies could be established from the final point of destination all the way back to the generator, as well as establishing liability for various brokers, shippers, and intermediaries. To facilitate all of this, it is important to have the best possible paper trail and records at every stage of the process.

An important issue continues to be the definition applied to materials, including waste product, intended for recycling or reclamation as opposed to hazardous waste intended for disposal. A number of governments have been accused of exporting hazardous waste that they define as materials for recycling or reuse. Although participants realized that this issue could be difficult to resolve, many called for a greater reliance on technical/ science based definitions of hazardous substances, continuing education on materials and facilities used for legitimate recycling, and a harmonization of definitions where possible.

3.3 Responses to Violations

Participants focused on responses to violations that had particular relevance to illegal shipments of hazardous waste. In general, participants believe that a strong response to violations is necessary to defer future violations. Several noted that the Basel Conventional, Article Four considered illegal shipments of hazardous waste to be criminal. In addition, since detection is difficult in many cases, it was agreed that penalties should be costly to provide strong disincentives to other potential violators. This was consistent with the law in most countries, which provided stiff penalties and incarceration for knowingly importing banned waste products.

Participants discussed responses that have proven effective or that seem appropriate to hazardous waste import/export violations. One popular remedy was to require transporting companies or countries to take back waste and clean-up problems in the country

of destination, as well as establishing liability for all companies involved. While there was some difference of opinion on the responsibility of the originating country as opposed to the company, the majority of the participants felt that the country of export must take some responsibility for actions of companies operating within its borders, and could then take legal action, as appropriate, against any individual or entity within its own jurisdiction.

Other participants noted the implicit economic penalty associated with impoundment of vessels transporting hazardous waste illegally. Although this measure appeared most appropriate for ship-borne waste, it has proven effective in Nigeria and elsewhere. Negative publicity and the public can play an important role in pressuring exporters to abide by accepted practices for hazardous waste shipments. In some instances, public reaction has caused transporters to modify their waste disposal plans, even for shipments that met existing regulations.

3.4 International Cooperation

International cooperation on enforcement activity is also increasing, primarily through initiatives of INTERPOL and other international investigative bodies. Of particular interest to participants are the creation of databases of criminal activity that will aid nations to identify exporters with a history of hazardous waste violations and other related illegal activity. Participants urged greater efforts at cooperation through existing bi-lateral, regional, and multilateral mechanisms.

It was recognized that informal networks and more formal international arrangements can provide important support for new programs governing import./export of hazardous waste. Participation in international treaties such as the Basel Convention, the Bamako agreement, and other multinational or regional agreements can provide a formal demonstration of commitment to responsible action on control of hazardous waste shipments.

3.5 Conclusion

Despite more than a decade's experience in implementing international regimes and national laws to control trans-boundary shipments of hazardous wastes, illegal shipments remain a problem, particularly in developing nations which continue to receive shipments they consider to be unlawful and in violation of the Basel Convention and other agreements. All participants agreed that more, and more sophisticated enforcement is required to detect illegal shipments. In order to facilitate better enforcement of international agreements and national laws governing waste, there needs to be greater public awareness of the problems and greater coordination between different levels of government domestically and better cooperation between enforcement agencies internationally.

While recent advances in technology make possible a whole new level of monitoring through globally positioned satellites and electronic data exchange, unless governments develop the political will, shaped by public opinion, and commit the resources necessary to deploy new methods for tracking and monitoring waste shipments such as those reported by Western Australia in Volume 1, enforcement efforts will remain reactive and largely inadequate. As the Basel Convention moves towards more uniform definitions of waste and recyclable materials internationally, it is hoped that nations can increase their cooperation, and improve their technologies and data exchange, to focus on illegal shipments and begin to deter and prevent illegal shipments altogether

4 DISCUSSION SUMMARY: WORKSHOP 5AA

4.1 Ways Violators Circumvent Provisions of the Basel Convention and Other Laws on Shipment of Waste.

The ways violators circumvent the law are numerous. Every country that generates or receives produces hazardous waste provided multiple examples including:

- Mislabeling of hazardous waste.
- Hazardous waste hidden in legal shipments (e.g. PCBs- Canada and Hong Kong).
- Unidentified hazardous waste imported and abandoned (e.g. Thailand).
- Fraudulent recycling (e.g. Australia, Mexico, U.S.).
- Imported hazardous materials that are imported, become or create hazardous waste, and then are abandoned (e.g. Pesticides, Albania) or improperly handled (e.g. Mexico).
- Hazardous waste imported negligently or because of lack of knowledge (e.g. Purportedly separated metals and plastics from municipal waste streams may in fact be contaminated).
- Use of transshipment centers, e.g. Hong Kong and Singapore, to launder waste.
- Smuggling of hazardous waste for abandonment.

The group noted that hazardous waste is an open field for organized crime.

4.2 Types of and Successes in Bilateral and Multilateral International Cooperation and Information Sharing

Discussions included how procedures and other requirements could be made better and how violators are being detected. The group reported a number of successes:

- Tracking of shipments of hazardous waste. Australia reported a sophisticated electronic tracking system for shipments using GPS that allows real time tracking of every registered hazardous waste shipment. U.S. reported a cooperative tracking system, HAZTRAKS, that combines information from the U.S. and Mexico to track waste transferred across their common border. The ability to identify the export of waste may depend upon the power of domestic tracking systems. The group recognized a need for a closed loop system that would require or provide for reporting from the point of ultimate use, treatment or disposal of waste to the country of origin.
- Cooperation with customs agencies. Many countries acknowledged the need for and reported success in working with their customs agencies. Typically, customs agencies have not been interested in hazardous waste until driven by concerns of safety for their agents. Good cooperation with customs agencies is enhanced by frequent meetings, joint operations, and provision of training and resources.

4.3 Problems with Detection of Illegal Shipments

The group noted specific problems to be overcome to detect illegal shipment of hazardous waste.

- The vast amount of legal trade complicates detection of illegal activities.
- Relations with customs have not always been successful and always need to be improved.
- There is an acute need for better intelligence (Immediately subsequent to the workshop several participants began discussion of bilateral intelligence arrangements.).

4.4 Legal Responsibilities

The group identified the establishment of responsibility and legal liability as a powerful means to motivate behavior. Specifically, the group discussed placing more responsibility and legal liability on the carriers or transporters. The group recognized a series of issues that would need to be addressed prior to shifting the burden.

- How much do carriers and transporters know about their cargoes and how much can they be expected to know? (There was recognition that in some circumstances there are a small number of large carriers that might be able to take on greater responsibilities. In other circumstances there are thousands of small transporters who probably could not)
- What is the balance between placing further responsibilities on carriers and the benefits to be derived?
- What kind of certification/regulation would be most effective?

4.5 Areas for Further Study

The group discussed several ideas that would require further study. There was no consensus as to their practicability.

- Mass balance focusing on the country of origin. (By mass balance was meant a comparison of inputs and outputs, including product and waste, at a production facility. Inputs and outputs would need to balance. The production facility would need to account for the waste produced as calculated from inputs and outputs other than waste.)
- Mass balance as a condition of export.
- Use of industrial category or group to find the best and worst performers to set conditions of export.
- Use of economic instruments such as generator bonds for waste disposal to overcome perverse incentives.

COMPLIANCE WITH AND ENFORCEMENT OF THE BASEL CONVENTION ON CONTROL TRANSBOUNDARY MOVEMENTS OF HAZARDOUS WASTES AND THEIR DISPOSAL

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SUMMARY

The survey among Parties to the Basel Convention provided useful information on the level of implementation of the Convention. The progress made in implementation as well as areas where obstacles persist could be identified. Parties also identified key elements where assistance or cooperation would be required for full implementation of the Basel Convention.

1 INTRODUCTION

The Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal, adopted by the diplomatic conference in Basel in 1989, was developed under the auspices of the United Nations Environment Programme (UNEP) and entered into forced in May 1992. As of July 1998, the Basel Convention has 120 states and the European Community as Parties. The rapidly increasing number of Parties reflects the growing awareness and interest of States in this important sector of environment and health protection. The following are the key objectives of the Basel Convention:

- To reduce transboundary movements of hazardous wastes and other wastes subject to the Basel Convention to a minimum consistent with their environmentally sound management.
- To dispose of the hazardous wastes and other wastes generated, as close as possible to their source of generation.
- To minimize the generation of the hazardous wastes in terms of quantity and degree of hazard.
- To ensure strict control over the movements of hazardous wastes across borders as well as the prevention of illegal traffic.
- To prohibit shipments of hazardous wastes to countries lacking the legal, administrative and technical capacity to manage dispose them in an environmentally sound manner.
- To assist developing countries and countries with economies in transition in environmentally sound management of the hazardous wastes they generate.

The Basel Convention is the broadest and most significant international treaty on hazardous wastes presently in effect. The impact of hazardous wastes on the environment has large repercussions, particularly on the quality of waters and land. Effective regulation

of the management and disposal of hazardous wastes require cooperation at the global level. The Basel Convention is the first and foremost global legal instrument regulating the transboundary movement of hazardous wastes and their disposal.

2 MAIN PROVISIONS OF THE CONVENTION

The overall goal of the Basel Convention is to protect human health and the environment against the adverse effects which may result form the generation, transboundary movements and management of hazardous and other wastes. To achieve this a number of interrelated objectives are to be fulfilled:

- Reducing transboundary movements of wastes to a minimum consistent with their environmentally sound and efficient management, and controlling any permitted transboundary movement under the terms of the Convention.
- Minimizing the quantity and the hazards posed by wastes generated and ensuring their environmentally sound management including the treatment of these wastes as close as possible to their source of generation.
- Assisting developing countries in environmentally sound management of the hazardous and other wastes they generate.

In other words, the aim of the Basel Convention is to help reduce the number of transboundary movements and the quantity of hazardous wastes to a minimum, and to manage and dispose of these wastes in an environmentally sound manner.

Article 4 provides general obligations to the Parties including:

- Parties exercise their right to prohibit the import of hazardous wastes.
- Parties shall prohibit the export of hazardous wastes to the Parties which have prohibited the import of such wastes.
- For wastes not specifically prohibited by the importing State, Parties shall prohibit the export of hazardous wastes if the importing State has not consented in writing to the specific import.
- Each Party shall prevent the import of hazardous wastes if it has reason to believe that the wastes in question will not be managed in an environmentally sound manner.
- Any Party shall not permit the export and/or import of hazardous wastes involving a State that is not a Party to the Convention.
- Parties agree not to allow the export of hazardous wastes for disposal to Antarctica.

According to Article 11, the Parties may enter into bilateral, multilateral or regional agreements or arrangements regarding transboundary movements of hazardous wastes if such agreements do not derogate from the environmentally sound management as required by the Convention. Parties should notify the Secretariat of any bilateral, multilateral or regional agreements or arrangements and those which they have entered into prior to the entry into force of this Convention, for the purpose of controlling transboundary movements of hazardous wastes and other wastes which take place entirely among the Parties to such agreements.

Article 4 paragraphs 1(a) and (b) states that Parties to the Basel Convention exercise the right to prohibit the import of hazardous wastes. Article 4, paragraph 1(b) also states that Parties shall prohibit the export of hazardous wastes to the Parties which have prohibited the import of such wastes. The First Meeting of the Conference of the Parties referred to the prohibition of transboundary movements of hazardous wastes from industrialized to developing countries. Recognizing the increasing desire and demand of the international community for the prohibition of transboundary movements of hazardous wastes and their disposal especially in developing countries, the Second Meeting of the Conference of the Parties adopted Decision II/12. It prohibited immediately all transboundary movements of hazardous wastes which were destined for final disposal from OECD to non-OECD countries. All transboundary movements of hazardous wastes from OECD to non-OECD countries destined for recycling or recovery operations is to be phased out by 31 December 1997 and prohibited as of that date.

The Third Meeting of the Conference of the Parties adopted Decision III/1 on the Amendment to the Convention. This amendment stated that Parties which are members of OECD, EC, Liechtenstein are to prohibit immediately all transboundary movements of hazardous wastes destined for final disposal to other States. These States should phase out by 31 December 1997 and prohibit as of that date all transboundary movements of hazardous wastes which are destined for recover, recyling, reclamation, direct reuse or alternative uses. A critical factor acknowledged by the Conference of the Parties was that transboundary movements of hazardous wastes, especially to developing countries, have a high risk of not constituting environmentally sound management of hazardous wastes as required by the Convention. The Parties also recognized the need to cooperate and work actively to ensure the effective implementation of this decision. Moreover, this amendment needs to be ratified by two thirds of the Parties present at the third Conference of the Parties in order to come into force.

In the light of increasing system of control measures under the Basel Convention the Conference of the Parties decided to study the issues related to the establishment of a special mechanism for monitoring the implementation of and compliance with the Basel Convention. Accordingly the Consultative Sub-group of Legal and Technical Advisers was requested in 1995 to perform this function.

3 IMPLEMENTATION CONTROL, NON-COMPLIANCE PROCEDURE AND DISPUTE SETTLEMENT

Recently a non-compliance regime mainly based on the Ozone Montreal Protocol and to some extent on the European Sulphur Protocol regime became a critical condition for proper implementation control and effectiveness of international environmental agreements. The Ministerial Conference in Lucerne 1993 urged Contracting Parties to environmental conventions to ..."*work towards non-compliance regimes which:*

- *aim to avoid complexity;*
- *are non-confrontational;*
- *are transparent;*
- *leave the competence for decision-making to be determined by the Contracting Parties;*

- *leave the Contracting Parties to each Convention to consider what technical and financial assistance may be required within the context of the specific agreement;*
- *include a transparent and revealing reporting system and procedures, as agreed by the Parties."* (Paragraph 23.1 of the Declaration by the Ministers of Environment).

The element of assisting a State Party which has not fully complied with the provisions of the Protocol instead "punishing" it, is protecting the effectiveness of the legal regime established by the Protocol and provides the other State Parties with the belief and expectation that if in the future they would find themselves in the same situation they would be protected rather then incriminated; this also helps getting from the Contracting Parties true reports on the state of implementation of a treaty which make the system of achieving global goals of agreement more effective and transparent.

An indicative list of measures that might be taken by a meeting of the Parties in respect of non-compliance with the Protocol attached to the Non-Compliance Procedure adopted by the fourth meeting of the Parties to the Montreal Protocol puts on the top of the list of measures *"Appropriate assistance, including assistance for the collection and reporting of data, technical assistance, technology transfer and financial assistance, information transfer and training" followed by "issuing cautions" and "suspension of specific rights and privileges under the Protocol..."*.

This approach to non-compliance which could be considered as too "soft" and unnecessarily "negotiable" is still in the environmental agreements more suitable for achieving the overall goals of environmental treaties and also allows all Parties to a treaty to work towards what could be called "global capacity building process for implementation and effectiveness of environmental regimes."

This softness can, however, create difficulties while applying to the cases of illegal traffic and other similar breaches of the provisions of treaties which could be results of "malice and greed" rather than results of lack of technical and/or administrative capacity. In such cases, lack of decision-making power by the Compliance Committee should be also looked at as a serious handicap of a system.

The Contracting Parties to the Basel Convention also have tended to create a system of non-compliance similar to the one of the Montreal Protocol, rather than to start using the system of settlement of disputes envisaged for in the Convention (Article 20 - Settlement of Disputes and Arbitration - Annex VI to the Convention), basing its reasoning on the assumption that non-compliance with the Convention may be due to practical difficulties in implementation rather than on intent.

The Basel Convention contains some specific provisions for monitoring and supervision of state parties' implementation of and compliance with obligations arising under it. First of all, it requires substantial adjustments in the laws or administrative practices of Parties to the Convention which raise complex compliance issues. Since entry into force of the Convention, controlling compliance and monitoring implementation has become even more of a challenge after adoption of several decisions by the Conference of the Parties (COP) — in particular Decision II/12 by the Second Meeting of the COP — and by the work of various subsidiary bodies set up to facilitate implementation of the Convention. In December 1994, the Open-ended Ad Hoc Committee for the Implementation of the Basel Convention, in Committee Decision II/3 on the Evaluation of the Effectiveness of the Convention, requested

the Secretariat of the Basel Convention to arrange for a *"study on the monitoring of the implementation of and compliance with the obligations set out by the Basel Convention and any other related matters."*

The provisions of the Basel Convention do not expressly envisage the establishment of a special "implementation/compliance control" procedure. Yet, several of its articles address aspects of multilateral implementation and compliance control. Article 19 states that *"Any party which has reason to believe that another Party is acting or has acted in breach of its obligations under this Convention, may inform the Secretariat thereof, and in such an event, shall simultaneously and immediately inform, directly or through the Secretariat, the Party against whom the allegations are made. All relevant information should be submitted by the Secretariat to the Parties."* There is no clear statement in the Convention what would be then the role of the Contracting Parties in such cases. Article 5 requires the Parties to establish competent authorities and focal points to facilitate implementation of the Convention; Article 13 commits the parties to provide annual reports to the Conference of the Parties on matters bearing directly on transparency with regard to transboundary movements and disposal of hazardous wastes. Article 16 calls upon the Secretariat to perform a number of functions relevant to monitoring of implementation and compliance, such as to act as a clearing-house for information on hazardous waste movements and disposal, to expedite the flow of information among parties, and to assist parties in identifying cases of illegal traffic of waste.

There are some important implementation/compliance control functions entrusted to the Secretariat by the Convention itself and the various decisions of the Conference of the Parties. The Basel Convention, however, allocates only a facilitating role to the Secretariat as regards compliance control. Since the Convention entered into force, a number of initiatives have been under review or been approved by the Conference of the Parties that aim at further enhancing transparency with regard to transboundary movements of hazardous wastes globally, such as the streamlining of notification and movement documents, the general strengthening of the transmission of information pursuant to Article 13, and improvement of the information management system of the Convention. Taken together these provisions do not, however, amount to more than a rudimentary international system of compliance control. Specifically, they fall short of establishing the requisite setting for the second phase of compliance control, namely to the review of the information transmitted by the Parties and to an institutionalized process of verification. That is why, as referred above, in response to the adoption by the COPY of Decision II/12, it was noted that *"[e]ffective implementation of the whole Convention could only be assured with the introduction of an effective system for the monitoring and evaluation of compliance by the Parties with the Conventions as the provisions at present contained in Article 19 were not sufficient."* (Australian proposal).

In recognizing the need for improved implementation/compliance control, the First Meeting of the Conference of the Parties in 1992 established the Open-ended Ad Hoc Committee as a mechanism necessary for the implementation of the Basel Convention. This Open-ended Ad Hoc Committee has been entrusted with a variety of tasks, all relevant to implementation of or compliance with the Basel Convention. The further need for strengthening the system became obvious in particular after adoption of the Ban Decision (II/12) in March 1994. The Open-ended Ad Hoc Committee executes several different tasks: in respect of some acts as an executive body, of others in a basic advisory or policy-making body. Because the Committee is involved in a broad range of activities, it not likely to develop the required technical expertise to verify the data submitted by the parties, as well as to evaluate performance of the Parties in relation to their obligations under the Convention.

On this basis it was proposed to the 3rd Conference of the Parties (September 1995) to establish under the Basel Convention a system to strengthen compliance with its provisions by establishing in the future a special Compliance Committee based mainly on the Montreal Protocol example. The Conference referring again to Article 19 of the Convention on Verification requested the Consultative Sub-group of Legal and Technical Experts to study all issues related to the Convention and its design, and to report its findings to the fourth meeting of the Conference of the Parties to the Basel Convention.

Related to the present regime existing under the Basel Convention provides for a significantly strengthened reporting system. Such a system constitutes one of several aspects of a monitoring of implementation and compliance regime, which, to be fully effective would need an institutional framework having the required technical expertise to match the technical complexity of the Basel regime in order to carry it out impartially and objectively.

Recent refinement of some technical provisions of the Basel Convention carried out by the Technical Working Group of the Convention and adopted by the Fourth Conference of the Parties in Kuching on February 1998 makes it evident that the assessment and evaluation of information reported by State Parties as evidence of compliance with their obligations under the Convention would require a significant degree of technical know-how on the part of those carrying out this monitoring and review functioning. In addition, the more the legal system of the Convention is tightened, the need is greater of a strict institutionalized system along lines similar to the existing non-compliance system established as part of the Montreal Protocol on Substances that Deplete the Ozone Layer. This system should only serve as an example and has to be modified in order to take the specificities of the Basel Convention into account.

What seems to be of special importance in a possible future system of non-compliance under the Basel Convention is the membership in the Implementation Committee, in particular the role of NGOs, transparency and access to its proceedings. This is linked to a certain extent, at least in relation to the Basel Convention, to the right to initiate action concerning an alleged violation of the agreement.

It has happened within the Basel Convention that an alleged violation of the treaty was brought to the attention of the Secretariat by another body than the injured state or another party to the treaty, namely by a NGO (Greenpeace) led to an amicable solution to the problem. No environmental treaty, however, gives a right to NGOs nor to individuals to initiate proceedings against a Party. In practical terms, however, it could sometimes be easier for another body than the Contracting Party to react to another Party's breach of a treaty obligation. Formalization of such an approach which exists to a certain extent in practice, could somehow not be easy nor welcomed by some of the Parties who consider themselves the only "sovereign owners" of the treaty. Individual complaints, as it exists in various human rights' treaties, may play an important role, as it does in the European Community through claims in national courts on the provisions of a multilateral environmental agreement, provided that the agreement is part of EC law (Textbook on EEC Law, 1998, p.31).

This right is limited to the cases in which individuals suffered damages. As far as NGOs are concerned the Basel as well as the Montreal treaties admit NGOs to participate at their meetings as observers, sometimes very active observers. This does not, however, give them the formal right to initiate action against a member State in breach of a treaty in question. They can, however, and sometimes they do, trigger the initiation of action through the Secretartiat or another Party, by bringing "the case" to the light and "advertising" it to the public. It could, however, be difficult to allow NGOs or/and individuals and other groups to attend the closed meetings of implementation bodies.

As for the composition of implementation bodies/committees it was the clear understanding at the time of discussion at the meetings under the Basel Convention that there is a clear preference for these bodies to be composed of the Contracting Parties rather than individuals. While the Montreal Protocol Implementation Committee has a very limited membership (10 countries), the Climate Change Convention's Subsidiary Body for Implementation is open to participation by all Parties (Article 10), as well as is the Open-ended Committee for Implementation of the Basel Convention which was not exactly meant as a compliance body, but which was originally established to perform some of the functions of the compliance body (i.e. its role in assessing the conformity of all the bilateral and multilateral agreements or arrangements with the stipulation of Article 11 of the Convention).

It should be remembered that the effectiveness of a body is usually inversely proportional to its size; a smaller body is usually more effective than a committee with unlimited memberships. It seems, however, that in the case of the Basel Convention the larger body approach prevails among Parties as a guarantee of reflection of various countries' interests. It should be emphasized, however, that a large number of members can lead to unnecessary politicalization of the implementation body which is already the case with some meetings under the Basel Convention. Also unlike the Montreal Protocol, the subject of the Basel Convention's possible breaches affects usually two or three countries rather than protecting a global commons which is the case of the ozone layer treaty.

In the case of the Basel Convention breaches of compliance would in practice lead to the assessable appearance of a damage. This could, therefore, lead to possible liability claims. Therefore, in the study related to the Basel Convention's compliance system, clear reference was made to the need to link it with the liability and compensation regime being developed under the Basel Convention. In the Basel Convention it would also probably be easier to link the compliance regime with the settlement of disputes regime which in the case of Montreal exists as two independent - but not mutually exclusive - systems. In relation to Basel the dispute settlement could be developed rather as "the second tear" approach to be triggered after the exhaustion of the compliance procedure.

4 THE POSITION OF PARTIES TO THE BASEL CONVENTION

As referred to above the Consultative Sub-group of Legal and Technical experts requested the Secretariat of the Basel Convention to *"invite Parties and Signatories to provide in 1996 information on what steps Parties and Signatories are taking to implement the provisions of the Basel Convention, difficulties which States could be facing when seeking compliance with the provisions of the Basel Convention, and, in particular, how States deal with illegal traffic, and how they comply with Articles para. 4 and 6 of the Convention, and areas in which Parties may require assistance or benefit from the sharing of national experiences."*

As requested by the Consultative Sub-group, the Secretariat drew up a questionnaire, which was circulated to all Parties and observer states by letter in October 1997. The questionnaire encountered considerable feedback: In total. About 50 responses were received.

The questionnaires provided useful documentation and a basic national profile for each of the replying countries. Furthermore, the standardization of the questionnaires allowed a statistical evaluation of the replies.

4.1 Transposition into national law

In almost two thirds of the Parties there is currently national legislation on the control of transboundary movements and the environmentally sound management of hazardous wastes in force. Several countries have enacted complete new national legislation implementing the Basel Convention, in some countries the previously existing legislation has been adapted in order to implement the Basel Convention, and in some other countries the previously existing legislation has remained in force unchanged since the ratification of or accession to the Basel Convention.

With regard to the modalities of adoption of national legislation, several Parties adopted their legislation implementing the Basel Convention as one main legislative tool. Others adopted it as a separate section in the main environmental legislative instrument (e.g., Environmental Protection Act), whereas some countries enacted their legislation as a series of sectoral laws (e.g., control of transboundary movements, waste streams, environmentally sound management). Few Parties adopted the legislation implementing the Basel Convention as a section within their general waste law.

In contrast to this, in over one third of the countries there is currently no national legislation implementing the Basel Convention in force. In most of the countries which do not yet have such legislation in force, relevant laws are currently under preparation, in a few others the process of preparation of such legislation has not yet been initiated.

4.2 Institutions, Administration, Budget

The overwhelming majority of the Parties set up or designated a Competent Authority and Focal Point. In a few countries the Competent Authority and the Focal Point have not yet been designated.

Most of the countries designated one single Competent Authority, few others established two or more Competent Authorities.

A majority of the Parties set up the necessary administrative instructions and procedures for these authorities to operate. In several other countries the situation is inadequate and in a few no such instructions or procedures were established. With regard to the provision of staff and resources for the authorities, the situation is problematic: in a majority of countries staff and resources are insufficient. In several countries the required staff and resources were provided, in few this is not at all the case.

Furthermore, only in some countries is there an adequate administrative system and the infrastructure for the safe management (collection, sorting, transport, recycling, recovery, disposal) of different hazardouse waste streams. In several parties the situation with regard to the administrative and infrastructure capacity for hazardous waste management is inadequate, and in several others such a capacity does not exist.

4.3 Enforcement

In a large number of Parties the situation with regard to the enforcement of national laws is still insufficient. Whereas in several countries a national mechanism for the monitoring and control of full and proper compliance with laws on hazardous waste is fully established and operating, in some countries such enforcement of hazardous waste legislation is practically non-existent.

In a majority of countries adequate sanctions and penalties are imposed in the case of contraventions, in several others the situation is insufficient and in a few there is no capacity for this aspect of enforcement. With regard to the licensing of hazardous waste management operations, in several countries such a system is set up, but in several others is inadequate or not available at all.

In several Parties a mechanism has been set up for consultation and co-operation with industry and other NGOs as well as for the information of the public. In many countries public participation is still insufficient, in some others the principles of public participation have not yet been institutionalized.

5 DIFFICULTIES OF IMPLEMENTATION AND COMPLIANCE

5.1 Transposition into National Law

A majority of those Parties which have enacted a national legislation reported that their legislation is responding partly to the Basel Convention, but that gaps can exist. Several Parties confirmed that their national legislation is responding entirely to the provisions of the Basel Convention. Few countries consider their national legislation being in conflict with the Basel Convention.

The main difficulty in developing/improving/adapting national legislation is the lack of resources, followed by the lack of expertise. Several countries are concerned about the lack of awareness or insufficient international/regional cooperation. Few countries also reported the lack of a national policy as being an obstacle.

5.2 Institutions, Administration, Budget

The main problems presented in setting up and operating the Competent Authority and the Focal Point are the lack of resources, training, staff and expertise. In several countries the lack of awareness is also problematic, some countries reported a lack of regional/international cooperation in general.

While setting up or operating an adequate administrative system as well as the infrastructure for the safe collection, sorting, transport, recycling, recovery, disposal of different hazardous waste streams, the main difficulties encountered were the lack of resources, expertise, staff and awareness. Other problems encountered are the lack of inter-agency consultation and lack of regional/international co-operation. Also reported were the lack of standards and tracking systems, and lack of legislation and guidelines.

5.3 Enforcement

On the level of enforcement, the main problems of implementation are the lack of financial resources, lack of training for enforcement personnel and the lack of staff. Equally important are the lack of testing and sampling facilities and problems with the identification of hazardous wastes. Many countries reported the lack of inspections and of awareness of stakeholders.

Furthermore, several Parties have problems with border control or suffer lack of interagency consultation, lack of a licensing system for hazardous waste facilities, of public participation, of sufficient sanctions and penalties and of effective regional cooperation. Also reported was the lack of domestic standards and tracking systems.

6 PREVENTION OF ILLEGAL TRAFFIC

6.1 Legislation

A large number of Parties have in force stringent legislation on the repression and prevention of illegal traffic. In several countries such legislation is considered to be insufficient. Some other countries do not yet possess such legislation.

Most of the countries consider illegal traffic in hazardous waste being a criminal offense. In several countries such a provision is still missing.

6.2 Institutions, Administration, Budget

Several countries have established adequate procedures for sending back illegal shipments. In several other Parties such procedures would be insufficient or in some countries even missing.

In many countries the interministerial coordination in preventing and combatting illegal traffic is still insufficient. Several other countries have established sufficient interministerial coordination, whereas in some countries there is no effective coordination.

6.3 Enforcement

The most important measure applied by Parties in order to prevent and combat illegal traffic is border control, followed by transport control and the infliction of sanctions and penalties in the case of contravention. Many countries also undertook site inspections.

Several countries proceed with testing and sampling or by licensing of installations and the withdrawal of licenses in the case of contravention. In some countries adequate information systems have been set up.

6.4 Main obstacles in Preventing and Combatting Illegal Traffic

The main obstacles encountered in the prevention of illegal traffic are the lack of training and of facilities for testing and sampling, followed by lack of resources, the lack of information, the lack of staff and of inspections or transport control. Also important are problems of border control and the lack of awareness.

Furthermore, several countries deplore lack of legislation, administrative problems. Lack of inter-institutional and regional or international co-operation or a system of licensing/ withdrawal of licenses. In some countries enforcement is insufficient.

A majority of Parties has already experienced and recorded cases of illegal traffic in hazardous wastes. In several other countries no cases of illegal traffic were recorded. Some countries submitted no information.

7 TRANSBOUNDARY MOVEMENTS BETWEEN PARTIES

7.1 Legislation

In a majority of Parties there is a national legislation in force implementing the written notification and consent procedure of the Basel convention. Nevertheless, in some countries such legislation is considered insufficient and in several non-existent.

7.2 Institutions, Administration, Budget

Many parties have set up adequate administrative instructions for the Competent Authority for the operating of the control procedure. In several other countries such administrative instructions are insufficient, in some they are missing.

A majority of Parties confirmed using the recommended Basel Convention notification/movement document (or the similar EC/OECD forms) by the Competent Authority. In some countries the forms are not used on a regular basis or not at all.

Several Parties have established a system of coverage of transboundary movements of hazardous wastes by insurance, bond or guarantee. In some countries such a system is inadequate, in several other countries there is no such system.

7.3 Enforcement

By far the most frequent measure which is applied in order to enforce the written notification and consent procedure is border control. Several countries undertook site inspections and transport controls. Several Parties also apply testing and sampling or have set up adequate information systems. Few countries reported that there are no enforcement measure applied at all.

7.4 Main Obstacles

The main obstacles encountered in implementing the control procedure are lack of resources, lack of training, lack of facilities for testing and sampling, lack of inspections or transport control, lack of staff and lack of legislation. Less important are administrative problems, lack of border control, lack of inter-institutional co-operation and lack of regional and international cooperation.

8 CONCLUSION

In conclusion, a clear picture emerges that much needs to be done to improve compliance with and enforcement of the terms of the Basel Convention.

8.1 Steps taken by Parties to implement the Basel Convention

Almost two thirds of the Parties have enacted a national legislation on the control of transboundary movements and management of hazardous wastes. In most of the countries which do not yet have such a legislation the preparation is under way. Furthermore, the overwhelming majority of countries has designated (a) Competent Authority(ies) and a Focal Point and in most cases the necessary administrative procedures have been established. Nevertheless, in a majority of countries these institutions are still lacking the necessary staff and resources. Only in some countries there are in a place adequate administrative systems and the infrastructure for the safe management (collection, sorting, transport, recycling, recovery, disposal) of different hazardous waste streams. In several countries the situation is inadequate, in several others such capacity does not exist.

8.2 Difficulties faced by Parties when seeking compliance with the Basel Convention

A majority of Parties consider that their national legislation is responding partly to the Basel Convention, but gaps still exist. The main difficulties in developing/improving/adapting national legislation are the lack of resources and the lack of expertise. The main problems in setting up and operating the Competent Authority(ies) and the Focal Point are the lack of resources, training, staff and expertise. The main difficulties encountered in establishment of an administrative system and the infrastructure for management of hazardous waste are lack of resources, of expertise, of training for personnel, of staff and lack of public awareness. Furthermore, in more than 50% of Parties the enforcement system of the national laws is not adequate, in some others such a system is practically non-existent. In many countries there is a lack of consultation and co-operation with industry and other NGOs as well as lack of information on these issues as well as inadequate public awareness and information dissemination. On the level of enforcement, the main problems of implementation are the lack of financial resources, of training of personnel to deal with enforcement, the lack of staff, the lack of testing and sampling facilities and problems with the identification of hazardous waste.

8.3 Prevention of illegal traffic

In more than 50% of the Parties replying to the questionnaire the legislation on the prevention and punishment of illegal traffic is inadequate or missing. Nevertheless, more than two thirds of the Parties consider illegal traffic to be a criminal offense. Furthermore, in a majority of Parties procedures for returning illegal shipments are inadequate or missing. In more than half of the Parties also interministerial coordination in preventing and combatting illegal traffic is insufficient or non-existent. The most frequent enforcement measures applied to prevent and combat illegal traffic are the border control, transport control and infliction of sanctions in case of contravention. The main obstacles encountered in the prevention of illegal traffic are the lack of training as well as the lack of facilities for testing and sampling. Also important are the lack of resources, the lack of information, lack of staff and lack of inspections or transport control. A majority of Parties replying to the questionnaire recorded cases of illegal traffic in hazardous wastes.

8.4 Compliance with Article 6 ("Transboundary Movements between Parties") of the Basel Convention

In a majority of Parties there is national legislation in force implementing the written notification and consent procedure of the Basel Convention. Furthermore, a majority of Parties uses the recommended notification/movement documents. Many Parties have also set up administrative instructions for the operating of the control procedure. Nevertheless, many countries have not yet established a system of coverage of transboundary movements of hazardous wastes by insurance, bond or financial guarantees, and in some others such a system is inadequate. Less than half of the Parties have an adequate system in place. The main obstacles encountered in implementing the control procedure for transboundary movements between Parties are the lack of resources, the lack of training, the lack of facilities for testing and sampling, the lack of inspections or transport control, lack of staff and lack legislation.

8.5 Assistance and Cooperation

Parties replying to the questionnaire indicated areas in which assistance would be required or where authorities may benefit from the sharing of national experiences as follows:

- Need for further development and updating of national legislation.
- Facilities for testing and sampling.
- Hazard characterization and hazardous waste identification.
- Training of personnel dealing with hazardous waste (custom officers, managers, environmental inspectors, police officers, etc.)
- Establishing enforcement procedures and procedures and programmes.
- Developing of a monitoring system.
- Developing technical standards in the field of environmentally sound management.
- Transfer of appropriate technologies for minimization of generation of HW and for their disposal in an environmentally sound way.

The fourth meeting of the Conference of the Parties to the Basel Convention (Kuching, 23-27 February 1998) adopted Decisions IV/21 entitled "Monitoring the implementation of and compliance with the obligations set out by the Basel Convention." By this decision, the Conference of the Parties requested the Consultative Sub-group *"to continue its step-by-step approach to examining the relevant issues related to the establishment of a mechanism or procedure for monitoring implementation of and compliance with the Basel Convention with a view to recommending, as soon as practicable, the best way to promote full implementation of the provisions of the Basel Convention, including whether or not such a mechanism or procedure would be required and, to the extent appropriate, what its design might be."*

In this context, the relationship of this system with the issue of settlement of disputes was noted, in the sense that compliance will avoid disputes. Reference was also made to the relationship of compliance with the determination of which wastes are subject to the Basel Convention. The role of the World Customs Organization in the effective implementation of the Convention, by providing a clear nomenclature for wastes, was underlined. The Sub-group took note of the draft elements and principles for a future regime on monitoring of implementation and compliance, submitted by an informal group chaired by Switzerland, attached to this report as Annex 1. The Sub-group agreed that these elements and principles should serve as a basis for further discussions. Accordingly, the Sub-group decided that Parties should be invited to provide the following to the Secretariat:

- Proposals for the nature and composition of the future regime, based on the options presented by the informal group.
- Draft elements of terms of reference for the future regime.

The Secretariat was requested to prepare a compilation of the submissions received, in time for the meetings scheduled to be held in 1999.

WORKSHOP 5B
COMPLIANCE WITH INTERNATIONAL ENVIRONMENTAL AGREEMENTS: FOCUSING ON MONTREAL PROTOCOL AND CITES: ILLEGAL SHIPMENTS OF CFC AND OTHER OZONE DEPLETING SUBSTANCES AND ILLEGAL TRADE IN ENDANGERED SPECIES

Nations of the world have "thought globally" and now are needing to "act locally" to meet the goals of international environmental agreements on such important issues as protection of the ozone layer, endangered species and other vital concerns. This workshop focused on those agreements which pose a compliance challenge in trying to stem the tide and illegal trade of valuable product whose potential for environmental harm is not felt locally and is therefore more difficult to deter. This topic has been addressed at previous international conferences, has been monitored by the Montreal Protocol Secretariat within UNEP and specifically reviewed in a consultation of enforcement officials commissioned by the G-8 environment leaders. The INECE partnership wished to make progress at this Fifth International Conference workshop by defining specific measures that enforcement officials around the globe believe are needed to create a more effective deterrent.

Paper 1 for Workshop 5B and a list of related papers from other International Workshops and Conference Proceedings are in Volume 1

SUMMARY OF WORKSHOP: COMPLIANCE WITH INTERNATIONAL ENVIRONMENTAL AGREEMENTS

Facilitators: Workshop 5B: Michael Alushin
Workshop 5BB: Durwood Zaelke
Rapporteurs: Workshop 5B: Gail Ginsberg
Workshop 5BB: Christie Jorge

GOALS

Discussions were designed to address the following issues:

- The goals of Chlorofluorohydrocarbon (CFC) reduction along with other ozone depleting substances and particular challenges control and reduction of CFCs in the marketplace pose to enforcement programs given the nature of the market and regulated community.
- Types of programs countries have adopted to enforce CFCs in the marketplace, successes and failures, design of requirements to ensure enforceability, promotion of compliance, compliance monitoring and inspection activities, enforcement response, and levels of government involvement including licensing of facilities and control and tracking of production, reuse, sale and disposal.
- Review of other existing international environmental agreements and their implications for domestic and international enforcement
- Experiences in enforcement of international environmental agreements, successes and failures
- Ways violators are circumventing provisions of the Ocean Dumping, CITES conventions and or other such agreements and how violators are being detected.
- The experience of enforcement personnel in the information that is needed to identify such violators and what level of cooperation and information sharing is needed between and among national enforcement organizations to satisfy current needs for effective enforcement
- The need for formal and informal lines of communication about what to whom among law enforcement personnel, customs officials, environmental managers and environmental enforcers domestically and internationally.
- Informal recommendations for initiatives to fill gaps, identifying the institutions and actions needed.

1 INTRODUCTION

Participants represented nations with a range of experiences in enforcement of international agreements. Some countries had signed a few such agreements; some had signed virtually all. There is substantial commitment to the need for such agreements, but

a recognition of the need for strong political support within a country both for compliance by the country and for enforcement against others. NGOs want to be a part of the enforcement picture, but citizen participation is not always directly recognized in international agreements.

Participants centered their discussions on five themes that were determined priority issues in the implementation, and enforcement of international agreements, both at the national and international level. These are:

- How to achieve communication for effective compliance and enforcement at the national level.
- What different legislative and practical approaches to enforcement for range of violations have been effectively used, and types of enforcement responses.
- What financial resources are required for consistent enforcement and capacity building, and available sources of financial assistance.
- What are the obstacles to international cooperation presented by disparities among sanctions for same violations.
- How to raise broad awareness of the importance of issues addressed in Conventions and overcome the differences in perception at international and local level.

2 PAPERS

Papers related to this workshop include:

- Enforcement of International Environmental Agreements, e.g., Hazardous Waste and Ozone Depleting Substances, *K. Boekel*

3 DISCUSSION SUMMARY: WORKSHOP 5B

3.1 How to better implement international agreements; what assistance is needed.

Participants identified a number of obstacles to effective implementation and enforcement of international agreements, including:

3.1.1 In-country Issues

- There is a need for enactment of clear, enforceable domestic laws to implement international agreements which countries have signed, e.g. the Basel Convention and the Bamako Supplement. Lack of clarity in language of international agreements may also be a problem. It may be beneficial to write compliance and enforcement mechanisms directly into international agreements.
- Agreements are signed at a national level, but must be implemented at provincial levels, resulting in a major disconnect. There is a need to strengthen interaction between national, regional, and local organizations.
- Developing countries focus on enacting, rather than enforcing, new legislation to implement international agreements. Also, the capacity of developing countries to comply with and enforce international agreements is frequently in conflict with other developing country priorities.

- There is a need for assistance in characterization of hazardous waste.
- Some countries feel that their governments commit to international agreements and come home and do the opposite. There is a need for support for international agreements at the political level, rather than just signing agreements and then ignoring them.
- People with compliance information in environmental agencies do not communicate with international enforcers.
- Government agencies need training on implementation and enforcement aspects of international agreements at staff level.

3.1.2 Multinational Issues

- There is a need for consistent interpretations of texts of international agreements and to develop guidelines for implementation.
- There is a need for cooperation between and among countries; some countries will try to interpret conventions to serve their national interests or will try to use agreements to serve their own economic interests.
- Failure of some countries to ratify international conventions presents a problem for those countries which are signatories, particularly where smaller countries are signatories and larger, more powerful nations are not.

3.1.3 NGO Status Issues

- There is a need for a network of citizens within countries to build political support for international agreements. Citizen support for adoption of legislation to implement international agreements by legislatures can be a powerful incentive.
- Direct citizen enforcement provisions should be written into international agreements. Where citizen enforcement provisions are not written into conventions, try to be creative and develop ad hoc mechanisms (e.g., file a petition).
- National interests may be in conflict with international agreements; early public involvement is needed to help reconcile these conflicts.

3.2 Market conditions influencing imports of hazardous wastes

Since endorsement of the Basel Convention, some countries (e.g.,Sri Lanka) have experienced more efforts to import hazardous wastes into the country. It is not clear to what extent this experience is shared by other countries. Could this experience be a consequence of increased monitoring? Some countries prefer to deal with problems of hazardous waste disposal within their own boundaries, although they may be signatories to agreements which permit exports. Stronger enforcement efforts in some countries puts pressure on countries with weaker enforcement to accept hazardous wastes. Conversely, countries with poor enforcement records tend to shift the burden to more conscientious countries.

3.3 CFC Enforcement - Successes and Failures

The convention on regulation of CFCs is regarded as one of the most successful international agreements. Implementation of this agreement has been helped by financial assistance and the availability of technology transfer (e.g., substitute technologies). Another reason for the success of this convention is that big countries do not want to be perceived as environmental criminals.

A problem with implementation is dealing with CFCs that are already in the system. Many small operators face this challenge and are also confronted with complex procedures for compliance. Substitute technologies are not always available to small operators.

The fact that different countries are on different schedules for CFC phase-out can produce black market conditions. In order to avoid this result, it is necessary to promote cooperation among government agencies and at various levels of government. Options to achieve this result include task forces, international networks, and collaborative enforcement.

3.4 Other Successes and Failures

3.4.1 Prior Informed Consent (PIC) Convention

Gambia described successful use of this convention to interdict imports of DDT-impregnated mosquito coils. Success occurred on a voluntary level, even before the convention was signed.

3.4.2 Convention on International Traffic in Endangered Species (CITES)

Venezuela reported a positive experience using the CITES convention to remedy illegal import of birds for development of a bird sanctuary. However, several participants reported experiences with inability to care for animals seized pursuant to CITES. Another issue is inconsistent experience with elephants, which cannot be captured for the ivory in their tusks. Since the effectiveness of this prohibition on capturing elephants for their ivory tusks, elephant populations have increased in some countries and decreased in others. There could, of course, be other issues associated with this phenomenon. The CITES convention does have strong citizen participation provisions.

3.4.3 Bamakeo Supplement

African nations were pleased with the ability to prevent imports of nuclear and other wastes, using this instrument.

3.4.4 Other Issues

- International agreements, like other regulatory mechanisms, must reasonable in order to be enforceable.
- There is a sense that some countries join international agreements as a means of obtaining resources, but are not committed to implementation. However, it is also recognized that countries may join such agreements to start solving a problem, even if they are unable to meet all the requirements of the agreement. They do need resources to participate.

3.5 Circumvention of International Agreements

Some methods that have been used to circumvent international agreements include:

- mislabeling (e.g., CFCs);
- sham recycling;
- transshipments;
- falsely claiming waste is raw material;
- ivory and turtle eggs in diplomatic pouches;
- mixing waste with fuels;
- using claims of confidential business information to hide information; and
- load waste drums in a truck and then fill in with legitimate product.

3.6 Conclusion

Implementation and enforcement of international agreements is a matter of concern to many countries. However, there are numerous implementation problems, not the least of which is the failure of countries which sign international agreements to enact implementing domestic legislation. Countries should consider direct enforcement of treaties, as a part of their national law. Also, when countries plan and publicize environmental enforcement strategies, they should consider inclusion of their commitments under international agreements. There is a distinct issue for developing countries, which desire to implement international agreements, but which are faced with competing priorities within their countries. NGO's also face particular challenges in enforcing agreements, where there is no specific provision for citizen suits; they are developing creative approaches to facilitate their participation.

4 DISCUSSION SUMMARY: WORKSHOP 5BB

The group discussed and highlighted the following issues, please note some are general comments and recommendations and others are specific country cases:

4.1 How to Achieve Communication for Effective Compliance and Enforcement at the National Level

- In country communication is vital and the Conventions should be implemented as soon as possible as well as issuing national implementing legislation and regulations.
- Country should assess its needs, priorities within the Convention and reduce the scope for actions to those implementable. The Environment agency should lead this needs analysis.
- Combine the different obligations and responsibilities under the Convention to simplify and work around the articles of other conventions (work on overlap, conflicts, etc.).
- While negotiating the text of the Convention, inform other agencies to build "buy-in."
- Before Convention signature, identify the person that will implement and enforce and send that person to sign so he/she can be responsible throughout the entire process.

- Timeframes for meeting obligations national level.
- Complexities of "international or diplomatic" language used in Conventions and need to identify national "equivalents" not just conduct a translation.
- Keep and disseminate the negotiating history and the positions to give insight of intent to comply
- Define additional terms within the Convention and through the translation
- United Nations only translates into 6 official languages and there is a need for additional and correct translation.

4.2 What Different Legislative and Practical Approaches to Enforcement for Range of Violations Have Been Effectively Used and Types of Enforcement Responses

- **Dominican Republic:** NGOs can offer pro bono assistance to legislators and drafters to understand international conventions.
- **Nepal:** Informed GOs, NGOs, IGOs and others assist the Congressional Committee on Natural Resources.
- **Uganda:** Promotes in site visits for legislators and create awareness of issues the law would address, it also promotes partnerships.
- **Ghana:** It is government policy to take the judges in the field to visit sites and build awareness.

4.3 How to Raise Broad Awareness of the Importance of Issues Addressed in Conventions and Overcome the Differences in Perception at the International and Local Levels

- Who should be trained:
  - Legislators
  - Customs officials
  - Judiciary
  - Law enforcement
  - Inspectors
  - Civil society in general (NGOs, industry, etc.)
- How should they be trained:
  - **Nepal:** The judiciary (High Court) was trained with financing from IUCN Bonn.
  - **SACEP:** Judges have to be sensitized rather than trained a program was developed through UNEP and Norway.
  - **India:** Courses for judges should be short, focused and closed to the general public.

4.4 How to Raise Broad Awareness of the Importance of Issues Addressed in Conventions and Overcome the Differences in Perception at the International and Local Levels

- **Nepal:** Street theater is used to bring awareness of pressing environmental issues using drama with financial assistance from IUCN.
- **British Columbia, Canada:** Black bears cause much damage but are protected under CITES in Canada and the agency teaches people how they can benefit from protecting them. They use pamphlets, information on "how to protect yourself and your property," use media and the municipal government assists in developing materials.
- **Ghana:** The national government conducts education programs on the benefit of including public participation at the local level.
- **India:** The government uses movie clips in theaters to promote awareness and also promote the rights of flora and fauna to appeal to tree huggers.
- **Cambodia:** Finds it difficult to sell the idea to the poor of protecting the environment because of the practice of hunting wildlife, even if threatened or endangered to sell for food.
- **British Columbia, Canada:** Canadian experience suggests that the way to deal with poverty vs. conservation is to remove the economic value of the wildlife by addressing the "market" with high penalties and covert operations.
- **Sri Lanka:** The government gets to a basic level by teaching school children value of protecting the environment.

4.5 What are the Obstacles to International Cooperation Presented by Disparities Among Sanctions for the Same Violations

- **British Columbia, Canada:** For small items (bear blatters) covert operations are used by employing inspectors and placing them in industry.
- **Kenya:** The economic benefits are taken away by placing fees into a special program or fund to preserve the environment. The government promotes this mechanism in other countries.

4.6 What Financial Resources are Required for Consistent Enforcement and Capacity Building and Available Sources of Financial Assistance

- **Nigeria:** International Conventions ratified are self-financing (for e.g. Basel and CITES) and importers pay through fees for the inspection, analysis, CITES permit and a percentage of the cargo's cost. There is also a "self-reporting" element. The fines support the costs of the implementing and enforcement agency. For example there is a special fund for marine pollution and it does not go into the general national budget.
- **USA, New Jersey:** The agency earmarks money collected by fines for a special NGO fund that supports environmental work. It is managed by NGOs.

- **Israel:** NGOs do not accept money from industry or government for fear it will be pressured and will not allow them to maintain independence.
- **Guatemala:** International financial institutions such as the World Bank have used their own policies to assist in creating and leaving behind a fund or other mechanism to protect the environment during and after investment projects have been completed.

4.7 Conclusion

The groups gave examples of in-country obstacles, and mechanisms to achieve resolution – mentioning specific legislative and enforcement tools. The session served as a valuable comparative review, and provided participants and facilitator a rich spectrum of compliance and enforcement tools, including training of trainers, building institutional memory, and simplifying the "language" of the Conventions.

MONGOLIA'S EXPERIENCE IN IMPLEMENTATION OF THE CONVENTION ON INTERNATIONAL TRADE IN ENDANGERED SPECIES OF WILD FAUNA AND FLORA

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SUMMARY

The law on ratification of the Convention on International Trade in Endangered Species of Wild Fauna Flora (CITES) was adopted on 1 May 1995 by the Great Hural of Mongolia. Since 4 April 1996 Mongolia became the 133rd Party to the Convention. Mongolia's Government and people understand that as a signatory of the Convention we will not only rescue regional and global biodiversity from loss but also save the very rare species that are left in Mongolia's territory by following strictly provisions of the Convention.

External relations by Mongolia are expanding and for the last five years the Government has started to provide a policy to utilize natural resources within their rehabilitating ability and to develop export trade with foreign countries. This action is increasing the number of countries interested in trade in wildlife specimens with Mongolia. Therefore Mongolia joined the CITES to protect its rare and endemic animal and plant species. We are proud with such rare species as the Przewalskii horse, Bactrian camel, Gobi bear, Snow leopard, Musk dear, Wild mountain ship (Ovis ammon), Beaver, Saiga and Antelope live in the wild in the vast territory of Mongolia.

1 NATIONAL LEGISLATION ON BIODIVERSITY CONSERVATION

According to studies Mongolia has 665 species of fauna and 5775 species of flora. Mongolian game hunting resources consist of 56 species of mammals, 132 species of birds and 35 species of fish. Mongolia has many useful plants such as 845 species of medical use, 173 species for human nutrition, 64 species of industrial use, 849 species of ornamental plants, as well.

Relations concerning the conservation, use, revitalization of and trade in wildlife and natural plant as well as fauna-and-flora- originated raw materials are basically regulated under the Hunting law and Natural plant law adopted by the Great Hural of Mongolia in 1995.

According to these laws, species are classified into:

1. Very rare
2. Rare
3. Abundant

The list of the very rare species was adopted by the Parliament of Mongolia, while the Government of Mongolia issued the list of rare species. Other species apart from those two lists were considered as abundant.

Seven species of very rare, two of rare, five of abundant are referred to in Appendix 1 of CITES and four species of very rare, six species of rare, forty-seven species of abundant are identified in Appendix 2 of CITES. Therefore 71 species of Mongolian wild animals in total are included. As of plants, a total of 23 species of Orchidae including 10 species of very rare, one species of rare and twelve species of abundant are indicated in the Appendix 2 of CITES.

The article 22/1 of the Mongolian Law on Hunting says that export of very rare and very rare animals for research purposes will be regulated in accordance with those International Agreements and Regulations which Mongolia has signed.

The article 22/2 of the Mongolian Law on Hunting says that the State Administrative Central Organization which is the Ministry for Nature and the Environment, is authorized to issue certificates for export of wildlife, based on conclusions and statements of professional organizations.

Export procedures for very rare and rare species and those listed in Appendices of the CITES are carried out strictly under the provisions of the Law on Natural Plants and CITES Convention. Therefore, the Minister for Nature and the Environment has adopted the Resolution #19 on "Export Procedures of Natural Plants, Forest Resources and Flora originated Raw Materials of Mongolia" in 1997.

2 CITES NATIONAL MANAGEMENT AUTHORITY OF MONGOLIA

The Management Authority headed by the Director General of the Environmental Protection Agency, works to implement CITES. The Management Authority has 8 members, who are officers in charge of fauna, forests and flora conservation of the Ministry for Nature and the Environment. The Authority also includes officials from the Environmental Protection Agency and international trade and customs officers of the Ministry of Agriculture and Industry.

The scientific authority of the CITES is headed by Dr. Ts.Shiirevdamba, Director of the Department of Administration, Evaluation and Information, Ministry for Nature and the Environment, and consists of 6 scientists from the Institute of Biology, Geo-ecology and the Mongolian National University as well.

The Environmental Protection Agency is responsible for day -to-day operations of the Management and Scientific Authorities of the Conventions.

When Mongolia become a Party to the Convention, the Management Authority of the CITES in Mongolia designed and issued a certificate granting the permits for the export and import of fauna and flora species. In 1996 twelve export certificates on 20 ibex horns, skins of 526 wolves and 5 lynx as well as 25 falcons were given to business organizations, also one kilo of Musk deer pods was permitted to be re-exported abroad. In 1997, the CITES certificate was redesigned in order to meet requirements of the CITES Secretariat and Parties, and it started to be distributed. Five hundred security stamps with a code number of Mongolia were ordered and printed for the Authority. Each stamp is fixed on the original copy of the certificate. In 1997, fifty seven export certificates 28 of hunted and 16 dead Argali horns, skins of 111 wolves and 40 lynx and 150 falcons were given to business organizations. In order to reintroduce Takhi in Mongolia, an import certificate was issued to 7 Przewalski horses from Australia.

3 MEASURES TAKEN TO CONSERVE SPECIES OF FAUNA INCLUDED IN THE CITES APPENDICES

3.1 Argali (Ovis ammon)

Argali is included in the list of rare animals of Mongolia and Appendix 2 of the CITES. According to the Law on Hunting of Mongolia, rare species of animals are the species with poor capability of regeneration, limited distribution, and scarcity of resources and with potential threat to extinct in the future. Since 1987, the Mongolian Government has issued special permits on hunting of 20-30 heads of Argali for foreign game hunters. Hunting for other purposes is prohibited. According to the provisions of the Management Authority of Convention, foreign hunters are allowed to make their trophies back home, if they have an export certificate. Most overseas hunters arrive in Mongolia from USA, Mexico and Canada. There are some cases of exporting horns of Argali who had died by natural cases. In 1998 the Government adopted a decision to prohibit export of dead Argali horns.

The following are current measures for conservation of Argali:

- put the Argali habitat under the National special protection;
- use experimental artificial ponds for Argali watering are in use;
- undertake an evaluation of number of population;
- involve local communities and Government organizations in rare wildlife conservation and breeding activities;
- specify a certain percentage of incomes from permitted game hunting for conservation activities, including protection and breeding as well as the enforcement of national environmental regulations. In addition, the National Commission for Conservation of Endangered Species headed by the Minister for Nature and the Environment is under operation.

3.2 Falcon (Falco cherrug)

Mongolia has 10 species of falcons, which are listed in the Appendix 2 of Convention. Two species of falcon are included in the list of rare species and they are White Falcon and Amur Falcon.

Over the last few years the relationship between Mongolia and the Arabian world is developing rapidly. Arabian people are expressing their interest in the export of falcons. Estimates of falcon population have been carried out. Based on the results, Mongolia decided to export 150 heads of Saker Falcon. Cases of attempts of illegal export of wildlife have occurred with falcons only. Seven cases of illegal falcon export were revealed and a total of 43 heads of falcons were released from captivity. However a foreign citizen, managed to take four falcons with him out of Mongolia without the certificate from Mongolian Management Authority but fortunately he was arrested in Singapore. Discussions to bring those four birds back to Mongolia was held with the Singapore bird park, however this problem has not yet been finally resolved due to funding difficulties on both sides. The two another foreign citizens tried to take 12 the Falco Cherrugs out of Mongolia by car but they were revealed on the Customs of Tuva, Russian Federation. The birds were released near the border of the two countries. There is no guarantee that this type of problem will not be facing again. However,

to prevent similar cases there is more exchange of information between the Parties of the Convention. It is an example the importance and significance of Mongolia's membership to the Convention.

3.3 Pallas Cat (Felis manul)

Pallas Cat is an abundant species in Mongolia. However, it is listed in Appendix 2 of the Convention. Therefore, matters regarding the export of Pallas Cat whether to issue permit or not should be decided on the CITES level.

The Mongolian Authority has received a request from the Japanese Management Authority of the Convention, suggesting a temporary prohibition on the export of Pallas Cat skins. Nowadays Mongolia stopped this export, and if there is a necessity, this problem will be reconsidered and resolved through CITES provisions.

3.4 Snow Leopard (Uncia uncia)

The snow leopard is included in the list of rare species and Appendix 1 of the Convention. Few leopards occur in Gobi and in the mountains of the southwest of Mongolia. Local communities consider leopard attacks on domestic animals and they claim the leopard population may be increasing. But from a scientific point of view, it has not been proven yet. Some research on leopard habit and behavior has been launched. Illegal poaching of leopards and trails to take them out of Mongolia has occurred at the borders, and confiscated skins were sent to museums as exhibits and for decoration purposes.

3.5 Gray Wolf (Canis lupus)

Mongolia has a great source of Gray wolves, and there is no violation in hunting of this species. But the gray wolf is listed in Appendix 2 of the Convention. It is possible to prohibit hunting or limits on hunting of Gray wolves in Mongolia because in Mongolian practice, Grey wolves are considered as main "enemies " of domestic animals in the countryside. There are even some facts on wolf attacks on people.

Mongolia has no experience on exporting wolves alive, but export of processed wolf leather is popular. If some countries apply for wolves, the problem will be considered according to the provisions and certificate.

3.6 Lynx (Lynx lynx)

Lynx is listed in Appendix 2 of the Convention. It is not included in the list of rare species of Mongolia. In Mongolia, this species is not subject to hunting. At present, we have not received any proposals from overseas organizations and individuals on hunting the lynx and/or trading in its skin. If necessary, the problem will be considered in accordance with national regulations and CITES provisions.

4 ANIMAL-ORIGINATED RAW MATERIALS

China, Korea and other Eastern Asian countries are expressing their interest in musk pods, deer antlers and bear gall bladders. Musk deer (Moschus moshiferus) is included in the list of very rare species and listed in Appendix 2 of the Convention. Red deer (Cervus elaphus) is included in the list of rare species of Mongolia.

Hunting of Musk Deer is prohibited. Research and experiments on breeding them in captivity for commercial purposes are in process. We consider that intensive measures on musk deer conservation should be undertaken in the near future.

We consider that there will be no problem with collecting naturally dropped Red Deer antlers and exporting them. However collectors, as it often happens, do not wait for the natural dropping of Red Deer antlers, and they even prefer illegal poaching. Sometimes, hunters set fires accidentally, and they can be a potential cause for forest fires. Mongolia needs proper management of the Red Deer antler business: advanced technology, primary processing and export. Unfortunately, there are no suitable conditions for this kind of business today in Mongolia. Research activities on breeding Red Deer in captivity and on introducing updated technology in antler business are undergoing. Some cases of illegal poaching of female deer, in order to export the bomb and tail of the animal to China, have taken place, The information on decreasing numbers of Red Deer over the last few years should now receive greater attention.

5 INTERNATIONAL CONVENTIONS TO WHICH MONGOLIA IS A PARTY:

1 "Convention on Biological Diversity" (1993)
2 "Convention on Climate Change" (1993)
3 "Convention to Combat Desertification" (1996)
4 "Vienna Convention for the Protection of the Ozone Layer" (1996)
5 "Montreal Protocol on the Substances that deplete the Ozone Layer" (1996),
6 "Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal" (1997),
7 "Convention on Wetlands of International Importance especially as Waterfowl Habitat

THE IMPLEMENTATION OF BIODIVERSITY CONVENTION IN CHINA

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SUMMARY

In 1992, the United Nations Conference on Environment and Development at Rio de Janeiro adopted the Convention for Biological Diversity. China signed the Biodiversity Convention in Rio in June 1992 and ratified it in January 1993. After the Rio Conference, efforts have been made by China to enforce the implementation of this Convention. At the same time, there are still some problems and difficulties for the country to implement the Convention in an effective and efficient way. Part I of this article introduces the implementation of Biodiversity Convention in China. Part II identifies the problems within the effective implementation and enforcement of this Convention. Part III tries to find some mechanisms which would make this Convention more workable in China.

1 INTRODUCTION

Each era in human history has its own principal problems. The outstanding problems for our era are environmental deterioration which occurs together with economic development. These environmental problems include environmental pollution, loss in biodiversity and environmental degeneration, such as diminution of forests, soil erosion, desertification, salinity and decreased soil fertility. All those pose a threat to human survival and social progress.

Among the problems identified above, the loss of biodiversity is one of the most important problems. Biodiversity means the variability among living organisms from all sources including, *inter alia,* terrestrial, marine and other aquatic ecosystems and the ecological complexes of which they are part; this includes diversity within species, between species and of ecosystems.[1] Biodiversity provides not only indispensable biological resources, but also the environmental biosphere for human survival. However, according to observations and statistics from scientists, species (including the intrinsic genetic resources) are becoming extinct or lost at a surprisingly fast rate. Some international scientists estimated that the current speed of species losses is faster by 1,000-10,000 times than that of the natural extinction before mankind intervened. Most of time in the evolution of life, the speed of species extinction is approximately equal to that of its formation. However, the current speed of extinction is over 1 million times faster than that of formation.[2] Although scholars differ in their estimates, it is indisputable that biodiversity has been decreasing at an unprecedented rate, particularly in humid and tropical developing countries.

Over recent years, the conservation of biodiversity has engaged broad attention of various countries in the world. The United Nations Conference on Environment and Development at Rio de Janeiro in 1992 adopted the Convention for Biological Diversity. The Convention, which entered into force on December 29, 1993, aims to protect the genetic pool

of all species, using techniques similar to those found in national legislation. It takes an integrated rather than sectoral approach to conservation and sustainability of biological diversity.[3] To date, 171 countries have ratified the Convention.[4]

China signed the Biodiversity Convention in Rio in June, 1992 and ratified it on January 5, 1993. After the Rio Conference, efforts have been made by China to enforce the implementation of this Convention. At the same time, there are still some problems and difficulties for the country to implement the Convention in an effective and efficient way.

This paper will seek to introduce China's effort to implement this convention, analyze the reasons which have caused a failure to perform and try to find some mechanisms which would make international environmental treaties more effective in developing countries.

2 IMPLEMENTATION OF THE BIODIVERSITY CONVENTION IN CHINA

2.1 China's Biodiversity Resources

China covers a vast territory of 9.6 million square kilometers, with the complex and varied geomorphology, climate and natural conditions that accommodate particularly rich ecological systems. The complicated mix of physical conditions provides diverse habitats for different animals and plants, for their feeding and breeding, and thus sustains the richness of biodiversity that makes China one of the megadiversity countries of the world.[5]

Ecosystem diversity in China's ecosystems ranges from tropical rain forests to tundra, from marine systems to alpine meadows. The main ecosystems in China can be divided into several types, such as forest, steppe, desert, farmland, wetland and marine ecosystems. The plant life in these ecosystems places China amongst the world's three most plant-rich nations and over half of all China's plants occur nowhere else on earth.[6]

Species diversity in China is situated in both the Palaearctic and Oriental Realms. During the late Tertiary period, most regions were not affected by glaciation, thus the flora and fauna are characterized by having many endemic and relic species.[7] China is therefore regarded internationally as one of the important diversity countries and ranks among the top 10 nations in the world for the diversity of its mammal, bird, amphibian, and plant species.[8] According to the new statistics, the total number of all existing species in China amount to about 83,000 species. It is roughly estimated that more than 100,000 species of insects are distributed throughout China. There are more than 13,000 marine species recorded for China's seawater.[9]

In genetic diversity, China has very high richness in species, and thus can be considered to have one of the most important stocks of genetic diversity in the world.

China's biodiversity is an important component part of the world. To protect China's biodiversity will contribute greatly to the protection of natural heritage of humanity.

2.2 Efforts before Joining the Biodiversity Convention

Prior to joining the Biodiversity Convention, China has joined several international conventions such as CITES, the Ramsar Convention on Wetlands, and the Convention for the Protection of the World Cultural and Natural Heritage, migratory bird conventions etc.[10] To fulfill its responsibilities, China has made some efforts in respect to biological resources conservation such as endangered species conservation and wetlands protection. Because the Biodiversity Convention is established upon these previous treaties, these efforts should be considered as a component of the implementation of Convention on Biodiversity. On the other hand, Convention on Biodiversity is built on the basis of biodiversity conservation

practices of different countries. Therefore, before Convention on Biodiversity entered into force, the biodiversity conservation such as *in situ* and *ex situ* conservation and establishment of protected areas has long history in Contracting Parties which include China. Here in this paper, the implementation not only refers to the actions in accordance with Convention on Biodiversity itself, but also includes the former efforts which are the important part of biodiversity conservation.

2.3 Biodiversity Conservation Action Plan

Pursuant to Article 6 of Conventions required Biodiversity Conservation Action Plan (BAP) for conserving China's biodiversity in face of the harsh demands placed on it by the country's enormous population and developing economy was presented in 1994.[11] The Plan is funded under the Global Environment Facility (GEF), through the United Nations Development Programme(UNEP), and with the World Bank as the executing agency.[12] The in-country process is coordinated by the National Environmental Protection Agency (NEPA).[13] Since responsibilities for biodiversity conservation, including research and management, are spread widely throughout the government, NEPA established a Leading Group, composed of those agencies with significant biodiversity responsibilities.[14] The process is very important, since it marks the first time that scientists, managers and officials from all parts of China and from abroad have come together to pool their information , ability and effort toward conserving China's biodiversity.[15]

The Action Plan documents the present status of biological diversity and biodiversity conservation in China. Based on the basic assessment to threatened status, the Action Plan presents the overall objectives which is to set in place as soon as possible measures for avoiding further damage, and, over the long term, for mitigating or reversing the damage already done and specific objectives and actions. To ensure the implementation of specific conservation measures, the Action Plan provides some actions which include legislation and policy, institutional measures, scientific research, technical extension and demonstration, publicity and education, and increases international cooperation, etc.

The action plan is a significant step in implementing the Biodiversity Convention in China. It provides the basis for China's effort to conserve its biodiversity. It will be a platform document for biodiversity conservation activities, offering important guidance for the government of different levels, scientific and technological workers and broad masses of the people in prompting the conservation of China's rich, multiplicate and distinct biodiversity.

2.4 Domestic legislation

In the past ten years, China has promulgated a series of laws and regulations. Some of them concern biodiversity conservation. The main laws include Forestry Law (1984), Grassland Law (1985), Fishery Law (1986), Wild Animal Conservation Law (1988), Water Law (1988), Water and Soil Conservation Law (1991). The regulations include Regulation on Reproduction and Conservation of Aquatic Resources (1979), Regulation on Salvage Management (1981), Temporary Regulations on Scenic Resources (1985), Regulation on Forest Fire Prevention and Control (1988), Regulation on Seed Management (1989), Regulation on Conservation of Terrestrial Wild Animals (1992), Regulation on Afforestation of Urban Areas (1992), and Regulation on Forest and Wild Animal Nature Reserves Management (1985). There are also lots of other laws whose main objectives are not aimed at biodiversity conservation, but its' implementation has a significant influence to biodiversity

conservation. These laws include Environment Protection Law (1989), Marine Environment Protection Law (1982), Land Management Law (1986), Water Pollution Prevention and Control Law (1995), and Criminal Law (1997).[16]

2.5 Identify Important Components of Biological Diversity and Priorities

Based on the Criteria for Determining Global Biodiversity Significance and Conservation Priority of Species, a careful assessment is made by China to identify priorities among ecosystems and species requiring protection. To guide actions in the interim, the second workshop on the Biodiversity Conservation Action Plan developed lists of priority ecosystems and species.[17] The priority ecosystem covers different regions and nature reserves of forest ecosystems, grassland and desert ecosystems, wetlands areas, and coastal and marine ecosystems. The priority wildlife species include 79 species of mammals, 287 species of birds, 5 species of amphibians, 12 species of reptiles, 28 species of fish, 38 species of insects, and 16 species of invertebrates (including marine invertebrates). The priority wild plants include 151 species in number, of which 6 species are of fungi, 17 species are of gymnosperm, and 128 species are of angiosperm. [18]

2.6 *In-situ* and *ex-situ* conservation

Conservation is the most effective measures for conserving biodiversity. It means protecting valuable natural ecosystems and habitats for wildlife that can reproduce and evolve life in the ecosystem and keep the energy flow, material cycling and ecological process in the system.[19] China's first nature reserve was set up in 1956 at Guangdong Province. At 1960's and 1970's, the rate of establishment of nature reserves was slow. It has recently accelerated from 1980's, and now there were over 700 nature reserves in the country covering 65 million hectares, which is the 5.5 percent of the total land area. There are over 480 scenic areas and over 510 forest parks, which play an important role in the biodiversity conservation.[20] The establishment of wildlife nature reserves in China begin in the 1970s and accelerated in the 1980s. To date, 280 nature reserves altogether have been established to protect wild animals and plants, with a total area of 12,871,000 hectares. Of the 280 nature reserves, 211 reserves are designed to protect wild animals, with an area coverage of 12,462,000 hectares; and 69 reserves are designated to protect wild plants, with an area coverage of 409,000 hectares.[21]

To help conserve rare and endangered species, various *ex-situ* conservation bases and reproduction centers were established in the early 1980's. The number of botanical gardens in China are about 110 total now. It is estimated that at present about 23,000 wild plant species are cultivated in the botanical gardens, of 16,000 species are native flora. Among them about 300 species are in the "Plant Red Data Book". Conservation reproduction programs were carried out of forest trees, fruit trees, ornamental plants, medicinal plants, grain crops, vegetables, and some valuable cash crops such as tea and mulberry trees. In the aspect of ex-situ conservation of wildlife animals, 26 reproduction farms of endangered and endemic animal species have been built for conservation. There has been some success in breeding some 10 species of animals that were on the brink of extinction. In China, another kind of *ex-situ* conservation is based on zoos. In the past decades, zoos in the country have carried out extensive research in preservation and reproduction techniques for rare animals. Now there are 175 zoos in the country in which more than 600 species of vertebrate animals with a total of 100,000 are protected.[22]

2.7 International Cooperation

International cooperation is essential if China is to achieves its goals in conserving some of the greatest concentrations of biodiversity on Earth and achieving development through the sustainable use and management of these resources. China has created the Chinese Council for International Cooperation in Environment and Development ---a high level vehicle for expanding international cooperation on environment and development and making specific recommendations to the State Council in 1992. One working group of Chinese Council for International Cooperation in Environment and Development which named the Biodiversity Working Group has a specific focus on biodiversity.[23] In the aspects of biodiversity, China has been cooperating with many international organizations such as World Wildlife Fund, International Union for the Conservation of Nature and Natural Resources (IUCN), Global Environmental Facility, McArthur Foundation, WFP, etc.[24]

3 THE PROBLEMS WITHIN THE EFFECTIVE IMPLEMENTATION OF THE BIODIVERSITY CONVENTION

As a developing country, China has made great progress in the implementation of Biodiversity Convention. However, there still exists some problems between the requirement and the implementation which include the following aspects:

3.1 Pressures from economic growth

Since the early 1980s, China began to implement the policies of "economic reform" and "opening doors to the world". These policies brought the profound influences to the social, economic and cultural structures of the country. For most of the Chinese people, for the first time in their life, the prosperity of the western world was recognized. This created an extremely strong desire for developing the country's economy. In the past two decades, China's economy experienced a great boom with the two-digits of average growth rate. The economic development brought Chinese people improved living standards and increasing opportunities for future development. However, at the same time, the economic growth has seriously damaged the natural resources and environmental quality of the country. For example, air and stream water within most of the urban areas have been significantly polluted and brought serious health problems; natural resources have been acceleratingly explored without appropriate conservation measures. As far as biodiversity is concerned, many vegetarian areas such as forestry, grasslands and wetlands have been converted to construction land for the purpose of development. This destroys the habitats of many endangered and threatened species.

3.2 Inefficient environmental legal system

Domestic legislation is a key link for the implementation of international conventions. Only when the principle of international conventions is applied in the process of domestic legislation, the implementation of international convention becomes possible.

Since the late 1970s, law has acquired greater importance and become a considerable factor in China's economic, political, and social transformation. The proven benefits of a stable legal system have not been ignored by China's law makers and the public at large. The development of China's various environmental regulatory regimes has played a prominent role in the revolution of the country's overall legal system and is increasingly

seen as an important component to China's future prosperity. Up to now, about twenty laws concerning environmental protection and resources conservation have been formulated by the National People's Congress or its Standing Committee, and enormous regulations, standards, and other legal documents have been issued by the State Council, the related ministries and the local governments. It can be said that China has had a good beginning for establishing its environmental legal regime. However, in the field of biodiversity conservation, there is still a big vacuum within the domestic legislation.

A big gap in the law may exist concerning access to genetic resources and technology transfer. For developing country, access to genetic resources and technology transfer are two important measures to conserve domestic biodiversity. However, how to use this measures to conserve China's rich biodiversity is still not considered either by China's legislation or policy-making;

In the aspect of natural ecosystem conservation, China has promulgated 9 related laws which covered the field of forest, grassland, fishery, wildlife, water, mineral, and land. But the main purpose of these laws is to manage the use of natural resources, not to conserve natural ecosystems. As a result there are no special provisions which relate to the conservation of ecosystems. On the other hand, there are still not any laws or regulations concerning the conservation of wetlands, fresh water, and deserts which are the important parts of ecosystem in a country.

In the aspect of species conservation, although China has established a comparatively complicated legal system, these laws and regulations put more emphasis on the protection of big type vertebrates, and ignore the invertebrates, even for some small type vertebrates. Among the 96 kinds of first class priority wildlife in the China's key protected wildlife lists, 82.3 percent are mammals and birds. Only 4 percent are fishes, and 7 percent are invertebrates. There is no amphibious in the lists. Small type species are very fragile, however, some species disappeared even before they are described. They need more significant protection.

In the aspects of genetic resources, China has not made related laws. Although the State Council has promulgated Regulation on Seed Management and Regulation on Conservation of Terrestrial Wild Animals, only a few provisions in these regulations are related to the protection and management of genetic resources. These provisions are very less specific either in the protection subjects and protection measures or in the management institution, especially in the selection, preservation, import, and export of genetic resources.

In the aspects of tourism resources protection, the fast development of scenery and scenic spot has caused the serious destruction of scenic resources and species resources. However, there is not specific legislation to regulate the conservation and management of tourism resources in the present of China.

3.3 Enforcement problem

In China, law enforcement is always one of the major problems within the establishment of a sound legal system. In the field of environmental protection, for a variety of reasons, environmental laws and policies are far too often ineffective or simply unworkable. A common compliant is: "we have good laws, but they are not enforced."[25] This situation is true with respect to biodiversity conservation. Though related laws, regulations, policies and plans have been formulated, many requirements within such legal documents have not been implemented well. For example, violations of wildlife conservation such as illegal hunting and illegal market are still frequently happening; over-hunting, over-fishing and over-planting are still common phenomena throughout the country; some endangered species are even

found in the table of small or fancy restaurants. The reasons of such poor enforcement are quite complicated. First, the capacity of enforcement are comparatively weak. For example, the USEPA has more than 17,000 enforcement staff around the country, however, its counterpart, China's SEPA only headquarters 250 staff. Though several thousands of environmental enforcement officials work in provincial and local level, it is still a big difference with respect to the comparison of enforcement capacity. Second, lack of coordination among various institutions eliminate the effective enforcement. For example, the rapid creation of reserves has led to management problems. Six different national agencies are responsible for some sites and not all agencies have expertise in nature conservation. Typically, managers have limited funds and little decision-making power. For example, the Ministry of Forestry controls pandas in the wild while the Ministry of Construction manages pandas in zoos, a situation that invites conflict and breeds reluctance to share information and resources.[26] Third, government officials' corruption has became a big obstacle which hinders the effective enforcement of laws and regulations. In environment management, corruption may be exhibited in a variety of ways from high level ad hoc exemptions to industrial plant sitting restrictions in environmentally sensitive areas, to the granting of operating permits for new plants even before emission controls are in place, to the falsification of monitoring records and so on.[27]

3.4 The Cost of Old Traditions

China is one of the countries which have the longest literal recorded history. Several thousands of years feudal imperial system irons the country a strong political, economic and cultural traditions.

Historically, China is a country "ruled by men" rather than "ruled by law". In the thousands of years' history, little attention was paid to the establishment of a comprehensive legal system. For the ordinary people, when conflict occurs, they are accustomed to solve the dispute by mayors, directors, and even the senior persons of their community. Very few cases will be sued in court. For most of the citizens, they seldom try to figure out "what the law says" and what their legal rights should be. In their opinion, when the two parties argue before a court, it usually means the end of their relationship. In the field of environmental pollution, though the number of public complaints has increased greatly in the recent years, the legal procedure for the settlement of environmental conflicts has not yet been established.

As a result of the feudal economy and the autocratic monarchy system, in its thousands of years of history, China only had one complicated act which included criminal law, civil law, and all other kinds of laws. Among these, criminal law was the most important and completed part, while civil law and commercial regulations were very limited and there were few provisions concerning these respects in the feudal act. For ordinary people of China, law just means criminal law. Few people can realize the authority of Constitution, civil law, administrative law, and environmental law, etc. For most of the Chinese people, if a violation is such that the violator does not commit criminal offenses, such a violation is not looked at as a "serious" violation. This traditional legal awareness is one of the major reasons which influence the legislation and enforcement of China's environmental legal system as well as the implementation of international environmental treaties including the Biodiversity Convention.

China has a long history of using animal and plant materials to produce Chinese medicines. Some of such animal and plant parts include rhino hore, tiger bone and bear gall bladder and etc., which are drawn from endangered or threatened species. This tradition makes China bear much more pressure than most of countries in the world in protecting wildlife and implementing the Biodiversity Convention.

3.5 Inefficient financial resources

China is a developing country which suffers the urgent investment needed for various areas such as industry, construction and education. Under these circumstances, it is not realistic to expect the country to spend a lot of money in biodiversity conservation. China's government takes a positive attitude to protect biodiversity, and has promulgated several plans and identified more than 100 priority projects with respect to biodiversity conservation, however, most of them have not been implemented well because of the shortage of money. Financial resource is the most predominant factor influencing the implementation of the biodiversity conservation plans.

3.6 Environmental awareness and public participation.

In China, the environmental awareness of leaders in various levels and public at large is still in the relatively beginning stage. Though citizen suits to seek remedy of environmental pollution or damages therefrom are provided in some Chinese environmental documents, such actions are very few in practice. China's environmental impact assessment regulations currently contain no provisions for public commentary. The non-governmental environmental advocacy community in China is virtually nonexistent. Environmental and legal awareness in China, as compared to the awareness of enforcement-oriented societies such as the United States and Canada, is still at a nascent stage. As a result, very few cases exist in which citizens sue companies or regulatory agencies for damages stemming from environmental violations.[28]

3.7 Related International Issues

After the Rio Conference in 1992, the international community has established some mechanisms to assist developing countries to implement environmental treaties including the Biodiversity Convention, which mainly reflected by the operation of Global Environmental Facilities. However, this international mechanism has been proved ineffective in promoting the domestic efforts of developing countries. For example, in the last five years, China has applied for several projects to Global Environmental Facilities, but only two projects were approved or considered by Global Environmental Facilities. Moreover, a lot of time is spent in the preparing and starting period, which caused these priority project can not be implemented in good time.[29]

Illegal trading of endangered species and related materials are banned by CITES, however, such trading still exist for variety of reasons. For example, the desire of panda products from some countries brought the illegal trading of panda skin. This significantly affects the protection of the Grand Panda. Certainly the component authorities of China should pay enough attention to this international-related smuggling, however, international efforts should also be made.

4 MAKING BIODIVERSITY CONVENTION MORE WORKABLE IN CHINA

An international treaty can identify a global problem, arrange technical and financial cooperation, and spur the sharing of ideas and solution. The most effective actions, however, take place at the national level and subnational levels.[30] To make the Biodiversity Convention more workable, it needs efforts in both the domestic and international levels.

The Biodiversity Convention requires governments to develop national strategies and programs and to report on these efforts to the international community. Among other measures, governments should seek to monitor their national biodiversity to ensure that action is based on sound scientific knowledge, integrate biodiversity concerns into national legislation and other economic and social measures, encourage conservation and sustainable use of biodiversity resources, and support efforts by local populations to adopt more sustainable practices.[31]

4.1 Legislation

In the context of the international community, biodiversity has only recently been recognized as a subject of protective legislation. In China, it is the same situation, although many pre-existing laws, formulated to achieve specific goals in other respects, also affect biodiversity conservation. There are also big gaps in the legislative coverage and there may be areas where there is overlap or conflict between existing laws. Consequently, as a first step, China should initiate a comprehensive review of the nation's legislation as it affects biodiversity conservation. The review should identify where new laws are needed and where existing laws need to be canceled or amended. These legal reforms should then be implemented.

As a second step, some comprehensive and special laws and regulations should be prepared and promulgated in line with the overall goals and general tasks of biodiversity conservation, and particularly in line with the requirements and demands of the Biodiversity Convention. Those laws and regulations should include procedures on access to genetic resources, intellectual property rights protection on biotechnology transfer, regulations on nature reserve management, laws on plant resources, conservation regulations on protection and conservation of fragile or sensitive areas in the environment or ecosystems. Among these, the most urgent for China are the comprehensive biodiversity conservation law, the plant protection law and the regulations regarding management of nature reserves.

4.2 Policy Making

In China, there is a "customary process" within legislation and policy making. Normally, the legal rules adopted in legislation have to be experienced a process in policy level. When a policy is proved by practice as a good one, it is often upgraded as a legal rule. So, in China, a policy is often looked as the primary step of legislation. As far as biodiversity conservation is concerned, some policy instruments are needed in the near future.

First of all, the environmental impact assessment requirements should be applied to all activities of natural resources utilization including biological resources. In China, the present EIA procedure just applies to construction projects which may produced pollution. The broader application of such procedure should be introduced into biodiversity conservation. Environmental Impact Assessment should be conducted in any activities which may cause the loss of biodiversity. Secondly, the economic incentives should be used for biodiversity

conservation. Such incentives may include a compensation system in which the efforts of biodiversity conservation should be encouraged by subsidies, tax-deductions or other investment incentives.

4.3. Financing Implementation

Implementation of the Biodiversity Convention in China will require a large source of funding. China shall seek funding from all possible financing channels which include central government investment, local government investment, social contributions, international assistance and required investments.[32] Among these, the central government investment is the most important. The measures for the central government should include:

- Implementation of the Biodiversity Conservation Action Plan should be include in the long-term prospective planning, five-year planning and all annual plans of the nation's economic and social development so as to decree the financing for its key items for implementation.
- The implementation of both basic research and technical research on biodiversity should be included in the nation's both long-term and short-term scientific research programs and given full financial support.
- All relevant ministries and governmental agencies should include the biodiversity conservation projects in their administration plans and allocated the required funds for management of nature reserves and enforcement of relevant laws and regulations.

4.4 Involvement of the Whole Society

Unlike any earlier multilateral sustainable development treaty, the preambular language to the Biodiversity Convention recognizes the vital roles played by various parts of the whole society in the biodiversity conservation and sustainable use of biological diversity.

Firstly, the effective implementation of the Biodiversity Convention affirms the need for the full participation of women at all levels of policy-making and implementation for biological diversity conservation. It is the only multilateral treaty that acknowledges a fundamental link between women's participation and the implementation of the treaty itself.[33] The involvement of women in implementation of Biodiversity Convention are specially important in China, since women of the country take the burden to raise the families and educate the next generation. In many rural areas, most of the men leave their hometown and work in urban areas for better money-making, so women have a close relationship with nature since they shoulder the increasing role in collecting fuels of cooking, farming the agriculture land and raising the poultry animals.[34]

Secondly, indigenous and local communities' participation shall be paid enough attention. The Fourth Meeting of the Conference of the Parties to the Convention on Biological Diversity advised on the application and development of legal and other appropriate forms of protection for traditional knowledge, innovations and practices relevant for the conservation and sustainable use of biodiversity. One of its Working Groups highlighted the need for increased participation of indigenous and local communities in the Convention of Biodiversity, and recommended the establishment of an inter-sessional ad hoc working group which would include the full participation of indigenous and local communities, would meet between the

of the Conference of the Parties sessions and develop its tasks over an initial three-year period.[35] Further work should be done in China to stress the legal rights of indigenous and local communities and to stimulate local communities' participation.

Thirdly, the active participation by the Non-governmental organizations should be encouraged. In China, the NGOs' participation in environmental campaign is still very limited. In the recent years, only two or three NGOs registered in the related governmental agencies and conducted quite promising activities such as education, research and information exchange. However, the experiences of a lot of developed and developing countries show that the active participation of NGOs is a very essential and effective way for protecting environment and natural resources such as biodiversity. In China, the governments in national and sub-national levels shall take measures to encourage the development of environmental NGOs, and to give them more room to exert their positive roles.

Last, how to integrate biodiversity concerns into sectoral activities should be addressed in China. Such sectors may include industry, agriculture, transportation, energy, services and tourism. With respect to ownership, not only public sectors should actively involve in the biodiversity conservation, but private sector participation in implementing the Convention's objectives. For developing countries, integration are necessary for sustainable development. For example, sustainable tourism could play a role in poverty alleviation and biodiversity conservation. [36]

5 CONCLUSION

China needs to develop further legal measures and create effective institutional structures including those related to effective enforcement to overcome the identified problems which hinder the implementation of Biodiversity Convention and thus obtain the goal of more effective biodiversity conservation. At the same time China also needs the help of international society such as technology and information transfer to implement its national preservation policies effectively.

ENDNOTES

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8 Maintaining Forests and Biodiversity in China (visited on Oct.12, 1998) <http://www.igc.apc.org/wri/enved/giants/chi-biod.html>.

9 Action Plan, supra note 2, at 5.

10 Conserving China's Biodiversity, supra note 6, at 7.

11 Biodiversity in the People=s Republic of China (visited on Oct.12,1998) <http://www.wri.org/wri/data/dces-569.html>.

12 Action Plan, supra note 2, at i.

13 According to the Decision of National People's Congress of China on Government Reform in 1998, National Environmental Protection Agency has been renamed State Environment Protection Administration (SEPA).

14 These agencies included Chinese Academy of Sciences, Ministry of Agriculture, Ministry of Construction, Ministry of Finance, Ministry of Forestry, Ministry of Public Security, State Oceanic Administration, State Planning Commission, and State Science and Technology Commission. Pursuant to the Government Reform, the Ministry of Forestry has been renamed Forestry Bureau. State Oceanic Administration has been downgraded as State Marine Bureau under the Land Resource Ministry. State Planning Commission was renamed State Development Planning Commission, and State Science and Technology Commission was renamed Ministry of Science and Technology. *See also id.*

15 Action Plan, supra note 2, at i.

16 The Criminal Law of China was promulgated in 1979 and revised in 1997. In the revised Criminal Law, there is a specific section which concerns the crime of destroying environment and resources. This section stipulates the various of crimes which caused the environmental pollution and resources degradation and penalties thereof.

17 Action Plan, supra note 2, at 40-41.

18 National Report, supra note 5, at 19.

19 Action Plan, supra note 2, at 17.

20 Id, at 1 The Implementation of Biodiversity Convention in China 7.

21 Id, at 20.

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23 Conserving China's Biodiversity, supra note 6, at 7.

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COMPLIANCE WITH THE MONTREAL PROTOCOL IN CHINA: AN INVESTIGATION IN TWO INDUSTRIAL SECTORS

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SUMMARY

An analysis of the household refrigeration sector and the foams sector investigates how Chinese enterprises have complied with the Montreal Protocol on Substances That Deplete the Ozone Layer. We demonstrate that the performance of the household refrigeration sector in reducing ozone-depleting substance consumption is superior to the performance of the foams sector, and we present two explanations for this outcome. First, market demand matters. The influence of the global market, multinational corporations, intense (and occasionally misleading) advertising about non-CFC products, and severe competition for consumers caused China's principal refrigerator manufacturers to adopt non-CFC production technologies. Similar incentives did not exist for enterprises in the foams sector. Second, industrial structure matters. The foams sector includes a large number of small enterprises with limited financial and technical capability and weak access to information and technology, and these factors obstructed technological change. In general, assistance from the multilateral fund established under the Montreal Protocol has motivated enterprises to shift to ozone-depleting substance reduction technologies, but complex and lengthy procedures for accessing the multilateral fund, difficulties in finding appropriate suppliers of non-CFC technologies and insufficient financial and technical capabilities of many enterprises have slowed down this shift. Our results provide a foundation for better compliance in the future.

1 INTRODUCTION

The ozone layer, which is in the upper reaches of our atmosphere between 10 and 50 km above the ground, protects us from harmful effects of ultraviolet radiation from the sun. During the 1970s, scientists discovered that the ozone layer was being depleted by emissions of ozone-depleting substances, which include chlorofluorocarbons (CFCs), halons, and a number of other chlorine and bromine compounds. Ozone-depleting substances have been used extensively in the manufacture of refrigerants, aerosol propellants, and foam blowing agents. To prevent the depletion of the ozone layer, more than 160 nations (including China) ratified an international environmental agreement called the *Montreal Protocol on Substances That Deplete the Ozone Layer.* (This agreement and amendments to it are hereinafter referred to as the "Montreal Protocol.") A key provision of the Montreal Protocol requires signatory developing countries to phase out use of CFCs and halons by 2010.

To assist in meeting the 2010 phase out requirement, Parties to the Montreal Protocol established a Multilateral Fund that offers financial and technical assistance to developing countries. The main task of the Multilateral Fund is to "meet, on a grant or concessional basis as appropriate, and according to criteria to be decided upon by the

Parties, the agreed incremental costs" incurred by developing countries in reducing production and consumption of ozone-depleting substances. "Incremental costs" are the additional costs incurred when a company switches from an ozone-depleting substance technology to a non-ozone-depleting substance technology.[1] The Multilateral Fund, together with provisions of Article 10 on technology transfer, provides an opportunity for developing countries to keep up with new technologies being developed in industrialized nations. Even though enterprises must pay project costs that are not defined as incremental by the Multilateral Fund Executive Committee, grants from the Multilateral Fund typically cover a significant fraction of funds needed by enterprises to shift to non-ozone-depleting substance technologies. In order to access this fund, a nation must first prepare a "country program" that lays out plans for meeting the Montreal Protocol's goals.

Ten ozone-depleting substances controlled by the Montreal Protocol are commonly produced and consumed in China. During the early 1990s, three controlled substances, CFC 12, CFC 11, and halon 1211, accounted for over 90% of China's total ozone-depleting substance consumption and production. The fire protection sector and the chemical industry sector produce most of the ozone-depleting substances used in China. The primary ozone-depleting substance consumers in China include nine sectors: foams, fire protection, household refrigeration, industrial and commercial refrigeration, aerosols, mobile air conditioning, solvents, tobacco, and soil fumigation and food disinfestation. In terms of ozone depletion potential, manufacturers of foams, halons, and refrigerators are the primary ozone-depleting substance consumers in China.[2]

China ratified the Montreal Protocol in 1991. To comply with the 2010 phaseout goal, China's industries that consume or produce ozone-depleting substances will eventually have to switch to non-ozone-depleting substance technologies. Some enterprises have already switched to reduced-ozone-depleting substance or non-ozone-depleting substance technologies. This paper analyzes Chinese industries' behavior in compliance with the Montreal Protocol, and it identifies incentives and barriers to compliance. We use two industrial sectors as examples, household refrigeration and foams. Firms in each of these sectors consume a notable fraction of total ozone-depleting substance consumption in China: in 1996, the household refrigeration sector was responsible for about 12% of total ozone-depleting substance consumption, while the foams sector accounted for 21%. As we demonstrate below, these two sectors have responded in very different ways to the requirements of the Montreal Protocol. This paper is based on ten-months of field research conducted in 1996 and 1997 in Beijing, Shanghai, Hangzhou, Qingdao, Tianjin, and Xinfei.

2 HOUSEHOLD REFRIGERATION SECTOR

China's household refrigeration industry consists of enterprises manufacturing household refrigerators and freezers and the compressors used in those appliances. Most production equipment and technology in this sector was imported from Italy, Japan and Germany during the 1980s. As of the late 1990s, China had fewer than 40 enterprises in the household refrigeration sector and the sector's total capacity to produce household refrigerators and freezers was over 15 million units per year. In 1995, China manufactured 12.1 million household refrigerators and freezers, which accounted for 50% of the total production of refrigerators in all developing countries that ratified the Montreal Protocol and have an annual ozone-depleting substance consumption of less than 0.3 kg per capita.[3] These countries are often called "Article 5 countries", because Article 5 concerns the "special situation of developing countries".

2.1 Compliance with the Protocol

In producing refrigerators and freezers, Chinese enterprises employ CFC 11 as a blowing agent and CFC 12 as a refrigerant. To phase out use of CFCs in the household refrigeration sector, enterprises must adopt technologies that employ non-CFC foams and refrigerants, and use compressor designs that accommodate the new refrigerants.

Some Chinese refrigerator manufacturers adopted non-CFC technologies or conducted research on non-CFC technologies before China signed the Montreal Protocol in 1991. An example of an early adopter is the Jingdezhen Huayi General Electric Appliance Company. Even before 1991, the firm had negotiated a deal to import a refrigerator compressor production line that would use hydrofluorocarbon (HFC) 134a, an expensive alternative to CFC 12. Other examples involve enterprises such as Qingdao Haier Group and Xinfei Refrigerator Company, which began their research on non-CFC technologies as early as 1989.

After China ratified the Montreal Protocol, the number of household refrigerator enterprises conducting research on non-CFC technologies increased, and many enterprises in the sector have followed the development of non-ozone-depleting substance technologies closely. As of 1995, over 90% of the ozone-depleting substance phase-out in the household refrigeration sector had been attained using a 50%-reduced CFC 11 technology. After 1995, some Chinese refrigerator manufacturers adopted "transitional technologies," i.e., technologies using "transitional substitutes" such as hydrochlorofluorocarbon (HCFC) 141b and HCFC 22. These materials, which have fewer impacts on the ozone layer than CFCs even though their ODPs are not zero, are being used in the transition to non-ozone-depleting substance technologies. Since 1996, a number of China's top refrigerator manufacturers have employed 100% CFC-free substitutes, such as cyclopentane for CFC 11, and isobutane or HFC 134a for CFC 12.

Some of the above-noted CFC-reduction activities have been supported by the multilateral fund. By the end of 1997, the Multilateral Fund provided US$ 71 million to 46 projects in the sector. To complete these projects, enterprises used their own funds to cover costs that did not fall under Multilateral Fund Executive Committee's definition of incremental costs.

The Chinese Household Electrical Appliance Association estimated that of the 12 million units of household refrigerators and freezers manufactured in China in 1996, about 3 million units were produced with reduced- or non-ozone-depleting substance technologies, and production lines with over 5 million units of capacity were in the process of changing to non-ozone-depleting substance technologies; the remaining 4 million units had not reduced their use of CFCs. In other words, about two-thirds of the production lines have been or are being changed to reduced-CFC technologies. The output of household refrigerators and freezers has been rising by an average of 16% per year since 1991, and CFC consumption in the sector has been falling since 1995, the year in which the effects of the various ozone-depleting substance-reduction projects began to be seen (see Table 1).

Table 1 Household Refrigerators and Freezers: Total Production and Ozone-depleting Substance Consumption

Year	1991	1992	1993	1994	1995	1996	1997
Production (million units)	5.5	6.2	8.1	9.9	12.1	12.4	13.0
ODS Consumption (thousand tons)	6.15	6.96	8.46	10.7	8.45	9.59	7.39

Sources: CHRAA (1995) and NEPA (1998). Data are rounded

2.2 Incentives and Capabilities for Compliance

2.2.1 Market Demand

Of all the factors motivating Chinese household refrigerator producers to comply with the Montreal Protocol, market demand is the most significance. Five of the seven refrigerator manufacturers we visited during our research placed market demand as the number one reason for adopting CFC-reduction technologies. The importance of market factors is apparent in the following explanation for how decisions were made by a large refrigerator manufacturer:

If we could obtain a good market share for this product [refers to CFC-free refrigerators], we would conduct ozone-depleting substance reduction even if there were no financial support [from the Multilateral Fund]. But if we could not obtain a good market share, we would not carry out ODS reduction even if [Multilateral Fund] financial support were available.

Support for the prominence of market demand as a factor is given by the role of Chinese refrigerator manufacturers in China's ratification of the Montreal Protocol. Under the Montreal Protocol, Chinese refrigerator manufacturers would not have been able to export to countries that were Party to the Montreal Protocol unless China ratified the agreement. Once Chinese enterprises that had been exporting refrigerators learned about this trade restriction, they strongly encouraged the Chinese government to ratify the Montreal Protocol.

Access to global markets was the initial motivation for several Chinese refrigerator manufacturers to adopt non-CFC technologies. These enterprises saw China's household refrigerator exports fall by 58 percent between 1988 and 1991, a period in which European consumers began demanding refrigerators with environmental labels indicating they were CFC-free.[4] European demand for CFC-free refrigerators resulted, in part, because many European nations had signed the 1987 Montreal Protocol. In order to compete in European markets, some Chinese refrigerator companies worked with universities and research institutes to develop non-CFC technologies. At the same time, those firms asked China's National Environmental Protection Agency[5] to establish an environmental labeling program; the refrigerator manufacturers hoped that a Chinese environmental label would allow them to satisfy labeling requirements imposed by European countries. As a result of joint efforts by National Environmental Protection Agency, the China State Bureau of Quality and Technical Supervision, the Chinese Research Academy of Environmental Sciences, and industries, in March 1993, China began its environmental labeling program; reduced-CFC household refrigerators were included as products eligible to receive labels.[6]

While trade with Europe was the initial motivation for the switch to reduced-CFC refrigerators, the labeling program had the effect of causing some enterprises who sell refrigerators only in China to adopt reduced-CFC technologies.[7] This is notable because most

companies in the household refrigeration sector do not export. In 1993, enterprises exporting refrigerators to Europe introduced refrigerators labeled as "non-CFC" (*wufu*) into China's domestic refrigerator market. Once this occurred, some companies that had no intention to export refrigerators felt pressure to adopt CFC-reduction technologies. These enterprises believed that adoption of reduced CFC technologies and acquisition of environmental labels would allow them to maintain or expand their market shares. By 1996, 38 categories of refrigerators sold by 12 enterprises had been certified to use environmental labels. To obtain certification, these firms had changed to either 50%-reduced CFC technologies or CFC-free technologies.

Some enterprises used advertising to stimulate consumer demand for their non-CFC refrigerators and consumers' preferences promoted further CFC reductions in the sector. In 1996, many leading Chinese refrigerator manufacturers emphasized the non-CFC features of their refrigerators in newspaper and television ads. Some manufacturers' ads misled consumers by implying that having refrigerators made with CFCs in their homes could be directly harmful to their health. Other manufacturers employed ads touting use of the world's most advanced CFC-substitution technology in their refrigerators. Because of worries about health impacts and a high interest in buying "world class" refrigerators, many consumers bought non-CFC refrigerators during the first half 1996. This expression of consumers' preference pushed more refrigerator manufacturers to adopt non-CFC technologies; even manufacturers with limited technical capabilities made the switch. Some of these enterprises produced low quality non-CFC refrigerators. In order to protect the public from misleading ads and to encourage firms to enhance their refrigerator quality, National Environmental Protection Agency and the Chinese Household Electrical Appliance Association used television and newspapers to educate the public about ozone layer depletion and non-CFC technologies. As a result, enterprises producing low quality refrigerators either went out of business or improved their product quality.

The importance of consumer demand on the choice of manufacturing technology is further demonstrated by the way Chinese refrigerator companies tailored technologies to suit markets in different parts of the world. Actions by Qingdao Haier Group are illustrative. In response to the sensitivity of Chinese consumers to energy costs, Qingdao Haier worked with the University of Maryland and the U.S. Environmental Protection Agency to create a CFC-free refrigerator that cuts energy use by 40%. These new refrigerators have sold well in China. Because of different preferences for non-CFC technologies in the European and United States markets, Qingdao Haier Group proceeded as follows: the firm used HFC 134a to replace CFC 12, and HCFC 141b to replace CFC 11 in manufacturing refrigerators for export to the United States, whereas it used isobutane to replace CFC 12, and cyclopentane to replace CFC 11 in refrigerators it sells in European countries. The group's refrigerators in both the United States and Europe also had energy saving features.

2.2.2 Influence of Multinational Corporations

Many analysts have argued that multinational corporations are effective in disseminating new technologies when they begin manufacturing in developing countries, and this has occurred in China's household refrigeration sector. Since 1995, an increasing number of refrigerator producers from the United States, Japan, Germany, Sweden and Italy have entered China either by creating "foreign enterprises" in China or by forming joint-ventures with Chinese enterprises. Currently over 30% of the firms in China's household refrigeration sector are joint ventures involving Chinese and foreign firms and most of them employ CFC-free production practices. The presence of foreign corporations has contributed

to the spread of information about reduced-CFC technologies and pressured China's domestic enterprises to switch to non-CFC technologies. For example, one Chinese refrigerator company used its own funds to switch to CFC-free technology in 1996, even though the company had no intention to export. The manager of this enterprise provided the following explanation for why the company made the switch:

The multinational corporations have entered China's domestic market. Because we do not export refrigerators, we do not need to follow the requirements of foreign markets. However, China's market is part of the world market. If we had not changed, we would have lost China's domestic market.

Not all Chinese refrigerator manufacturers have been able to respond to the competitive pressure from multinationals by shifting to reduced-CFC technologies. Some state-owned and collectively-owned refrigerator manufacturers lacked the technical skill and financial means to make the change. As a result of competition, some of these enterprises have been forced out of business. Officials in the Office of Household Electrical Appliance Industry are very concerned that Chinese refrigerator firms not involved in joint ventures will be devastated by their competitors.

2.2.3 Assistance from the Multilateral Fund

The multilateral fund has also encouraged Chinese refrigerator manufacturers to adopt reduced-CFC technologies, but it has not been as significant an influence as either market demand or multinational corporations who have established a presence in China. The main effect of the Multilateral Fund has been to speed up adoption of reduced- or non-CFC technologies by enhancing the financial capabilities of Chinese refrigerator manufacturers.

Because an acceptable country program had to be in place before Multilateral Fund money could flow into China, enterprises in the household refrigeration sector pushed the government to complete China's Country Program quickly. Enterprises we visited indicated that even though they would have adopted non-CFC technologies without financial assistance, the opportunity to obtain Multilateral Fund support encouraged them to move more quickly because the Multilateral Fund money would provide them with the financial means to change technologies. By the end of 1997, US$ 71 million had been granted to this sector for technology change, project preparation, and training; most of the Multilateral Fund money was used to change production technologies.

2.2.4 Access to Information and Technology

In contrast to firms in other sectors that use CFCs, most refrigerator manufacturers have imported equipment, and some have close connections with foreign firms. Because refrigerator manufacturers have technically skilled workers and easy access to information, it was relatively easy for them to adopt reduced-CFC technologies. A number of these enterprises learned about the Montreal Protocol and its requirements from their foreign partners. Moreover, some joint-venture refrigerator manufacturers adopted technologies used by their foreign partners. For example, Xiling, now uses HFC 134a and HCFC 141b as a CFC substitutes in its new refrigerator production line; Xiling made these change at the request of Sanyo, its Japanese partner.

Refrigerator manufacturers also have good access to information through the Chinese Household Electrical Appliance Association. In addition to holding annual meetings that provide a forum for exchanging technical information, Chinese Household Electrical Appliance Association publishes the *Household Electrical Appliance Journal* to keep Chinese

companies up-to-date on technical innovations. Because there are only about 40 refrigerator manufacturers in China, information flows easily between the Chinese Household Electrical Appliance Association and the companies.

In comparison to companies in other sectors, refrigerator manufacturers could more easily learn about alternative financing methods and new technologies, and thus they could more readily take advantage of the Multilateral Fund. China's Country Program, which was prepared in 1993, contained a sector-by-sector estimates of funds required from the Multilateral Fund in order for China to cut production and use of ozone-depleting substances. The household refrigeration sector received 163% of the funds specified for that sector between 1991 and 1996 in China's Country Program, whereas most other sectors received only about 10% of the funds called for in the Country Program. These differences are partially explained by the ability of refrigerator manufacturers to access information and thus be better able to satisfy requirements of the Multilateral Fund Executive Committee.

2.3 Obstacles to Compliance

Most enterprises in the household refrigeration sector have the incentives and abilities to adopt cleaner technologies. However, contrary to the expectation of enterprise managers, complex Multilateral Fund application procedures and difficulties in technology transfer have slowed down the adoption process.

2.3.1 Complex Multilateral Fund Application Procedure

Although managers at the seven refrigerator manufacturing enterprises we visited were initially excited about the Multilateral Fund, they each expressed frustration with the Multilateral Fund application and fund disbursement procedures. In the administrative process set up by the Multilateral Fund, proposals for projects identified in a country program are first approved by the country itself and then submitted to one of four agencies implementing the Multilateral Fund: the World Bank, the United Nations Development Program, the United Nations Environment Program, and the United Nations Industrial Development Organization. The implementing agency conducts its review and may suggest revisions in the proposed project. After the implementing agency approves a proposal, it submits the proposal to the Ozone Fund Secretariat, an organization that supports the Multilateral Fund Executive Committee in managing the Multilateral Fund and acts as a liaison between the implementing agencies and the Executive Committee. Following an evaluation by the Ozone Fund Secretariat, a proposal is sent to the Executive Committee for final approval. After a project receives approval, the implementing agency must create detailed plans to administer funding for the project.

In addition to the above-described procedures, each implementing agency has its *own* multistage process for reviewing proposals before sending them to the Ozone Fund Secretariat. Moreover, changes suggested by the Ozone Fund Secretariat or mandated by the Executive Committee must again go through the implementing agency's review process. Although these complex procedures may contribute to making projects better, they slow down the project implementation process. Some enterprise managers we interviewed said they would not have applied for Multilateral Fund money if they had known in advance of the burdensome and lengthy administrative procedures involved.

Chinese enterprises have spent much time sorting out the Multilateral Fund procedures. At the outset, the various Chinese agencies involved in implementation were not familiar with the Multilateral Fund application process and could not provide clear guidelines for companies. Indeed, many Chinese enterprises did not even know which

agency they should contact. They had to send staff to Beijing many times to clarify application procedures and to revise project proposals. For the seven refrigerator manufacturers we visited, it took a minimum of one and a half years from the time a proposal had been submitted to National Environmental Protection Agency to the time approval was granted by the Multilateral Fund Executive Committee.

2.3.2 Difficulties in Technology Transfer

Another impediment faced by Chinese refrigerator companies involves problems in finding appropriate suppliers of ozone-depleting substance reduction technologies. One set of difficulties centers on disagreements about which technology suppliers to use. In some cases, Chinese enterprises disagreed with the choice of technology suppliers selected through bidding or other procedures used by international experts working for the Multilateral Fund implementing agencies. In at least two cases, Chinese refrigerator manufacturer spent considerable time negotiating with experts at the implementing agencies over the choice of suppliers. In the end, each of these enterprises dropped its objections to the choice of technology suppliers in order to allow their projects to go forward. Chinese enterprises complained that international experts did not understand "China's situation" (i.e., the criteria Chinese companies considered important in selecting suppliers); managers we interviewed claimed that international experts selected technologies they preferred, but these technologies were not necessarily the best for the enterprises. In contrast, some international experts at the Multilateral Fund implementing agencies argued that ambiguities in the documents prepared by Chinese companies are what caused disagreements in selecting technology suppliers.

The Montreal Protocol requires "the best available, environmentally safe substitutes and related technologies" to be transferred to Article 5 countries "under fair and most favorable conditions." However, some enterprise managers we interviewed complained that the tough conditions for technology transfer provided by suppliers caused delays because much time was required in negotiating agreements. In some instances, talks broke down and Chinese enterprises pulled out. For example, after winning the bid to transfer a compressor technology, one foreign supplier insisted that the transfer could only take place if the Chinese company paid the supplier 3% of its gross sales. The Chinese company balked at this condition. Even though the Chinese enterprise eventually found a new supplier, the ozone-depleting substance-reduction technology was not as mature as the one offered by the first supplier.

Another enterprise we visited managed to find a large supplier willing to provide it with a non-ODS technology at a purchase price of US$ 200,000 in early 1996. As a condition for transferring its technology, the supplier asked the Chinese company to make a separate, US$ 500,000 purchase of equipment (unrelated to ozone-depleting substances), and the enterprise agreed. However, as of mid-1997, a final agreement between the two firms had not been signed. At that time, the Chinese enterprise doubted whether this technology transfer would take place.

One possible reason for the tough negotiating positions taken by technology suppliers may be related to China's weak record in protecting legal rights to intellectual property such as designs for equipment. If a supplier felt it would lose control of its technological innovations once it sold them to a Chinese enterprise, the supplier might well insist on creating a joint venture or obtaining very favorable financial conditions at the time of sale.

3 FOAMS SECTOR

China's foams sector includes enterprises using CFC 11 and CFC 12 as blowing agents in the production of rigid and flexible polyurethane foams, and extruded polystyrene and polyethylene foams, respectively.[8] About 1,240 polyurethane foam manufacturers and 160 polystyrene and polyethylene foam manufacturers operate in China (SEPA, 1998). At least 1,000 of the polyurethane foam manufacturers are classified as small, and most of these small firms are Township and Village Industrial Enterprises,[9] which are dispersed throughout rural areas. Typically, small Township and Village Industrial Enterprises have weak financial and technical capabilities, and because they are widely scattered, government ministries have difficulties exchanging information with them.

3.1 Compliance with the Protocol

Under the Montreal Protocol, manufacturers of polyurethane and polystyrene and polyethylene foams that use CFCs will eventually have to change to non-CFC technologies. In China, the Plastic Industry Office under the National Council of Light Industry (NCLI) is responsible for coordinating CFC substitution within the foams sector. As of 1997, no national policies and regulations existed to promote CFC substitution within this sector.

After China ratified the Montreal Protocol in 1991, foam manufacturers began to apply for Multilateral Fund grants to implement ozone-depleting substance-reduction technologies. As of 1997, there were 71 foams-sector projects funded by the Multilateral Fund with grants that totaled US$ 31 million. Of these, only 54 were for investments in production facilities; most other grants were for project preparation, training, and sector strategy formulation. Upon completion, the 54 investment projects would reduce approximately 7,430 tons of ozone-depleting substances. As of 1997, only seven Multilateral Fund projects had been completed and they phased out use of 1,240 tons of ozone-depleting substances. Enterprises that have changed to non-CFC technologies *without* Multilateral Fund support have phased out about 800 tons of CFCs.

Despite the Multilateral Fund projects, most of the 1400 enterprises in the foams sector that once used CFCs still do so; only about 70 of these enterprises (5%) have changed or are changing to non-CFC technologies. Total CFC consumption in the foams sector increased between 1991 and 1995 (see Table 2). The 1995 increase was related to a rise in demand for commercial refrigeration and for rigid foam. There was a drop in 1996, and it may have resulted from the closure of unprofitable enterprises and the completion of projects involving use of CFC substitutes. CFC consumption in 1997 was 10,000 tons more than that of 1991. Why have so few enterprises in the foams sector changed to cleaner technologies, and what has motivated the enterprises that have changed?

Table 2 CFC Consumption in the Foam Sector

	1991	1992	1993	1994	1995	1996	1997
Consumption	13,200	15,600	19,400	22,500	24,700	20,900	23,900

Source: PIO (1997) and SEPA (1998). Data are rounded.

3.2 Incentives for Compliance

In contrast to the household refrigeration sector, market demand for foam produced without CFCs is weak, and the main motivation for companies to switch to non-CFC technologies is the advantage of financial and technical assistance from the multilateral fund. Six of the seven foam manufacturing enterprises we visited indicated that receiving Multilateral Fund grants was their most important reason for shifting to non-CFC technologies. Moreover, of approximately 70 foam manufacturers that have adopted or are adopting non-CFC technologies, 54 used Multilateral Fund money. Many firms in the foams sector have few financial resources and low technical capabilities, and the Multilateral Fund provides them with a means to bring in new production technologies. Without the assistance provided by the Multilateral Fund, some of these enterprises would not have adopted non-CFC technologies because they lacked both the incentives and the capabilities to do so.

Most of the foam manufacturers that changed to non-CFC technologies *without* Multilateral Fund assistance were motivated by decreased production costs. They adopted methylene chloride as a substitute for CFC 11, and butane as a substitute for CFC 12. If China had not ratified the Montreal Protocol, those enterprises would probably have continued to use CFCs, because methylene chloride is highly toxic and butane is flammable and explosive. After China ratified the Montreal Protocol and it became clear that CFCs would be eventually phased out, the price of CFC 11 increased from 9 yuan/kg to 14 yuan/kg. By comparison, methylene chloride was priced at about 9 yuan/kg. Also, the price of butane was lower than that of CFC 12. The use of these substitutes involves no major changes in production equipment.

Interestingly, 44 of the 54 foam enterprises that received Multilateral Fund money for investment projects utilized either methylene chloride or butane as CFC substitutes. Proposals involving these substitutes were routinely approved by the Multilateral Fund Executive Committee because they were less costly than other non-CFC technologies. These 44 enterprises were motivated to change for two reasons: they received Multilateral Fund money *and* they decreased production costs. Some of the firms that switched to methylene chloride or butane without Multilateral Fund grants were unable to satisfy Multilateral Fund criteria, typically, because the firms were very small. A number of firms that paid for non-CFC substitutes on their own were simply unaware of the Multilateral Fund.

Many firms that switched to methylene chloride or butane on their own failed to invest in adequate ventilation systems and other required safety measures. In some instances, costly fires broke out. Firms that used Multilateral Fund money to adopt methylene chloride or butane did not experience safety problems, because the Multilateral Fund provided funds sufficient to cover required safety measures. The need for new ventilation systems and other measures helps explain why so few enterprises adopted the methylene chloride or butane on their own even though production costs could be lowered. Many firms felt that the (unsubsidized) switch to methylene chloride or butane was not economically beneficial when the cost of adequate safety features was included.

3.3 Barriers to Compliance

Several factors explain why most foam enterprises have not changed to non-ozone-depleting substance technologies even though production cost could be cut by making the change. The cost of ventilation systems has already been noted. In addition, the absence of consumer demand for foam products manufactured without CFCs means enterprises have

no incentive to change. Moreover, lack of access to information and technology, and insufficient financial resources and technical skills impeded the ability of small foam manufacturers to access the Multilateral Fund and thereby make technology changes.

3.3.1 Market Demand for Foam Products

China's foams sector primarily supplies the domestic market. Since the early 1990s, China's polystyrene and polyethylene industries have grown rapidly to meet packaging needs for food, instruments, and handicrafts. In addition, polyurethane industries have grown to keep pace with rising demand for commercial refrigeration equipment, and the development of automobiles, and building materials. In response to the increased demand for foams between 1991 and 1997, many new Township and Village Industrial Enterprises were formed. In addition, numerous firms existing in 1991 were able to increase their outputs rapidly because they had been operating far below full capacity.

The sharp increase in the output of foams was accompanied by a corresponding rise in consumption of CFCs in the foams sector. This occurred because both individual consumers and foam consuming industries made their purchasing decisions without any concern for the CFC issue.

3.3.2 Lack of Access to Information and Technology

One reason so few firms adopted CFC substitutes is that small Township and Village Industrial Enterprises dominate the forms sector and many of them have little access to information about the ozone depletion problem, the Montreal Protocol, the Multilateral Fund, and alternatives to CFC-based foam manufacturing technologies. Most of these small firms serve local markets and do not have access to information outside their areas.

Under China's centrally controlled administrative system for implementing the Montreal Protocol, government ministries coordinate ODS phaseout activities in industrial enterprises. SEPA and the Plastic Industry Office have organized workshops and seminars about CFC substitution and Multilateral Fund application procedures. The Plastic Industry Office also publishes a quarterly newsletter, *CFC Substitution*, describing CFC-reduction technologies. Because no formal connection exists between ministries and enterprises owned by township governments and village committees, ministries have difficulty in keeping these enterprises informed. Township governments and village committees, which own most of the Township and Village Industrial Enterprises in the foams sector, are outside the vertical hierarchies under industrial ministries. and they have had little involvement with ODS reduction activities. Township and Village Industrial Enterprises are generally unaware of *CFC Substitution* and events organized by SEPA and the Plastic Industry Office. This is particularly true for small Township and Village Industrial Enterprises dispersed throughout hard to reach rural areas.

3.3.3 Insufficient Financial and Technical Capabilities and Shortage of Multilateral Funds

Even though the cost of producing foams using methylene chloride or butane is lower than using CFC 11 and CFC 12, most small- and medium-sized foam manufacturers did not switch to these non-ozone-depleting substances. As noted above, production costs are lower using methylene chloride or butane, but required safety measures using this technology involve offsetting costs and risks. This is one barrier to change. Another barrier to making this technology change was enterprises' limited resources. Because staff in small foam

enterprises have modest technical skills, they often focus on routine operations required to meet production targets, and they avoid undertaking new activities such as ozone-depleting substance phaseout projects. Moreover, some of these firms are barely profitable, and they resist changing existing operation methods and technologies out of fear that they would be driven out of business. Some of these enterprises adopted a "wait and watch" policy, hoping to identify a workable non-ozone-depleting substance technology that involves minimal risk.[10]

Small- and medium-sized foam manufacturing enterprises also have problems in accessing Multilateral Funds. For example, the Multilateral Fund requires a proposed project to be cost effective i.e., the project must attain a given level of ozone-depleting substance reduction at minimum cost. Small- and medium-sized foam enterprises have difficulties meeting this criterion because the cost per unit of ozone-depleting substance reduction is high compared to unit costs of ozone-depleting substance reduction at a large foam company. In addition, small foam manufacturers are often incapable of preparing project proposals in the manner and format prescribed by the Multilateral Fund. Also, small firms typically have problems coming up with funds to cover costs not defined as incremental by the Multilateral Fund Executive Committee. Foam manufacturers that have received Multilateral Fund grants are relatively large, with production capacities of more than 1000 tons annually. None of the more than 1,000 small firms in the foams sector have received Multilateral Fund assistance.

Some foam manufacturers believe the lack of adequate money in the multilateral fund has slowed the shift to non-CFC technologies in their sector. During the period from 1991 to 1996, companies manufacturing foams received only 23% of the Multilateral Fund money targeted for foams in China's Country Program.[11] A number of firms that submitted applications to Multilateral Fund received no support because of the shortage of money in the fund. Some enterprises that received Multilateral Fund money to change to methylene chloride or butane technologies indicated that the Multilateral Fund Executive Committee preferred to support these technologies because of their low cost. These enterprises preferred other technologies such as those involving CO2 , because they would be free of safety problems and the foams produced have a higher quality.

As in the case of refrigerator companies, foam manufacturers have been stymied by the Multilateral Fund's complex application procedures. Of the 54 investment projects funded by the Multilateral Fund in the foams sector, only three had been completed by the end of 1996. Managers at each of the seven foam manufacturing companies we visited complained about administrative hurdles and technology transfer problems, including the Multilateral Fund Executive Committee's willingness to approve the transfer of obsolete CFC-reduction methods rather than paying for up-to-date technologies. The managers also noted difficulties in finding appropriate technology suppliers. However, based on our interviews, technology transfer presented fewer difficulties in the foams sector than it did in the household refrigeration sector. This may be because the technology used by the foams sector is relatively simple.

4 COMPARISON OF PERFORMANCE IN THE TWO SECTORS

The household refrigeration sector has outperformed the foams sector in compliance with the Protocol. By the end of 1997, over two-thirds of the production lines for household refrigerators had been changed to non-CFC technologies or were in process of changing, while about 95% of foam manufacturing enterprises (including new enterprises) still used CFCs. What factors contribute to this difference in performance?

4.1 Demand Patterns and International Trade

Preferences of consumers in European markets along with requirements from international trading partners motivated the initial move to reduced-ODS technologies in China's household refrigeration sector. These factors, plus the influence of multinational corporations that began manufacturing refrigerators in China pushed Chinese refrigerator firms to cut their use of CFCs. Even Chinese manufacturers that sold only in China's domestic market for refrigerators and freezers felt they had to adopt reduced-CFC technologies to compete. Corresponding market pressures for change did not exist in the foams sector: the influence of international trade and multinational corporations in the foam sector is minimal, and consumers have not expressed a preference for foams manufactured without CFCs. The experience of refrigerator manufacturers supports the view that international trade can have beneficial environmental consequences through its effects on the technological characteristics of production, and that multinational corporations can be effective in transforming technology when they begin manufacturing in developing countries.[12]

4.2 Industrial Structure

The household refrigeration sector contains only about forty firms; most of them are large and a notable fraction are foreign or joint-venture enterprises. Because of the small numbers involved, it is easy for enterprises and industrial ministries to exchange information. In addition, refrigerator manufacturers generally employ imported, post-1980 technologies, and their strong financial and technical capabilities allow them to either implement technological changes on their own or satisfy Multilateral Fund funding criteria and receive Multilateral Fund grants.

In comparison, the foams sector includes over 1,000 small-sized enterprises, many of which are small Township and Village Industrial Enterprises scattered in rural areas. These enterprises have little access to information about the Montreal Protocol from industrial ministries, and they lack the technical skills and financial resources to do research, adopt new technologies on their own, and compete for Multilateral Funds.

4.3 Roles of the Montreal Protocol

One thing manufacturers of foams and household refrigerators have in common is the Multilateral Fund. For firms in the foams sector, the Multilateral Fund provides a key incentive for adopting non-CFC technologies. In contrast, refrigerator manufacturers are more motivated to change by market forces. They take advantage of Multilateral Fund grants, but the availability of grants is not the key stimulus for adopting cleaner technologies. Indeed, because of difficulties some household refrigerator companies have had with Multilateral Fund application procedures and problems in negotiating with technology suppliers, several of these companies question whether the Multilateral Fund has speeded the adoption of cleaner technologies within their sector. Managers within the foams sector have also complained about the Multilateral Fund, particularly the complex application procedures and the shortage of money. However, the importance of the Multilateral Fund grants in motivating change in the foams sector is notable, since many firms in that sector see no other reason to switch to non-CFC technologies.

The Montreal Protocol's influence in China extends the Multilateral Fund. The CFC phaseout requirements in the Montreal Protocol caused some European nations to impose restrictions on refrigerators manufactured using CFCs. This requirement, which was manifested in the context of environmental labeling restrictions, was a major force in causing

some Chinese refrigerator manufacturers to stop using CFCs. An analogous effect in creating markets for non-CFC products did not take place in the foams sector. Arguably, the overall influence of the Montreal Protocol in promoting cleaner technologies has been weak because China has until 2010 to eliminate CFCs. Since firms have over a decade to meet the 2010 target, the pressure caused by the phaseout requirement has not been intense.

5 POLICY IMPLICATIONS

Because our analysis includes only two sectors it does not allow us to reach general conclusions. However, our results suggest some changes that could be made to enhance the compliance with the Montreal Protocol. One such change concerns the allocation of Multilateral Funds. In China, refrigerator manufacturers that were motivated to adopt cleaner technologies in response to consumer demand received a notable fraction of Multilateral Fund money distributed in China. In contrast, small and medium-sized foams manufacturers, which see little financial advantage in eliminating use of CFCs, received relatively little Multilateral Fund money. A change in the allocation of Multilateral Fund money to favor firms that are not otherwise motivated to adopt reduced-CFC technologies might prove more effective. A simplification of Multilateral Fund application and disbursement procedures would also enhance the fund's influence. Another way is to augment resources used to provide information to Township and Village Industrial Enterprises that use CFCs. Experience with the foams sector demonstrates that many Township and Village Industrial Enterprises were completely unaware of the Montreal Protocol, and thus the Multilateral Fund grants could not possibly influence their behavior.

Finally, our results for the household refrigeration sector highlight the importance of the media as an instrument for influencing consumer demand for environmentally friendly products. The results also show how quickly enterprises can move to cut their use of ozone-depleting substances if the market signals are right. The environmental awareness of most Chinese citizens is quite low, but the government is well positioned to change this by using the media to promote environmentally friendly products and enhance the public's understanding of environmental problems. In the end, consumer demand may prove to be the key force in moving Chinese enterprises to comply with the Montreal Protocol.

REFERENCES

1 The basis for the Multilateral Fund is contained in Article 10 of the London Amendments to the 1987 Montreal Protocol. These amendments were developed at the Second Meeting of the Parties to the Montreal Protocol held in London in June 1990. The Multilateral Fund Executive Committee has developed categories of costs defined as incremental in "Indicative List of Categories of Incremental Costs." For more information about the Montreal Protocol and the Multilateral Fund, see Benedick, R. E. 1998 *Ozone Diplomacy: New Direction in Safeguarding the Planet*, Enlarged edition, Cambridge MA: Harvard University Press; Multilateral Fund Secretariat, 1997, *Multilateral Fund for the Implementation of the Montreal Protocol: Policies, Procedures, Guidelines and Criteria*, Nairobi: UNEP.

2 A chemical substance's effect on the ozone layer is measured by its ozone depleting potential, a numerical estimate of the total quantity of ozone destroyed by a given mass of the substance over its entire atmospheric life. ODP is the

ozone depleting effect of 1 kg of a chemical relative to 1 kg of CFC 11. For example, halon 1211 has an ODP of 3 because it is three times more effective in destroying the ozone layer than CFC 11.

3 Information about the household refrigeration sector is collected from personal interviews and referred to the following materials. Chinese Household Electrical Appliance Association (CHEAA), 1995, ODS Reduction Strategies for Household Refrigeration Sector (*Bingxiang hangye Chouyang haosun wuzhi xiaojian zhanlue*), Beijing: CHEAA; Office of Household Electrical Appliance Industry (OHEAI), 1997, Draft Progress Report on ODS Reduction in the Household Refrigeration Sector (*bingxiang hangye chouyang haosun wuzhi xiaojian jinzhan baogao*). Beijing:OHEAI; National Environmental Protection Agency (NEPA), 1993, Country Program for the Phaseout of ODS under the Montreal Protocol (*zhongguo xiaojian shouyang haosun wuzhi guojia fangan*). Beijing: NEPA; and NEPA, 1998, Update of China's Country Program for Ozone Depleting Substances Phaseout (draft), Beijing: NEPA.

4 French, H. F. 1997. "Learning from the Ozone Experience." In Brown, L. R., Flavin, C. and French, H. *State of the World*. New York: W.W. Norton & Company.

5 In March 1998, as part of a major restructuring of government agencies, NEPA was upgraded to a full ministry and renamed as the State Environmental Protection Administration (SEPA). For events that occurred before March 1998, we use NEPA instead of SEPA.

6 Xia, Q. and Liu, Z. 1995. *Environmental Labeling (Huanjing Biaozhi)*. Beijing: China Environmental Science Press. Xia, Q. and Zhao, J. 1999. "Environmental Labeling Program in China." *Environmental Impact Assessment Review* (forthcoming).

7 Some analysts argued that the Montreal Protocol's restrictions on a China's ability to export goods produced using CFCs would not influence its refrigeration sector (e.g., Getz, K. A. 1995. "Implementing Multilateral Regulation—A Preliminary Theory and Illustration." *Business & Society*. 34(3): 280-316). According to this view, China would continue to use CFCs in refrigerators because China's enterprises were primarily interested in providing a means of food preservation for China's population, not in exporting refrigerators. As demonstrated below, this argument is not supported by the facts.

8 In China, enterprises producing PU foam panels for use in household refrigerators and freezers are categorized as part of the household refrigeration sector, not the foams sector. Other foam producers include firms that manufacture molded expandable polystyrene (EPS) and polyvinyl chloride(PVC) foam. However the production of EPS and PVC foams does not involve use of substances controlled by the Montreal Protocol. Information about the foam industry is collected from personal interviews and from the following materials: Plastic Industry Office (PIO). 1997. Draft Progress Report on ODS Reduction in the Foams Sector (*paomo hangye chouyang haosun wuzhi xiaojian jinzhan baogao*). Beijing: PIO; and NEPA, 1998, see Endnote 3.

9 In general, township and village industrial enterprises (TVIEs) are located in rural areas, and the majority of their investment funds come from rural collective organizations or farmers. Currently TVIEs are located in almost every town and village of the country and are involved in most sectors of the national economy. They are often supervised by the township governments and village committees that own them.

10 Hu, S. 1995. ODS Reduction in China's Small and Medium Enterprises, UNEP Round Table Discussion on Knowledge Sharing Networks for ODS Phaseout. Washington D.C.

11 Center for Environmental Sciences. 1998. Review of the Implementation of China's Country Program for ODS Phaseout (draft). Beijing: Beijing University.

12 Johnstone, N. 1997. "Globalization, Technology, and Environment." In *Globalization and Environment—preliminary perspective*. Paris: OECD.

WORKSHOP 5C
ILLEGAL SHIPMENTS OF DANGEROUS CHEMICALS INCLUDING PESTICIDES

Much attention has been paid to enforcement of international environmental agreements and related domestic requirements governing the shipment of hazardous waste. Less attention has been paid to issues related to enforcement of requirements related to import and export of dangerous chemicals, including pesticides, that may not qualify as hazardous waste under international conventions or perhaps are mischaracterized so as not covered by those conventions. Such materials thought to be raw materials, recycled and product which are dangerous. Such may be the case with pesticides, with recycled scrap metal which contains radioactive substances, etc. Discussions drew upon the technical support document prepared for the Fourth International Conference on "Transboundary Illegal Trade in Potentially Hazardous (Waste, Pesticides, Ozone Depleting) Substances" as well as several papers written for the Fourth International Conference Proceedings. While there may have been some overlap with discussions held under workshop 5A, this workshop had a different focus.

Paper 1 for Workshop 5C and a list of related papers from other International Workshops and Conference Proceedings are in Volume 1

SUMMARY OF WORKSHOP: ILLEGAL SHIPMENTS OF DANGEROUS CHEMICALS INCLUDING PESTICIDES

Facilitators: Marcia Mulkey, Julian Amador
Rapporteur: Linda Spahr

GOALS

Workshop discussions are designed to address the following issues:

- Kinds of controls that countries have adopted in regard to import and export of dangerous chemicals that are regulated outside of the framework of the Basel Convention.
- Status of compliance with such requirements and kinds of problems encountered in gaining compliance.
- How nations are ensuring they know of shipments with potential environmental hazards.
- Enforcement successes and failures and what factors contributed to success or failure.
- Identification of actions nations may be able to take to enhance the exchange of information and successful detection and enforcement against illegal shipments.

1 INTRODUCTION

Much attention has been paid to enforcement of international environmental agreements and related domestic requirements governing the shipment of hazardous waste. Less attention has been paid to issues related to enforcement of requirements related to import and export of dangerous chemicals, including pesticides, that may not qualify as hazardous waste under international conventions or perhaps are mischaracterized so as not covered by those conventions. This workshop was designed to address and consider the following issues:

- Kinds of controls that countries have adopted in regard to the import and export of dangerous chemicals that are regulated outside of the framework of the Basel Convention.
- Status of compliance with such requirements and kinds of problems encountered in gaining compliance.
- How nations are ensuring they know of shipments with potential environmental hazards and how this may change under the new Prior Informed Consent agreement (PIC).
- Enforcement successes and failures and what factor contributed to success or failure.

- Identification of actions nations may be able to take to enhance the exchange of information and successful detection and enforcement against illegal shipments.

2 PAPERS

Two papers were written specifically for this workshop. One author developed a topic paper associated with the illegal shipments of dangerous chemicals including pesticides and another makes reference to actions through regional cooperation in North America. They are presented in the Fifth International Conference on Environmental Compliance and Enforcement Proceedings, Volume 1:

- Solid Enforcement of New Substances in Europe (SENSE), Spelt, C.
- The North American Agreement for Environmental Cooperation: A Regional Framework for Effective Environmental Enforcement, Duncan, Linda F.

Several papers relating to the topic were published in the Fourth International Conference Proceedings. In addition, a technical support document was prepared fro the Fourth International Conference on "Transboundary Illegal Trade in Potentially Hazardous (Waste, Pesticides, Ozone Depleting) Substances."

3 DISCUSSION SUMMARY

The participants identified a variety of factors which make it particularly difficult to control illegal shipments of dangerous chemicals and pesticides.

- The term "illegal" is difficult to define. Sometimes shipments may be legal, but the purposes for which a substance is shipped—the end use—may be illegal because users do not use the substance in a lawful manner.
- Lack of adequate regulations and controls within particular countries.
- Lack of standardized regulations about what substances—particularly, pesticides—are unlawful among different countries. There may be huge differences among countries within particular regions of the world.
- Labels, safety warnings and instructions for use of products may be in different languages. Items sent from a manufacturing country may not be understandable to an importing country. This affects government's ability to identify them, and the user's ability to safely use them.
- Inadequate resources and technology to test substances, to independently determine their safety and proper usage.
- Inadequate information about the amount of pesticides and herbicides being used, the effectiveness of the products, how long they have been used and how long they should be used.
- Pesticides are being shipped in more concentrated form. While this saves money be making them cheaper to ship, it also makes the smaller physical packages harder to detect and therefor harder to regulate.

3.1 Safety and Public Health Issues

The absence of adequate government testing, understandable labeling, usage protocols and training requirements presents significant health and safety risks in the importing countries.

- Dangerous chemicals are used without personal protective equipment necessary to protect workers.
- Pesticides are used in unsafe concentrations, endangering workers as well as the community.
- Members of communities use "empty" containers to carry drinking water and food products, leading to the ingestion of the chemicals shipped.
- Dangerous herbicides, sometimes used to control illegal drug production, unintentionally contaminate food and water supplies.
- The cost of disposal of obsolete pesticides is so high that they are stored, or continue to be used, in a manner that poses health and safety threats to the community.

3.2 Legal and Political Issues

Much of the discussion centered around the fact that it is lawful in some industrialized nations to produce pesticides and herbicides which are banned from use in the manufacturing country, so long as they are destined for export to other nations. In most cases the importing countries are developing countries, without the resources or technology to independently test those substances and make judgments about their safety.

The need for agricultural production in those importing countries sometimes makes it difficult to enact regulations to limit or ban the use of dangerous pesticides. International pressure to control illegal drug production, often as a condition of financial aid, may force countries to use crop eradicating herbicides which endanger their citizens. The financial rewards from trading in dangerous chemicals and pesticides pose further disincentives to banning them.

When no laws prohibit shipment of dangerous pesticides and other substances to developing countries, those countries end up being used as "dumping grounds" for dangerous chemicals.

4 APPROACHES AND RECOMMENDATIONS

4.1 Addressing Inadequate Technological and Scientific Capacity

Specific suggestions were made for countries that have inadequate technological and scientific support to determine safety of particular products:

- Countries that lack independent testing capability can simply ban the use or import of any substances that have been banned in another country.
- Countries can utilize existing databases, particularly through the Internet, to determine what substances have been tested and what environmental, health and safety impacts have been determined.

4.2 Regional Networks and Compacts

Regional networks should be developed, and existing networks utilized, to focus on the following:

- Establish goals and strategies for developing appropriate laws, enhancing enforcement capability and developing training activities.
- Develop protocols and agreements. The Montreal Protocol on CFC's was identified as a good model for networks to utilize.
- Participants looked favorably upon "right to know" laws. Under Prior Informed Consent agreements, some countries with no capacity to retest substances simply rely on tests previously conducted by other countries. In negotiating treaties for Prior Informed Consent or Persistent Organic Pesticides, it was suggested that the pesticide industry should be involved.
- Help countries develop more clear cut laws and regulations and increase their enforcement capacity.
- Countries with active enforcement programs have had success regulating the activities of large companies. The most significant violations in those countries now seem to be committed by smaller companies. The difficulties regulating the import/export/trade activities of small companies mirror the difficulties faced in bringing small manufacturing enterprises into compliance with other environmental laws.
- Help standardize laws and regulations regarding use, import, export and trade in pesticides. Develop more clear cut and consistent definitions of what chemicals and substances are dangerous. Identify which pesticides, herbicides and other dangerous chemicals should be banned throughout regions. Identify which substances should be subjected to particular levels of control.
- Networks should utilize already existing classifications of organizations such as the World Health Organization, European Union, US Environmental Protection Agency, and other environmental and health agencies of industrialized nations.
- Develop and implement training, on a regional basis, for inspectors and other members of the regulatory enforcement community. Training should also be developed for "users," in the safe handling and application of pesticides and other dangerous chemicals, especially given the more concentrated forms in which they are increasingly being shipped.
- Encourage the development and enactment of national laws, and inclusion in regional compacts and agreements, establishing the following:
- Labels on dangerous chemicals, including pesticides, should be standardized with multilingual safety and usage messages and symbols.
- Shipping labels should be standardized with multilingual information.
- Worker safety and training requirements.
- Liability laws for injury caused by dangerous substances, providing the means and forum to sue manufacturers or other parties violating regulatory provisions.

- Import registries for dangerous chemicals. (While the participants agreed this would be useful for a number of reasons, it was also seen as a wholly unrealistic goal for some countries.)
- Explore other possible solutions to illegal shipment problems, such as licensing of shippers and transporters.

4.3 Political Solutions

The participants generally agreed that a global approach was necessary to address the illegal shipment of pesticides and other dangerous chemicals. Most important, is the need for a better flow of information. Specifically, participants felt EPA and government agencies from other industrialized nations should share information which is now kept confidential about the dangers of pesticides and other chemicals.

Some participants expressed very strong opinions that the legislatures of manufacturing countries should prohibit the manufacture of substances that are banned from use in their own countries. The possibility of utilizing conventions to place international pressure on industrialized nations to enact appropriate laws was one idea that was discussed.

Another suggestion was to promote the role of NGOs to help ban dangerous activities and assure information access through lawsuits.

A long term goal was for time schedules to be established among regions and worldwide to end production of certain substances, including pesticides and herbicides.

5 CONCLUSION

This workshop was intended to focus on enforcement of laws regarding the shipment of pesticides and other dangerous chemicals. It was immediately apparent, from the initial comments of workshop participants, that the discussion would not develop as anticipated.

Overall, the existing laws and regulations do not provide an adequate foundation for enforcement. The overriding concern of workshop participants was how to obtain information, overcome political obstacles and develop laws and regulations which will protect the health and safety of their citizens. Enforcement cannot be a concern until appropriate laws are in place to enforce.

WORKSHOP 5D
INTERNATIONAL ENFORCEMENT COOPERATION TO PROTECT SHARED RESOURCES AND PREVENT TRANSBOUNDARY POLLUTION

Many national borders follow along the course of important natural water bodies or other natural features and resources. Efforts to protect these environments are either supported or undermined by the actions of other nations. Several examples around the world illustrate how countries have embarked upon major efforts to define common goals for the quality of these resources, to harmonize management and regulatory approaches. Consistent with each nation's sovereign rights a few of these efforts have followed through to actually coordinate enforcement priorities, sharing of information, cooperative inspections and resolution of enforcement actions. This workshop focused on the initiation and implementation of enforcement cooperation to protect shared resources and prevent transboundary pollution.

Papers 1 through 2 for Workshop 5D and a list of related papers from other International Workshops and Conference Proceedings are in Volume 1

SUMMARY OF WORKSHOP: INTERNATIONAL ENFORCEMENT COOPERATION TO PROTECT SHARED RESOURCES AND PREVENT TRANSBOUNDARY POLLUTION

Facilitators: Workshop 5D: Ger van Tongeren, Helena Čížková
Workshop 5DD: Jit Peters, Ron Kreizenbeck
Rapporteurs: Workshop 5D: Harley Laing
Workshop 5DD: David Mowday

GOALS

Discussions addressed the following objectives and issues:

- Identification of where cooperative enforcement has been undertaken.
- The context within which these activities were planned and carried out and what factors led to the commitment to undertake these kinds of activities, in other words, what the prerequisites were and whether there needs to be a broader program of common goals for the resource before enforcement cooperation could be considered.
- Options considered, reasons for the type of cooperation selected. Discussion should address issues considered such as confidentiality, rights to access, different environmental regulatory requirements and/or legal systems, resources, access to foreign courts.
- Results and effectiveness of cooperative enforcement. What is its promise and challenges that must be overcome for it to be more effective. What are its limitations.

1 INTRODUCTION

The countries and groups participating in the discussions of international cooperation represented a very wide range of views, experience and perspectives. This range included countries with a long history of bilateral or multilateral cooperation backed up by treaties and/or less formal documents to countries which were at the very beginning of the learning curve. The reasons for this were various. For example, two or more countries may have had a long-standing environmental problem that had led to cooperation for many years. Examples of this would be the Great Lakes in North America, the Rhine in Europe and the Mekong in Asia. Each of these literally screamed out for international cooperative efforts if any country was to enjoy success. No country could do it alone. On the other hand, there were countries where such problems had not emerged, or had only recently emerged and there was generally not a history of intergovernmental cooperation.

A variety of implementation issues were discussed, perhaps the most difficult being the issues relating to confidentiality of information and the role of the public and NGOs.

2 PAPERS

Papers related to this workshop include:

- Development of Cooperation Between Central Asian Countries in Solving Ecological Problems of the Aral Sea, *A. P. Mironenkov*
- Problems of Transboundary Environmental Impact Assessment, *S. Fülöp*

3 DISCUSSION SUMMARY

3.1 Defining Enforcement Cooperation

Enforcement cooperation was taken to mean a broad set of activities designed to develop, implement and constantly improve country enforcement programs. The term was used to include worldwide cooperation such as that encouraged by INECE, UNEP, etc. down to simple bilateral cooperation.

With regard to structure, both formal and informal arrangements are envisioned and were discussed. On the formal end of the spectrum were the International Treaties dealing with hazardous waste, ozone depletion, global warming, etc., and the cooperation required to implement them. On the less formal end of the spectrum were simple contacts among staff from different countries who may or may not be working to implement a written agreement. The less formal cooperative efforts, it was suggested, could include single telephone calls to warn of a problem that appeared to involve another country and informal meetings, 'pizza parties,' as one participant called them, to share common experiences. There was a general consensus that the more formal approaches and the ones with many countries involved require much more effort and resources to implement, although there was a strong feeling that more attention needs to be paid to the worldwide conventions.

The substance of the international cooperative efforts discussed ranged from capacity-building, such as several countries sponsoring a training session, to dealing with a specific environmental problem where enforcement could make an impact such as polluted lake with pollutants entering from two or more countries.

Thus, international enforcement cooperation was seen as an essential ingredient of every country's program that was worth the effort and that would pay off many times over if it can be accomplished effectively. The following parts of the report highlight the issues that were seen as most important in implementing successful environmental enforcement cooperation.

A range of examples of environmental cooperation were offered:

- The 1994 Nordic Environmental Agreement and joint citizen rights between Sweden and Finland.
- The Canada/U.S. experience in transboundary cooperation.
- Spain and Portugal's cooperation.
- Joint River Basin Cooperation.
- Cooperation in Southeast Asia in Forest Fires and transboundary hazardous waste.
- International cooperation on wildlife.
- Transshipments of radioactive waste.

3.2 Structural and Management Issues

There was considerable concern expressed about the ability of many of the participants to undertake cooperative efforts on anything except relatively localized issues.

3.2.1 Staffing

The problems discussed included insufficient staff to focus on international cooperation, no staff specifically assigned to the area of international cooperation, turnover of knowledgeable staff so that progress is frequently lost when a single key person leaves and finally, management changes wherein new managers decide not to emphasize international work.

3.2.2 Organization

Several countries mentioned that they had internal issues to overcome. These included lack of clarity as to who in the environment ministry is responsible for international matters - is it best centralized or delegated out according to subject matter? In addition, some participants noted that frequently the environment ministry will need the cooperation of other ministries in order to manage effective cooperative programs with other countries and these ministries may be unwilling or unable to participate.

3.2.3 Potential Solutions

Solutions to these problem areas were discussed. One key element appeared to be the designation of at least one individual in the environment ministry to be responsible for international programs. In addition, it was felt that it would be necessary for this person to be below the political level, or to have someone who would not be likely to be replaced involved, in order to maintain institutional stability in international work. One participant used as an example of instability the fact that so many of the participants at the Monterey Conference had not been at any of the earlier conferences, although there was also feeling expressed that different people becoming involved was inevitable and could be beneficial as long as there was someone, perhaps at a lower level, who was more likely to continue work on international cooperation to serve as a focal point in the ministry.

The feeling was that it is preferable if the international cooperation work is centralized, at least to the extent that there should be a coordinator. It was felt by most that without a single person or place in the ministry to go to that international cooperation could still happen but that it would be uneven and inefficient.

3.3 International Conventions

The majority of the participants felt that most international conventions and treaties were not integrated with the enforcement and compliance programs. Problems ranged from the lack of knowledge of the responsibilities agreed to in the international agreements to low priority for them in the Ministry to lack of staff. This area was viewed by most as a very challenging problem.

3.3.1 NGO Role and Confidentiality

One useful suggestion that emerged was that NGOs can play an important role by raising political awareness so that agreements that countries have signed get the proper attention. There was overwhelming opinion that NGOs were essential to the process of raising issues, developing the political will to act and involving the public in the development of solutions. It was felt that NGOs could be critical in getting governments to recognize that they had a common problem that required bilateral or multilateral cooperation. It was pointed out that the rapidly expanding electronic communications, especially the Internet, would prove to be extremely useful in getting information to governments, the public and NGOs. With regard to confidentiality of information it was noted that there are many different standards around the world with regard to what information is available and what information can be released to the public. The rapid expansion of electronic media makes this picture even more confusing as one can almost assume that a piece of information that becomes public anywhere will soon be public everywhere. This may lead to a reluctance in industry or governments to make information available thus making international cooperation more difficult. Finally, there was overwhelming agreement that the most pressing environmental issue calling for increased cooperation was hazardous waste shipment and disposal.

Finally it was expressed that there needs to be more participation during the negotiation process by those who are going to be expected to implement the convention.

There was a general feeling that the Basel Convention on the Shipment of Hazardous Wastes was of the most relevance to the enforcement and compliance agencies and thus there was more focus on its implementation than the others, with exceptions depending on particular countries' situations.

3.3.2 Funding

There was also a call for funding mechanisms to accompany the conventions so that the implementation would not be left to an already overworked staff.

3.4 Role of INECE and Information Exchange Generally

INECE was seen as having a key role especially in the following areas:

3.4.1 Central Information Repository

There is a desperate need for a central information repository. With the expanding use of the Internet, all but a handful of countries now have access although this does not necessarily mean that all enforcement staff have access. Legislation was mentioned several times as a key part of the data base. INECE is seen as the logical, in fact the only, locus for this information to reside. This means that INECE will have to be equipped to have a sophisticated electronic data management capability that is very user-friendly. It also means that this staff will have to be experienced in enforcement, not just information managers.

3.4.2 International and Regional Meetings

The meetings, including the five international conferences and the regional network meetings that are planned are viewed as vital. In particular, the regional meeting are critical to the cooperation effort as it is more likely that mid-level managers with first hand experience will be able to attend them. A concern was raised concerning who gets invited to the meetings and what the decision process is. One country was unaware that their country had been

represented at a regional meting because an official from a particular city government had received the invitation. There was general agreement that this issue was up to each country to manage internally and that all countries should keep in mind the need for continuity and experience in selecting representatives.

3.4.3 Training and Capacity Building

One of the major substantive areas that virtually every country was interested in was training and capacity building. It was felt that INECE has been doing a good job in this area and that this activity should continue and expand.

3.4.4 Communications among Regions

Finally, INECE was seen as the focal point for communication among the regional networks.

3.5 Key Substantive Issues Noted for Cooperation

Following is a listing of those areas that the participants saw as the most in need of international cooperation, based on roundtable discussions:

- Critical geographic areas that are experiencing problems such as Lake Aral or the Mekong River. Watersheds were most frequently mentioned.
- Information on the activities of multinational corporations that are operating, and causing problems in, more than one country.
- Cooperative efforts in dealing with oil spills in international waters or in ports used by ships of many countries as well as exchange of information on the movement of ships that may pose a particular threat.
- Ecosystem-based efforts designed to protect important large or small ecosystems. The oil and mining activities affecting the Amazon Basin were mentioned as were the pollution problems on the Rhine and the Maas Rivers.
- Inland and ocean fisheries management and enforcement.
- Perhaps the most frequently raised issue, not surprisingly, was the shipment of hazardous waste across borders. This was seen as an area where individual contacts among field personnel could be especially useful. In addition, there was a desire for an improvement in the technology available to all countries to tack such shipments.
- Port activities and cooperation on international shipping regard to bilge water discharges and hazardous waste shipments.

4 CONCLUSION

There was a great deal of enthusiasm, virtually unanimous, expressed for the concept of increased international compliance and enforcement cooperation. The primary purpose and major goal of the discussions was how to actually make international compliance and enforcement cooperation happen in practice. A general agreement was reached that the major objective should be the exchange of information which can be made available at all levels, and especially at the working level, to improve front-line performance.

Systems which facilitate establishing personal contacts and channels of communications were viewed as critical. Both formal and informal cooperation methods were discussed. The regional networks which were discussed at the conference were seen as a key next step.

There was a long list of specific environmental problems that could benefit from increased cooperation as well as some examples of where cooperation is currently working, although the latter were mostly bilateral. There was general support for the concept of INECE as an umbrella organization which would attempt to pull the regional networks along and serve as a central information repository and communications resource on a wide range of issues. INECE was seen as a repository of information which, given the increasing electronic capabilities in many countries, could be made broadly available.

At the same time there was a note of reality in the discussions of resources, political and staff changes and the relatively low rank, in many countries, of the environment ministry. International Conventions and Treaties were viewed as valuable but there was much opinion that they were unknown to or ignored by, in many instances, the very people who should have a role in implementing them. As a general conclusion, the participants felt that international cooperation is essential and must be accomplished, whatever the obstacles may be, if the global nature of many of our environmental problems is to be successfully addressed. The issue of bilateral and subregional cooperation was raised several times as it was seen as easier to accomplish and less expensive to implement. Specific problems which would particularly benefit from multi-national cooperation were discussed. The role of countries whose own cooperative structures were more advanced was noted. The thinking in general was that they could be excellent models for newer cooperative groupings and could serve as sources of information and provide other kinds of support.

INTERNATIONAL POLICE COOPERATION: PRESENTATION OF THE ICPO-INTERPOL AND ITS ACTIVITIES IN PREVENTING AND COMBATING ENVIRONMENTAL CRIME

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SUMMARY

International Criminal Police Organization-Interpol is the only global organization of its kind and it has 177 member countries. The General Secretariat is located in Lyons, France. The purpose of the Organization is to ensure and promote the widest possible mutual assistance between all criminal police authorities, within the limits of the laws existing in the different countries and to establish and develop all institutions likely to contribute effectively to the prevention and suppression of ordinary law crimes, including environmental crime.

Each member country has an Interpol National Central Bureau through which international police cooperation is coordinated.

The Organization maintains a database on all environmental crime cases reported to the General Secretariat as well as individuals and companies involved in this type of crime.

An Interpol Project group with participants from United States, Canada, the Netherlands and Germany is preparing an Interpol Environmental Criminal Investigation Training Program.

1 INTRODUCTION

Environmental crime is a relatively new area for any police force in the world and consequently also for Interpol. This type of crime is extremely diversified and encompasses a large number of related offences which can be covered either in specific, general or civil legislation depending on the legal systems and type of crime committed in the countries concerned.

Law enforcement agencies have encountered many problems when investigating environmental crime cases. They have discovered that the information has to be collected from many different authorities in the country such as the national management authorities as well as from authorities at the local level. In some cases they need information or investigative assistance from abroad and it is crucial to have one central contact point in order to coordinate the international police cooperation in the various cases.

Cooperation at the national level between agencies responsible for environmental enforcement and at international level as well is also essential for the success of the investigation.

2 STRUCTURE OF INTERPOL

Interpol is the only global police organization. It has 177 members. The purpose of the Organization is:

- to ensure and promote the widest possible mutual assistance between all criminal police authorities, within the limits of the laws existing in the different countries; and
- to establish and develop all institutions likely to contribute effectively to the prevention and suppression of ordinary law crimes.

It is strictly forbidden for the Organization to undertake any intervention or activities of a political, military, religious or racial character, as is clearly stated in the Organization's Constitution.

Respect for these principles in day-to-day cooperation obviously means that Interpol cannot have teams of detectives with supranational powers who travel around investigating cases in different countries. International police cooperation has to depend on coordinated action on the part of the Member States' police forces, all of which may supply or request information or services on different occasions.

Each Member State designates an office, normally a part of the national police force, as its National Central Bureau. The exchange of information is conducted through the National Center Bureaus which monitor the flow of messages.

The General Secretariat is the permanent administrative and technical body through which Interpol speaks. It implements the decisions taken by the General Assembly, the Executive Committee and other deliberative organs. In order to coordinate and facilitate various actions for combating transnational organized crime, the General Secretariat provides the following services to the Member States:

- A criminal intelligence service, which assists Member States in identifying, arresting and prosecuting international criminals. The General Secretariat maintains its own criminal data base which contains nominal data of known criminals as well as case summary and properties used in criminal cases. For its content, the data base depends on the information provided by the Member States. Analytical study of certain criminal cases conducted by a team of experts is an integral part of the above-mentioned service.
- A liaison function, which facilitates the exchange of information between Member States, implemented either through the numerous meetings/ conferences which the General Secretariat hosts or attends, or through the efforts of its liaison officers well-informed both in respect of their special fields as well as the regions they represent.
- A number of training courses, both at a regional and international level, designed to assist Member States in improving their infrastructures regarding communication and criminal investigation.
- A technical support service which has not only developed an independent and secure telecommunications network, but is currently in the process of upgrading the systems in Member States, enabling them to send/receive information as quickly and securely as possible.

The General Secretariat has also developed cooperation, and collaboration, with a number of intergovernmental or non-governmental international organizations. Interpol is always ready to take the advice of other organizations to enhance the international cooperation among law enforcement agencies.

3 INTERPOL ACTIVITIES IN COMBATING ENVIRONMENTAL CRIME

It was as early as 1976 that the first Interpol Resolution on Environmental Crime was adopted. It urged the National Central Bureaus to take action to combat the illegal traffic in species of wild flora and fauna.

During the seventies and eighties, society focused more and more on environmental issues and, because of this, the law enforcement agencies also became more involved with environmental crime.

Following an Interpol resolution adopted at the Interpol General Assembly in 1992 it was decided to set up a Working Party on Environmental Crime.

The purpose of this Working Party is to bring together investigators and/or decision-makers from member countries to identify the various problems that arise in connection with environmental crime investigations and then to find possible solutions.

The Working Party could also consider making recommendations regarding the adoption of legislation to combat environmental crime and the harmonization of existing legislation.

The first meeting of the Working Party, which was held in September 1993 and was attended by delegates from 11 countries, considered it necessary to create subgroups in order to discuss the various subjects of environmental crime effectively.

The following key subjects in relation to environmental crime were identified during the first meeting of the working party and subsequently the following subgroups were established:

- Sub-Group 1: Trans-border movement and dumping of waste products.
- Sub-Group 2: Illegal traffic in real or purported radioactive or nuclear substances.
- Sub-Group 3: Illegal traffic in species of wild flora and fauna.
- Sub-Group 4: Coordinating the results of Sub-Groups 1, 2 and 3.

One of the results of the Working Party has been the preparation of the "Eco-Message" to improve the exchange of information in environmental crime cases as well as the collection, storage, analysis and circulation of such information with the assistance of the General Secretariat. It is simply a formatted message containing all relevant information such as

- date of offence;
- place of discovery;
- the actual waste product, radioactive/nuclear substances, specimen of seized animal;
- name and date of birth of the person arrested;
- route of transportation;
- modus operandi;

- possible companies involved; and
- assistance needed.

These "Eco-messages" are included in our criminal registration system at the General Secretariat and thus the information is available for all law enforcement officials in the member countries and can be used when looking for specific trends in cases and seizures as well as for day to day work with operational cases and intelligence gathering. The message can also be used for requesting assistance from other member countries.

The Environmental working Party has also initiated analytical projects which have been prepared by our Analytical Criminal Intelligence Unit on the illegal traffic in reptiles and the illegal traffic in nuclear and radioactive materials.

Since 1996 the Interpol General Secretariat has organized annually International Conferences on Environmental Crime where law enforcement officers from our member countries discuss issues to combat environmental crime as well as share experience and expert knowledge. The 3rd International Conference on Environmental Crime was held in October 1998.

4 INTERPOL ENVIRONMENTAL CRIMINAL INVESTIGATION TRAINING PROGRAM.

Having recognized the importance and the need of special training for law enforcement officers investigating environmental crime, a project group was established during the 1st International Conference on Environmental Crime to prepare a training program for law enforcement officers on investigating environmental crime.

The group is chaired by a representative from the US Environmental Protection Agency and includes representatives from Environment Canada, the Royal Canadian Mounted Police, the police in the Netherlands and Germany as well as the Interpol General Secretariat. A project manager from Environment Canada is monitoring the project.

The training course is being finalized and the first training course is planned to take place in the beginning of 1999. The training course will last 4 days and covers subjects on officers' safety and survival, environmental awareness, recognizing environmental offences, surface, water and groundwater pollution, air pollution and illegal land disposal together with transportation and storage of hazardous materials.

A training video with several environmental crime scenarios will be included in the material as well.

5 CONCLUSION

It order to combat effectively environmental crime it is important to cooperate at the national level as well as international level with other law enforcement agencies and competent authorities involved in this area.

Interpol provides the machinery for the international police cooperation which is increasingly necessary in today's world. Criminals are not impeded by national frontiers and we have to ensure that international investigations can be properly completed, criminal activities can be stopped, disrupted or prevented, offenders can be apprehended and once apprehended that they are properly dealt with by law.

If law-breaking goes unpunished, legislation remains theoretical.

WORKSHOP 5E
COLLABORATIVE TARGETING OF ENFORCEMENT ON AN INTERNATIONAL SCALE

The purpose of targeting enforcement resources, such as inspection and enforcement response, is to ensure that scarce resources are employed for the greatest impact on short term compliance, longer term compliance through deterrence and environmental results. This workshop addressed the potential opportunities for international targeting schemes.

Papers 1 - 2 for Workshop 5E and a list of related papers from other International Workshops and Conference Proceedings are in Volume 1

SUMMARY OF WORKSHOP: COLLABORATIVE TARGETING OF ENFORCEMENT ON AN INTERNATIONAL SCALE

Facilitator: Paul Leinster
Rapporteurs: Nancy Marvel, Jo Ann Semones

GOALS

The discussion was designed to address the following issues:

- The potential purpose(s) of targeting enforcement internationally on particular economic sectors, pollutants, geographic areas, or types of violations.
- The advantages and disadvantages of international targeting schemes.
- For what types of activities and violations such schemes might be useful and what is the expected impact.
- How such targeting schemes might be developed. Who should be involved; What information would be needed; How decisions might be made, consensus, presentation of analysis, etc.; How targeting can be communicated.
- What follow up activities should result from targeting and whether they should be tracked and communicated in some fashion.
- If this is a good idea, what forum should be used or developed to pilot the concept.

1 INTRODUCTION

Countries world-wide share concerns about ways in which to monitor the environmental behavior of multi-national companies. Questions exist concerning the capacity of countries to enforce, minimum standards to follow, companies setting their own standards, availability of data, and international cooperation. The discussion focused on the need for creating international networks to share information and collaborate on the resolution of mutual environmental problems.

2 PAPERS

A case study on the role of national and transnational corporations in the African mining sector and the environment was prepared by E.H. Shannon. The paper underscores the need for cooperative or bilateral efforts by both transnational companies and governments to minimize negative environmental impacts. In addition, a paper on compliance and enforcement of internationally agreed upon regulations in the international shipping industry was prepared by Henk G.H. Ten Hoopen. The document discusses ways to ensure the enforcement of existing regulations in the shipping industry on a worldwide scale.

3 DISCUSSION SUMMARY

3.1 Inconsistency in Applying Standards

While some multi-national companies have strong, consistent externally and internally imposed environmental standards, others do not. While some use the standards of their parent company, others use the standards of the host country where they are less stringent. Some ignore all standards. This situation poses problems for all nations in determining what minimum standards to apply to multi-national firms.

Suggestions to resolve this issue included requiring that the company obey the host country's law or that of the company's origin, whichever is more stringent; developing and maintaining primary contact with the parent company to seek mutual agreement on standards; and developing an international inspector network to share information about the performance of major multi-national firms from one country to another.

3.2 Transboundary Pollution Problems

The group shared examples of transboundary pollution problems. In Macedonia, radiation contaminated powdered milk was discovered at the country's border. Proper disposition of the material was complicated by questions as to whether the powdered milk should be considered a hazardous waste or a food product, as well as by questions as to who was the responsible party. In the Netherlands, many shipping problems revolve around the oil pollution of the sea, ports and harbors. Although various countries have introduced measures to control discharges into their own territorial waters, international measures are less clear.

The group also shared examples of successful solutions to transboundary pollution problems. In one case, waste had been sent to Mexico for recycling. Mexican and U.S. officials became suspicious that it might be hazardous waste. Together, they arranged for Mexican officials to bring it to the Border where U.S. officials took control of it and transferred it to a hazardous waste facility. In Malaysia, where forest fires are a problem, a task force was developed to create working plans for prevention, monitoring and surveillance, and fire fighting.

3.3 Opportunities for Collaboration

The group explored ways to maximize opportunities to collaborate on multi-national, regional and global issues of mutual concern. The discussion included ways to form cooperative networks both formally and informally. These included developing a "rapid response system" with colleagues in other countries; developing a variety of databases to share laws, regulations, and information on companies; and developing ways to encourage multi-national companies to share more information.

4 CONCLUSION

Many countries share concerns regarding the consistency of the operations of multi-national companies and problems associated with transboundary pollution. Collaboration is essential to address these issues. Solutions include working with multi-nationals to seek their cooperation in operating consistently around the world; asking these companies to produce world wide reports on environmental efforts; linking international performance with

incentive awards; developing a ranking guide on multi-national performance; providing company information over the internet; sharing each country's regulations over the internet; developing a database of inspectors; developing a list/registry of companies and how much pollution they produce; and incorporating environmental concerns into international investment agreements. Most important, is developing a "rapid response system," or informal person-to-person network to resolve problems. All agreed that this could be a primary role for INECE and for the Regional Networks and meetings of the future.

THEME #6

BUILDING REGIONAL AND GLOBAL NETWORKS

A clear goal of INECE is to foster regional enforcement networks to complement the global networking that has steadily expanded since the first workshop in Utrecht, the Netherlands in 1990. This first workshop expanded the bilateral exchanges between the U.S. EPA and the Netherlands Ministry of Housing, Spatial Planning and the Environment to 13 nations and international organizations. Participants agreed that dedicated programs for achieving environmental compliance and enforcement were essential parts of environmental management, that this should be a topic for discussion at the UNCED in 1992 and that a second Conference should be organized in two years with broader sponsorship and participation. In 1992, participating countries worked to get supporting language in Agenda 21 on capacity building from the UNCED, which empowered UN organizations to more actively support compliance and enforcement institution building activities. Shortly after the first International Enforcement Workshop, the European Commission and member states organized the European Enforcement Network, IMPEL, in part inspired by exchanges at the first workshop. At the second Conference in Budapest, Hungary in 1992 participants from 38 countries and organizations agreed upon principles, definitions and a framework for exchange and cooperation. The Regional Environmental Center helped to foster further exchanges among governmental and non-governmental officials within Central and Eastern Europe and UNEP and the European Commission were added as co-sponsors.

By the Third Conference in Oaxaca, Mexico in 1994, an expanded Executive Planning Committee for the Conference supported development and delivery of more hands-on workshops to allow conference participants to apply these basic principles to common problems, explore special topics to build a base of information and knowledge in those areas and identify areas ripe for exchange. UNEP also completed reports on industrial compliance and draft institution building workshop materials. At the Third Conference regional enforcement cooperation was described for North American under NAFTA as well as progress in the European network. A plenary program panel on international networking and cooperation was presented to stimulate interest to foster ongoing exchanges and capacity building both regionally and globally based upon natural partnerships and common environmental challenges. Spontaneously during informal sessions, participants from the Americas developed the Oaxaca Declaration, committing themselves to work together to establish a network for helping to build programs. Subsequently the Summit of the Americas has led to more formalized efforts to accomplish this. Finally, in 1994, UNEP and the People's Republic of China's National Environmental Protection Agency, organized an Asia regional workshop on industrial compliance using its draft UNEP workshop materials with representatives from 8 nations in attendance.

The Fourth Conference was the first to structure regional meetings as part of the formal conference program hoping to leave a lasting legacy from the series of conferences through regional mechanisms for continued exchange — leading to appropriate mechanisms for cooperation and shared progress globally across regions that transcend the biennial

conferences. At the Conference, six regional meetings resulted in recommendations to establish or strengthen such regional networks. Following the Fourth Conference an expanded Executive Planning Committee decided to adopt a new banner for these cooperative activities, INECE and to expand the support offered for ongoing exchange through a twice yearly Newsletter, revised and more accessible INTERNET homepage, development and dissemination of a Brochure and a program to foster regional and global networking. The Fifth Conference was designed to provide the fertile ground and opportunity for participants to adopt the most appropriate approaches for their own countries and regions.
Papers and presentations described international support networks for environmental compliance and enforcement. Each paper and regional meeting addressed, among others, the following issues:

- The genesis of the network and how it was established.
- What was/is involved in developing and maintaining the network.
- Who is asked to participate and at what levels in the organizations.
- Subjects the network covers.
- Vehicles used for exchange and means of communication used.
- Topics on which exchange is taking place.
- How the network overcomes differences in language and legal or other definitions of terms such as what constitutes a hazardous waste.
- Future directions and changes anticipated for the network.

Papers 1 - 3 for Theme #6 and a list of related papers from other International Workshops and Conference Proceedings are in Volume 1

SUMMARY OF THEME #6 PANEL DISCUSSION: BUILDING GLOBAL AND REGIONAL NETWORKS

Moderator: Jan van den Heuvel
Rapporteur: Cheryl Wasserman

GOALS

Regional meetings were designed to address the following issues:

- The genesis of the network and how it was established.
- What was/is involved in developing and maintaining the network.
- Who is asked to participate and at what levels in the organizations.
- Subjects the network covers.
- Vehicles used for exchange and means of communication used.
- Topics on which exchange is taking place.
- How the network overcomes differences in language and legal or other definitions of terms such as what constitutes a hazardous waste.
- Future directions and changes anticipated for the network.

SUMMARY

Theme #6 building global and regional networks was divided into two sessions. On day four of the Conference in the afternoon, four successive panels on the Americas, Europe, Asia and Africa provided background and status information on existing and emerging regional networks. General plenary discussion opportunities were offered following each panel. This was preparation for regional meetings held that afternoon and the following morning. On day five in the afternoon, selected spokepersons presented results of each of the regional meetings and there was a general discussion on the future of global and regional networking. In all cases specific actions have been defined to move global and regional networking forward.

1 INTRODUCTION

Mr. Steven Herman opened the afternoon session emphasizing that the theme of building regional and global networks as the essence of what we were doing at the Conference. The question he posed is how do we do it and what do we do within them. He reminded participants of the discussions at the Fourth International Conference in Chiang Mai, Thailand two years ago during which participants recommended that regional networks be established to better enhance country environmental compliance and enforcement and address regional and global environmental problems. We have had some success, some less than successful, and some have not developed as proposed. What have we learned about the good reasons for success and good reasons for those that have not moved forward?

This is important for us to understand and address. Mr. Herman introduced the Theme #6 panel Moderator, Mr. Jan van den Heuvel who set the stage for the plenary panels, regional meetings and reporting out on the final day in the afternoon.

Mr. Jan van den Heuvel noted that we have learned allot over the past few days and had heard a lot of experiences and stories with differences but also similarities and common challenges. We now face a managerial challenge and that is how to make it happen. We drew upon the conclusions in Chiang Mai that we should work together on regional networks. These opening panels provide background on the status of regional networks, regional problems which need cooperative solutions. After discussion the regional meetings were held and then a second plenary on Theme #6 presented the results. The following summary of the two plenary sessions and plenary discussions is organized around each of the four regions, presenting in turn the background presentations on status, discussion during the plenary, and closing plenary report out on the regional meetings.

2 EUROPE PANEL

2.1 Panel on the Status of Regional and Sub-Regional networks in Europe

2.1.1 IMPEL Network

2.1.1.1 Status of IMPEL

Ms. Waltraud Petek reviewed the status of the IMPEL network, the European Union's network for the implementation and enforcement of environmental law. The European Union is a supra national organization founded in a treaty among now 15 member countries including Finland, Sweden, Denmark, the United Kingdom, Ireland, The Netherlands, Belgium, France, Luxemburg, Germany, France, Spain, Italy, Greece, and Austria. The European Union has its own body of law enacted by the Council of Ministers elected based on the treaty. There are numerous laws most are directives which means they are framework laws which must be implemented by the member states who are also responsible for enforcement. There is no enforcement body of the European Union so there are no European Union inspectors going to facilities. This is the context within which the IMPEL network operates.

2.1.1.2 How IMPEL got started

An initiative in early 1990 by The Netherlands brought forward the idea of a meeting on the implementation and enforcement of environmental law; IMPEL was first formed at a meeting of Member States in Chester England in 1992. Its aims are to contribute towards an effective and even implementation of environmental law and to promote enforcement within member states. It is informal and not founded on the European Union's Treaties. Recently IMPEL was recognized in several European Union documents starting with the 1992 5th Action Program mentioning networks on environmental inspection and enforcement. In 1996 the European Union issued a communication and mentioned it and gave it a role. The Council of Europe resolution specifically recognized IMPEL as a useful informal instrument for improving and implementing inspection and enforcement interalia through exchange of information and experience on different administrative levels. It specifically said that IMPEL should play a role during the different stages of the regulatory chain, in particular, it should

give advice on environmental compliance and enforcement. This set the stage for IMPEL to broaden its purpose to different topics in environmental law and not just to enforcement, but to policy issues throughout the regulatory chain from creation of legal instruments to enforcement.

2.1.1.3 How Does IMPEL Work?

Plenary meetings are held twice a year co-chaired by both the European Union and a member state which holds the Presidency, rotating every 6 months. The plenary is made up of official national focal points designated for each country. It decides on strategic issues, agrees on the budget and approves an annual workprogram of the Standing Committees. There are two such Standing Committees: SC1 covers legal and policy instruments and implementation issues; and SC2 covers technical practical applications, management instruments, inspector exchange programs, inspection and enforcement functions. Under each of the Standing Committees, separately or jointly, ad hoc workgroups are formed. Both Standing Committees prepare workprograms and budgets and discuss project results. Finally, a Secretariat has been set up with the important role of helping to prepare plenary and Standing Committee meetings and to facilitate all activities and workprograms. The Secretariat is hosted within the European Commission, DG-XI. It is staffed by 2 staff of member states with secretarial support of the European Commission. National coordinators are designated by each ministry to be in charge of securing a good information flow to and from IMPEL and member states. A Directory of Contacts is published. Human and financial resources come from the Member States and the European Commission. Most projects under IMPEL are co-financed by one or more of the Member States and the European Commission. In 1997 the European Commission earmarked 500,000 ecu (about 600,00 USD) and in 1999 about 400,000 (about 450-470,000 USD) to IMPEL.

2.1.1.4 How is the Workprogram Established and What Kind of Activities are Included?

Each member state may propose projects at the Plenary session. Terms of reference are drawn up for each project with a description, objectives, timetable, resources, and indication of the outcome. An overview of past and current activities was provided, including:

- technical guidance on specific industries e.g. power plants, waste incinerators;
- exchange on aspects of the regulatory process;
- workshop on coherence of environmental regulation; and
- comparison of enforcement arrangements within Member States.

Given the time constraints, Ms. Petek was able to describe only two examples of specific projects which she considered most successful:

- Inspector Exchange: is a week-long program organized by a Member State with the participation of 2 officials from each of the other Member States to exchange practices, problems, case studies and site visits. So far 14 such exchanges have been completed and the first round should be completed by next year. It has proven to be particularly useful in getting a lot of people in contact with IMPEL.
- Criteria for Minimum Inspections Standards: These criteria or minimum standards for inspection across all the Member States was specifically called for in the Resolution concerning IMPEL which asked it to develop these

standards using a group of experts of Member States. These are now published and the European Commission is now preparing a recommendation of the Council of Europe to set up these minimum criteria based on how the inspection function should be performed within Member States.

These are but two of the activities. There are several documents which can provide more detail:

- paper by Bestke Goinga on the IMPEL network is published in Volume 1 of the Monterey Conference proceedings, page 717;
- IMPEL Brochure;
- Minimum Criteria of Inspectors; and
- Spotlight: the IMPEL newsletter which provides highlights of both IMPEL and member state activities.

2.1.2 ECA-INECE

Ms. Ruta Buskyte described the status of activities of ECA-INECE, one of the youngest regional networks. The idea of establishing the new regional network covering Central and Eastern Europe and NIS newly independent states of the former Soviet Union, was agreed upon during meetings at the Fourth International Conference on Environmental Compliance and Enforcement held in Chiang Mai, Thailand. A wide range of transboundary issues echo the need for regional cooperation to address them including the transfrontier movement of waste, discharges to common rivers and common seas, the movement of air pollution, and other environmental problems cannot be solved separately without working with each other. A first meeting with both Central and Eastern European countries and NIS was held in May of 1998 in Vilnius, Lithuania. A short report on the status of the network and of this first meeting was provided in the conference registration package. The Vilnius meeting, following up on an offer made in Chiang Mai to host a first meeting, was supported by the Ministry of the Environment in Lithuania and The Netherlands with support of the World Bank and USEPA. The participants at the Conference came from 21 countries in the region. They agreed on the need for informal networking to promote compliance and strengthen enforcement of national environmental requirements and international environmental agreements through networking, capacity building and cooperation.

The activities will be organized by a small Secretariat which is now under creation. For better cooperation, national contact points may be nominated and more than 10 countries have designated such points of contact. The main areas of focus include:

- shared industrial problems;
- waste transport; and
- natural resource use.

Specifically, in all focus areas they will share the non-compliance response, enforcement tools, transboundary issues and permitting. They will seek fundamentally to promote awareness and exchange information to strengthen existing enforcement tools, develop new ones and train for capacity building.

2.1.3 AC-IMPEL

Dr. Ladislav Miko described AC-IMPEL and its status. AC-IMPEL is by name and content a sister informal network to IMPEL created for government bodies of 10 Central and Eastern European countries plus Cypress. It started as an initiative of the IMPEL network. Initiation meeting took place in Brussels in January of 1998, where the working group for drafting terms of reference and preliminary working program for the year 1998 was agreed. Its first Plenary meeting took place in Brussels in May of 1998 after participating in the inspector exchange program in Luxemburg. The first AC-IMPEL exchange program took place in Budapest, Hungary in 1998. The focus of AC-IMPEL activities is to review national legislation and develop reports on progress in implementing European Union legislation in each of the countries in line for accession into the European Union, referred to sometimes as the approximation process. They adopted terms of reference and agreed to a workprogram. At the meeting the European Commission expressed strong support. The scope of environmental issues of concern in AC-IMPEL are broader than those of IMPEL as they include nature conservation in addition to both technical and legal issues. The initiative has a giant carrot in the entry requirements into the European Union at which point AC-IMPEL will cease to exist and all further activities will be under the IMPEL umbrella.

The structure of AC-IMPEL was agreed upon at the first Plenary session, similar to IMPEL but also more simple. The Plenary meets twice per year and connects the timing to one of the inspector exchange programs. Hungary already hosted the first. Estonia hosts the next program in December of 1998 and Poland and the Czech Republic will host in 1999. Having a Chair of the meetings is complicated since there is no chief country. So it is up to volunteers. There is always an IMPEL co-chair with a co-chair from AC-IMPEL changing every half year.

The main work is carried out by the national coordinators. There is a small Secretariat which for practical reasons is located in Brussels. There are also ad hoc workgroups. Right now there are three sets of activities:

- inspector exchange programs;
- training and information exchange; and
- multilateral projects proposed by members and an opportunity to participate in IMPEL projects.

Mr. Miko offered several discussion questions for consideration during the regional meeting for Europe:

1) The role of AC-IMPEL in ECA-INECE given AC-IMPEL's orientation toward IMPEL and yet the similarities of tasks and workprograms to ECA-INECE
2) Continuity in individual countries given the turnover in who comes to meetings
3) Financing of activities. It currently depends on support of the European Commission for plenary and exchanges but supplements are needed by individual member countries and from other donors as well.

A final paradox of the AC-IMPEL network is that it is time-limited since it disappears when the accession countries join the European Union.

2.2 Plenary Discussion Summary

A question was raised in connection with the Aarhus Convention and whether there was room for NGOs in Europe's networks given their informality and flexibility. Ms. Petek indicated that IMPEL is focused on the government authorities so far and that NGO involvement has not been considered. She recognized the importance of partnership and said that some activities were open but as an institution it is limited so far.

Mr. Dannenmeir inquired of Mr. Miko whether he had any solution to the problem of turnover. Mr. Miko said he hoped that the regional meeting would address this but suggested that from his perspective it is probably most important to identify the most concrete person to invite in the first place. Ms. Petek indicated that this is not necessarily a bad thing since it is good to get a broader reach by having different people exposed, so long as it does not disrupt a specific short term project where continuity is needed for the result.

2.3 Results of the Europe Regional Meeting

Ms. Susan Hay reported on the results of the meeting which covered those within and outside of the IMPEL, AC-IMPEL and ECA-INECE networks. She indicated that they all agreed that the key to moving forward would be to set realistic goals and concentrate on them. They also want to continue to seek low cost ways of communicating within the network including a directory of contacts and use of the Internet. They also all need established Secretariats, which need not be big but which would provide a focal point, and financed by a member country or possibly by international donors.

Languages continue to be an issue. Within the European Community for example there are 11 official languages but IMPEL currently employs just English. Within AC-IMPEL there are another dozen and ECA-INECE probably another dozen still. There is no easy solution given the financial and human resource implications of operating with multiple languages. She indicated that they currently plan on relying upon the good will of individual members to translate materials from English into their mother tongue. Good cooperation has already taken place geographically with different legal orders to address shared resources such as the Aral Sea so the language issue will likely always have to be addressed.

A second need is to strengthen networks and for this there is a need for a network at the national level to ensure coordination among all involved in enforcement including inspectors, customs officials and the like.

A third need is to avoid being overly ambitious. Take a step by step approach with a limited number of projects. Regional cooperation needs to offer advantages, promoting awareness and useful documents. A cross fertilization of ideas among networks is needed, for example between IMPEL and AC-IMPEL.

In regard to future workplans, IMPEL itself needs to move back to its inspector based grass roots activities. AC-IMPEL needs to focus on accession and approximation of legislation and learning how to apply that legislation in practice by building capacity . ECA-INECE needs to begin by compiling a list of contact points. INECE itself with the staff of Jo and Cheryl need to continue to provide an overall umbrella and link, but can depend increasingly on the work at the regional and national levels. Particularly useful to IMPEL is the use of the homepage on the Internet and the international conferences at which they continue to meet people and learn. Perhaps in the future it could be a slimmed down version with representatives from the regions, and possibly every four years. The regions can provide a focus for training and more in-depth on the group operations support.

There was some discussion on the value of having an Europe-wide INECE umbrella organization, which might include Turkey, Israel, Norway as well as Iceland etc. each of whom did not fit neatly into the subregions or other groups. This umbrella group might also better engage the NGO community.

2.4 Closing Plenary Discussion on Report of Europe Regional Meeting

A question was raised about whether these networks would include only government or provide as well for NGO participation. Ms. Susan Hay indicated that this would be up to each of the three existing networks as to whether NGOs might be observers or full members of the networks.

3 AMERICAS PANEL

3.1 Panel on the Status of Regional and Sub-Regional Networks in the Americas

3.1.1 North American Enforcement Working Group: Commission for Environmental Cooperation

Ms. Linda Duncan described the North American Enforcement Working Group as one that mirrors IMPEL but with several remarkable and unique aspects including the fact that it was established fully one year before IMPEL. First, although the North American agreement to establish the network is voluntary, the countries are under an obligation to implement and enforce their environmental laws, so it is a product of both carrots and sticks. The origins lie in the North American Free Trade Agreement, NAFTA, which had two side agreements, one on cooperation in occupational health and safety and the other in environment. The Commission on Environmental Cooperation which oversees implementation of the side agreement on the environment is located in Montreal and staffed by members from the United States, Canada and Mexico. The North American Enforcement Working Group is one of the programs under the CEC. The need for a group was recognized early by the CEC Secretariat as critical to carry out its responsibilities. But although the CEC took steps to initiate the North American Enforcement Working Group, it is a network directly created by senior officials of all 3 countries who were committed to move beyond their bilateral work to trilateral cooperation. It was officially constituted in 1996 by the North American Council of Environment Ministers. One important benefit of affiliation with the CEC is that enforcers have direct access to the Environment Ministers. The 1997 policy Statement by the Council reiterated their commitment to the essential responsibility of government for the implementation and enforcement of environmental law. Another advantage is funding. The governments of the three countries have provided three year funding through the year 2001. The work on enforcement includes not only environmental pollution control but also wildlife protection. Simultaneous with the Monterey conference there is the 5th Conference in 4 years of the working group on CITES. Ms. Duncan indicated that several reports are available to participants including:

- Brochure on the North America Wildlife Enforcement Group, NAWEG.
- Tracking and enforcement of transboundary hazardous waste including the production of a directory of officials and review of constraints and issues.

- Environmental Management Systems and Compliance: an initial summary report on the efforts by the three countries to assess together whether or not various voluntary initiatives are really achieving compliance.
- Indicators of Effective Enforcement: initiated to meet the obligation of the parties to NAFTA to implement and enforce environmental law, the countries are trying to define, in particular with the public, indicators of effective enforcement. A public dialogue was held with participation as well by representatives of the OECD and European Commission at the meeting.

Challenges in the future include:

- responding to requests by state, provincial and tribal officials to join the effort;
- desire to get the public more involved beyond the public dialogue; and
- connecting to other networks around the globe and particularly within the hemisphere.

Ms. Duncan indicated that all members of the North American Enforcement Working Groups are looking forward to working with others within the Hemisphere and elsewhere.

3.1.2 Central American Commission for Sustainable Development: CCAD

Mr. Marco Antonio Gonzalez Pastora described the Central American enforcement network as part of the workprogram of the Central American Commission for Sustainable Development, CCAD. Beginning with some inspiring quotations from Napoleon, he noted that many of the preceding presentations reminded him of a Napoleon quote: "In order the win the war what we need is l'argent, l'argent, l'argent." He noted that a network is a lot of holes and a lot of threads. That means you have space enough to pass and you have something that unites you. The CCAD serves as a facilitator in the region to ensure that the environmental law project for Central American meets two objectives: 1) upward enhancement of environmental legislation; and 2) achievement of a high degree of enforcement of legislation. Their task is one of promotion of a network of people in the region so they can learn from each other in a flexible and open space. The entire effort is intended to deliver services.

The participants in the network include everybody with an interest in achieving the objectives. This includes legal counsel to environmental institutions, private lawyers, NGOs, The Meso American Association of Environmental Law (NAMADA), state attorneys , environmental attorneys, academia, legislators, judges and law students.

The services that are provided are several:

- provide training opportunities in environmental law, particularly what CCAD calls distance training for those people who lack the time or are not the right age to go into formal training studies;
- facilitate information exchange through the website's data centers, Compact Disk with legislation and policy decrees;
- performa clearinghouse role so people who need assistance can be matched with those who can provide training and assistance including in the past, USEPA, PROFEPA (Mexico), Puerto Rico's Board of Environment, all of whom worked with CCAD to deliver people to train; and
- technical assistance in an efficient and cheap manner since there is little time to deliver.

The exchange of information and experiences is important as people realize that they face the same problems and seek to find ways to solve them jointly. Prosecutors, and general attorneys have an opportunity to work together on issues such as illegal smuggling of wildlife, CFCs or other prohibited substances.

Areas of focus include:

- setting up systems to address transboundary impacts of pollution;
- clarify concepts and rules, important for all institutions involved in enforcement so they know what they are talking about. This is a facilitated process to put everything together;
- facilitate coordinating mechanisms regional and national agencies especially those working in related fields such as the Ministries of Agriculture in regard to animal and plant health, and the Ministries of Health;
- promote enforcement pilot project training customs officials on the proper interpretation of regulatory provisions now in Costa Rica and soon to be expanded regionally for officers involved in implementation of CITES; and
- facilitate participation of Central America in major conventions of the parties, acting as a group in negotiations on climate change, biodiversity, and the like to obtain the best advantage of participating as a whole.

In order to enforce you need a culture of enforcement, and Mr. Marco Gonzalez noted that until citizens avoid crossing the street at a red light there is much work to do with all sectors of society.

Three technical regional commissions have been established:

- environmental impact assessment;
- environmental auditing; and
- legal advisors to environmental authorities.

These commissions have helped a lot because by allowing the key officials to work together they can set up more effective regional programs.

Finally, about funding, these efforts have been possible thanks to the generosity of USAID and USEPA.

Most recently a program to train judges has led to environmental law manuals for each country, devised to be easy to use and to include tools to enforce environmental law. In each of the countries in the region, environmental law is very spread out among sectoral and national environmental laws and policies. It was a major effort to systematize rules, penalties and authorities for this purpose. This was made possible by support from the InterAmerican Development Bank with Dutch support. Now, with the support of Switzerland they are developing 3 manuals: one on enforcement, one on efficient legislation, and one on environmental laws in Central America.

In 1999 a major goal is to have established diploma and masters courses in environmental law to create a critical mass of lawyers and enforcers who will have the needed knowledge, skills and access to information to enhance performance.

3.1.3 Caribbean Network: Creating CARIB-INECE

Mr. Vincent Sweeney described the status of building a network for environmental law compliance and enforcement in the Caribbean. Mr. Vincent Sweeney is Director of the Caribbean Environmental Health Institute, a regional intergovernmental organization of the Caribbean Community created when they agreed originally to cooperate on trade and economic development and it naturally expanded into cooperation on environment and health cooperation. The Caribbean Community, a CARIB-INECE, set up a number of institutions within the community to assist progress in these areas. The CEHI was created to provide technical and advisory support to those countries which are part of the Community. There is no CARIB-INECE yet and key parties within the region are talking about how to start. Options recognize the need for a Secretariat in which a network might be housed. One option is to house the network at the UNEP RCU in Jamaica responsible among other thing for implementation of the Cartagena Convention whose jurisdiction includes countries around the Gulf of Mexico in North, Central and South America as well. UNEP is a strong candidate to ..... Another option is to house the network at the CEHI or some combination of both or other organization. The rationale for using CEHI is that there is a collaborative interagency group now implementing the CIDS initiatives of the UN conference on Sustainable Development of Barbados in 1994, including UNEP, UNDP, Economic Commission for Latin America and the Caribbean, OAS, Caribbean Development Bank, and the Caribbean Conference on Science and Technology. The work on the initiative reports directly to the CIDS Bureau comprised of the Environment Ministers of the Caribbean. CEHI is also developing a network for laboratory support for the region. An emerging issue is the creation of an environmental law foundation with CEHI and with others in the region. The Caribbean is also united through several important regional mechanisms, including the Cartagena Convention, Caribbean water and wastewater management initiative and health initiatives as important regional mechanisms.

Where do we go from here? Our next step is to leave the Conference with a torch bearer who will be responsible for identifying the key parties and bring in the Council of Ministers of Environment, Health since it will be new to many of them. They meet regularly so there is great potential for moving forward.

3.1.4 FIDA: Hemispheric Network on Environmental Law

Mr. Eric Dannenmeir spoke on behalf of the Organization of American States (OAS) in describing the Inter American Forum on Environmental Law, (FIDA-from the Spanish) whose mission is to provide a network of environmental experts on environmental law, its implementation and enforcement to support capacity building within the hemisphere. The network was originally called for by participants at the Third International Conference in Oaxaca, Mexico in 1994 and later in the Fourth International Conference in Chiang Mai, Thailand in 1996 who then worked behind the scenes with their governments in the Americas resulting in a commitment of the 34 heads of State at the Bolivia Summit in December of 1996 to develop the network. The commitment to develop the network of environmental experts in consultation with the OAS is described within the Plan of Action for Sustainable Development. Its purpose is somewhat broader than environmental compliance and enforcement, focusing as well on the development of environmental law given the status of needs in the region, although also implied in this is the need to develop requirements which are enforceable. FIDA will serve as a focal point for cooperative efforts including environmental enforcement and compliance. The OAS is a hemisphere wide political organization which is now 50 years old with 34 active member states. OAS responded by engaging in an open

and collaborative participatory process beginning with a meeting in Miami, Florida with experts from government, NGOs, academics and private partes. It also sought the views of the region's InterAmerican Bar Association in a meeting in Lima in an informal dialogue. It also studies existing networks such as INECE, CCAD, E-LAW as to what works and does not work and conducted a regional survey to clarify priorities. Over 300 persons were sent the survey and over half responded. By sector 34% were from government and international organizations, the rest from the private sector and academia. Additional opportunity to have a dialogue on the subject was provided by the CCAD at their meeting in Honduras. Out of 11 options, the top three priorities included:

- law development and national model law formulation;
- transboundary cooperation; and
- environment and information exchange.

A formal proposal for FIDA, provides for a community of people devoted to the same cause with open membership but provision for sectoral interaction and focus on 2 biennial themes, one procedural and one media specific. Indeed the key to success of existing networks appears to be keeping it small and maintaining a focus on concrete responses. OAS is now in the process of seeking review of its draft blueprint charter and workplan. While OAS is supporting initial funding of activities it is also seeking long term funds to maintain and fully implement the network. To facilitate the exchange of knowledge and experiences, FIDA is now in the process of identifying country focal points.

3.2 Plenary Discussion Summary

Mr. John Bonine mentioned that for 8 years the oldest network including individuals from 50 countries has been supported. The network concept is different from an organization and regular meetings. E-LAW Alliance Worldwide is able to set up networks on the Internet within 1 hour as an ad hoc means of getting real work done. It happens almost immediately without the need for a lot of extra plans.

Mr. Antonio Benjamin, Brazil, noted the work of the Central American model and asked whether there were results from the training of public prosecutors, concrete examples of enforcement and environmental improvements resulting from the training. Mr. Marco Gonzalez indicated that he could not prove that training the judges resulted in specific and favorable legal decisions. The process of results is a cumulative one. Manuals have been produced, 600 Judges trained. He knows of cases to enforce environmental law. CCAD has offered enforcement training 6 times which has produced a cadre of local trained persons in place on environmental legislation. Environmental Attorneys and prosecutors have been set up, four such units in Central America. Now environmental law is taught at the Universities where there is a tradition of being conservative about change. Finally there is greater public access to information.

3.3 Results of the Americas Regional Meeting

Mr. Marco Antonio Gonzalez Pastora summarized the results of the Americas regional meeting. He indicated that following an overview session on the hemisphere wide role that the OAS FIDA network would play that the group split into Sub-Regional groups so they could discuss in more detail how they envision the future of the network. As a first stage of the networks it should work with Sub-Regional groups and a focal point is needed

for Sub-Regional groups. In Central America, the CCAD already has established focal points for each country who must work both outwards and inwards to ensure a liaison function within countries as well as with other networks.

The main goals of the networks are:

- enforcement of environmental legislation;
- promotion of compliance;
- training; and
- communications and information access for members.

An Americas regional meeting will be held within the next 2 years. As secretariat for the Supra-Regional network the OAS Department of Sustainable development serves that function now with FIDA. They need to think about the next phase and what will be the big issues addressed.

As for Sub-Regional proposals, in addition to the existing networks for North America and for Central America, CARIB-INECE will be formed around the larger Cartagena convention. The key leaders plan to issue a communique to inform those not present about the effort and to solicit views on the relevancy of the network. They will hold a Task Force meeting in January or February of 1999 including national and international organizations represented in CariCom and others including CCAD. The outcome will be a workprogram which they present to potential donors for support. The purpose will be to inform others in the region currently not present on INECE, develop a plan of action.

For Central America they met and concurred with the general goals. They want to focus on illegal traffic of toxic and hazardous waste, promote the regional approval of dirty products, the uniform management and enforcement concepts and training of general attorneys prosecutors, judges and comptrollers in international environmental treaties and exchange of experiences They will use a bulletin to continue to inform their members. CCAD will serve as a focal point with OAS. There will be a meeting in Honduras in January or February of next year (1999) to discuss INECE and cooperation in working on illegal trade and investigation and new trends in regulation.

In North America they will continue their working groups and reach out to other Sub-Regional networks. Enforcement needs to be part of environmental policies. Public participation must be ensured to promote active also multi-sponsored regional meeting. There is general agreement on this need to gain public participation. Since the mandate from Santa Cruz talks about participation of the public and public and private partnership. OAS must help support the political will and has some successes in doing this like the water management network it established in 1993.

In response to a question by Ms. Theresa Serra of the World Bank about report on the South American subgroup, Mr. Gonzalez indicated that they proposed to concentrate on the following areas: enforcement of the environmental law, development of standards and regulations, compliance and enforcement is weak in the legal frameworks, training to and bring up capacity for enforcement, transboundary movement of pollution, and finally exchange of information and communications. They agreed to a plan of action. There is a Steering Committee composed of members from Venezuela, Bolivia, Brazil and Chile. There will be a meeting in Quito, Ecuador sponsored by the Minister of Environment, Yolanda Kakabatse, or hosted in San Paulo. They all recognized the need to work further to contact those not represented at the Monterey conference. At this regional meeting there would be 1 government and 1 NGO representative at the meeting from each country.

All pledged to get together in less than 6 months to create a network and decide then how to implement it. Each Sub-Regional network is to serve as a focal point, facilitate progress and work with the OAS sustainable Development Department.

4 ASIA REGION

4.1 Panel on the Status of Regional and Sub-Regional Networking

4.1.1 ASPA-INECE

Mr. Lal Kurukulasuriya, UNEP regional office in Bangkok, indicated how supportive UNEP finds the INECE partnership to meeting its mandate. With financial support from the government of The Netherlands the UNEP regional office has had the possibility of hosting a regional meeting on environmental compliance and enforcement in close cooperation with SACEP, the South Asia Cooperative Environment Program. Participants from 18-19 countries were joined by the Secretariats of the Basel Convention, Montreal Protocol and legal advisor to the climate change convention all joined to vigorously support the regional network for Asia and Pacific. A report of the meeting initiating the network is included in the Conference registration materials. Several points are important to make. First it is to be responsive to specific regional needs and as such will evolve into a structure and format to best fit those needs. Second, it is to be country driven and will seek to strengthen national networks which would then enrich regional networks. Third, it is to link up with and draw upon networks at the global and regional levels. A strong INECE will help make the regional INECEs function more effectively.

The Asia regional network has an enormous expanse from Turkey in the West to the East Pacific region. Therefore the regional network is operationalized through Sub-Regional bodies, SACEP, the South Asia Cooperative Environment Project, ASEAN, South Pacific Regional Environment Program (SPREP), and MPREP. The networks can only be formed with a torch bearer, a focal point, a secretariat to draw on the expertise, workprogram and support. Their plan is to start slowly and work within their own absorption capacity. So, the goal is to have: 1) strong national capacity building and networking, 2) Sub-Regional capacity building to promote the exchange of experience, and 3) information gathering and analysis based upon priorities cited in the report. Priority activities include the country profile report, convening meetings, establishing links. They plan to hyperlink to the extent possible to increase the available training materials and by adapting to the region's unique needs. UNEP Bangkok has responsibility for the umbrella ASPA-INECE.

4.1.2 ASEAN

Mr. Aziz Rasol presented an overview of the work of ASEAN and potential for a subregional network on environmental compliance and enforcement within the framework of existing activities. ASEAN was created in the early 1970's in the movement against communism to develop into a political and economic entity of its own. ASOEN was created by 9 countries in the region at a Summit of the Heads of government. There are Committees at the Ministerial level, and workgroups. The Committee on Environment was created in the 1980s and has several workgroups including one on biodiversity, one on conventions, one on haze problems and one on oceans and seas. Senior officials on the environment meet 2 times a year at regular meetings. Workgroups usually meet 3-4 times a year. A summit

is held every year to two years to officially set the program. The ASEAN workgroup on transboundary pollution to address the haze problem caused by forest fires was perhaps the biggest success. It was a common issue, which needed to be addressed rapidly and effectively and it was. ASEAN formed a workgroup and divided the work. Transboundary pollution was led by Malaysia, a group on preventive measures is led by Singapore and one on fire fighting was taken up by Indonesia. All 9 members worked closely together and because of the existing structure, it was in a good position to gain outside support from the Asia Development Bank, USAID and UNEP and the countries themselves. It was fully implemented in 9 months demonstrating that if there is political will and commitment it can be done.

What does the future hold? ASEAN has two choices to embark on environmental enforcement networking. It can establish a separate workgroup on environmental enforcement or it can make this topic part of the agenda of other workprograms so it is always an agenda topic. This will be discussed among participants from ASEAN countries at the regional meeting.

4.1.3 South Asia Cooperative Environment Programme, SACEP

Dr. Ananda Raj Joshi, Director General of SACEP described SACEP's role in South Asia and the future of a South Asian environmental compliance and enforcement network. SACEP is an intergovernmental organization, which was established in 1982. Its main mandate is to advance environmental management in the South Asian region among 8 member states (Afghanistan is inactive). Their principal Review Body is the Governing Council whose members are the Ministers of Environment of the concerned member countries. They also have a Consultative Committee which comprises the embassy representatives of the member countries which meets once a quarter to review the work of the Secretariat which is based in Colombo, Sri Lanka. SACEP has identified 14 priority subject areas on environment that are of regional concern which need immediate attention. Each of these priority subject areas has a Focal Point whose tasks are to identify priority areas of action and develop project proposals, which are regional in character. The function of the Secretariat is to seek funding and effect the implementation and monitoring of such regional projects. The Secretariat also serves as the co-ordinating body for regional projects and is also the Secretariat for the implementation of UNEP's South Asian Regional Seas Programme.

While SACEP does not now have an enforcement network, they do have networks on environmental information on which they can build. Specifically, they have already established a Centre titled SACEP Environmental & Natural Resources Information Center (SENRIC) whose main function is data gathering, capacity building, training and information management. Almost all member countries of SACEP have environmental laws. However at this time, the major challenge is securing enforcement, as there is the lack of guidelines, unclear enforcement mechanisms and inadequate capacity of institutions, insufficient data and basic information.

SACEP agreed at the September meeting in Bangkok to the setting up of ASPA – INECE and that it would serve as the Sub-Regional network for the South Asia region and to carry out all the necessary functions within the broader framework. They are in the initial stages of developing this network.

4.2 Plenary Discussion Summary

Mr. Sweeney inquired about the relationships within ASEAN and to ASIA-INECE and whether they should consider modeling after it in the Caribbean. Mr. Lal Kurukulasuriya indicated that by initiating action through the initial meeting, they were able to set up a support unit to set up Sub-Regional networks. It is far more operationally effective to work through the Sub-Regional organizations. The role of UNEP is then one of making linkages with other networks, play a facilitation role and make sure regional information, materials and support is forthcoming from institutions with the capacity to assist. Only a small Secretariat will be based in UNEP and they can help disseminate information.

5 AFRICA, WEST ASIA AND MIDDLE EAST PANEL REGION

5.1 Panel on the Status of Regional and Sub-Regional Networking in Africa

5.1.1 Past Efforts to Establish an Africa Regional INECE Network

Mr. Goke Adegoroye, Nigeria, described the status of activities to implement recommendations from the participants at the Fourth International Conference in Chiang Mai for the formation of an Africa regional network where participants agreed on the need to establish an African network devoted primarily to exchange and capacity building. Nigeria had offered to serve as a focal point for a regional Secretariat to facilitate arranging the network. South Africa had offered to host a first regional workshop. It was also recognized that there was a need for Sub-Regional nodes to serve smaller groups through training and staffing because there is a considerable gap among African countries in the level of environmental compliance and enforcement both in the nature and focus and levels of development. Many countries are just beginning to develop the frameworks for environmental management. He personally took some initial steps to establish a Secretariat but given political turmoil and change in Nigeria it did not go very far before in an effort to start up again there were also significant changes in contacts they were trying to establish among the countries. Nigeria has invested in training of its own staff, focusing on officers of Nigeria's state agencies and have participated in an intensive study tour on environmental enforcement with USEPA with support from the World Bank. Mr. Adegoroye proposed that consideration should be given to housing an Africa-wide network independent of any single government sponsor and that this idea should be discussed further with one of several organizations, including possibly the Organization of African Unity (OAU), ECA, African Ministers for the Environment, SADIC, ECOAS, African Development Bank, UNDP with the capacity 21 program, UNEP and INECE Africa need to arrange to lend political and financial support to that Network to sustain it on an ongoing basis.

5.1.2 World Bank Perspective on Regional Networking in Africa

Mr. Arne Dalfelt of the World Bank's Africa Division indicated that the World Bank is focusing more on environmental capacity building than actual enforcement, particularly because institutions in Africa are not well equipped to handle their commitments to environmental Conventions. Many still use obsolete 19th century laws and do not really have a culture of enforcement because of the overriding focus of those seeking development which does not include the perception that environmental compliance is what is needed as well.

The World Bank has been focussing specifically on Environmental Assessment and its use as a decision making tool including both EA and environmental compliance and enforcement of related conditions. Existing networks in Africa are all emerging since all lack tools, money and resources. However, there are a lot of the Africans who themselves are moving ahead in several quarters in the environmental field. In July of 1999 for example, there was an African Ministers Conference on Environment sponsored by IUCN, World Bank, UN Conference on Environment in Africa, organizing a stakeholder platform for a final action plan to be developed. There will be a Donor conference in mid-Winter next year. Trust Funds are available to be used in a focused way to support these activities with the ultimate goal of supporting capacity building in enforcement.

5.1.3 African Development Bank Perspective on Networking in Africa

Mr. Eugene Shannon of the African Development noted his paper contribution on the role of transnational corporations in contributing to environmental problems in Africa and the efforts of countries in West Africa in particular including Ghana, Sierra Leone, Liberia and Nigeria in addressing the illegal dumping of hazardous waste, toxic chemical contamination resulting from poor and illegal practices. As a Development Bank, the ADB is also there to support global issues including transboundary movement of hazardous waste both from north to south and within the south, climate change, ozone depletion and the like through capacity building. They have a network throughout the Bank, NESDA, the network for Environmentally Sustainable development in Africa also working with and supporting the Association of African Ministers on the Environment AMSEN which is also supported now under the OAS with a Trust Fund. So they are in a position to facilitate through funding and are prepared through their organizational structure to support, but not do enforcement.

5.1.4 North Africa and Middle East Networking

Mr. Yasser Sherif described the status of forming a network for North Africa and West Asia. He reported that at this time a host organization has been identified but that not much work has proceeded past this initial step and a game plan for moving forward. CEDARE, a non-profit organization formed by the Council of Arab Ministers responsible for the Environment in 1992 seemed a good choice from their perspective given their objective to offer regional and national level support to develop and implement environmental programs for environmental conservation. This compatibility of objectives is coincident since they have just begun a project on compliance and enforcement of environmental laws. Having this focal point they plan to develop an agenda for moving forward with a meeting in the Spring of 1999 probably in Cairo. Few of the participating member states will have benefitted from the INECE discussions since only a handful of participants from the region have been able to participate in past conferences and he noted that it will be important to convey the spirit of INECE. Much attention will be paid to developing basic capacity at the national levels. One characteristic of the work of CEDARE is that Arabic is the working language which can overcome one of the barriers to reaching further into government operations.

5.2 Discussion Summary During Plenary on Status of Networking

In response to a question posed to Mr. Yasser Sherif regarding the role of NGOs versus government officials in the network he described, he indicated that he did not know but that in his own personal view this would be a government network since enforcement was

primarily a government function. He mentioned existing NGO networks that could serve that purpose in his region. In subsequent discussion different views were offered on this important issue.

A second question concerned whether the World Bank is interested in funding and supporting institutional and legal reform within South Africa. Mr. Arne Dalfelt indicated that they just completed a survey of all environmental legislation in about 50 African countries and that the bank is very interested in supporting these activities.

Mr. Van den Heuvel concluded that the regional meetings should focus on setting an agenda for the coming year including what would be accomplished when and who is responsible for taking action.

5.3 Results of Africa Regional Meeting

Mr. Yasser Sherif reported on the results of the Africa regional meeting resulted in commitments to move ahead to pursue four Sub-Regional networks within Sub-Saharan Africa in South, Central, West and East Africa respectively. Country torch bearers were identified for each of these sub-regional groups. In West Africa it is Nigeria, in East Africa Uganda, in Central Africa, Cameroon, and in South Africa Zimbabwe will work also with South Africa who offered at the last conference to take some initiative in this area. Specific activities and actions were identified to move ahead.

6 GLOBAL INECE NETWORKS AND CROSS CUTTING DISCUSSION ISSUES

6.1 Support of UNEP for INECE

Mr. Kurukulasuriya spoke on behalf of UNEP that they would like to see a strong and robust INECE especially if regional effective and function that would be a parent body to which they could turn. He hoped it would sponsor the cause of regions with donor networks as well.

6.2 Role of NGOs in Regional and Sub-Regional Networks

A recurring issue during the plenary discussions was the appropriate role of NGOs and whether NGOs could be viewed as "citizen enforcers." There was discussion of this issue following each panel with some viewing citizens as enforcers and others as at best a prod and supporter of the government enforcement function. Mr. Herman noted that given the INECE history, the effort has always been made to make it an inclusive process. Many countries, including the United States, provide for citizen enforcement, viewing enforcement of environmental law and three-pronged: state/federal/citizens. This may not be the case in every country. Inclusion if its appropriate must take into account the role of NGOs. We must always look to inclusion versus exclusion. A commenter from Argentina was surprised at the previous comment that enforcement is solely a government function, pointing to the right given their citizens for a healthy environment and the duty imposed to find both a duty and a right which cannot be separated. The point was made that democratic, participatory democracies have joint responsibility. Ms. Svetlana Krevchenko noted that especially in light of the Aarhus Convention, just having networks of government officials would be a step backwards. The Asia network did not have these issues because they have included the involvement of NGOs, but Europe's networks did not nor did several others spoken about.

6.3 Making Good Intentions Work

Mr. Jan van den Heuvel closed with the observation that there were so many good intentions about what would be accomplished over the next year, that if even half came to fruition then it would be successful.

SUMMARY OF REGIONAL MEETING: EUROPE - BUILDING REGIONAL AND GLOBAL NETWORKS

Facilitator: Susan Hay, Ladislav Miko, Waltraud Petek
Rapporteur: Betske Goinga

GOALS

The regional meeting will address the following issues:

- The genesis of the network and how it was established.
- What was/is involved in developing and maintaining the network.
- Who is asked to participate and at what levels in the organizations.
- Subjects the network covers.
- Vehicles used for exchange and means of communication used.
- Topics on which exchange is taking place.
- How the network overcomes differences in language an legal or other definitions of terms such as what constitutes a hazardous waste.
- Future directions and changes anticipated for the network.

1 INTRODUCTION

A goal of INECE is to further develop the global network by fostering the regional networks for environmental compliance and enforcement. Participants of Europe met for the two-day meeting to discuss further the INECE goals and the results in Europe.

2 DISCUSSION

2.1 Role of the Networks

In Europe there are currently three networks in existence:

- IMPEL;
- AC-IMPEL; and
- ACE-INECE.

These three networks are in different stages of development. IMPEL has already been in operation for several years and is in the stage of delivering concrete products. AC-IMPEL concentrates on the approximation to the European Union, while ECA-INECE has just had its inception meeting and is getting starting on networking. The common factor in the three networks is that their aim is exchange of information and sharing of experience. The networks can be developed by starting with concrete issues which can be further expanded with broader themes.

2.2 Involvement of others than authorities

The three networks consist until now of authorities dealing with compliance and enforcement. Involvement of other parties (e.g. industries and NGOs) would depend on the aims of the networks as such.

2.3 Requirements

All the networks are facing a lack of resources, both human and financial. Therefore, it is necessary to focus on the available resources. Contribution to the networks must thus be based on affordable financial, human and material resources. Besides that there is still the need for international funding (e.g. World Bank, OECD, European Union).

As human resources are scarce, it needs some reflection what can be taken up, resulting in realistic goals.

There is a need for central focal points per country, something which should be easy to achieve. Besides that a small secretariat should be in place.

The language problem should be faced somehow, keeping in mind that in the three networks there are probably more than 35 languages used. If English for instance is used as a working language, the risk may be that participation in the network may have to rely on a rather limited number of participants. Translation or interpretation on the other hand will be very costly.

2.4 Strengthening of the networks

The establishment of strong national networks will be a first need. The networks can then be built up further by starting with some small projects. The benefits of the networks can be demonstrated by generating practical outcomes, like promoting awareness and producing useful documentation. It will be advantageous to look where it is useful for a cross fertilization to take place, e.g. by mutual participation in each other's exchange programs.

2.5 Work for the future

IMPEL will further consolidate its work in specific projects as defined in its yearly work programs. AC-IMPEL will focus on the approximation process into the European Union, while the ECA-INECE countries should start off by compiling a list of contact points which will facilitate the exchange of information and communication. In due course, IMPEL might compile a comprehensive directory of the three networks.

IMPEL arranged until now general exchange programs for inspectors. In the end of 1999 in Greece the general exchange program will be organized. IMPEL will start with exchange programs that will be related to a special subject. Also, minimum criteria for inspections were accepted by the members of IMPEL. For the non-IMPEL countries which are candidates for the European Union special training programs on implementation and enforcement issues will be set up.

2.6 Role of INECE

INECE is seen as an umbrella for existing networks and as the link between regional networks. It should continue to serve as a facilitator to bring networks together. A suggestion was made that ECA-INECE might be transformed into an umbrella European regional INECE. Thus it could accommodate countries which don't fit in now, like Norway, Switzerland, Turkey. It could also take on board NGOs and other groups, like industry.

There is, however, still a need for worldwide contacts and an international conference. This could be done by having a conference at larger intervals (e.g. 3 or 4 years) and on a smaller scale with chosen regional representatives. INECE could be the facilitator for regional networks, e.g. by letting them make use of the existing home page. Regional networks could also concentrate more on in-depth training.

3 CONCLUSION

In Europe networks are in place. There are differences in development. In working together the networks can make use of their difference in development and assist each other. There is however the need for financial and technical support from authorities.

SUMMARY OF REGIONAL MEETING: AMERICAS - BUILDING REGIONAL AND GLOBAL NETWORKS

Facilitators: Antonio Azuela, Armando Shalders Neto
Rapporteur: Christie Jorge

GOALS

The regional meeting addressed the following issues:

- The genesis of the network and how it was established.
- What was/is involved in developing and maintaining the network.
- Who is asked to participate and at what levels in the organizations.
- Subjects the network covers.
- Vehicles used for exchange and means of communication used.
- Topics on which exchange is taking place.
- How the network overcomes differences inlanguage an legal or other definitions of terms such as what constitutes a hazardous waste.
- Future directions and changes anticipated for the network.

1 INTRODUCTION

Representatives of government, non-governmental, and international organizations from throughout Latin America and the Caribbean met to analyze existing networks and relevant initiatives to carry out the work of International Network of Environmental Compliance and Enforcement (INECE) at a regional level.

2 DISCUSSION SUMMARY

As a preliminary matter, the Organization of American States draft plan for a hemispheric network on environmental law and its enforcement and compliance, called Foro Inter-Americano de Derecho Ambiental, was reviewed, and a great deal of discussion ensued. The Foro Inter-Americano de Derecho Ambiental proposal is designed to fulfill a Summit of the Americas mandate, and outlines a broad-based regional network that will address substantive issues of concern in the development and application of environmental law in the hemisphere, including issues relating to compliance and enforcement.

Most participants agreed that the Organization of American States effort to establish Foro Inter-Americano de Derecho Ambiental can complement and support enforcement and compliance networking efforts, and many participants completed surveys and offered opinions and advice about the structure and work of the new regional network. The draft report on the formation of Foro Inter-Americano de Derecho Ambiental at the hemispheric level was distributed to participants, and has been revised based on their input. A copy may be annexed to this report as appropriate.

At the same time, participants desired to continue working to build sub-regional enforcement and compliance networks that can continue the work of INECE at a local level. These sub-regional networks would carry on the themes of INECE and interact with Foro Inter-Americano de Derecho Ambiental in a complementary and mutually-strengthening fashion.

In order to develop further the plans for work at a sub-regional level, the Americas Group divided by sub-regions, and prepared reports on progress, priorities and next steps. The following reports were filed by those working at the sub-regional level.

2 REPORT OF THE CARIBBEAN SUB-COMMITTEE

Discussions centered around "the way forward", with the understanding that there are implied benefits from becoming part of a network. The participants decided on the name CARIB-INECE for the Caribbean proposed network.

Recommendations:

- Issue communiqué at the end of Monterrey meeting informing Caribbean countries not present of the outcomes and soliciting their views on the relevancy of the network. This input will feed into a Task Force meeting.
- Task Force/Preparatory Committee (TF/PC) to meet January or February 1999, consisting of United Nations Environment Programme/Regional Caribbean Unit (UNEP/RCU), Caribbean Environmental Health Institute (CEHI) and the Government of Jamaica (for purposes of logistics, costs and institutional memory). Informal meeting will discuss the next steps in order to build constituency. Based on country feedback the Draft Agenda for a CARIB-INECE meeting can be prepared.
- Outcomes from the Task Force/Preparatory Committee meeting will allow for "peddling" to potential supporters (e.g. Canadian International Development Agency/Government of the Netherlands/World Bank/Organization of American States).
- Depending on resource availability, the regional meeting might also piggy-back on existing consultations such as the ACS Environmental Committee meeting or the UNEP/RCU LBS protocol meetings.
- Regional meeting will involve country representatives as well as regional and other organizations and agencies (Caribbean Environmental Health Institute, Central American Commission for Environment and Development, UNEP, World Bank, USEPA (Puerto Rico and Washington, DC); Canadian International Development Agency/Environment Canada, Dutch Government, among others).
- Expected results of regional meeting include participants informed of INECE, participants informed of positive examples of networks working in other parts of the world, regional plan for action, regional proposals for submission to donors to catalyze functioning of network, resolution for presentation to regional (political) forum.
- Through mechanisms such as the Caribbean Community or the Association of Caribbean States Councils, outputs of regional meeting can be presented for regional government endorsement or support.

NOTE: Washington EPA indicated their firm support for such an initiative. The World Bank also expressed support, once their conditionalities were observed. The benefit of countries committed some resources to the network was highlighted. Suggestions were made to source trust funds (e.g. from the Dutch) and to approach the Inter-American Development Bank and CIDA to support this work.

3 REPORT OF THE NORTH AMERICA SUB-COMMITTEE

Participants in the North America Sub-Committee made the following statement: Given the fact that we have shared resources:

- We see trade and investment as a driving force in the region, but including environmental issues.
- Illegal trade in environmental and natural resources should be tackled.
- We are confident in our sub-region and we would like to be as confident for the whole region of the Americas.
- We have to link and combine the work of the sub-regions at a regional level.
- Enforcement needs to be part of environmental policy (including public participation).
- Within the next two years we recommend a multi-sponsored regional meeting.

4 REPORT OF THE SOUTH-AMERICAN SUB-COMMITTEE

Discussions centered around priorities for joint action, and included:

4.1 Important Themes

- Enforcement (principal polluters, pollution standards, how to regulate the "regulated community", natural resources need protection)
- Compliance and enforcement (Weaknesses and strengths of the law for enforcement)
- Capacity-Building perfection, make current and training
- Communication and information (exchange information on transboundary activities)

4.2 Types of information and communication

- Formal and informal character
- Government representatives

4.3 Proposed next meeting

- Time and place not decided, but all in favor of "jump-staring" the network by scheduling a meeting (participants noted that there was great interest in creating a network).
- Decision to take measures to create the network in a meeting and those are the activities that will be conducted. The next meeting will consist of members of the commission, this executive commission will be formed by the following countries: Venezuela, Bolivia, Brazil and Chile. These countries will also seek to identify members from countries not represented at this INECE meeting.

4.4 Possible locations for an office

Quito or Sao Paulo (the host country will seek financing to achieve the objectives mentioned above.)

4.5 Composition per country

- One government representative.
- One NGO representative.
- One representative from the enforcement sector (this was not agreed upon).

5 REPORT OF THE CENTRAL AMERICAN SUB-COMMITTEE

Discussions centered around the priority or important themes for the countries of the region.

5.1 Important Themes

- Illegal traffic of pesticides and toxic substances
- List of "Dirty Dozen"
- Uniform or harmonize concepts dealing with environmental management
- Training and capacity-building for government officials and experts, judges, prosecutors, and controllers. Emphasis on strengthening the office of the prosecutors (Ministerio Publico)
- Enforcement of international environmental agreements, declarations, and summits
- Horizontal exchange of information and experiences
- Create a sub-regional bulletin

5.2 Purpose of the network

The network will constitute a fora for dialogue that enables "face-to-face" interaction.

5.3 Types of information

The network will seek to exchange information and experiences on legislation and the exchange of human resources (technical experts).

5.4 Guaranteeing an adequate flow of information

The multiplier effect of the information and look for the focal point or multiplier effect point in each country. This contact person/office must be a liaison for external communications as well as for in-country communications.

The focal point must be an individual that assumes a personal responsibility, and should not be tied the their official positions (this seeks to mitigate the great mobility of public authorities in the sub-region).

The focal point will be designated by the Organization of American States at the hemispheric level and the Central American Commission for Environment and Development (CCAD) at the sub-regional level.

5.5 Mechanisms to operate the network

There must be a selection of a focal point per country. The Organization of American States (OAS) can serve as a facilitator and can serve as the Technical Secretariat along with the Central American Commission on Environment and Development (CCAD).

The Red de Organizaciones de Derecho Ambiental (based in Guatemala), can use small resources available to fund the network, it can also write a bulletin on the network and describe who comprises the network). The network will also use existing national fora, both from the government as well as from NGOs.

6 CONCLUSION

In conclusion, networking in the Americas has taken important steps forward at a regional and subregional level. There appears to be a commitment to building and strengthening networks on a range of environmental law issues, including enforcement and compliance, and it appears that these efforts are mutually supporting and complementary.

ENVIRONMENTAL ENFORCEMENT IN LATIN AMERICA AND THE CARIBBEAN

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SUMMARY

This paper provides an overview of the status of environmental compliance and enforcement in Latin America and the Caribbean. It identifies why it has proven to be a challenge and provides examples of enforcement and alternative approaches. The role of the Courts is described as are steps needed to make progress.

1 INTRODUCTION

The need for effective environmental enforcement is increasingly recognized in Latin America and the Caribbean. The Declaration of Santa Cruz de la Sierra (December 1996) states that the countries will *"develop national mechanisms for effective enforcement of applicable international and national laws and provisions".*

The political acknowledgment of the importance of environmental enforcement is likely to stem from the recognition that the degree to which environmental quality can be improved by public policy depends not only on the wisdom inherent in policy design, but also on the effectiveness of policy enforcement. Policies which initially seem to offer promise may, in the glare of hindsight, prove unsuitable if enforcement is difficult or lax. Implementing a successful sustainable development strategy requires that careful attention be paid to the environmental consequences of economic activities. Ignoring or treating these environmental impacts as inconsequential can undermine human and ecosystem health as well as the resource base on which all economic development ultimately depends (Tietenberg, 1996).

Environmental enforcement has been broadly defined as "the range of actions governments and others may take to encourage and compel compliance with environmental requirements" (Wasserman, 1994). Environmental enforcement is obviously important to protect environmental quality and public health. When enforcement actions are being planned and carried out effectively, environmental enforcement also contributes to building and strengthening the credibility of environmental requirements, ensuring fairness, and reducing costs and liability (Wasserman, 1994). In general, a lack of official response to violations could harm the credibility of environmental laws and governmental agencies. This lack of credibility in turn may lead to serious costs for business and undermine efforts to attract investors. Moreover, a system under which there are no coherent priority setting and no systematic policy to target polluters will result in efficiently high costs of compliance on polluters where often pollution control is pursued where resistance is least rather than where costs are least or benefits are highest (World Bank 1996).

However, how best to focus environmental enforcement activities in order to achieve cost-efficient environmental compliance (such that the excess of benefits over costs (or net benefits) are maximized) is still subject to much debate. Much depends on the adequacy of the environmental laws and regulations themselves, but also on the costs related to

enforcement activities, such as monitoring, and the availability of instruments and capacity of institutions, not in the least the judiciary. This report will describe some of the recent developments in Latin America and the Caribbean countries in this respect. It will also review if enforcement can contribute to revenue generation, and highlight some of the changes that are taking place in the area of enforcement through increased private enforcement and voluntary compliance. Whereas private enforcement may bring non-traditional actors in the enforcement scene, such as non-governmental organizations and private companies, programs of voluntary compliance are focused on the potential polluters ("the regulated community") themselves to make them more responsible for and responsive to environmental laws and regulations.

2 ENFORCEMENT: WHY IS IT DIFFICULT?

The economics literature on enforcement has focused on a number of topics, including the role of enforcement considerations in policy instrument choice (Harford 1978; Viscusi and Zeckhauser 1979; Lee 1984; Martin 1984), the effectiveness of current enforcement techniques (Russell, Harrington and Vaughan 1986; Harrington 1988; Russell 1990), and suggestions for improving the enforcement process (Russell, Harrington and Vaughan 1986; Harrington 1988; Russell 1990). One theme that emerges from these works is that a considerable amount of noncompliance is occurring everywhere. Furthermore, limited public enforcement budgets and judicial limits on public enforcement powers (Russell, Harrington and Vaughan. 1986; Harrington 1988; Russell 1990) suggest that traditional enforcement agencies are not likely to mount a completely adequate response to the environmental degradation resulting from noncompliance.

The countries of Latin America and the Caribbean fit this general image. Studies published by the IDB on the institutional and legal aspects of the environment in its borrowing countries, concluded that lack of compliance with environmental legislation is due to shortages of human, material and financial resources for appropriate environmental management (IDB, 1991; IDB, 1996). An IDB study on Southern-American countries concluded that enforcement is the greatest constraint faced by all the six countries of the study, mainly due to the fact that enforcement problems have traditionally received little attention by legislators, a negative trend that persists today (IDB, 1996).

The common problems related to monitoring, compliance and enforcement are insufficient social value attached by the public, understaffing of the institutions responsible for enforcing, shortcomings in judicial enforcement with only a small number of judges and attorneys qualified in the field of environmental law, and a lack of program funding. Setting up reliable databases, control and monitoring is extremely expensive. Moreover, the cost of maintaining a database can be much larger than the cost of starting one. Some countries have put institutions in place but have not succeeded yet in giving them the power to operate effectively. Other countries still lack an institutional infrastructure (Tietenberg, 1996).

An important factor is related to inadequate monitoring and control. The above-mentioned IDB study on the Southern Cone concluded that in Argentina, for example, most of the examined environmental agencies are ill-equipped, limited in their number of inspectors and other supporting staff, poorly budgeted and politically weak (IDB, 1996). It was noted, however, that in some cases environmental monitoring was more advanced at the provincial level. For example, Mendoza has adopted a very sophisticated environmental monitoring system in which data becomes part of a policy making process (IDB, 1996).

The case of Mendoza and CETESBE in San Paulo State, Brazil, however, may very well be exceptions to the general rule that in Latin America the lower levels of government lack sufficient resources to adequately deal with their new responsibilities. Enforcement of environmental regulations is increasingly being transferred to the responsibility of departmental and local agencies without a transfer of the necessary resources (World Bank, 1997). In Bolivia, for example, the new decentralization law transfers the enforcement responsibilities, as well as the Environmental Impact Assessment system, to local governments but most of them still lack the appropriate institutional organization and human resources needed to carry out their functions (IDB, 1996).

But noncompliance with regulations is also caused by an inefficiency of the regulations themselves. Existing regulatory schemes are not always cost-effective compared to other possible approaches. Regulations often set environmental requirements (ambient standards, performance standards and/or technology standards), which need to be monitored and enforced[1]. Moreover, the standards themselves should be set in accordance with local circumstances and requirements. Copying international standards may be counterproductive because it may be impossible to enforce them (Tietenberg, 1996). In Venezuela, for example, the Ministry of Environment and Renewable Natural Resources (MARNR) acknowledged a few years ago that the country's Environmental Penal Law was ineffective because many technical standards "came out in a rush and many of them are confusing" (EWLA, 1995).

Yet, there is some evidence that monitoring and enforcement is being given increasing consideration within Latin America and the Caribbean. In February 1994, the Colombian government launched a new pollution control and monitoring program that, for the first time, will allow the government to supervise the generation, treatment, and management of industrial liquid waste. The system will be supported by a computerized data base to store information about the discharges, permits, and licenses of industrial sources (Tietenberg, 1996). The NAFTA emphasis on enforcement has put great pressure on the Mexican government to further increase enforcement (Gresham and Bloomfield, 1995). The NAFTA provisions (see box) have resulted in an increased awareness and emergence of private enforcement in Mexico, and probably also in other countries of the region, certainly if they were to join NAFTA.

The Government of Mexico has taken several steps to improve its monitoring and enforcement record, including passage of the General Ecology Law (1988) and the establishment (1992) of the Office of the Attorney General for Protection of the Environment (PROFEPA), currently under the Secretariat of Environment, Natural Resources and Fisheries (SEMARNAP). Mexico has adopted an Environmental Program for 1995-2000 to improve compliance with environmental legislation. The program also includes a set of innovative preventive measures, such as voluntary environmental audits (see below), and the establishment of a web page to encourage compliance with environmental regulations. These actions have apparently been reflected in an increase in the level of enforcement effort as reported in the Annual Report of the NAFTA Commission for Environmental Cooperation (CEC, 1997).

NAFTA and Environmental Enforcement

NAFTA, in particular the Supplemental Agreement on Environmental Cooperation, emphasizes the importance of both government enforcement actions as well as private enforcement. In Article 5, the NAFTA Supplemental Agreement on Environmental Cooperation lists several actions governments should undertake to effectively enforce its environmental laws and regulations. Such actions include appointing and training inspectors, monitoring compliance, seeking assurances of voluntary compliance, publicly releasing non-compliance information, promoting environmental audits, requiring record keeping and reporting, providing or encouraging mediation and arbitration services and using licenses, permits or authorizations. It also states that each Party shall ensure that judicial, quasi-judicial or administrative enforcement proceedings are available to sanction or remedy violations of its environmental laws and regulations (Article 5). Such sanctions and remedies shall take into consideration the nature and gravity of the violation, any economic benefit derived form the violation, and the economic condition of the violator. Furthermore, it shall include compliance agreements, fines, imprisonment, injunctions, the closure of facilities, and the cost of containing or cleaning up pollution.

In addition to its provisions on public enforcement, the NAFTA Supplemental Agreement contains innovative provisions on private enforcement. Article 6 of the NAFTA Supplemental Agreement contains the obligation of each Party (U.S., Canada and Mexico) to enable interested persons to participate in enforcement activities. It states that each Party shall ensure that interested persons have access to enforcement proceedings, and that interested persons may:

- sue another person for damages;
- seek sanctions or remedies such as monetary penalties, emergency closures or orders to mitigate the consequences of violations of environmental laws and regulations;
- request the competent authorities to take appropriate action to enforce the environmental laws and regulations in order to protect the environment or to avoid environmental harm;
- seek injunctions where a person suffers, or may suffer, loss, damages or injury as a result of a violation of environmental laws and regulations of from tortious conduct.

Unlike Mexico, in certain countries of the region the responsibility for environmental enforcement still belongs to the sectoral ministries. In Chile, for example, the most important enforcement agency is the Ministry of Health due to a large number of violations related to human health legislation (IDB, 1996). In other countries, the regulatory authorities, such as the forestry service, should initiate any administrative enforcement action without which the attorney general has no authority to act (Lawyers Committee for Human Rights, 1998).

3 ENFORCEMENT: A POSSIBLE FUNDING SOURCE?

It has been argued that an efficient and effective legal environmental system can become an important instrument for generating resources for environmental projects and preventing further environmental degradation (López, 1994). Effectively enforced legislation that establishes large financial penalties for violators and requires full financial compensation for past environmental damages may have a potential for raising significant resources that could be used to finance new sustainability programs. However, as the US experience with Superfund has shown, there are serious constraints to a system under which a government agency tries to raise resources for its own use through the court system. The EPA has spent seven dollars in overhead for every dollar spent on clean up (López, 1994).

Are fines for environmental crimes really a potential source of revenues for environmental projects? In Brazil, it is estimated that the Brazilian Institute of the Environment and Renewable Natural Resources (IBAMA) collected between US $10 million and US $12 million per year during 1996 and 1997 from environmental fines (IDB, 1998). Under the new Brazilian Law on Environmental Crimes, which came into force on March 30, 1998, a portion of the fines collected for environmental infractions should now be transferred to the National Environmental Fund (FNMA). When the amount of collected fines continues to be at the 1996-1997 level, this earmarking of environmental fines can clearly contribute to the long-term financial sustainability of the FNMA and as such help to finance environmental improvements. FNMA is the first and oldest environmental fund established in Brazil and has financed projects primarily in environmental control, protected areas and environmental education. Over 70 percent of the projects are executed by NGOs, community groups and small municipalities. It should be noted, however, that President Cardoso has suspended several provisions of the new law.

Yet, one should probably not be overly optimistic about the revenue generation potential of environmental fines. In Colombia's "Financial Strategy for Sustaining Environmental Investment for the period 1998-2007", it is stated that revenues from environmental fines (as levied under Art 85 of the Environmental Law; Ley No. 99) have not been significant so far although they may have the potential to increase when the implementation of the law becomes more developed. Under the Ley No. 99, the environmental authorities can impose daily fines up to 300 days' minimum wage (in Mexico, sanctions up to 20,000 times the minimum wage are allowed; IER, 1994. p. 817). However, even in the most optimistic scenario, the Financial Strategy estimates that the revenues from environmental fines would be limited to US $6.4 million over the ten year period covered by the strategy, probably due to the fact that it is reasonable to expect that a successful program would result in increased compliance and thus fewer fines (although it is suggested to partly compensate this by making the fine amounts inversely related to the level of overall compliance).

The Financial Strategy, however, shows that within a context of developing a broader spectrum of financial instruments, environmental fines can play a significant role. In many countries of Latin America and the Caribbean, however, there is reluctance to allow earmarking of environmental fines for environmental investments. In general, penalties can either be earmarked for environmental improvement or put into the general treasury. Traditional economic theory suggests a preference for putting penalties in the general treasury. Earmarking them for a specific purpose such as environmental improvement is seen as unnecessarily restricting the possibilities for spending the money in the most efficient way. If environmental improvement is the most efficient way of spending the money, then general treasury money can be spent for that purpose. But if other projects were to offer much higher rates of return, earmarked revenues (because they are designated for a particular purpose) would miss those opportunities (Tietenberg, 1996). Earmarking may not only result in suboptimal allocation of resources but also provide incentives to environmental authorities to pursue fines even if not in the social interest of the country. Therefore, a system that allows earmarking of environmental fines should address these issues in a satisfactory manner.

Four Main Ways of Private Enforcement

Under the typical regime, private groups can use private enforcement actions to pursue better environmental quality in four main ways:

(1) by suing polluters to recover monetary damages inflicted on them by the pollution (for the purpose of this paper called "civil liability actions");

(2) by lodging a complaint by the enforcer with a designated public authority (called "complaint actions");

(3) by bringing a legal action against a public authority entrusted with responsibility for implementing the laws to force compliance with legislative or constitutional requirements (called "oversight actions");

(4) by bringing actions against polluters for the purpose of bringing them into compliance with the law (called "direct citizen suits");

This latter two categories of enforcement action may include seeking an injunction, i.e. requiring a party to refrain from doing or continuing to do a particular act or activity. Injunctive remedies are preventive measures which guard against future injuries rather than affording a remedy for past injuries.

4 ALTERNATIVE APPROACHES TO ENFORCEMENT: PRIVATE ENFORCEMENT

In order to circumvent some of the constraints faced by public enforcement agencies, in particular resource and staff constraints, private enforcement could be an

alternative approach. Private enforcement can complement, or even substitute for, public enforcement. Although many efforts at privatization ultimately turn a public responsibility (such as fire protection) completely over to the private sector, enforcement does not lend itself to that strategy. In general, even in countries with strong private enforcement regimes, public enforcers retain a prominent role. When authorizing private enforcement, most legislatures have been cautious not to afford the private enforcers too much power. Nevertheless, private enforcement is increasingly becoming a widely used method of enforcing environmental laws and regulations (Tietenberg, 1996). Much like public enforcement, it can constitute a source of finance through earmarking penalties for environmental purposes, and, more indirectly, through making noncompliance more expensive for polluters (Pearce, 1997).

Oversight Actions in Chile

The "Corporación del Cobre de Chile Case" offers an example of a successful oversight action against a state-owned company. The Citizens Committee of Chañaral ("Comité Ciudadano por la Defensa del Medio Ambiente y el Desarrollo de Chañaral") claimed that the government authority which owned the Mining Company "El Salvador", the largest company in Chile, was violating its constitutional right on a healthy environment because of an ongoing "arbitrary and illegal" discharge of pollutants by the mine's metallurgic plant in the river Salado, causing severe contamination of the Bahía de Chañaral and the coast. The Chilean Constitution guarantees every person the right to live in an environment free of contamination and it is the obligation of the State to keep watch of any violation of this right, and citizens can bring a court action against an authority for violation of this right (called an "Article 20 Action"). In this case, the court, as confirmed in appeal by the Supreme Court, ruled that, although the company had an authorization, this did not justify the contamination of the waters and that the discharge was a violation of the Committee's constitutional right. The court ordered the Mining Company to end its discharge in the Pacific Ocean.

Another Article 20 Action was directed against the Mayor of Futrono for the "arbitrary and illegal" installation of a rubbish dump without observing the minimal sanitation standards. This case is an example of well coordinated use of administrative and civil procedures. The claimant simultaneously filed a complaint with the Sanitation Service against the Mayor. The Service ruled in favor of the claimant and imposed an administrative fine and ordered the closure of the dump. Subsequently, the court that ruled on the Article 20 Action, took this administrative decision into account and ruled also in favor of the claimant, i.e. ordered the closure and clean-up of the site.

Private enforcement actions differ from more conventional liability actions in that in ›rivate enforcement, the initiator of the action is not primarily seeking compensation for ›ollution-related damages (except in cases of civil liability actions). Rather the private ənforcer is seeking to bring a noncomplying polluter into compliance or to force a public official o carry out her legal responsibilities.

In Latin America and the Caribbean, the complaint is frequently triggered by a perceived violation of a procedural requirement or of a fundamental right to a clean environment which is not necessarily related to specific legal discharge standards. Under the complaint form of private enforcement the public authority may be designated as the recipient of any complaint with full powers to investigate and dispose of the complaint, as is the case in El Salvador (Navarrete Lopez, 1994). In the U.S. and European contexts the action is more likely to be exclusively focused on a violation of a specific discharge standard.

The right of citizens to participate directly in the enforcement of environmental laws and regulations varies from one country to another. Unlike the United States, most of the civil law countries of the region do not have citizen suit provisions in specific environmental laws. In most countries, citizen suits, if they exist, are generally derived from the constitution

Legal Traditions

To be effective private enforcement activities must conform to the legal traditions of the region. Those legal traditions vary considerably. In common law (the legal system in most of the English speaking Caribbean), the legal systems are based on law created through legal precedent, notwithstanding the existence of statutory law and rules. The common law is not the result of legislative enactment. Rather its authority is derived solely through judicial decisions (Environmental Law Handbook, GI INC, 1993). However, most common law countries, including the U.S., have legislated extensively with regard to the environmental area and a substantial part of the law is based on statutory provisions (including the citizen suit provisions in U.S. statutes), but with a strong common law influence. Legal precedent is very relevant in the English-speaking countries of the Caribbean. But in those countries citizen suits are not a common feature of the system.

The other LAC-countries follow the civil law system as derived from the Roman-Germanic tradition. In a civil law tradition, the legal system is based on an extensive system of laws and regulations. The courts apply the laws and regulations to specific cases presented to them and therefore play a less significant role in interpreting and making law. However, some complaint procedures resulting in a court decision provide the judiciary substantial authority and limit the discretionary powers of the executive branch.

or the civil codes. For instance, civil codes provide citizens with the general right to bring legal action against any person for the failure to comply with the law (not specifically environmental laws). In other countries, citizens' rights are limited to complaint actions.

In Mexico, citizens have the right to issue a complaint before the Environmental Attorney General's Office (PROFEPA) under the General Law on Ecological Equilibrium and Environmental Protection. El Salvador's National System of Environmental Complaints offers similar opportunities to its citizens (Navarrete Lopez, 1994).

More recently, Mexico published a Decree amending the law (13 December 1996) which includes a right to demand revisions of government decisions and legal suits for environmental crimes (CEC 1996). However, the provisions have not been used so far, almost two years after the decree entered into effect which may reflect a certain lack of awareness in society about available legal instruments (IER, 1998).

In Argentina, due to new clauses in the most recently amended National Constitution, legal standing has been expanded to people other than those directly affected in their property or personal health. Private parties interested in community goals of environmental quality are now able to file legal actions against other private parties or the government (IDB, 1996).

The most liberal regime seems to exist in Brazil, where every citizen can bring a claim before the courts, including for their environmental rights granted by Art 225 of the Constitution. Concerned citizens may also contest administrative decision that they consider not to be in accordance with the law. Two proceedings are particularly important: (i) Popular Action (Art 5, LXXIII of the Federal Constitution) under which every citizen has the right to

Corruption

In some countries corruption inhibits efforts to enforce environmental regulations. Low staff salaries and little external oversight of regulatory activities create an environment where bribing officials to look the other way may turn out to be cheaper than making the required investments to prevent environmental harm. Both the citizen suit and oversight roles for private enforcement make even more of a difference in the degree of compliance in a corrupt enforcement regime than it could in the absence of corruption. Allowing private enforcement oversight of public decisions provides a direct check over corruption, while allowing private enforcers to bring actions against private entities which are inflicting environmental harm provides a (sometimes quite powerful) indirect check.

Bribing officials is an effective strategy only when the officials have sufficient control over the enforcement process that they can grant the bribing firm immunity from enforcement actions. As long as enforcement is the exclusive domain of the public sector bribes are valuable because of the immunity public enforcers can bring. However, when private enforcers enter the scene, public enforcers can no longer assure immunity from an enforcement action. Bribing becomes a less certain, and hence less attractive, strategy.

On the other hand, careful consideration needs to be given to the design of a complaint procedure and any necessary protection of anonymity. In societies where police may take the law in their own hand, it can be counterproductive to require that complainants give their names and other personal information with their complaints, potentially exposing themselves to whoever gets access to that data. It has been reported that in Paraguay introducing this requirement has resulted in fewer complaints that before (Lawyers Committee for Human Rights, 1998).

challenge an administrative act because of alleged harm to the environment (public wealth); and (ii) Public Civil Actions (Art 129, III of the Federal Constitution) under which the Public Ministry and NGOs have legal standing.

It is said that the Brazilian Public Ministry is an unique institution in Latin America. It operates completely independent from the government and has evolved has the main plaintiff from environmental protection in Brazil. In other countries, civil actions may also be brought by other actors, such as an ombudsman (defensor del pueblo).

4.1 The Interaction of Public/Private Enforcement

Low levels of public enforcement could be expected to increase the private benefits from private litigation activity. Violations could be expected to be more frequent and more serious in periods of lax enforcement. It follows that the privately optimal level of private enforcement is inversely related to the amount of public enforcement. All other things being equal, we would expect more citizen enforcement activity in countries with diminished government enforcement activity. Similarly, within countries, we would expect more private enforcement activity during periods of reduced public enforcement.

However, private enforcement clearly also has potential disadvantages to society. A public enforcement agency which has a clearly articulated and effective strategy for allocating its resources to enforcement activities could find its priorities completely subverted by private enforcement activity. Responding to complaints and court challenges of its decisions consumes time and resources. Clearly some balance is needed to assure that legitimate, but not excessive, pressure can be applied by private enforcers (Tietenberg, 1996). In his report, Tietenberg identifies two specific problems with the private enforcement process: (1) private enforcer priorities in choosing which claims to pursue will not necessarily coincide with social priorities; and (2) private enforcer actions may not support the socially desirable intensity of control. This, however, is not a fatal blow to private enforcement according to Tietenberg. One area where private enforcement may have the edge is in pursuing public polluters and the other is corruption (see box).

Despite the fact that public facilities represent a substantial proportion of the pollution problem, enforcement of pollution control laws presents special problems for public enforcers in most countries. The evidence seems very clear that public enforcement of violations by public polluters has been quite ineffective and the problem is not the inadequate availability of remedies, but rather the reluctance of public enforcers to use the available remedies (Gelpe 1989).

Public and private enforcement can also complement each other. Private enforcement, particularly citizen suits, can take on some of the routine tasks, leaving the more serious problems to the public sector. Focusing public enforcement activity on the most significant problems makes a great deal of sense because of the ease of transferring information and expertise from one case to another. If enforcement were the exclusive responsibility of the public sector, however, focusing on priority areas could open the possibility for polluters operating in non-targeted areas to exploit that decision. Polluters in non-targeted areas would respond to a perceived decline in public scrutiny with reduced compliance. Since private enforcers are not operating on the same set of priorities as public enforcers, the likelihood of private enforcement in a non-targeted area is not diminished. With a continuing threat from private enforcers polluters have a continuing reason for compliance, even when the public sector has its focus elsewhere. The very existence of the private enforcement alternative allows public enforcers more flexibility in targeting their resources, a flexibility which offers the opportunity to use their limited resources more efficiently.

FUNDEPUBLICO

FUNDEPUBLICO ("Fundación para la Defensa del Interes Público"), established in 1989, is a non-governmental organization in Colombia, and its objective is to defend the public rights of society through judicial actions. Following the publication of a book on Popular Actions in 1989 by its President Germán Sarmiento, FUNDEPUBLICO first focused on Popular Actions, and later also on Tutela Actions. Recently, FUNDEPUBLICO has established an Environmental Legal Fund to finance the judicial procedures and other actions aimed at defending the environment. The Fund is partly paid through the monetary compensations FUNDEPUBLICO receives from the Popular Actions (10% to 30% of the monetary damages).

The first Popular Action of FUNDEPUBLICO was brought against the state-owned chemical company Alcalis de Colombia. According to the local environmental authority, the company was the principal source of industrial contamination of the Rio Bogotá, it discharged pollutants in violation of the environmental norms and standards. The action resulted in an judicial order to discontinue any such discharges, and an agreement was reached on the eventual closing of the polluting plant. Other Popular Actions initiated by FUNDEPUBLICO are against a chemical industry for contamination of the Bahía de Cartagena and against a large logging company for illegal logging in the indigenous reserve of Chagerado in the Department of Antioquia. Another Popular Action against Cementos Diamante resulted in the judicial order to instal a filter to control the contamination.

Tutela Actions are initiated by FUNDEPUBLICO against public authorities in cases were procedural requirements are violated, such as failing to prepare an EIA or not submitting the EIA to the affected community. Such omissions are violations of the fundamental right of due process, and are subject to the Tutela Action. Also, ongoing activities without having the proper permits and licenses, or without meeting the conditions attached to the permits, may violate the constitutional right to a healthy environment and are subject to the Tutela Action.

4.2 The Sustainability of Private Enforcement Actions

By their very nature completely successful private enforcers undermine the very reason for their existence. Once complete compliance has been obtained no more opportunities for claims exist regardless of the underlying incentives. Yet no private enforcement process currently in existence is currently facing that prospect. The level of noncompliance is simply too great.

How then are private enforcers likely to sustain their contributions to the enforcement process? The achievement of a sustainable process requires a self-sustaining source of revenue in order to cover the costs of bringing claims. The "loser pays" principle of allocating

legal costs, which is already a part of the legal system in Latin America, provides a perfectly reasonable vehicle for covering these costs. The reimbursement from each previous successful action provides a fund to be used in pursuing the next action. As long as the claims brought are meritorious, the fund keeps being replenished.

It would be possible to carry this even further by authorizing that penalties be paid directly to private enforcers rather than dedicated to environmental improvement. In this case private enforcement would be a profitable activity and bounty hunters could be expected to join. While this high level of incentive might well be merited in specific circumstances, its dangers should be recognized. Bounty hunters certainly accelerate the movement toward complete compliance. Whenever complete compliance may not be socially desirable, this acceleration may prove to introduce significant problems. Since the U.S. experience indicates that the reimbursement of attorneys' fees may be sufficient to produce sustainability of the process, it may not be necessary to introduce bounty hunter provisions.

5 ALTERNATIVE APPROACHESTO ENFORCEMENT: VOLUNTARY COMPLIANCE

Partly to address the lack of public resources available for environmental monitoring and enforcement, more attention is being paid to the development of strategies that would focus on activities to prevent environmental violations. These strategies are directed to the regulated community itself with the objective to make potential polluters more responsible for and responsive to environmental laws and regulations, capitalizing on other trends such as increased corporate environmental management (strongly influenced by the development of the recent ISO 14,000 standards) and recognition that preventing pollution has significant advantages over end-of-pipe measures (Stahl, 1994). There are several programs being developed to promote voluntary compliance by the regulated community: Environmental Auditing, Outreach and Incentive Programs, Certification Programs, Environmental Education, and Public Disclosure Requirements.

At the minimum, the objective of a voluntary compliance program is to generate public awareness as a means of bringing public pressure on the violator to comply. Work at the World Bank has indicated that merely supplying the public with better information about violations may be a surprisingly effective means of encouraging compliance, especially when more conventional approaches are not available (World Bank, 1997). Public information and disclosure programs also exist in Latin America. In Sao Paulo, for example, air quality levels are shown on automatic digital displays placed in strategic points of the city, together with a list of industry found to be in compliance with the law (IDB, 1996)

More elaborate programs promote the use of self-monitoring and reporting systems. Mainly to compensate for the lack of public resources, it has been suggested to increase the use of such programs in Latin America (IDB, 1996). Brazil has some experience with self-monitoring and reporting although it is reported that they are rarely audited or checked. In Minas Gerais (Brazil), monitoring activities (sampling and analysis) are performed by private laboratories and research centers. In Belo Horizonte, air quality is monitored by an automatic network implemented by PETROBRAS, the Brazilian oil company, as part of permit requirements (IDB, 1996).

Probably the most advanced programs of voluntary compliance are related to environmental auditing. In this respect, Mexico has undoubtedly taken the lead in Latin America. The Federal Attorney for Environmental Protection (PROFEPA) started an ambitious voluntary environmental audit program in 1992 to promote self-regulation. Under the program,

PROFEPA promotes industry participation in the program. PROFEPA determines the Terms of Reference of the audit, supervises the work, and supervises compliance with the agreed upon actions. PROFEPA also regularly consults industry representatives about possible changes to the program. A company that has entered the program is excluded form the normal inspection activities carried out by PROFEPA, unless a public complaint has been issues. The audit process consists basically of three stages: the planning stage, the assessment stage, and the post-audit activities stage. The audit results in an Action Plan which is included in the Environmental Compliance Agreement to be signed by PROFEPA and the company concerned. During June 1992 to July 1997, 775 environmental audits of companies have been conducted. (Calderon Bartheneuf, 1997).

6 THE ROLE OF THE COURTS

As noted earlier, the judiciary plays a crucial role in improving environmental enforcement, both in a system of public enforcement and in private enforcement, especially when the so-called private enforcers need access to court. In the past, successful use of the court has been limited by a number of factors. Probably the most fundamental factor, courts are not always an appropriate way to resolve conflicts. Environmental conflicts are often not well suited for judicial proceedings because of multi-party dynamics; high levels of scientific uncertainty; huge economic stakes with high perceived economic upside risk and high perceived environmental downside risk; and a transnational character. All these elements provide procedural and enforcement challenges which sometimes lend themselves better to other forms of conflict resolutions that the more traditional court proceedings.

Other limiting factors are more inherent to the court themselves. Judges lack training on environmental law and/or don't have easy access to the various laws and regulations. In other cases, the thresholds for bringing a complaint are too high, there are language barriers, or institutional weaknesses, also due to limited financial resources with funding for the courts depending unilaterally on the government (Llermanos, 1994). It has also been noted that some courts have a "historical reluctance to sanction industry" (Llermanos, 1994), and/or a reluctance to impose penalties for acts that do not involve violence to people (Lawyers Committee for Human Rights, 1998).

Over the last years, several initiatives have been taken to address the role of the courts in environmental enforcement. In 1996, the Inter-American Development Bank (IDB) approved an US $350,000 regional technical cooperation to strengthen the juridical system of the environment in Central America (ATN/SF/NE-5016-RG). The project was coordinated by the Central American Commission for Environment and Development (CCAD, by its Spanish acronym) and executed by CEDARENA, an environmental law center based in Costa Rica. This project has resulted in the preparation of training materials in the form of environmental law manuals for each of the seven participating countries (Belize, Costa Rica, El Salvador, Guatemala, Honduras, Nicaragua and Panama). In each country, the manuals have been distributed through the justice schools to judges, prosecutors, lawyers, environmental authorities, NGOs, and universities. On the basis of the manuals, the project has resulted in the training of almost 500 professionals. In total 16 workshops have been organized with the active support and participation of the justice schools and universities. In addition, the project has resulted in the strengthening of the national environmental law NGOs through their involvement in the preparation of the materials and the training seminars.

Since 1996, the IDB has approved a number of judicial reform projects. Whenever feasible and appropriate, the Bank includes a component on environmental law in these projects, normally dealing with training and improving access to justice.

Other organizations are also involved in providing training. In July 1996, The Center for Governmental Responsibility (University of Florida) organized a training program for judges, prosecutors and lawyers in Brazil (State of Paraná) for which the Center also prepared a manual (Center for Governmental Responsibility, 1996). Also in 1996, the Colombian Office of the Defender of the People (La Defensoría del Pueblo) organized a seminar for regional and high court judges to instruct them on the national environmental legislation. During the workshop, the judges were trained on the provisions in the legislation dealing with legal mechanisms, such as the constitutional right to "tutela" and "popular actions". (IER,1996, p. 462.). In Paraguay, the Public Ministry sponsored 18 seminars on environmental law for judges and prosecutors, although it is reported that only few attended (Lawyers Committee for Human Rights, 1998).

Despite these international initiatives, much more work seems to be needed. In a recent publication on Judicial Reform and the Environment, the Lawyers Committee for Human Rights (1998) makes a set of recommendations aimed at improving access to the courts. The recommendations are related to improving administrative procedures and oversight and allowing greater private access to courts through changes in the loser pays rule, and standing and legal representation requirements.

Although no data are known to exist about any increase of environmental cases before the courts, there are reports indicating that training does make a difference (Lawyers Committee for Human Rights, 1998). According to some reviewers, there is growing evidence of litigation around environmental issues in Latin America and the Caribbean (Gracer, 1995). In any case, there has been a number of high profile environmental court cases during the last couple of years. In 1993, Colombia's Constitutional Court declared the right to a clean and safe environment to be a fundamental right which means that if an individual feels his right is violated, he can invoke the Action of Tutelage to go to court. Public environmental officials are required to carry out the court's decision (EWLA, February 1993, p. 12). In Brazil, a federal judge from Mato Grosso, on the ground that the government had failed to consult with affected communities, in this case an Indian tribe whose 130 members live on an island in the Paraguay river, granted an injunction prohibiting the government from starting work on the Hidrovía project in the Paraguay-Paraná rivers (IER, 1998, Feb 4, p.99). In Chile, the "Rio Condor" logging project in Tierra del Fuego has been stalled by several lawsuits in Chile's courts, challenging the legality of the Environmental Impact Studies conducted for the firm Trillium. Separate suits have been filed by parliamentarians, non-governmental organizations and countersuits by the company Trillium (IER, 1998, Vol. 21, No. 17., p. 824). Other cases are still pending: In Venezuela, Pemon Indians living in the rainforest of southeastern Venezuela are protesting the construction of a power line and have filed lawsuits to challenge the governmental decree that opens up 40 percent of the Imataca rainforest reserve to mining and logging (Decree 1850) and the construction of the pipeline (IER, 1998, Vol 21, No 17, p. 823).

7 CONCLUSION

The developments described above are accompanied by a recognition among policy makers, lending organizations, environmental authorities and enforcement agencies that there's a need to continue to work on institutional capacity building, facilitate access to information, exchange experiences and develop good practices and support alternative approaches.

US EPA and the Netherlands Ministry of Environment, with the support from several other organizations, have established the International Network for Environmental Compliance and Enforcement (INECE). This is a partnership to advance environmental compliance and enforcement. One of the main activities is the periodic International Conference on Environmental Compliance and Enforcement. The materials submitted to these conferences and their proceedings have contributed to the elaboration of a substantial literature on environmental enforcement. The Fifth International Conference will be held in Monterey (CA), USA, November 16-20, 1998.

The Organization of the American States is taking the lead in establishing a hemispheric network of *"officials and experts in environmental law and its enforcement and compliance"* as called for in the Plan of Action of the Bolivia Summit of the Americas for Sustainable Development. It is expected that such a network would focus its activities on facilitating exchange of knowledge and experiences; constitute a focal point for cooperative efforts; and training.

The Center for International Environmental Law (CIEL) has submitted a proposal to the Multilateral Investment Fund (MIF) to finance an electronic database on environmental laws and regulations for Latin America and the Caribbean to facilitate access to their provisions and requirement with the hope that this would result in increased compliance.

In Colombia, representatives from groups like the ones mentioned above have organized national roundtables to explore ways to maximize the use of legal instruments for improving environmental enforcement. Such roundtables could serve as a model for the other countries in Latin America and the Caribbean.

ENDNOTES

1. Each approach has advantages and disadvantages in terms of monitoring and enforcement. With performance standards, for instance, where compliance is normally measured by sampling, monitoring can be difficult and expensive, depending on the kind of instruments required. Technology standards, on the other hand, can inhibit technological innovation and pollution prevention. Therefore, the use of specific standards in certain sectors or cases requires an extensive economic analysis to make sure the requirements are cost-effective.

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SUMMARY OF REGIONAL MEETING: ASIA AND PACIFIC-BUILDING REGIONAL AND GLOBAL NETWORKS

Facilitator: Aziz Rasol
Rapporteurs: Jean Aden, Ron Kreizenbeck

GOALS

The regional meeting will address the following issues:

- The genesis of the network and how it was established.
- What was/is involved in developing and maintaining the network.
- Who is asked to participate and at what levels in the organizations.
- Subjects the network covers.
- Vehicles used for exchange and means of communication used.
- Topics on which exchange is taking place.
- How the network overcomes differences in language an legal or other definitions of terms such as what constitutes a hazardous waste.
- Future directions and changes anticipated for the network.

1 INTRODUCTION

Conference participants from 16 Asia-Pacific countries met to exchange views on establishment of regional and sub-regional networks in the region.[1] Participants represented governments, NGOs and international organizations.

The main purpose of the meeting was to seek consensus on ways and means of developing Regional and Sub-Regional networks in the Asia-Pacific region, and thereby work toward achievement of a major goal of the Monterey conference. Participants endorsed the conference's objective of operationalizing networking at the national level, by placing compliance and enforcement on the permanent agendas of sub-regional groups. Further to that objective, the meeting considered issues and options for establishment of regional and sub-regional networks in the region.

A preparatory regional workshop had set the stage for the Asia regional meeting at Monterey. The Regional Workshop for Establishing the Asia-Pacific International Network on Environmental Compliance and Enforcement (ASPA-INECE), hosted by Dr. Lal Kurukulasuriya of UNEP's Bangkok office, was held in September 1998. Fourteen Asia-Pacific countries were represented at the Bangkok meeting, of which eight were also represented in Monterey.[2] The Monterey Asia-Pacific meeting generally endorsed the recommendations of the Bangkok workshop, which called for establishment of networks at Regional and Sub-Regional levels.[3] Given the size and diversity of countries in the region, the workshop had recommended operationalization of the proposed region-wide Asia-Pacific International Network on Environmental Compliance and Enforcement (ASPA-INECE) on a sub-regional basis, drawing on sub-regional environmental organizations, and participants n the Monterey Asia-Pacific meeting endorsed this two-level approach.

2 SCOPE OF ACTIVITIES

Participants in the Monterey Asia-Pacific meeting also endorsed a broad scope of activities for regional and sub-regional networks, which includes:

- strengthening national networking among institutions at national, provincial/ state and local levels;
- training and capacity-building mainly at the national level, with sub-regional and regional activities to promote regional exchange of experience and expertise, and exposure to global developments; and
- information gathering, analysis and dissemination on a wide range of compliance and enforcement-related matters, including policies and regulations, institutional arrangements, cleaner production, and using modern tools such as the Internet.

The meeting agreed on several key parameters of the proposed networks:

- The core business of the networks should be national-level compliance and enforcement. While the compliance and enforcement agenda should be broadly defined to include regulatory, legal and technical issues, as well as incentives to promote "voluntary" compliance and public participation, it should not be broadened to the extent that compliance and enforcement networks would compete with other regional and global networks with agendas covering the entire span of environmental issues.
- The critical node at the national level would be the "national focal points," which would have primary responsibility for strengthening national networks.
- An important initial activity would be setting up Regional and Sub-Regional communications systems, which might require assisting some member country agencies to upgrade their telecommunications capabilities.
- Global INECE should remain active and nurture strong linkages with the regional networks, thereby adding significant value to the regional and sub-regional networks' activities. Nevertheless, formal hierarchy should be avoided, and sub-regional and national networks should feel free to communicate directly with Global INECE (see organization chart below).

3 STRUCTURING THE REGIONAL AND SUB-REGIONAL NETWORKS

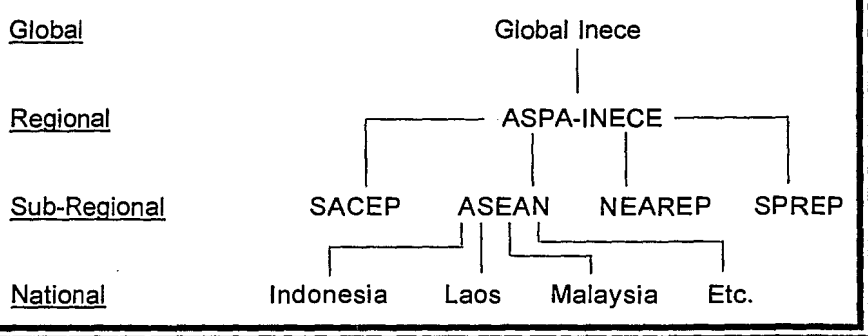
The meeting was also in broad agreement on the delineation of sub-regional networks by country. Sub-regional networks discussed during the meeting included, but should not be limited to:

- the South Asia Cooperative Environment Programme (SACEP) (Bangladesh, Bhutan, India, Nepal, Pakistan and Sri Lanka), which co-sponsored the preparatory meeting in Bangkok;
- the ASEAN (Association of South East Asian Nations) member nations (Brunei, Cambodia, Indonesia, Laos, Malaysia, Philippines, Singapore, Thailand, and Vietnam, with Myanmar as an observer);

- the countries of Northeast Asia, which have recently formed a Northeast Asia Regional Environment Program (NEAREP) under UNEP auspices (check this), (including but not limited to Mongolia, People's Republic of China, and South Korea); and
- the Pacific Island countries (including but not limited to Fiji, Papua New Guinea and other participants in the ADB- and UNEP-assisted South Pacific Regional Environmental Programme (SPREP)).

In the case of SACEP, compliance and enforcement is already on the sub-regional agenda; in the case of the others, it would be a new activity.

Proposed Network Levels and Their Interaction



The participants discussed several other important issues related to establishment and start-up activities, but did not reach full agreement. Regarding eligibility for participation in the network, the question was whether NGOs should have the same status as governments, and whether industry should be included in network activities. Several speakers noted that designating NGOs as full participants would pose significant confidentiality issues for government members, and might force the latter to participate less fully in network information-sharing activities. A majority of Conference participants agreed that, the core participants should be government agencies, with encouragement of NGO participation, at the discretion of governments. However, there was also a minority view that NGOs should be full participants with the same status as government agencies. Views on whether industries and industry associations should be invited to participate in network activities appeared to be roughly evenly divided between those supporting and those opposing a role for industry.

Regarding the status of the sub-regional networks whether formal or informal some speakers argued that formal status, with full government participation, would provide greater visibility and ensure more serious commitment, while others called for an informal status initially, in order to avoid delays in start-up activities.

4 PRIORITIES

Regarding priorities among types of compliance and enforcement issues, some participants urged that national and intranational issues be given top priority, while others argued that transboundary issues and enforcement of international conventions should be given equal attention.

Regarding allocation of limited financial support among the proposed Regional and Sub-Regional networks, there were also differing perspectives, with some calling for concentration of initial effort at the Sub-Regional level, while others argued for a higher initial level of effort at the regional level, to be followed by the Sub-Regions.

5 NEXT STEPS

At the regional level, UNEP proposed to create a Steering Committee, comprised of the sub-regional networks, NGOs and donors; to establish a Secretariat based in UNEP's Bangkok office, with one full-time professional and one administrative staff (subject to availability of funding); to convene a planning workshop within the next three months; and, again subject to funding, to convene a regional conference including the new Sub-Regional networks within the next 12 months.

At the Sub-Regional level, similar activities, including establishment of a Steering Committee and an initial planning workshop, were proposed, but funding remained to be identified.

ENDNOTES

1. Participants in the Asia-Pacific meeting at Monterey represented Australia, Bhutan, Cambodia, Indonesia, Laos, Malaysia, Mongolia, New Zealand, Papua New Guinea, People's Republic of China, the Philippines, South Korea, Sri Lanka, Taiwan, Thailand and Vietnam.
2. Participants in the preparatory Asia-Pacific meeting in Bangkok represented 14 Asia-Pacific countries including Bangladesh, Brunei, Fiji, Malaysia, Mongolia, Myanmar, Pakistan, People's Republic of China, the Philippines, Singapore, South Korea, Thailand and Vietnam; plus the Netherlands. Of the 14 Asia-Pacific countries that met in Bangkok, eight were present in Monterey.
3. See Report of the Regional Workshop for Establishing the Asia-Pacific International Network on Environmental Compliance and Enforcement (ASPA-INECE), 21-23 September 1998, Bangkok.

SUMMARY OF REGIONAL MEETING: AFRICA AND WEST ASIA/MIDDLE EAST - BUILDING REGIONAL AND GLOBAL NETWORKS

Facilitators: Day One: Adegoke Adegoroye, Day Two: Yasser Sherif
Rapporteur: Linda Spahr

GOALS

The regional meeting addressed the following issues:

- The genesis of the network and how it was established.
- What was/is involved in developing and maintaining the network.
- Who is asked to participate and at what levels in the organizations.
- Subjects the network covers.
- Vehicles used for exchange and means of communication used.
- Topics on which exchange is taking place.
- How the network overcomes differences in language an legal or other definitions of terms such as what constitutes a hazardous waste.
- Future directions and changes anticipated for the network.

1 INTRODUCTION

Representatives of countries and non-governmental organizations from Africa met to discuss the development of a regional network of the International Network of Environmental Compliance and Enforcement (INECE). This two day meeting was in furtherance INECE's clear goal of fostering regional networks to complement the global networking which has steadily expanded since the first workshop in Utrecht, the Netherlands in 1990.

2 DISCUSSION SUMMARY

2.1 Day One

Participants introduced themselves and described the status of enforcement and networking within their own countries and regions. The early discussion revealed that the continent, as a whole, is in the process of developing an infrastructure for environmental upgrading.

2.1.1 Legislative Framework

The legislative framework for enforcement is rapidly developing across the continent. Laws are in place, or soon will be in place, in most countries, though they are at different stages of development. Some countries, such as Nigeria, have a wide variety of laws in place ranging from toxic waste and air to effluent and solid waste) and are signatory to all

conventions and protocols. Some, such as South Africa, are signatories to conventions and protocols, have some laws in place and a comprehensive bill in the making, but do not yet have an enforcement enabling act. Some countries, such as the Benin Republic, have bills before their Parliaments and expect to have laws in place this year. Others, such as Uganda, are developing laws and regulations in hazardous waste, air and conservation. While studying proposals, some countries such as Tanzania, Kenya and Zimbabwe are relying on "19th Century" laws. Efforts are being made in some regions to harmonize laws and policies for environmental management, and a treaty is expected to be enacted by Uganda, Kenya and Tanzania by mid 1999.

2.1.2 Enforcement Systems

While some remarkable exceptions, enforcement capability is at an earlier stage of development than legal development in Africa overall. While there are known disadvantages to being at an early stage of development, the countries which are at those earliest stages have the advantage of being able to learn from the experiences of more developed enforcement systems.

As the African nations are fully aware, Africa is no a single place. The ecosystems of the continent do not follow national borders. Communication and transportation between different parts of the continent is difficult. While some nations are industrially developed, others lack communication ties, such as Internet access, which would provide tremendous support in developing their own enforcement systems.

Regional networks for enforcement cooperation, which exist in some parts of the continent, have met with various degrees of success. They are based on common geographical ties or agreements to protect common ecosystems.

2.1.3 Enforcement Network Approach

Several points of agreement were reached based on the first day's discussion. First, irrespective of the status of countries' status with their laws, each should be working in parallel with each other to build enforcement capacity. Each country needs links to the world and to INECE, specifically through Internet access.

Because of the wide variety of ecosystems and weak communication infrastructure, it is impractical and unnatural to consider Africa a "region" for the purposes of setting up networks. Emerging from the discussions were five identifiable regions to focus on, notwithstanding possible overlap between those regions due to geographical ties.

The development of those subregional groups would be the focus of discussion during day two. Specifically, the group would try to identify existing protocols to build on in those subregions; establish the most advanced countries in the subregions as links to INECE and the other subregions; identify key institutions in the regions as focal points; identify key people who would take responsibility for future contact and activity.

2.2 Day Two

In identifying subregions, the participants agreed that they needed to be flexible. They recognized that the subregions needed common or current issues to bring them together, which issues would provide a measure for progress. The regions needed to be large enough to have a capacity to share, and small enough to share concerns. As a starting point, five natural subregions emerged: West Africa, East Africa, Southern Africa, North Africa, and Central Africa.

Country representatives met with other members of their subregion with the following goals:

- Articulate a realistic agenda for two years. What can realistically be accomplished? Under what conditions, and under what restrictions?
- Specify the short term objective for the subregion, and the sequence of activities.
- Identify a "focal point" person for the subregion. This person should have the communication facility to serve as a contact point with the other subregions and with the rest of the world (e.g., INECE).

2.2.1 East Africa

The overall East African agenda, as articulated by the participants, was to move toward a more harmonized region. East Africa identified three major contact points (Kenya - NES; Uganda - NEMA; Tanzania - ED), with Uganda designated as the regional coordinator. Specific individuals agreed to take on the responsibility of identifying key people in their own areas, appoint a director, and exchange information.

The first specific objective of the region was to create for specific sectors (such as wildlife), using existing staff, to facilitate the exchange and flow of information on enforcement and compliance. To better utilize existing resources, the group agreed to encourage the development of networks in both government and nongovernmental organizations, on a parallel course.

The second specific objective was to create a capacity for compliance and enforcement. It was recognized that this would entail a big cost. Accordingly, the group narrowed its focus to certain priority activities:

- Identify common issues for the subregion.
- Exchange of experiences in the medias needing enforcement and compliance. This will require creating an awareness among enforcement agencies, criminal enforcement, environmental inspectors, and sector inspectors (game, forest, fish, etc.).
- Develop training for the above listed groups.
- Establish modest documentation centers.
- Seek financial, technical and facilitation support for the training and market the training when it does become available.

2.2.2 West Africa

In formulating an overall agenda, the West African countries identified several common issues which would have to be addressed. Among them were weak institutional frameworks for enforcement, insufficient enforceable regulations in many countries, and overall weak enforcement capabilities. The overall agenda would have to include overcoming the lack of political "will" for enforcement; capacity building; and devising ways to overcome the language barrier (French and English) in building the networked.

The group identified priority actions as follows:

- Establish national networks for enforcement within the individual countries.

- Help in the efforts by individual countries to harmonize environmental enforcement laws within their countries.
- Help ensure that each individual country has an environmental policy.
- Provide training for inspectors, environmental lawyers, judiciary, law enforcement officers, and media.
- Promote information exchange and dialogue between agencies to build a political "will."
- Establish a secretariat for the network, and acquire donor/government assistance for the secretariat to establish a communication network (telephones, fax machines, internet access, document center to be publicized within the network).
- Hold subregional meetings, either separately in English and French or with translators.

Nigeria was identified as the focal point contact for the West African network. Within the network, the national contacts would be the enforcement directors of the countries' environmental agencies. All of the meeting participants agreed to participate in the network.

2.2.3 Central Africa

Central Africa has an existing agreement and common program among its seven countries. It includes an Executive Committee and is set forth in a detailed paper.

The overall agenda for the Central Africa network would include:

- Evaluation and strengthening of the existing networks (forest ecosystem network; wildlife conservation ecosystem network) and management of environmental information.
- Utilize the institutional and legal frameworks of those existing networks to establish formal arrangements between the countries, and other regulations concerning management of the Central Africa network.
- Identify funding sources for the network (states/donors/NGOs).

The initial focus for the Central Africa network and its nations would be:

- Creation of a Central Africa Network Commission, with a Secretariat; Coordinating Committee; member nations (Cameroon, Democratic Congo, Rep. Congo, Gabon, Equatorial Guinea, Chad, Central Republic); membership of NGOs and other funding sources.
- Organization of workshops to accomplish the creation of the Commission described above.
- Goals of the workshops would be to (1) elaborate objectives for activity, (2) determine priorities, (3) Plan specific training programs.
- Training programs would be designed to (1) help member nations with development and implementation of environmental codes, (2) train inspectors and staff in compliance and enforcement field, and (3) teach member nations how to obtain financial, human and material resources.

Cameroon was identified as the focal point for contact with the Central Africa network.

2.2.4 Southern Africa

Southern Africa has strong cooperation in the region, with the Environmental and Land Management Sector (ELMS) of SADC. The region needs to bring together compliance and enforcement officers, then have ELMS take it on.

The initial objectives of the Southern Africa network would be to:

- On a national level, identify key institutions and individuals involved in compliance and enforcement issues. After each country does this, the information will be used to create a regional database.
- Bring the key individuals and institutions together.
- Hold a Southern Africa regional network workshop. The goals would be to identify issues the member nations have in common; foster possible cooperation; identify capacity building needs in the region.
- Begin issue focused workshops, to train judges, inspectors (such as waste management inspectors).
- Identify one or two projects for cooperation. Possible projects might be the CITES Convention, or cooperation on waste management issues at a national and regional level.

To facilitate communication, Zimbabwe was identified as the regional coordinator. A small secretariat will be developed, and all participants agreed to facilitate Southern Africa network development. To further communication, e-mail capacity of members must be developed.

2.2.5 North Africa

Only one North African country was represented at the meeting. Egypt agreed to be an initial contact point, and to communicate conference activities to other North African nations. See Theme #6 write-up for report on status.

3 DEVELOPMENT OF CONCRETE PLANS

Designated members of each region reported their objectives back to the entire group. Participants shared their observations about the approach of other regions, and asked critical questions of themselves and each other regarding the attainability of particular goals.

In some respects, the regions took different approaches. For instance, the Southern African region focused on common issues as a way to draw member nations together. West Africa looked to mobilize capacity building support as a start. And East Africa looked for simple, cost effective ways to get results, building on strong existing structures and focusing on areas in which law enforcers are already involved.

However different the regional approaches, common issues arose in every case:

- Funding for meetings and training is an issue. Participants asked the NGOs at the meeting to talk about funding possibilities.
- Communication within and among the regional networks requires access to the Internet.
- Technical and financial support from INECE is critical at this stage.

Having established and shared overall goals, the members of the regions met again to identify the concrete "first steps" they would take to further their regional networks.

3.1 East Africa

The first steps to be taken by the East African region are as follows:

- Addresses of conference participants have already been exchanged.
- A network of the participants will be used to spread information. Each country, at no cost, will compile a directory of people and institutions, which will then be exchanged. Information about the network will be shared with those identified in the directory.
- The e-mail capability of three countries will be used to conference.
- Two simple newsletters will be published, in January 1999 and July 1999. The first will describe INECE conferences; share basic issues from region nations; spread the message that Africa is moving in the direction of compliance and enforcement; and encourage involvement. The NGO partners agreed to take on the task of the two newsletters, which have a total cost implication of about $5000.00.

The region identified four major activities which it hopes to accomplish:

- Draft a strategic action plan by June, 1999, covering networking, compliance and all issues in common among the countries in the region.
- Hold a network workshop in August, 1999, to build consensus among the member countries, come to agreement on future programs, and create a sense of "ownership" of the network for members.
- Get thirty people trained as trainers to sustain the activity of the network, in March, 1999. The focus of the training would be multimedia inspections and the principles of enforcement.
- Establish a compliance and enforcement center. The facilities for the center are already available. The major task will be to obtain compliance and enforcement materials.

3.2 West Africa

The first steps to be taken by the West African region are as follows:

- Identify issues which cut across the region (transboundary hazardous waste movement, for example).
- Contact each nation's focal point in ECOWS secretariat.
- Send a first letter to notify member countries of the new network, and identify other issues of common interest.
- Responses will be used to plan a regional workshop on identified issues.
- Secretariat of ECOWS will make an effort to get commitment of the states, and to educate them.
- Nigeria agreed to temporarily fund correspondence.
- A second letter/questionnaire will be mailed , and responses elicited to:

- Develop a profile of issues and concerns of the member nations
- Assess the strength of resources in enforcement and compliance in the region.
- Identify resource people to participate in and conduct training on the issues.
- Members will initially exchange ideas by mail and e-mail.

The West African region's initial goal is to organize a workshop for the region to be held in nine months. The workshop will focus on:

- One or two of the common issues identified in the mailings and communications.
- A discussion of the findings from the initial work.

In planning the workshop, a proposal will be written and ideas circulated for input and feedback. Plans will have to be made to provide translation for the language barrier. The proposal will be sent to ADB for funding for the workshop.

Later activities will include the preparation and circulation of a statement about the workshop, implementation of plans and further goals, and follow up training. No funding is available for these activities.

3.3 Central Africa

The first steps identified by the Central Africa region are to:

- Hold a meeting within the region to discuss the plans developed at this conference.
- Identify contacts from nations and groups in the networks described and from prior INECE attendees and invitees.
- Execute the plans described in the Goals as they are approved by members.
- Most important, obtain funding to hold the necessary meetings.

3.4 Southern Africa

The steps the Southern Africa network will take during the next three months are:

- Prepare detailed briefs for key institutions in the member nations.
- Identify key stakeholders in compliance at the national level. That information will be used to start a data bank, and as a start for workshop planning, During that process, countries not represented at the conference will be identified, and a summary of this meeting will be circulated to them.
- Begin the process of identifying resources at the national level which can be utilized to support the network, support workshops, and support secretariat activities.
- Set up e-mail communication for the network. That process would begin before attendees left the conference.

The focus of the initial activities would be preparing an infrastructure for network activities. At the end of three months, participants expect to have a clear proposal for an initial Southern Africa network workshop.

4 CONCLUSION

In reviewing the work that had been accomplished during the six hours they met in session, participants noted marked similarities among the approaches of the developing regional networks. All of the plans focused on filling the gaps between political agreements and laws and actual field activities. All of them focused on capacity development in both training and communication. All of them saw a need and developed plans for databases of key contacts in national governments, NGOs and agencies. And though the participants had clear ideas about issues of common regional interest, they all decided that their proposals should be discussed in a wider circle at launching network workshops.

There were also differences in the regional approaches. Some sought to meet needs with central document and training material centers. The issue focus was different among the regions. Southern Africa focused on CITES. In the East African region, Lake Victoria was a common concern. In the West African region, national capacity in the hazardous waste field was a binding issue. And Central Africa was concerned about forest and wildlife ecosystems. In both Central and West Africa, the networks will face and have to contend with problems of communicating in bilingual settings. Some of the programs were detailed to the point of costing out activities; others were broader and entailed virtually no initial costs.

The meeting of the participants from the African continent generated a tremendous amount of enthusiasm. All of the participants expressed a willingness to spread the word about network goals and activities and made a personal commitment to continue sharing. Regional coordinators were selected, and arrangements were made to continue communications and sharing both between and among regions.

The participants were hopeful that within a year databases would be established, consensus building workshops would be commenced, communication networks would be set up, and future plans would be clarified. They all recognized, however, that the goals could not be accomplished without financial and technical support from INECE. Without trigger money, even the basic communication goals would be beyond the financial reach of some participating nations.

BUILDING REGIONAL AND GLOBAL NETWORKS

REGNER, KIA

International Federation of Environmental Health, Tallholmsv 5, 185 94 Vaxholm, Sweden

SUMMARY

The International Federation of Environmental Health, IFEH, is a Federation of National associations of professionals working within the field of environment and health protection or with other words environmental health.

Its primary task is to facilitate professional exchange of experience and expertise and to promote the development of environment and health protection and research in this area. It works to disseminate knowledge concerning environmental health and promotes interchange of people working in this sector and exchanges publications of a scientific and technical nature produced by its members.

The Federation currently has full members in 26 countries and also has 28 Academic Associate members e.g. universities or institutions especially engaged in education and research work within this field as well as 8 Associate members e.g. subnational organizations.

It represents 30-40,000 individual members who are engaged in environment and health protection work. These professionals are mostly employed by public authorities at all levels, local, regional as well as national or engaged in teaching or research.

The International Federation of Environmental Health was established in the mid 1980s, is registered under British Company law and is run on an honorary basis.

Further information can be obtained at www.ifeh.org.

1 THE CONCEPT OF ENVIRONMENTAL HEALTH

"Environmental Health comprises those aspects of human health including quality of life that are determined by chemical, physical, biological, social and psychosocial factors in the environment.

It also refers to the theory and practice of assessing, correcting and preventing those factors in the environment that can potentially affect adversely the health of present and future generations."

(Definition by WHO)

Environmental health services are those services which implement environmental health policies through monitoring and control activities. They also carry out that role by promoting the improvement of environmental parameters and by encouraging the use of environmentally friendly and healthy technologies and behaviors.

To further clarify the connection or inter dependability between environment and health protection issues it is also relevant to refer to the United Nations Environment and Development summit meeting in Rio de Janeiro in 1992 when the countries of the world adopted the Rio Declaration and the Agenda 21 in order to secure a sustainable development and settle the agenda for the 21st century.

The 1st article of the Rio Declaration reads:

"Human beings are at the center of concern for sustainable development. They are entitled to a healthy and productive life in harmony with nature."

In short environmental health is an integrated approach to environment and health protection issues. It is important not to make this into a semantic issue but to try to look at what is actually carried out and what responsibilities lies within the field of Environmental Health and in what way professionals in different countries can be of help to one another in developing environment and health protection and strategies to achieve this.

2 ENVIRONMENT AND HEALTH PROTECTION PROFESSIONALS, ENVIRONMENTAL HEALTH ADMINISTRATION AND RESPONSIBILITIES

In many countries environment protection and health protection are carried out by parallel organizations with too few links between them. This may very well lead to less effectiveness and wrong priorities in both areas.

In other countries a tradition has developed to work with environmental protection from a health perspective. This gives the opportunity to take a more holistic view when it comes to identifying problems and finding solutions. The current development of National Environmental Health Action Plans is a token of a rising awareness of this.

The Swedish system can serve as one example of environmental health work. Supervising and monitoring the environment is mostly carried out at Local Authority level (Sweden has 288 Local Authorities, with a very high degree of self governance, all of which has an Environment and health protection committee).

Their responsibilities of supervision and correction lies within the fields of:

- Industry, of which small and medium sized enterprises make up the big part and also causes many problems since they often are not clearly regulated and often lack environment expertise and resources.
- Air, ground and water protection and surveillance.
- Noise, both outdoors and indoors.
- Chemicals.
- Waste management control including hazardous waste.
- Waste water handling.
- Indoor climate; radon (very often from the ground or the ground water), ventilation (where the outdoor air is an important factor), mould (wrong construction or building sites), etc.
- Public places and beaches.
- Farms both with and without live stock.
- Drinking water.
- Food safety, "from seed to feed" which means not only hygiene factors but also the production, distribution, handling and consumption of food. The environmental impact from the food chain is today assessed as being one of the major areas we have to tackle.
- Nature protection.
- Animal welfare.

- Pest control.
- Spatial planning procedures.
- Information and participation programs involving the citizens, enterprises and organizations (this usually being part of the local Agenda 21 implementation).
- Occupational Health is not included in the Environmental Health work in Sweden as it is in many other countries. Occupational Health work has a strong affinity to environment protection work.

3 TRAINING AND STAFFING

In some countries there is special education available for those who aim at practicing environment and health protection.

Those that are employed to carry out the implementation and enforcement of environment and health protection laws in Sweden are mostly trained as Environmental Health Officers (inspectors).

One training course that is available nowadays is a 4 year degree course at Umea University which includes the training to implement and enforce laws and to monitor and supervise as well as practical training in the different fields of work mentioned above. These Environmental Health Officers are trained to take a generic outlook and apply a holistic approach.

Many other environmental health professionals are also employed within the field as experts in different areas i.e. chemistry, ecology, biology and work together with the Environmental Health Officers or are taken on as consultants.

To give an example regarding staffing from Sweden, the Local Authority of Osteraker, close to Stockholm and partly in the archipelago, has approximately 70,000 inhabitants including those living only part time of the year there.

The Environment and health protection committee has a staff of 9 Environmental Health Officers, 3 experts (geologist, biologist, architect) and 3 administrative staff plus some part-time employees working with public information and participation programs. It carries the full responsibility for environment protection within its geographic area. Licensing of big plants however lies at the regional or national level.

An Environmental Code has been decided on in Sweden and will shortly come into effect. This Code combines Environment and Health protection laws and further emphasizes the close link between these two.

Other countries that have developed the concept of environmental health have different mixtures of the above mentioned areas of work. In countries where the concept of environmental health is not prevalent or these words are not used it is still often customary to combine several of these targets. However, there might often not exist a special education of profession for those who will have the task of implementing and enforcing environmental legislation.

4 THE GENESIS OF THE NETWORK AND HOW IT WAS ESTABLISHED

Environmental Health Professionals have joined together in the International Federation of Environmental Health, IFEH.

Members of the International Federation of Environmental Health are National Organizations of Professionals working with all or only part of the Environment and health protection areas mentioned above. The International Federation of Environmental Health also has Associate members and Academic Associate members which are likely to be academic institutions or research organizations involved in environmental health work.

The International Federation of Environmental Health can be seen as an umbrella organization and most of the actual work is carried out on a regional or sub regional level. The International Federation of Environmental Health currently has four regional groups: The International Federation of Environmental Health African Group, the International Federation of Environmental Health Americas, the International Federation of Environmental Health Europe and the International Federation of Environmental Health Pacific Rim Group.

International Federation of Environmental Health was inaugurated in September 1985 and incorporated under U.K. Company Law as a company limited by guarantee and having no shareholders.

Its Constitution is to be found in its Memorandum and Articles of Association which includes the objectives of the Federation and also provides for the election of officers.

The Executive body of the Federation is its Council. Member organizations are entitled to appoint one member for each one hundred of their members subject to a maximum of three members. The Council normally meets once or twice a year, which is an organization run on an honorary basis.

At present International Federation of Environmental Health represents 30-40,000 Environmental Health Professionals. National Organizations of Environmental Health professionals in Australia, Botswana, Canada, Cyprus, Denmark, United Kingdom, Finland, Germany, Greece, China (Hong Kong), Indonesia, Ireland, Kenya, Latvia, Malaysia, Malawi, Mauritius, New Zealand, Norway, Scotland, Singapore, South Africa, Sweden, Tanzania, USA, Zimbabwe are full members of the International Federation of Environmental Health. Iceland and Austria are about to join. The International Federation of Environmental Health network also includes Academic Associate members the Associate members and thus represents a much wider area that the countries mentioned above.

5 DEVELOPING AND MAINTAINING THE NETWORK

The International Federation of Environmental Health network was established through the cooperation between professionals in the U.K., Australia, Scotland and Ireland and came from the need to exchange professional advice and expertise in order to develop the profession

In the former British Commonwealth countries a similar legal system and professional concept had developed which facilitated the identification of brothers and sisters in the trade. There also existed an exchange of professionals and joint education of professionals. Not only former British Commonwealth countries had this tradition. For example, Sweden also had adopted a similar approach and was also part of this early cooperation which during the 1980s developed into the forming of the International Federation of Environmental Health.

The International Federation of Environmental Health's inaugural World Congress on Environmental Health was held in Australia in 1988, followed by the second World Congress in the U.K. in 1991, the third World Congress in Malaysia in 1994, the fourth World

Congress in Scotland in 1996 and the fifth World Congress in Sweden in 1998. The oncoming biannual Congresses will be in Norway 2000, in the U.S.A. in 2002 and in South Africa in 2004.

These Congresses from an important link between the members of International Federation of Environmental Health. In between Congresses, the work is mostly carried out at regional or sub regional level in the form of projects between groups of members. These projects can take the form of "twinning" which includes professional or student exchange programs or the form of identifying and working towards different environmental health targets like the development of National Environmental Health Action Plans and the implementation of these.

The primary link within the International Federation of Environmental Health is between the member organizations and these are in their turn obliged to involve their individual members.

International Federation of Environmental Health currently circulates a fairly simple newsletter that gives internal information to all members. This newsletter will be replaced by a journal that will be issued twice a year starting in February 1999.

International Federation of Environmental Health also takes part in the International Journal of Environmental Health Research published by Carfax Publishing Company. International Federation of Environmental Health is represented at its editorial board. This journal is an international quarterly devoted to publication of research within this area and also acts as a link between research communities and practitioners in environmental health. For further information see: www.carfax.co.uk.

International Federation of Environmental Health is developing its first website which is currently linked to the Edinburgh University website and can be found at www.ifeh.org. The internet will be used as a fundamental source of communication and will in due course also hold special sites for the Regional Groups. Part of the information will be the International Federation of Environmental Health Directory which currently is a hard copy edition that lists all members and gives basic information about IFEH.

5 WHO IS ASKED TO PARTICIPATE AND WHAT LEVELS IN THE ORGANIZATIONS

National organizations of professional within the field of Environment and Health protection can become full members. There are also Academic Associate members and Associate members. As an individual you can join as a Sustaining Subscriber.

SUBJECT THE NETWORK COVERS

Some of the International Federation of Environmental Health objectives can be summarized as follows:

- To provide a focal point for national officers, whether in state or local government, or private employment, whose concern is the control of the environment in the interest of public health.
- To provide a means of exchanging information on environmental health matters, including systems of organization and management.

- To promote the study of environmental sciences and to exchange information about training and education.
- To promote field studies of environmental health control and research and disseminate knowledge concerning environmental health.
- To promote the interchange of persons engaged in environmental health work.

8 VEHICLES FOR EXCHANGE AND MEANS OF COMMUNICATION USED

The International Federation of Environmental Health Directory holds primary information about its members. This information can also be obtained through the Internet. So far our primary means of communication is via mail or faxes but e-mailing is fast developing. In some countries however it's very difficult to rely on some of these electronic systems so so far we are taking a flexible approach meaning that we use different means of communication with different members. This of course is not very effective but has so far proved to be the most reliable sort of communication.

The International Federation of Environmental Health newsletter is used to circulate information among the members primarily used after each council meeting or other major event.

The biannual World Congress on Environmental Health and the International Federation of Environmental Health Council meetings are also major links in this chain that keeps the Federation together.

The regional groups are motors in many ongoing projects especially when it comes to professional exchange. Within the regional groups it is easier to keep up personal contacts even to have more frequent meetings of both formal but mostly informal nature. Within the International Federation of Environmental Health Europe group e.g. there is a special "twinning" agreement between the member organizations in Ireland, Northern Ireland, Norway and Sweden which is set up to facilitate professional exchange and also student exchange. Some of the International Federation of Environmental Health member organizations are engaged in educational programs aimed at developing environment and health protection in East European countries.

9 TOPICS ON WHICH EXCHANGE IS TAKING PLACE

International Federation of Environmental Health has adopted some policy statements covering some areas of work that have been found of great importance.

These policy papers cover issues like:

- Access to adequate environment and health education for enforcement officers within the field.
- To ensure that environmental policies are continuously monitored and reviewed and have regard to best practical means.
- To attempt to develop locally policies on the environment which have an international context.
- To cooperate with others.
- To work for access to clean drinking water for all.

In this context it is important to remember the work presently being done by the countries of Europe to set down National Environmental Health Action Plans. This work gives strength to the concept of Environmental health and the integrated approach to environment and health protection.

Within International Federation of Environmental Health we strive at getting an overview of professional practices in different areas and in different countries and try to see in what way we can learn from each other, develop our practices and our administrative framework and eventually harmonize some of our practices.

10 HOW THE NETWORK OVERCOMES DIFFERENCES IN LANGUAGE AND LEGAL AND OTHER DEFINITIONS OF TERMS

So far we have been able to operate with English as our common language. However that is becoming increasingly difficult and to some extent we must now rely on individuals that can help out as interpreters. In some cases we have had help from WHO in translating documents for circulation. Since the financial basis for International Federation of Environmental Health is still very weak and depending on honorary work and minor membership fees we will probably have to keep to this limitation for the near future.

The International Federation of Environmental Health as an organization has so far not really had to tackle severe definition problems other than the definition of environmental health or environment and health protection. However these questions do come out in all kinds of professional contacts between individual members of the organization. One way to solve this is to constantly have in mind that you need to try and get at the heart of things and not react at its face value. This is a further incentive for trying to get people to have personal contacts and also to go for professional exchange.

11 FUTURE DIRECTIONS AND CHANGES ANTICIPATED FOR THE NETWORK

A major area of work is to try to identify professionals and if possible professional organizations in many more countries. There certainly are professionals dealing with these matters in almost all countries but since there very often are no organizations to contact we need to find other ways to communicate.

We have also been asked and have offered to help organize professionals in countries where such organizations do not yet exist.

The development of closer cooperation with other organizations in this field

The development of the concept of environmental health or environment and health protection and to what use it can be especially in the newly emerging states in Eastern Europe and also in some other countries.

The implementation of international agreements and the enforcement at the local level of environmental health legislation but also the necessity to try to influence these documents before they are agreed upon in order to give feedback on possible implementation i.e. the London 1999 Ministerial Conference on the follow up of the National Environmental Health Action Plans process in Europe with all its background papers and drafted outcome papers.

The development of methods to assess and evaluate our work.

The development and eventually harmonization of professional procedures and methods is a vast but extremely important area

The promotion of education to become an enforcement officer with skills necessary to implement and enforce legislation.

CLOSING REMARKS

HERMAN, STEVEN A.[1] AND VERKERK, PETER J.[2]

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Dear participants, on behalf of the Executive Planning Committee for the Fifth International Conference on Environmental Compliance and Enforcement, we bring this conference to a close. We want to thank the speakers, the moderators, the facilitators, rapporteurs and of course you as participants for your excellent contributions in the plenary sessions, the workshops, the regional meetings, the exhibit materials, demonstrations and also the clinics. We may conclude from your enthusiasm, without having seen your evaluation forms, that we had a very successful conference. We have a final count of 245 participants from 101 countries and international organizations.

We realize you had to work very hard during this conference. Not only the plenary but also in all the workshops you participated in. You were a perfect audience for our speakers and you did a very good job in the workshops. Let us always keep in mind what that hard work is for our personal and professional commitment to protect the health and environment of our citizens. We opened the conference with a vision and direction for our international networking and for environmental compliance and enforcement. With the discussions and active participation of each of you over the past five days we are well on our way to realizing that vision. We hear comments from all quarters about how important the conference has been, but it will be like unenforced laws and just a nice memory of Monterey unless you take what you have gained from this Conference and put it to work for you and for all of us.

We were inspired by speeches of U.S. EPA Administrator Carol Browner who described environmental enforcement as an essential pre-condition to realizing environmental gains under most regimes in environmental law. She made it clear that the business of environmental protection is one we must do and do well for ourselves and our future generations, particularly for the health of our children who are disproportionately affected by pollution. Her very strong message was echoed by the words of Mr. William Nitze, Assistant Administrator for International Activities, of USEPA and Mrs. Lois Schiffer, Assistant Attorney General of the United States Department of Justice emphasizing the importance of cooperation and exchange of approaches, information and effective communications and training whether it is at the international level or at the national level to make environmental compliance and enforcement happen.

In our opening remarks, Pieter Verkerk emphasized the international nature of environmental problems and environmental enforcement. He called for greater attention to environmental concerns in international and domestic political policy agendas to create the necessary conditions for establishing an adequate environmental compliance and enforcement program in each country. He pointed to a recent study which showed pollution levels were 30% higher than they should have been with full compliance which challenged all of us to communicate better with the politicians about the environmental results of enforcement rather than just the principles of law and order.

Steve Herman stressed the underlying importance of environmental compliance and enforcement to:

- Punish those who do not comply with the law.
- Require cleanup of polluted resources and ensure repair of the damage caused by pollution.
- Deter those who may be thinking of breaking the law or cutting corners.
- Ensure that those industries and businesses who obey the law are not put at a competitive disadvantage to those who violate the law.
- Prevent the creation of pollution havens.
- Protect human health and the environment.
- Encourage healthy and sustainable national and international economies.
- Encourage and strengthen voluntary and incentive programs.

He also laid out several directions that environmental compliance and enforcement are taking:

- Networking at all levels, from in-country networks to regional and global networks.
- Ensuring public accountability and public participation in enforcement.
- Taking firm, fair and visible enforcement.
- Finding the right balance of "carrots and sticks."
- Harnessing new technologies and approaches to detect violations and monitor compliance.
- Achieving the potential of environmental management systems.
- Creating a seamless web to stop environmental crime.

Throughout the excellent panel discussions during our plenary sessions we heard example after example of ways that each of us, working together, is making enforcement happen. What will be needed in the future to realize the promise of enforcement and overcome its setbacks? We learned about the importance of an educated and supportive judiciary; of a pragmatic scheme to recognize the realities of coming into compliance while holding the line against violations of the law; of true public access to justice and information; and of in-country networks. We learned of a national inspection initiative to launch a program and of finding ways to confront the sometimes outrageous behavior of environmental criminals. We learned of new ways to link environmental compliance and enforcement to pollution prevention approaches with market forces, permits, and public disclosure. We heard about colleagues overcoming disappointments in applying citizen rights granted in the constitution and of cleaning up shellfish beds after the public was mobilized following years of lax enforcement. We saw examples of creating incentives for compliance and improved environmental management and of finding efficient ways of training our personnel and using communications about performance and enforcement policies to leverage greater compliance. Finally we saw the value of cooperation in international policing and cooperative relationships needed to prevent and remedy illegal shipments of hazardous waste and chemical substances.

We are unable to summarize here the work of all the workshops, but we have highlighted the workshop results in the Addendum to these remarks. This is only to say that much work was done and some new ideas and approaches have emerged.

FUTURE OF INECE

After this successful conference, what is our vision of the future of INECE? The members of the Executive Planning Committee of INECE had two meetings during the conference to discuss its future reflecting the comments we heard from you, the participants at the Fifth Conference, during the Conference, and also reinforced by the outcomes of the regional meetings. In short, we are committed to both maintaining a strong global network which offers a unique focus on environmental compliance and enforcement and we are committed to concerted efforts to foster regional networks. The regional networks are important for several reasons not the least of which is to broaden the breadth and depth of our contacts, to deliver training and to meet other capacity building needs through regional cooperation and to link with natural trading partners in their efforts to ensure a level playing field. Regional networks and meetings can also better address particular environmental problems and needs of specific areas of the world and use common language. For all these reasons, we will do more to strengthen the regional networks and in doing this we will make use of existing regional organizations and ties where appropriate. But this does not mean that we will only rely on regional meetings and networks. Our conference in Monterey has again shown that we need international conferences in which you as participants have the possibilities of meeting, networking, exchanging information and learning from each other regardless of where we come from around the globe.

Enforcement must be made more prominent on the international political policy agenda to support adequate enforcement and inspection structures in each country. With this conference we made an important step in the right direction but we will do our part at the global level to partner INECE with UNEP Secretariats and our own country officials to achieve this linkage before and hopefully not after international agreements are completed. You as participants know how important enforcement of environmental legislation is at both the domestic and international levels and you surely will be able to bring this to the agenda of your politicians. Our NGO network continues to be an important driver of compliance and effective government programs. You as participants know how important enforcement of environmental legislation is at both the domestic and international levels. You surely will be able to bring this to the national agenda.

We will do more to strengthen the regional networks, which should not only provide structure but should focus on content and the way we will get to a better environment. Regional meetings may provide a foundation for exchange possibilities on which we can build and serve as a feeder of information and as a backbone for the participants all over the world. In the regional enforcement networks countries within a given region have the possibility of determining the actual content of enforcement of environmental legislation. Our conference in Monterey with participants from 86 countries and 15 international organizations proves that we still need global networking. That is the reason we started the International Network on Environmental Compliance and Enforcement, INECE. You have clearly told us only again that we need these conferences in which you as participants have the possibilities of meeting, networking, exchanging information and talking about actual enforcement activities.

Both the INECE network and the regional enforcement networks require backing in the form of a Secretariat capable of providing assistance and support to participants and act as a focal point within the region and the other regional INECE secretariats.

In addition to its general duties, the INECE secretariat will assist regional secretariats, maintain contacts and provide support where requested and will also promote development and progress within the networks. We will discuss progress with the Executive Planning Committee together with key representatives from the countries participating in the regional enforcement networks.

The international enforcement conferences—which have been held every two years—might take a year or two longer and perhaps be on a smaller scale than the current ones if it is advantageous to be coordinated and combined with —a regional conference. We will be reviewing the frequency and the needs for the next international conference with the EPC and will likely schedule one at least every three years, based upon the need.

We, with support from the Executive Planning Committee staff, will be working on these issues and for ongoing networking we will advance our Internet homepage and the INECE Newsletter as well as ongoing workgroups on selected topics. We of course solicit your contributions to the newsletter and additional papers for publication.

As you have heard our vision is a very positive one but it stands or falls by your participation in its most active form at the regional and global levels. We are convinced that together we can further shape our vision of the INECE's future during the next years. We count on the existing and future regional and subregional networks.

The Executive Planning Committee had very good discussions on future developments; we promised to discuss these further and present results in due time.

You have the full commitment of the INECE partnership, including the NGOs present at the conference and its members of the EPC to support you in building capacity for environmental compliance and enforcement through ongoing networks and through channels and projects to cooperate on environmental enforcement. We will continue to expand the resources available through our internet website, create global workgroups on special topics, issue a periodic newsletter, and publish additional papers. Environment Canada will complete work they started on the directory of enforcement officials engaged in hazardous waste transport.

We are embarking on a concerted effort to find stable sources of funding for the INECE Secretariat.

We will end then where we began, challenging each of you to leave here with several commitments first, to make the environment a matter which should come first; and second, to work toward in-country, regional and global networks. These networks should serve you well and help you to reach your goals for developing and improving environmental compliance and enforcement programs and to solve specific environmental problems. Without clear goals for improving our institutional capacity or for addressing environmental problems improvements are unlikely to take place. Where international cooperation can help to meet these goals, that too needs definition of specific projects or tasks and make your job more effective.

We wish you all a very good journey home and a very successful enforcement network going.

ADDENDUM TO THE CLOSING REMARKS: WORKSHOP HIGHLIGHTS

THEME #2: COMMUNICATIONS, PUBLIC ROLE AND COMPLIANCE MONITORING

Workshop 2A Communications and Enforcement

Communications and Enforcement linkage helps to address one of the main problems for environmental enforcement given the imbalance between the huge number of companies under regulation and limited enforcement capacity. Through communication the effectiveness of the enforcement can be improved. Integration of enforcement and communication demands a strategic approach, based on a thorough analysis of the present situation and the environmental problem at hand, the relevant target groups and the means of enforcement.

Workshop 2B Public Role in Compliance Monitoring and Enforcement

Public Role in Compliance Monitoring and Enforcement is an increasingly strong role. Smart government administrators are seeking strategic partnerships with environmental organizations, community groups, unions and business trade organizations. As a political force, citizen interest can provide important support for environmental programs, even when citizens have few resources. Citizens can push government to inspect and enforce; help to monitor compliance; participate in government - industry negotiations; and directly enforce requirements if the legal framework allows. Barriers still exist to effective participation including bureaucratic resistance and resulting public discouragement. In particular, there is a need to promote and critically examine the AARHUS Convention. The abstract "three pillars" provided by the Convention — public participation in decision making, public access to information and public access to justice — are a problem in every country. There are questions of the legitimacy of stakeholder processes in terms of who represents the public, how representative the NGOs are, and a lack of tolerance of discord. Overcoming these may require cultural change. Support needed for public participation includes: environmental laws must include provision for real participation; citizen access to and requirements for environmental discharge and monitoring information; training; technical and legal assistance and funding.

Workshop 2C Compliance Monitoring

Compliance Monitoring poses similar problems to many nations in developing compliance monitoring programs and in making decisions about their use. Many interesting approaches were discussed offering diverse solutions including the use of risk based inspections in the Slovak Republic; global positioning systems in Australia; environmental audits in Nigeria; citizen inspectors in Bulgaria; and tiered enforcement based on environmental performance in The Netherlands.

Workshop 2D Multimedia (Integrated) Inspections and Permitting

Multimedia (Integrated) Inspections and Permitting enables the regulator to evaluate a single facility's processes and technology on a holistic basis and, balancing various considerations and inputs, to design the best regulatory strategy for the facility and the

environment. However, the advantages of multimedia permitting and inspections do come at a cost. Most governments do not currently have personnel with multimedia experience, and it is feared that where regulatory staff operate across all media, there is an accompanying loss of expertise to each individual medium. There also may be a need for substantial reorganization of regulatory agencies in order to achieve true integration across programs.

Workshop 2E Source Self-Compliance Monitoring

Source Self-Compliance Monitoring contributes to the overall efficiency of a compliance and enforcement program and part of good business practice, important for both the regulator and operator. Participants agreed that the current trends toward delegation of many government functions and satisfaction of international standards like ISO 14000 had to clearly respect the role of government to continue to evaluate monitoring results.

Workshop 2F Detecting Hidden Operations

Detecting Hidden Operations continues to pose a problem in knowing where to look, lack of adequate cooperation and information exchange among agencies, and lack of training of police officers to detect hidden illegally operating facilities. Innovative techniques can be promising including mapping sensitive sites with aerial photography to develop a data base and baseline to monitor changes; use of environmental criminal intelligence and analysis; comparative data from similar time or events overtime such as composite samplers hidden in manholes; looking at chemical signatures including oil from ships; blending traditional criminal investigative techniques with regulatory inspection techniques; using microtaggants and DNA analyses of selected endangered species to develop a database; use of global positioning systems to monitor barge and ship channels; and use of tips from networks established with other government agencies and citizen volunteers. The most promising actions seemed to be training of law enforcement authorities to recognize environmental violations and provide initial response.

THEME #3: "CARROTS AND STICKS"

Workshop 3A Structuring Incentives f or Private Sector Compliance

Structuring Incentives for Private Sector Compliance are widely used throughout the world. There are many different sorts of incentive: economic incentives such as tax breaks for investments in environmental technologies; legal incentives, for example, restraint from criminal prosecution to encourage disclosure; regulatory incentives such as fewer inspections for industry with a good compliance record; and public relations incentives such as award schemes. Success or failure of these schemes depends on them being carefully crafted to meet the needs and aspirations of the regulated community. To make incentives successful, it is important for regulators to provide technical assistance, while at the same time, continuing to monitor the state of compliance through inspections and other means. However, the use of incentives must be backed up by a clear understanding on the part of the regulator and the regulated that non-compliance may lead to strict and punitive enforcement. Although, in some countries, regulators are considering whether it would be sensible to adopt different enforcement strategies for companies using environmental management systems, to date, regulators have not done so because such systems do not provide a guarantee that accredited companies are not polluting the environment.

Workshop 3B Environmental Crime

Environmental Crime was difficult for the group to define. It was apparent that different legal systems in the different countries treated violation of environmental legal requirements in different ways. It was, however, agreed that one had to look at whom or what was intended to be protected (human health/environment), the seriousness of the damage/risk, the size of the geographical area or population affected and any financial gain accruing to the violator as a result of his action. In some countries there had to be a criminal intention for negligence, in others a strict liability approach was adopted. Not all countries recognized the concept of corporate criminal liability which made it difficult to obtain judgements against companies. Some countries had a very clear list of what was regarded as "environmental crime."

It was generally agreed that the following points should be addressed in all countries if enforcement of environmental law was to be effective:

- Education: the general public and "regulated" community should be well informed as to environmental law requirements and the benefits flowing from compliance with such requirements.
- Training: judges, police and prosecutors should be trained to enable them to properly assist the environmental agencies.
- Speeding up of the judicial process: delays in court proceedings are not conducive to deterrence.
- Politicians had to be convinced of the long term benefits of environmental protection rather than giving priority to economic development, particularly in developing countries.
- Flexibility: legal and administrative systems should be flexible enough to give the appropriate response in each case.

Workshop 3C Citizen Enforcement

Citizen Enforcement is an important aspect of an overall enforcement strategy. It helps strengthen and support government efforts and the overall achievement of common citizen and government goals of environmental protection. Although standing to go to court to enforce the law is an important tool for citizens, it is also important for them to have the ability to use other tools, such as direct action, lobbying, negotiation, training, and public opinion. In fact, citizens and government can cooperate directly through formation of coalitions, open citizen access to information, citizen-government-industry negotiations, direct lines of communication, and citizen delegation of monitoring and inspection tasks. Although citizens face many common obstacles in seeking an effective role in enforcement, citizen enforcers are looking ahead to concrete solutions to these obstacles, such as:

- Improved public access to information.
- Clear environmental standards, to ease the burden of proving harm and causation.
- Quicker judicial processes, including a judiciary well-informed about environmental law.
- Broad standing for citizens to go to court to enforce the law.

It is important for non-UNECE countries to consider acceding to the new Public Participation Convention (AARHUS) and UNECE countries should proceed with implementation as rapidly as possible.

Workshop 3D Structuring Financial Consequences in Enforcement: Penalty Policies ,

Recovery of Damages, Recovery of Economic Benefit of Non Compliance Structuring Financial Consequences in Enforcement: Penalty Policies, Recovery of Damages, Recovery of Economic Benefit of Non Compliance was structured around key questions to address the concept of "polluter pays," and how monetary fines can be effective in recovering damages and deterring environmental violations. All countries are grappling with the issue of what responses to use when companies are found violating environmental conditions. The strategy of using monetary fines is not well-developed or widespread as an effective tool in many countries. This is because countries have a range of historical or cultural responses including the belief that more useful tools are negotiation and cooperation, public embarrassment, the need for quick action, shutdowns, the inability to levy fines on small operations and a society's general tolerance for a widespread and diffuse environmental problem. Without a culture's embracement of the use of fines as a deterrent or punishment, establishing such financial consequences are difficult and may be even more difficult to collect if imposed. For countries with authority to use financial penalties, the structuring of appropriate penalties may be the role of the judiciary. The participants agreed in those situations that the ability to "recommend" an appropriate penalty is useful especially the ability to analyze the economics of the pollution damage. This type of analysis and economic information is not generally well-utilized or available.

Workshop 3E Role of Negotiations in Enforcement

Role of Negotiations in Enforcement is appropriate at various stages of compliance and enforcement, even in countries that do not provide a role for negotiation in adversarial circumstances. Although the use of negotiation between government and regulated entities varied considerably among countries, all countries acknowledged some use of negotiation with regulated entities and all countries acknowledged the use of negotiation among governmental colleagues and jurisdictions.

Workshop 3F Administrative Enforcement: Getting Authority and Making it Work

Administrative Enforcement: Getting authority and making it work is important given the consensus that it is preferable to have available administrative, civil judicial and criminal enforcement tools for an effective environmental enforcement program. Although the environmental law systems of many developing countries have not yet matured to the point where they can evaluate the effectiveness of administrative enforcement tools, representatives of these countries recognize the advantages provided by having the discretion to act administratively.

Workshop 3G Compliance Schedules and Action Plans

The use of compliance schedules and actions plans, particularly in conjunction with sanctions, is a pragmatic way of recognizing the realities of what it takes to correct a problem once government has gotten the source's commitment to do so. Workgroup participants were given a model agreement to control environmental pollution whose parts included identifying

parties, providing background and indicated authority under which agreement is undertaken, definitions, describe actions government agencies will take, specifically describe measures enterprise will implement to reduce pollution, establish time schedule for implementing the measures, provide for monitoring of performance under the agreement, specify funding commitments, identify responsible individuals who will act for the parties to implement the agreement, provide for penalties and identify mechanisms for resolution of disputes about the agreement.

THEME #4: CAPACITY BUILDING

Workshop 4A Managing Centralized and Decentralized Programs

Managing Centralized and Decentralized Programs is difficult either way given that none of these systems work smoothly. There is a diversity of different arrangements for decentralizing some or all environmental regulation. There is a need for certain issues to be addressed centrally, for example: ambient standards, basic legislation, test methods. There were some issues where opinions varied as to whether they should be addressed centrally, for example:

- Procedural requirements for application and determination of permits; emission standards.
- Best available control techniques. National guidance/rules/standards need to include an explanation of the circumstances in which discretion can be applied locally and the scope of any such discretion. Human interaction between different levels is essential to make any system work. This works best when mutual understanding, trust and respect is established.

Compartmentalization of environmental issues is artificial. Recognizing the holistic continuum of environmental issues is essential for successful environmental protection. Whatever the administrative arrangements, a mutual focus on achieving specific environmental goals, will greatly assist the smooth working and success of different levels of organizations, and the people within them.

Workshop 4B Budgeting and Financing Environmental Compliance and Enforcement Programs

Building effective environmental programs requires a solid core funding mechanismto succeed. Innovative financing schemes along with clear priority setting mechanism are essential to the success of the program. The principle that the polluter pays is an accepted basis for developing a sustainable funding mechanism for funding environmental programs. However, in difficult financial times, these sources of revenue for environmental programs diminish along with the rest of the economy. Even designated revenue streams such as permit fees can be diverted to non-environmental programs.

Workshop 4C Training Prog rams for Compliance Inspector, In vestigator and Legal Personnel

Training for inspectors is considered to be the weakest link in an effective environmental enforcement program. It lags behind demand for many reasons, mostly insufficient resources to provide it to enforcement personnel. Training needs vary depending upon the size of the country, the size of the enforcement program, the expertise of the staff, and the cultural and language considerations within the country. Training is not only needed for enforcement personnel; i.e., inspectors, staff lawyers and investigators. It is also needed for judges, magistrates, prosecutors, NGOs, the regulated community, and of course, the general public.

Although training needs are frequently not being satisfied, several approaches are available and others suggested in order to bridge the gap. These proposals include new technology like satellite links and CD ROM, teaching methodologies like train-the-trainer programs, and exploring sources for funding and training. In this last regard, it is believed that INECE could play a vital role in establishing a link with regional networks to assist in locating training programs and funding.

Workshop 4D Setting Up Compliance Assistance Centers

Around the world national, state and local environmental authorities are striving to balance the responsibility for aggressive environmental enforcement with the equally imperative need to provide assistance to the business community in the areas of knowledge of the requirements of environmental law, and resources available to business to aid in establishing and maintaining compliance. Attempts to integrate compliance assistance activities into the enforcement role that must be played by the environmental inspector has led to debate as to whether the inspector can be both effective enforcer and at the same time provide assistance to a business in meeting the requirements of the law. The type of assistance which can be provided has also been the subject of discussion. Certainly, an inspector must be expected to provide a business with a clear understanding of the requirements of the law and a knowledge of which agency's and which agency personnel are assigned to monitor that business. The provision of technical advice on subjects such as waste treatment technologies or choice of treatment systems however take the inspector into uncharted waters.

Workshop 4E Science of Enforcement

All nations and organizations recognized the need for sound scientific and laboratory support to measure ambient environmental conditions, develop meaningful standards, analyze impacts to water, land and air, monitor compliance with environmental requirements, and to enable successful prosecution of environmental law under the legal standards that apply for admission of evidence. The discussion centered on exchanging information on existing laboratory capacity, good practices for sampling and analysis to be admissible as evidence, and developing regional approaches to share capacity where it is lacking. The workshop identified existing electronic networks which provide access to laboratory and information resources, including those set up by NGOs and other international organizations. The participants explored financing options for enhancing scientific and laboratory support and agreed to set up an Internet network among the participants, INECE, and others, with E-Law on Science in Enforcement, which was on line by the end of the conference in Monterey.

Workshop 4F Government/Municipal/Military Compliance and Enforcement Strategies

Participants were unanimous that Government/Municipal and Military installations should comply first with environmental legislation to set an example for the private sector. The approach to compliance and enforcement should not differ very much from private owned installations. Countries must create the legal possibilities to demand and enforce the environmental requirements for these installations; political will and motivation through efforts to make environmental problems visible and by supporting NGOs as a catalyst to mobilize the environmental; education and training; environmental care systems.

Workshop 4G Small and Medium Enterprises Compliance and Enforcement Strategies

It was generally agreed that the problem of compliance and enforcement for small and medium businesses is not simply an environmental problem. It is a political and economic problem as well. Because the problem of compliance is an "integrated one," the solution must be integrated as well. It must involve environmental, political, cultural, economic, social, governmental, societal, private sector and NGO input. There is no way to reduce the number of such businesses, and in fact the numbers are growing in most countries. Enforcement solutions seemed to focus on responding through organizations of several varieties:

- Encouraging "clustering" to provide for shared treatment systems.
- Utilizing associations to communicate with, influence and provide improvements or assistance.
- Utilizing social systems to influence behavior.
- Using "economies of scale" to make improvements and development affordable.
- Developing laws to get companies to enforce against other businesses.

In the end, it appeared to the participants that the most viable approaches appeared to involve some means of avoiding dealing with large numbers of enterprises on an individual basis to achieve compliance. This "theme" developed from the very rich experiences of the participants, many of whom had been using thoughtful and creative means to make the best use of limited governmental resources in the environmental enforcement field.

Workshop 4H/4I Mobile Source Compliance Strategies and Enforcement/Non-point Source Compliance

Non-point Source Compliance is difficult to address since most countries are at beginning stages of trying to create enforceable mechanisms in the area of non-point source compliance. Participants agreed that pollution from many, diffuse sources takes creativity and political will to prevent and reduce. The group identified solutions such as economic incentives, partnership and voluntary programs and training as the core of addressing non-point source pollution from forestry, agriculture, construction, mining, etc. However, the group also felt that where large industries were concerned, stronger enforcement mechanisms were necessary building on raised public awareness and cooperation among agencies.

Workshop 4J Geographic or Resource Based Compliance and Enforcement Strategies

Geographic or Resource Based Compliance and Enforcement Strategies are needed by the nations represented at the workshop particularly for watersheds. There was recognition that an ecological approach must be employed when protecting drinking water sources due to the downstream impacts of upstream activities. Often, watercourses cross international or internal administrative boundaries, requiring complex and cooperative approaches to problem solving. Protection of resources in remote areas sometimes requires specialized enforcement responses such as covert investigations. Implementation of a system of protected areas can ensure that nature is protected while economic development continues on the remainder of the land base. Industrial globalization has resulted in the presence of multinational industries in developing nations that may not yet have the legislative or technical capacity to prevent pollution of formerly pristine areas. International assistance in development of training systems and also provision of direct training in the developed world can be used to overcome these issues.

THEME #5 INTERNATIONAL COOPERATION AND TRANSBOUNDARY COMPLIANCE AND ENFORCEMENT ISSUES

Workshop 5A Illegal Transboundary Shipment of (Hazardous) Waste

Illegal Transboundary Shipment of (Hazardous) Waste is caused by many different ways that violators circumvent provisions of Basel Convention and other laws on shipment of waste including: mislabeling of hazardous waste; hazardous waste hidden in legal shipments; unidentified hazardous waste imported and abandoned; fraudulent recycling; imported hazardous materials that are imported, become or create hazardous waste, and then are abandoned; hazardous waste imported negligently or because of lack of knowledge; use of transshipment centers, e.g. Hong Kong and Singapore, to launder waste; and smuggling of hazardous waste for abandonment. Types of and successes in bilateral and multilateral international cooperation and information sharing, include improved procedures and other requirements and improved detection of violators. The group reported a number of success including:

- Tracking of shipments: Australia reported a sophisticated electronic tracking system for shipments using Global Positioning System that allows real time tracking of every registered hazardous waste shipment. The U.S. reported a cooperative tracking system, HAXTRAKS, that combines information from the U.S. and Mexico to track waste transferred across their common border. The ability to identify the export of waste may depend upon the power of domestic tracking systems. The group recognized a need for a closed loop system that would require or provide for reporting from the point of ultimate use, treatment or disposal of waste to the country of origin.
- Cooperation with customs agencies: Many countries acknowledged the need for and reported success in working with their customs agencies. Typically, customs agencies have not been interested in hazardous waste until driven by concerns of safety for their agency. Good cooperation with customs agencies is enhanced by frequent meetings, joint operations, and provision of training and resources.

Workshop 5B Compliance With International Agreements

Participants discussed priority issues related to compliance with and enforcement of all international Conventions instead of focusing on specific conventions at the local and international level, and centered their discussion on identified obstacles in the local implementation of these instruments and possible solutions. The major issues addressed were:

- How to communicate for effective compliance and enforcement at the national level;
- What different legislative and practical approaches to enforcement for range of violations have been effectively used, and types of enforcement responses;
- What types of financial resources are required for consistent enforcement and capacity building, and available sources of financial assistance;
- Obstacles to international cooperation presented by disparities among sanctions for same violations;
- How to raise broad awareness of the importance of issues addressed in Conventions; and overcome the differences in perception at the international and local levels.

The group gave examples of in-country obstacles and mechanisms to resolve them mentioning specific legislative and enforcement tools. The session served as a valuable comparative research tool and provided the participants and the facilitator with a rich spectrum of compliance and enforcement tools, from training of trainers, building institutional memory, simplifying the "language" of the Conventions, among others.

Workshop 5C Illegal Shipments of Dangerous Chemicals

Much attention has been paid to enforcement of international environmental agreements and related domestic requirements governing the shipment of hazardous waste. Less attention has been paid to issues related to enforcement of requirements related to import and export of dangerous chemicals, including pesticides, that may not qualify as hazardous waste under international conventions or perhaps are mischaracterized so as not covered by those conventions. Overall, the existing laws and regulations do not provide an adequate foundation for enforcement. The overriding concern of workshop participants was how to obtain information, overcome political obstacles and develop laws and regulations which will protect the health and safety of their citizens. Enforcement cannot be a concern until appropriate laws are in place to enforce.

Workshop 5D International Enforcement Cooperation

The primary purpose and major goal of the discussions was how to actually make international compliance and enforcement cooperation happen in practice. A general agreement was reached that the major objective should be the exchange of information which can be made available at all levels, and especially at the working level, to improve front-line performance. Systems which facilitate establishing personal contacts and channels of communications were viewed as critical. Both formal and informal cooperation methods were discussed. The regional networks which were discussed at the conference were seen as a key next step.

There was a long list of specific environmental problems that could benefit from increased cooperation as well as some examples of where cooperation is currently working, although the latter were mostly bilateral. There was general support for the concept of INECE as an umbrella organization which would attempt to pull the regional networks along and serve as a central information repository and communications resource on a wide range of issues. INECE was seen as a repository of information which, given the increasing electronic capabilities in many countries, could be made broadly available.

At the same time there was a note of reality in the discussions of resources, political and staff changes and the relatively low rank, in many countries, of the environment ministry. International Conventions and Treaties were viewed as valuable but there was much opinion that they were unknown to or ignored by, in many instances, the very people who should have a role in implementing them. As a general conclusion, the participants felt that international cooperation is essential and must be accomplished, whatever the obstacles may be, if the global nature of many of our environmental problems is to be successfully addressed. The issue of bilateral and subregional cooperation was raised several times as it was seen as easier to accomplish and less expensive to implement. Specific problems which would particularly benefit from multi-national cooperation were discussed. The role of countries whose own cooperative structures were more advanced was noted. The thinking in general was that they could be excellent models for newer cooperative groupings and could serve as sources of information and provide other kinds of support.

Workshop 5E Collaborative Targeting

Many countries share concerns regarding the consistency of the operations of multi-national companies and problems associated with transboundary pollution. Questions exist concerning the capacity of countries to enforce, minimum standards to follow, companies setting their own standards, availability of data and international cooperation. Collaboration is essential to solve these problems. Solutions include working with multi-nationals to seek their cooperation in operating consistently around the world; asking those companies to produce world wide reports on environmental efforts; linking international performance with incentive awards; developing a ranking guide on multi-national performance; providing company information over the Internet; sharing each country's regulations over the internet; developing a list/registry of companies and how much pollution they produce, and incorporating environmental concerns into international investment agreements. Most important is developing a "rapid response system" or informal person-to-person network, to resolve problems. All agreed that this could be a primary role for INECE and for the Regional networks and meetings of the future.

CONFERENCE EVALUATION

1 INTRODUCTION

At the end of the conference, participants were asked to appraise the programs and materials of the conference and give their assessment of the experience. In addition to providing a detailed evaluation of conference program and materials, the exercise provides a means for conference sponsors to respond to the participants' needs when planning future conferences and activities. The format also provided a survey of participation by region, areas of expertise, and types of organizations.

Of the 245 conference participants, eighty-three percent of the conference participants returned their conference evaluation forms (200). Below are Tables 1, 2, and 3 indicating participant response by region, types of organizations, and areas of expertise. Sixty-nine percent of the participants (170) were attending one of these Conferences for the first time.

Table 1 Regional Response to the Evaluation

REGIONS	Participants		Respondents	
	No.	%	No.	%
Africa	21	9.0	18	9.0
Asia & Pacific	35	15.0	31	15.5
Caribbean	6	2.0	6	3.0
Central & Eastern Europe	29	12.0	22	11.0
Central America	7	3.0	7	3.5
International	25	10.0	13	6.5
North America	46	19.0	33	16.5
South America	18	8.0	16	8.0
South Asia	10	4.0	9	4.5
West Asia/Middle East	6	1.0	4	2.0
Western Europe	37	17.0	37	18.5
Unspecified	0	0.0	4	2.0
TOTAL	240	100.0	200	100.0

Table 2 Organizational Type

Type	No.	%
International NGO	15	7.5
National Government	105	52.5
State/Province/Region	38	19.0
Municipal/Local Govt.	6	3.0
Nongovernmental	26	13.0
Industry	0	0.0
Other	6	3.0
Unspecified	4	2.0
TOTAL	200	100.0

Table 3 Area of Expertise

Area	No.	%
Legal	52	26.0
Technical	28	14.0
Policy and Management	68	34.0
Legal/Technical	3	1.5
Legal/Technical/Inspection	1	0.5
Policy and Management/Technical	17	8.5
Policy and Management/Legal	10	5.0
Other	6	3.0
Unspecified	15	7.5
TOTAL	200	100.0

2 GENERAL COMMENTS

Overall, the conference was very well received by the respondents with over 70% of participants rating it either very good or excellent. Fully half of the respondents added written comments to that, that the conference provided a valuable opportunity for exchanging experiences, gaining information and networking with new contacts (105).

A number of respondents found various elements of the conference notably valuable and recommended increasing their time allotments. These recommendations included: longer plenary sessions (69); more informal time to engage with others in an unstructured setting to network, and to absorb material (52); and more time overall for program activities and to allow for aclimation to new time zones for international participants (9).

Several respondents indicated that another international conference would be valuable if held in more than three years to ascertain any developments made as a result of the conference with a focus on the development of regional networks (15).

3 CONFERENCE PURPOSE AND GOALS

The participants were asked to evaluate the value of the purpose and goals set for the conference for the intended participants and whether they were successfully met. Seventy-four percent of the respondents who answered this question rated the purpose and goals as very good to excellent (143). Figure 1 represents the participants' responses.

Although a few respondents commented on the difficulty of the conference offering something for everyone (3), participants generally recognized and commended the worthiness of the goals.

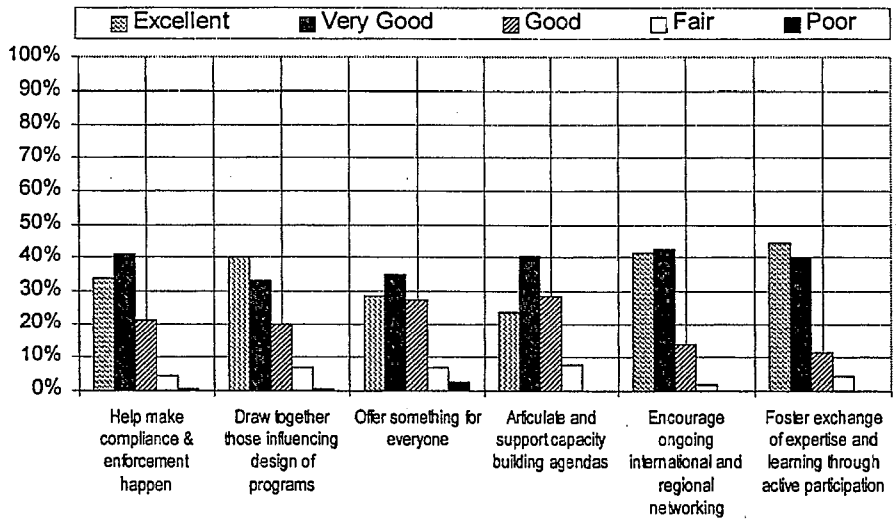


Figure 1. Overall ratings given by participants who evaluated the appropriateness of the conference purpose and goals (194)

4 CONFERENCE SUCCESS IN ACHIEVING GOALS

Participants were also asked to evaluate the success in achieving the conference's purpose and goals. Seventy percent of the respondents who answered this question rated the success in achieving the conference's purpose and goals as very good to excellent (132). Figure 2 represents the responses.

Specifically, some respondents indicated that the conference fostered the exchange of information and experiences that would help their domestic compliance and enforcement programs (10). Fourteen others suggested the conference would benefit from: adjusting the workshop format to reduce time constraints (6), increasing the level of participation of other groups involved with compliance and enforcement such as NGOs, local enforcers, etc. to broaden the viewpoints of experience exchanges (6), and stressing sub-regional networking more strongly (2).

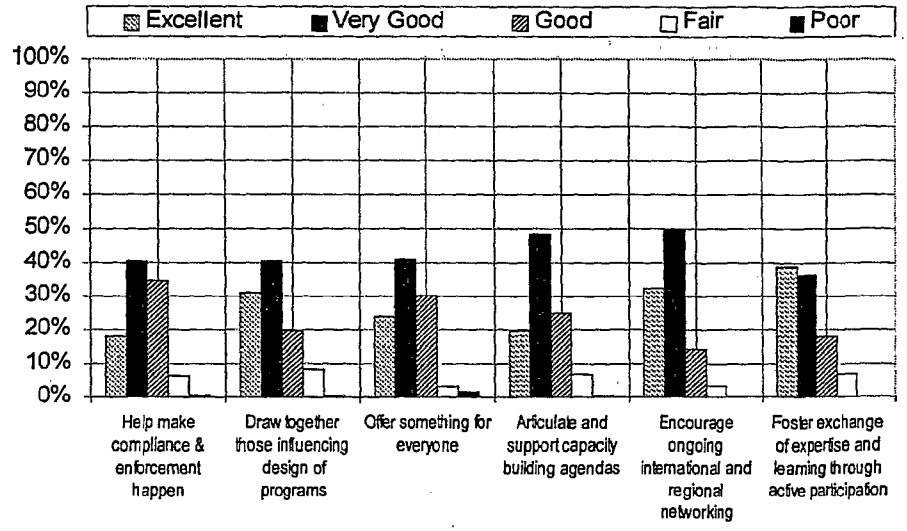


Figure 2 Overall ratings given by participants who evaluated the success of achieving conference purpose and goals (189)

5 CONFERENCE PARTICIPATION

Participants were asked to evaluate several aspects of conference participation ncluding the number of individuals in attendance, the countries represented and the ›rganizations represented as well as the mix of experience. Seventy-eight percent of the espondents who answered to this question rated the participant aspect of the conference as 'ery good to excellent (148). See Figure 3. Both the number of attending individuals and the :ountry representations were rated as very good to excellent by eighty-three percent of the espondents (157). Some respondents indicated that the diversity of representatives from lifferent countries provided an excellent mixture of experience (7), while others suggested nprovement in the composition of participant constituents citing the need for more NGOs, etter representation from different countries and more representatives from specific rofessions such as local enforcers.(23).

Several respondents commented on the problems such as the large number of conference participants and the language barriers (16).

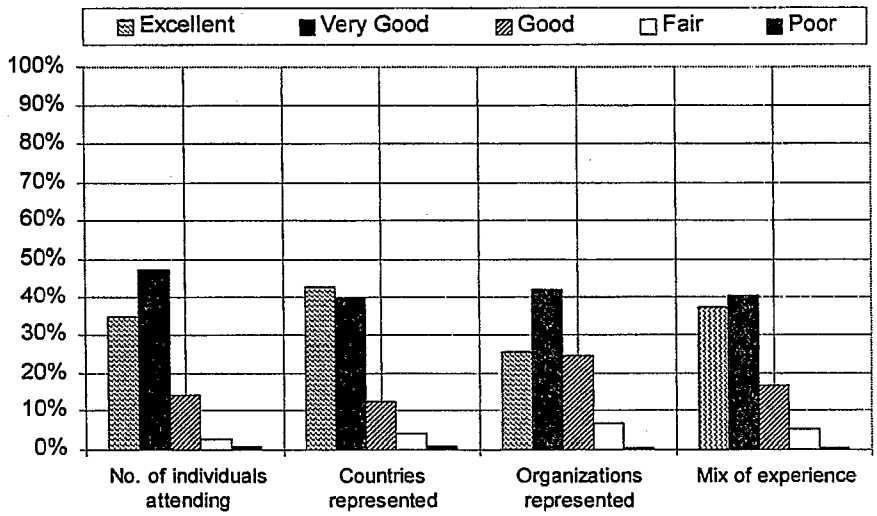


Figure 3. Overall ratings given by participants who evaluated conference participation (191)

6 CONFERENCE STRUCTURE

Participants evaluated the structure of the Conference which included the Principles of Environmental Compliance and Enforcement presentation, the theme plenary sessions which were followed by related workshops, free time for exhibits and clinics and regional meetings. The valuations of the specific elements are indicated in Figure 4. Participant comments generally included recommendations for more time for the planned activities such as the plenary sessions, presentations, regional meetings, and clinics. Specifically, these included: more time allotted for plenary sessions and regional meetings to allow for adequate discussion and presentations (27); more time for networking and informal time (34) and reducing the length of the conference (5).

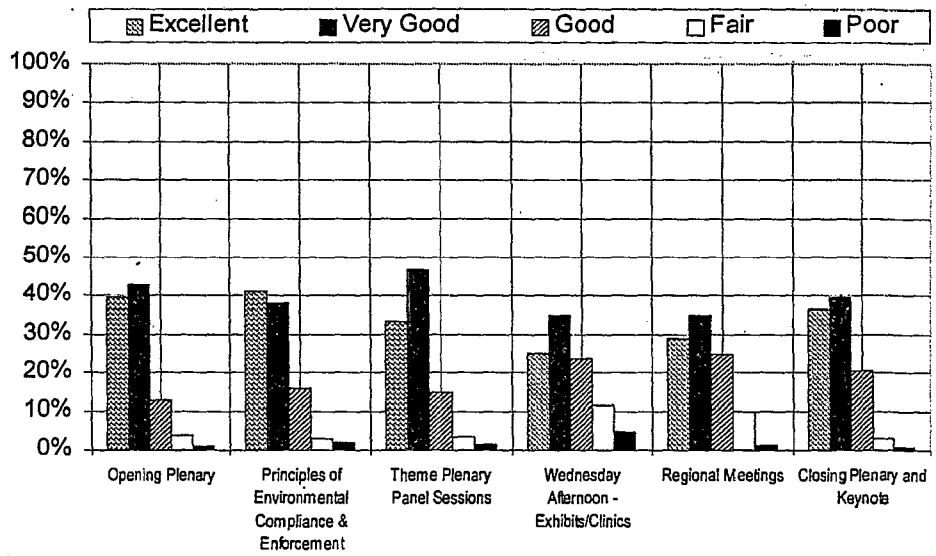


Figure 4. Overall rating for the structure of conference as evaluated by the responding participants (175)

7 PLENARY PANELS

Participants were asked to evaluate the individual plenary sessions that introduced the themes that were followed by related workshops and the Principles of Environmental Enforcement presentation. Figures 5 - 11 represent these responses. In addition to the ratings, several respondents specifically commented on the plenary sessions giving them general praise for their content and focus (18). Others noted that while the content was excellent, the sessions were hurried i.e. either the respondents felt that the plenaries were too short given the number of presentations or too many presentations were made in the allotted time. Specifically, respondents wanted longer presentations feeling that the 7-10 minute time limit resulted in a lack of depth for the presentations (32) and others specified the need for more time for the question and discussion period (30). In regard to the Theme #3 plenary, a few respondents suggested that more presentations on compliance be included (3).

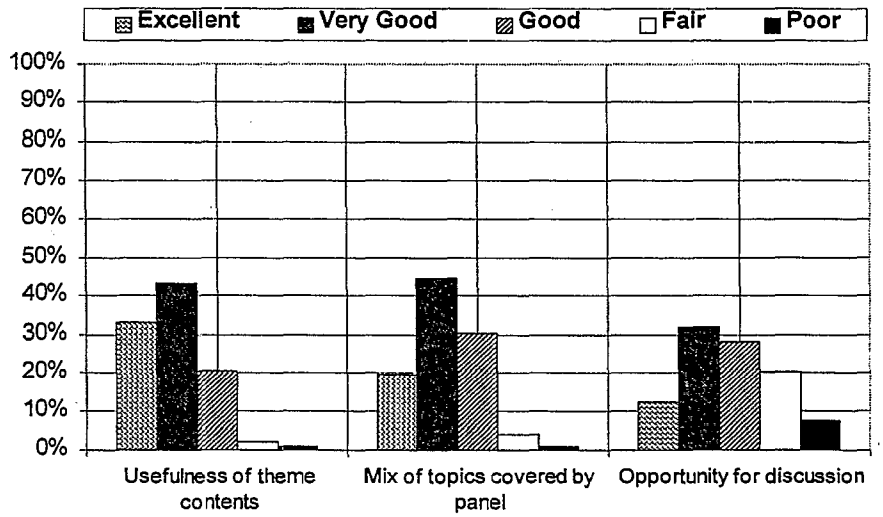


Figure 5. Theme #1 Plenary - Making it Happen: Applying the Principles of Environmental Compliance and Enforcement

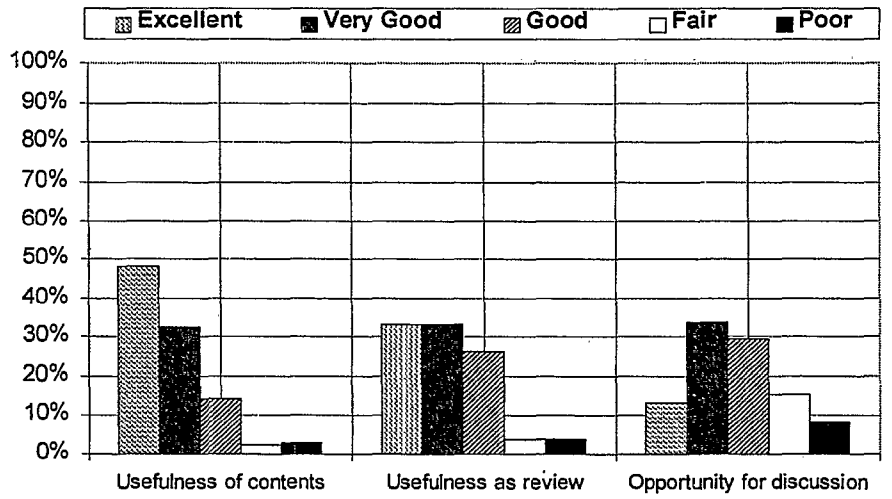


Figure 6. Theme #1 - Principles of Environmental Compliance and Enforcementent

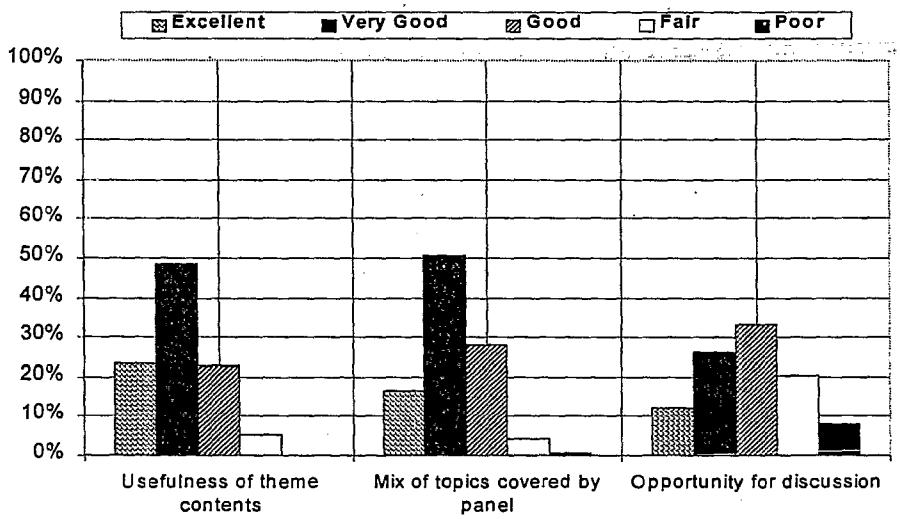


Figure 7. Theme #2 Plenary - Communications, Public Role, Compliance Monitoring

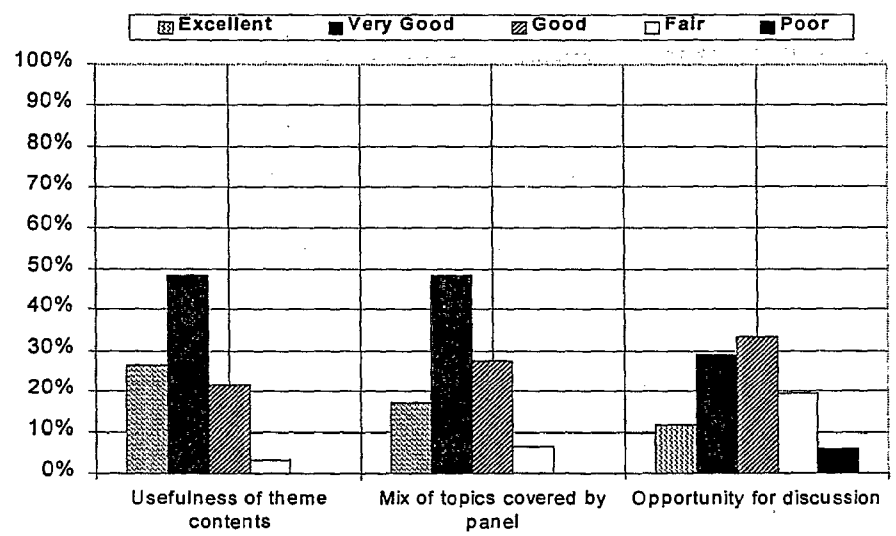


Figure 8. Theme #3 Plenary - "Carrots and Sticks"

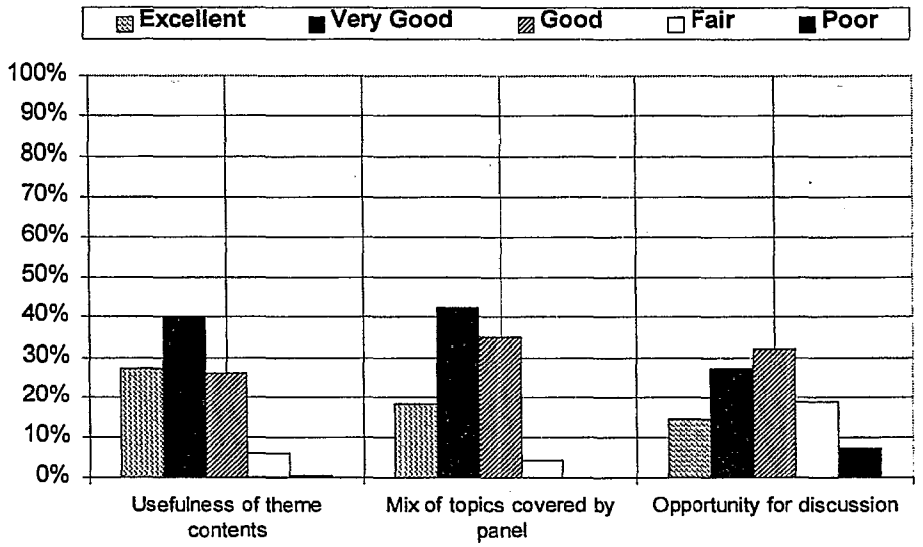


Figure 9. Theme #4 - Capacity Building

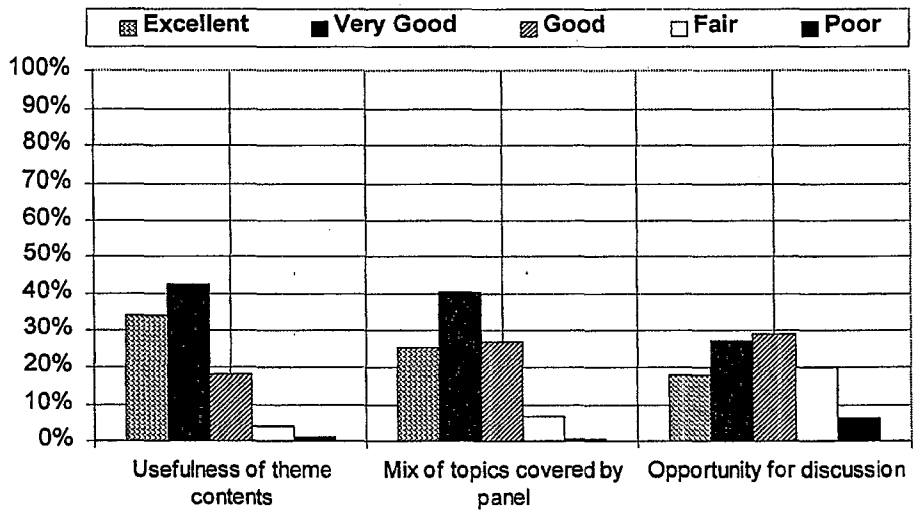


Figure 10. Theme #5 Plenary - International cooperation/Transboundary Compliance and Enforcement Issues

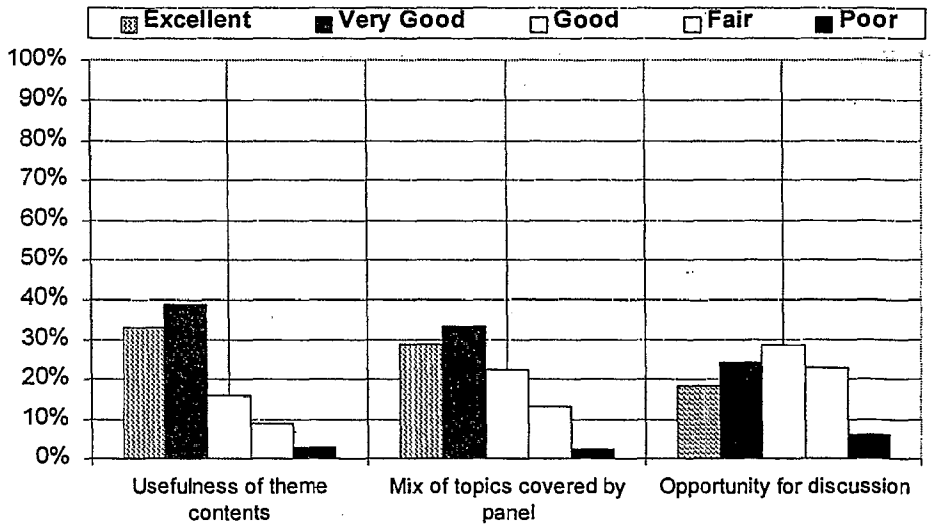


FIGURE 11. THEME #6 PLENARY - BUILDING REGIONAL AND GLOBAL NETWORKS

8 WORKSHOPS

Participants were asked to rate the workshops they attended in terms of the quality of the material, whether the goals were accomplished, and whether the issues were adequately addressed. The results of these ratings are presented in Figures 12 - 15. Results for the "Principles" workshops are presented in Table 4.

Respondents' comments were varied among the workshops. A number of participants commended the workshops for their valuable discussions and small size (10). Other respondents suggested some improvements including: adjusting the discussion format (34); allotting more time for questions and discussion (20); increasing homogeneity of cultures and levels of experiences among participants to improve depth and focus of the exchange (9) and providing more support materials for discussions (5). Comments on the quality of facilitation also varied by workshop with some participants remarking that the good facilitation resulted in focused sessions (31), while other recommended better facilitation of and preparation for the workshops (16).

Table 4 Principles of Environmental Compliance and Enforcement Workshops

	Excellent		Very Good		Good		Fair		Poor		Total
	#	%	#	%	#	%	#	%	#	%	
Coal Burning											
Realistic	1	6%	11	69%	2	13%	1	6%	1	6%	16
Quality of Materials	2	13%	8	50%	4	25%	1	6%	1	6%	16
Usefulness of Contents	2	13%	7	44%	6	38%	1	6%	0	0%	16
Usefulness of Package	1	6%	9	56%	5	31%	1	6%	0	0%	16
Workshop Format	1	7%	9	64%	2	14%	2	14%	0	0%	14
Mining											
Realistic	4	22%	4	22%	9	50%	1	6%	0	0%	18
Quality of Materials	3	17%	8	44%	6	33%	1	6%	0	0%	18
Usefulness of Contents	5	28%	4	22%	7	39%	2	11%	0	0%	18
Usefulness of Package	2	12%	7	41%	7	41%	1	6%	0	0%	17
Workshop Format	3	19%	6	38%	6	38%	1	6%	0	0%	16
Petrochemical											
Realistic	4	24%	5	29%	7	41%	1	6%	0	0%	17
Quality of Materials	6	35%	5	29%	5	29%	1	6%	0	0%	17
Usefulness of Contents	5	29%	5	29%	6	35%	1	6%	0	0%	17
Usefulness of Package	4	24%	5	29%	7	41%	1	6%	0	0%	17
Workshop Format	5	33%	4	27%	5	33%	1	7%	0	0%	15
Deforestation A											
Realistic	5	25%	12	60%	3	15%	0	0%	0	0%	20
Quality of Materials	7	35%	7	35%	5	25%	1	5%	0	0%	20
Usefulness of Contents	6	30%	6	30%	6	30%	2	10%	0	0%	20
Usefulness of Package	6	30%	7	35%	6	30%	1	5%	0	0%	20
Workshop Format	5	31%	8	50%	2	13%	1	6%	0	0%	16
Deforestation B											
Realistic	1	9%	5	45%	4	36%	1	9%	0	0%	11
Quality of Materials	3	27%	7	64%	1	9%	0	0%	0	0%	11
Usefulness of Contents	3	27%	5	45%	3	27%	0	0%	0	0%	11
Usefulness of Package	3	27%	3	27%	5	45%	0	0%	0	0%	11
Workshop Format	2	18%	6	55%	3	27%	0	0%	0	0%	11
Waste Disposal A											
Realistic	3	13%	9	39%	5	22%	5	22%	1	4%	23
Quality of Materials	6	26%	6	26%	8	35%	1	4%	2	9%	23
Usefulness of Contents	4	17%	9	39%	5	22%	4	17%	1	4%	23
Usefulness of Package	4	18%	8	36%	7	32%	1	5%	2	9%	22
Workshop Format	5	24%	5	24%	7	33%	3	14%	1	5%	21
Waste Disposal B											
Realistic	1	9%	4	36%	4	36%	2	18%	0	0%	11
Quality of Materials	1	9%	5	45%	5	45%	0	0%	0	0%	11
Usefulness of Contents	1	9%	5	45%	4	36%	1	9%	0	0%	11
Usefulness of Package	0	0%	5	50%	4	40%	1	10%	0	0%	10
Workshop Format	1	11%	4	44%	2	22%	1	11%	1	11%	9
Waste Disposal C											
Realistic	1	6%	7	44%	6	38%	0	0%	2	13%	16
Quality of Materials	4	25%	4	25%	6	38%	2	13%	0	0%	16
Usefulness of Contents	3	19%	6	38%	6	38%	1	6%	0	0%	16
Usefulness of Package	3	19%	5	31%	6	38%	1	6%	1	6%	16
Workshop Format	3	19%	6	38%	6	38%	1	6%	0	0%	16
Tourism											
Realistic	8	50%	1	6%	2	13%	3	19%	2	13%	16
Quality of Materials	4	27%	3	20%	4	27%	2	13%	2	13%	15
Usefulness of Contents	6	38%	3	19%	3	19%	1	6%	3	19%	16
Usefulness of Package	4	29%	3	21%	3	21%	2	14%	2	14%	14
Workshop Format	5	33%	4	27%	1	7%	2	13%	3	20%	15
Transboundary A											
Realistic	19	50%	3	8%	9	24%	4	11%	3	8%	38
Quality of Materials	19	50%	3	8%	9	24%	6	16%	1	3%	38
Usefulness of Contents	19	51%	4	11%	8	22%	3	8%	3	8%	37
Usefulness of Package	18	50%	4	11%	4	11%	6	17%	4	11%	36
Workshop Format	15	50%	1	3%	8	27%	4	13%	2	7%	30
Transboundary B											
Realistic	9	50%	1	6%	2	11%	5	28%	1	6%	18
Quality of Materials	10	50%	0	0%	5	25%	4	20%	1	5%	20
Usefulness of Contents	10	53%	0	0%	3	16%	5	26%	1	5%	19
Usefulness of Package	10	50%	0	0%	3	15%	6	30%	1	5%	20
Workshop Format	9	53%	0	0%	4	24%	4	24%	0	0%	17

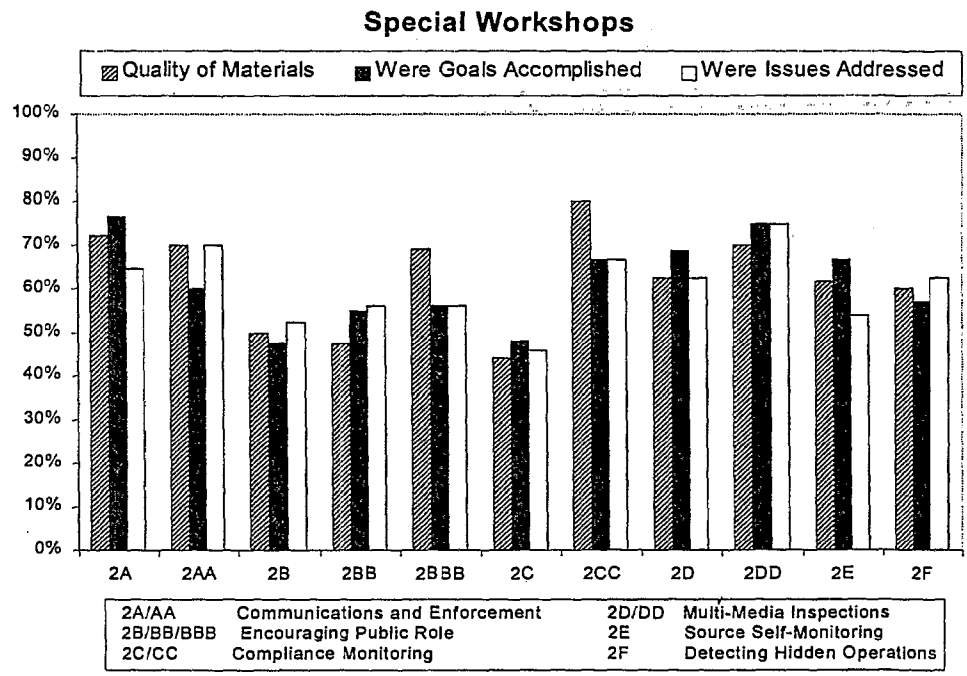


Figure 12. Theme #2 Workshops. This figure shows the overall percentage ratings for "very good" to "excellent" given by the respondents who evaluated the Day Two Morning Workshops

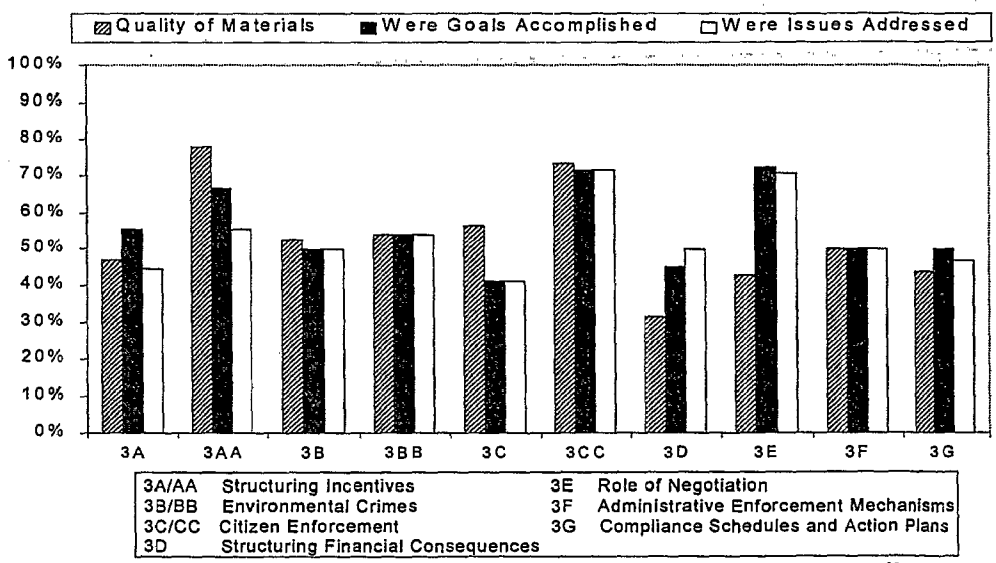
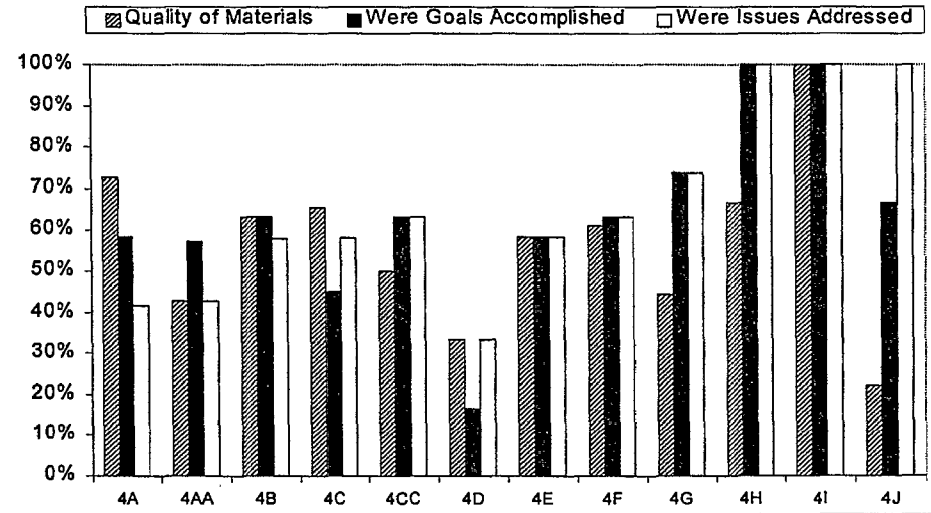
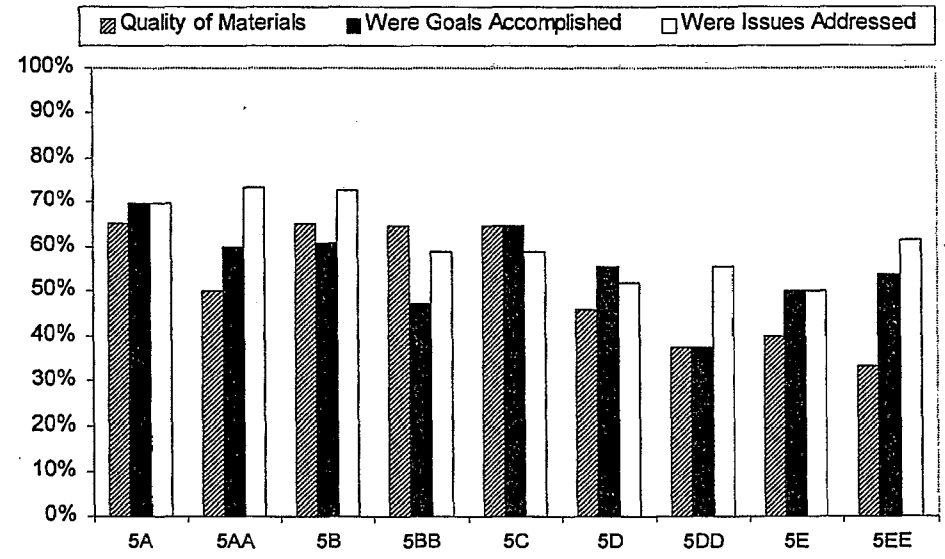


Figure 13. Theme #3 Workshops. This figure shows the overall percentage ratings for "very good" to "excellent" given by the respondents who evaluated the Day Two Afternoon Workshops



4A/AA	Managing Centralized/Decentralized Programs	4F	Government/Municipal/Military
4B	Budgeting & Financing Environmental Compliance	4G	Small & Medium Enterprise Compliance
4C/CC	Training Programs	4H	Mobile Source Compliance Strategies
4D	Compliance Assistance Programs	4I	Non-point Source Compliance
4E	The Science of Enforcement	4J	Geographic or Resource-Based Compliance

Figure 14. Theme #4 Workshops. This figure shows the overall percentage ratings for "very good" to "excellent" given by the respondents who evaluated the Workshops



5A/AA	Illegal Transboundary Shipment	5D/DD	International Enforcement Cooperation
5B/BB	Compliance with International Agreements	5E/EE	Collaborative Targeting
5C	Illegal Shipments of Dangerous Chemicals		

Figure 15. Theme #5 Workshops. This figure shows the overall percentage ratings for "very good" to "excellent" given by the respondents who evaluated the Workshops

9 REGIONAL MEETINGS

One hundred forty-three of the participants responded to the question concerning the four regional meetings: Europe, Americas, Asia and Africa/Middle East. Fifty-seven percent of the respondents from the Regional Meeting for Europe (27), sixty-two percent from the Americas Regional Meeting (25), seventy-five percent from the Asia Regional Meeting (27) and eighty percent from the Africa/Middle East Regional Meeting (14) rated the meetings as very good to excellent. The responses are presented in Figures 16-19.

A few respondents thought the productivity of the regional meetings were a result of good facilitation and discussion (3) while others indicated that the facilitators needed improvement (3). Again, some respondents commented on the limited time for speakers and the meetings themselves (8).

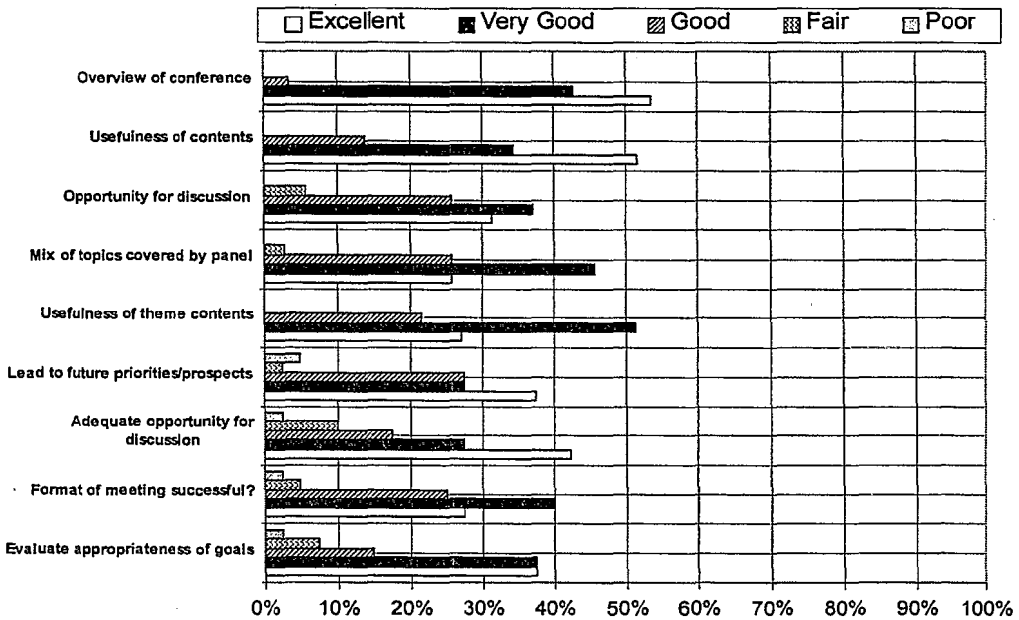


FIGURE 16. ASIA REGIONAL MEETING

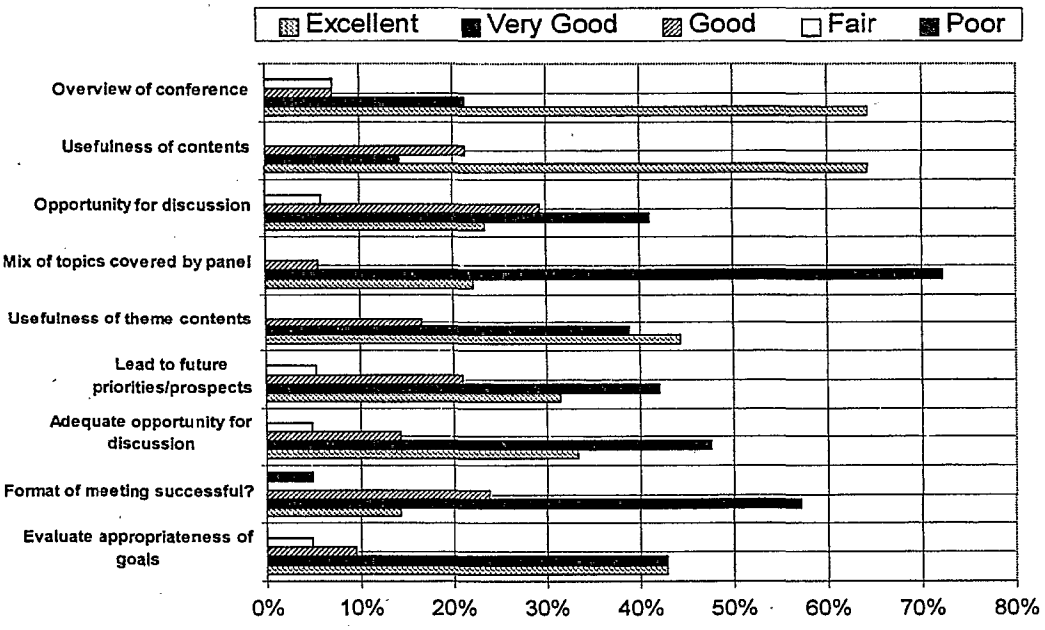


FIGURE 17. AFRICA & MIDDLE EAST REGIONAL MEETING

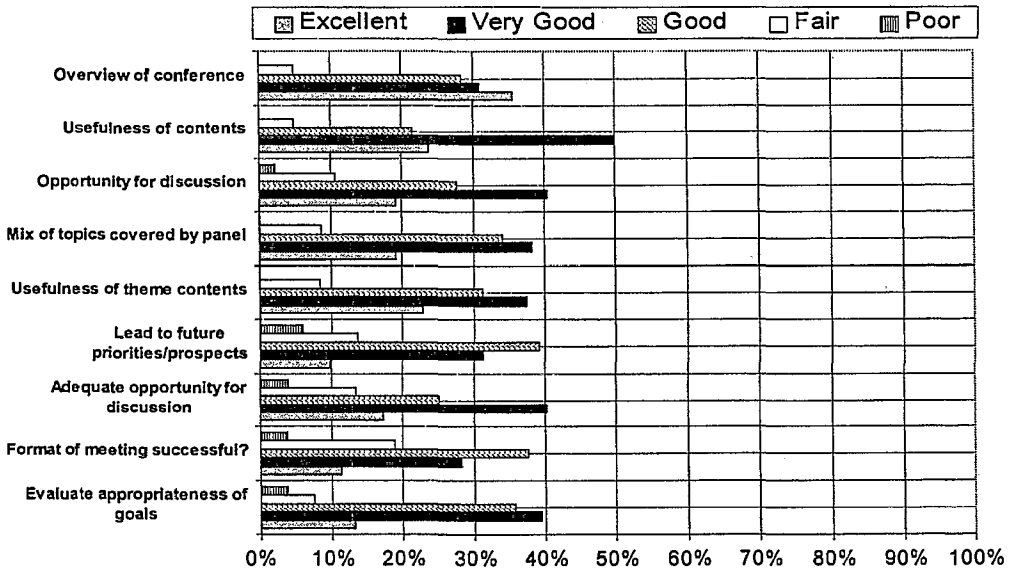


FIGURE 18. EUROPE REGIONAL MEETING

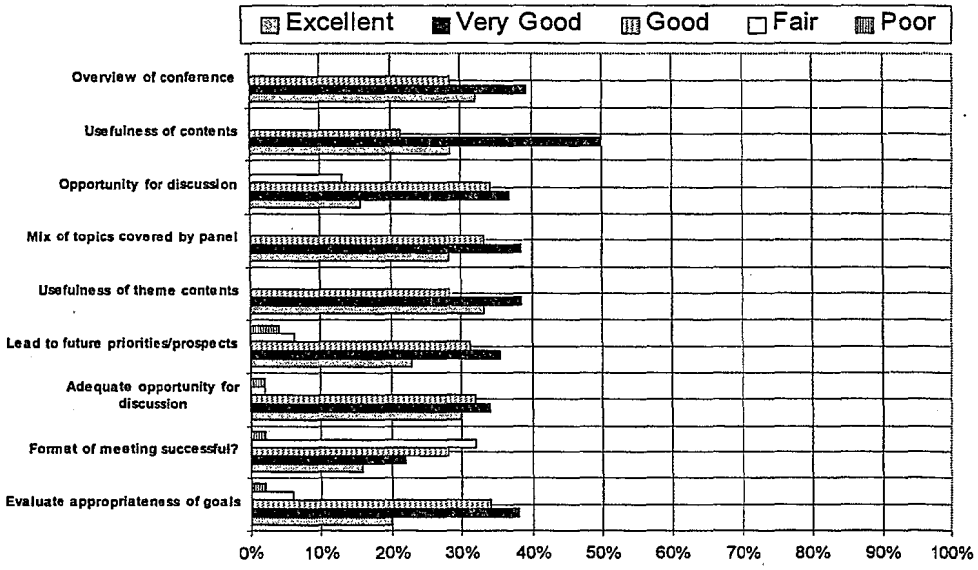


FIGURE 19. AMERICAS MEETING

10 EXHIBITS AND CLINICS

Exhibits provided participants with information about environmental compliance and enforcement issues in different regions. Regional displays included information on networks, institution building projects and programs, as well as country highlights. Demonstration exhibits included computer modeling and INTERNET/Automated Systems support, NGO access to information sites and Inspector/Police training materials. Video displays provided information and demonstrations on communications and training. Sixty percent (110) of the respondents who rated the exhibits and clinics gave a very good to excellent rating as seen above in Figure 4 . The Americas and the Western Europe Regional Exhibits received the highest overall ratings.

Clinics offered participants an opportunity to engage in one-on-one discussions focusing on specific topics. Although a few respondents indicated that the afternoon would have been better spent as a free one (3), others indicated that it would be worthwhile if structured differently to assure greater participation (5).

11 SITE VISITS

For the first time, conference participants had the opportunity to visit selected area sites on the Saturday following the conference. 86 participants signed up for a pre-arranged tour at one of the three sites of interest: a USEPA regional laboratory that analyses compliance samples, Fort Ord, a former military installation that underwent environmental remediation and is now used as a junior college, and a state-of-the art regional sewage

treatment plant and state-of-the-art solid waste management landfill at which a related compliance inspections was enacted. Although not recorded on the evaluation form, remarks were uniformly enthusiastic about the visits with recommendations that this activity become part of future conference programs.

12 ORGANIZATION OF THE CONFERENCE

Seventy-three percent of the respondents who answered this question rated the conference organization as very good to excellent (137). See Figure 20.

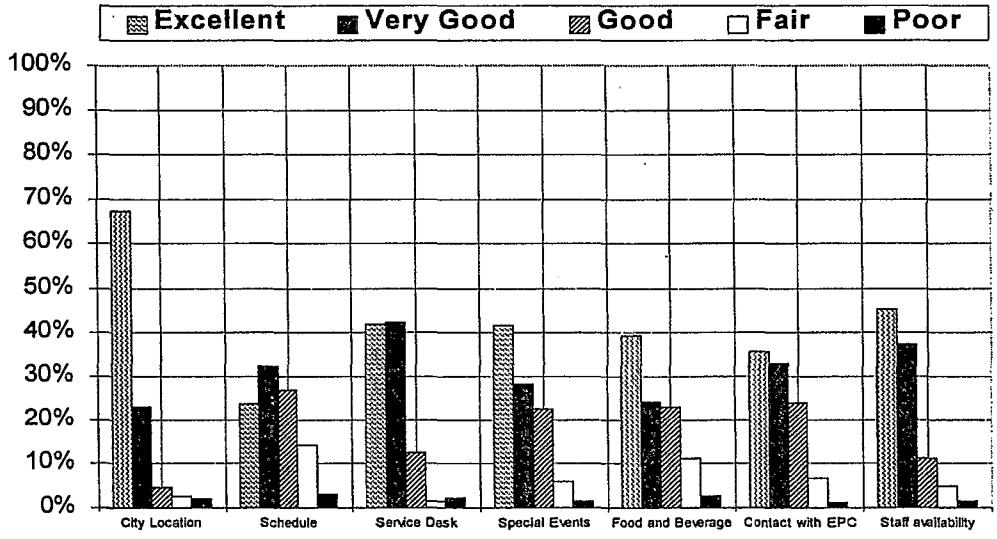


FIGURE 20. OVERALL RATINGS OF THE QUALITY OF THE CONFERENCE ORGANIZATION (187).

Twenty-two of the respondents who answered this question applauded both the quality of the conference and the efforts of the conference organizers. Ninety percent of the participants who answered this question gave the city location of the conference a very good to excellent rating (172). As before, many respondents indicated the lack of free time available to appreciate the surroundings. Some respondents indicated the inadequacy of the hotel staff (6), food (3), location (3), activities (2), and reimbursements (2).

13 NEWSLETTER

The Fifth Conference allowed INECE conference organizers to also assess the first published INECE Newsletter. Of the 111 respondents who evaluated the newsletter, ninety-five percent of the respondents indicated that the newsletter met their expectations (106). When asked to participate in the upcoming newsletter, ninety-percent of the respondents agreed to participate (122), while a few respondents would consider participating if specific issues were addressed (4).

14 FOLLOW UP TO THE CONFERENCE

Ninety percent of the respondents supported future regional conferences (173) and seventy-three percent of the respondents supported another International conference (141). Fourteen participants agreed that the international conference should take place no earlier than two years from now. On the issue of limiting participation, fifteen did not agree with the suggestion of more limited participation at the next international conference, but two cautioned that too many participants results in less individual attention and therefore less opportunity for discussion, information exchange, and capacity building.

Ten respondents specifically encouraged the organizers to continue the strengthening and expansion of the networks, however a number of respondents recommended that INECE should further develop the regional and sub-regional networks before any additional plans were made for another International conference (32). Further recommendations included: focusing on various groups such as developing countries, NGOs, and law enforcement while balancing the various relationships (18), following up with conference participants through establishment of a communication system (9), changing the program and methodology for future conferences (6), and setting up regional secretariats (2).

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The Fifth International Conference on Environmental Compliance and Enforcement in Monterey, California, USA was made possible by the personal and financial contributions of many organizations and individuals. Of course the Conference could not have been the success it was without the very active and thoughtful contributions of all the participants. A special note of thanks must go to the Conference speakers, topic experts, moderators, workshop facilitators and rapporteurs and those who volunteered to offer on-site clinics and prepare papers, all of whom are colleagues making a special effort to share their experiences and help facilitate our exchanges at the Conference. The quality of the workshop summaries is testimony to their hard work on which we will continue to build. Special thanks as well go to those contributing materials for the Conference exhibits which offered a wealth of information and insight on country progress, regional cooperation and NGO networks and which demonstrated exciting new uses of Internet and computer technology for cost-efficient training and support.

The Executive Planning Committee (EPC) to the International Network for Environmental Compliance and Enforcement, INECE, whose membership is listed in these Proceedings, provided leadership and direction in the design of the program, selection of the speakers and topic experts, and identification of individuals from a range of nations who would be in the best positions to share practical experience in environmental compliance and enforcement to improve or develop domestic compliance and enforcement programs, and to engage in ongoing networking, capacity building and enforcement cooperation. The Executive Planning Committee included government and non-governmental representatives from the U.S. Environmental Protection Agency (USEPA), The Netherlands Ministry of Housing, Spatial Planning and the Environment (VROM), the United Nations Environment Program (UNEP IE), the World Bank, the European Commission, the Environmental Law Institute (ELI) and Environmental Law Alliance Worldwide (E-LAW), Canada, Mexico, Brazil, Chile, Costa Rica, United Kingdom (UK), Poland, Czech Republic, Hungary, Ukraine, Egypt, Nigeria, South Africa, India, Malaysia, Thailand, Indonesia, the People's Republic of China and the Philippines.

The Environmental Law Institute (ELI) served as the umbrella organization for Conference funding and organization. Funding of the Conference logistics, planning and workshop development was provided by the conference sponsors: USEPA, VROM, European Commission, UNEP IE, United Kingdom (The Environment Agency for England and Wales), Environment Canada and the Environmental Law Institute with contributions from Jim Compton for the excellent evening event at the inspiring Monterey Acquarium to promote informal networking. Funding of participants was graciously provided by The Netherlands' Ministry of Environment, Department of International Affairs, the World Bank, the U.S. Asia Environmental Partnership, and U.S. Agency for International Development, the Trust for Mutual Understanding, the Ford Foundation and the Commission on Environmental Cooperation (in North America). The latter three contributions were particularly helpful in expanding the participation of NGOs.

Important new capacity building support documents were developed for use during and following the Conference. An International Inspector Training Compendium, Course and Program Comparison was prepared by Science Applications International Corporation (Jack Mozingo and Valerie Breecher) under the technical direction of Ms. Cheryl Wasserman and Mr. Jo Gerardu. A first generation country progress/self assessment format was prepared by Ms. Cheryl Wasserman and Mr. Jo Gerardu in cooperation with the Executive Planning Committee and results compiled by Mr. Tony Descidue of Tetratech Inc. aided by Enterprise Support Associates' data entry and databank reports, and Ms. Susan Casey-Lefkowitz, ELI, in regard to public role for a first draft working report of international status of country compliance and enforcement programs and priorities for capacity building. A new guide entitled: "Citizen Enforcement: Tools for effective Participation", prepared by Ms. Susan Casey-Lefkowitz puts into one place the experiences shared over the past conferences in support of effective public involvement for compliance and enforcement. Finally, an elaborated Internet site (www.inece.org) was developed supported by Ms. Shari Oley of Enterprise Support Associates with all conference proceedings and capacity building documents benefitting from an indexing of all papers and documents prepared from prior Conferences by Science Applications International Corporation (SAIC) under the technical direction of Ms. Cheryl Wasserman.

A substantial number of participants were able to join one of the three optional site visits on the day following the close of the conference. From many accounts this was one of the high points of the Conference as participants expressed to us how impressed they were with state of the art practices which they were able to see first hand, and with the tremendous hospitality they were shown, which made the tours both educational and enjoyable. In particular we note the contributions of Mr. William Merry, District Engineer, Monterey Regional Waste Management District and his staff for the tour of their state-of-the-art solid waste management operation and their creative use of market approaches in the "Last Chance Mercantile" where discarded items are offered for sale. We also note Mr. Keith Israel, General Manager, Monterey Regional Water Pollution Control Agency, and his staff at the state-of-the-art wastewater treatment and reclamation plant, and the contributions of Mr. Ken Greenberg, USEPA's San Francisco Office, who offered his expertise in inspection for the site visit to the Monterey solid waste treatment and sewage treatment plants to the acclaim of about 60 participants fortunate enough to go on this optional site visit on Saturday morning. Mr. Lyle Shurtleff, Community Relations Specialist, International Technology Corporation at the Fort Ord Reuse Authority and his staff for providing an impressive example of military base closure, remediation and reuse. Many of the participants are coping with similar problems of abandoned or closing military installations and the visit to Fort Ord provided an excellent example of how one can safely close, clean-up and make productive future use of sites that have contamination from prior military activities and ensure optimal recycling of residual building materials from on-site demolition. 40 participants were able to visit USEPA's regional laboratory through the courtesy of Carl Kohnert, Peter Husby, Richard Bauer, Liza Finley, Andy Lincoff, Patricia Mack, Jennifer Mann, and Nancy Wilson who offered their expertise on laboratory operations. Our deep appreciation to the directors and their staffs who took time out of their Saturday to provide this experience and certainly one of the high points of the Conference.

Mr. Jo Gerardu of VROM and Ms. Cheryl Wasserman of USEPA were responsible for staffing the Executive Planning Committee, drafting the Conference program, brochure and supporting materials, managing the on-site activities at the Conference and editing the Proceedings, developing the INECE Brochure and Internet Site, and preparing concluding remarks. Ms. Susan Casey-Lefkowitz of ELI, Mr. Jo Gerardu of VROM and Cheryl Wasserman of USEPA served as Project Managers under the funding agreements. Many thanks too, to USEPA's San Francisco Office (Region IX), particularly to Ms. Felicia Marcus, Regional Administrator, Deputy Regional Administrator Ms. Laura Yoshii, Mr. John Wise, and Mr. David Mowday, International Coordinator, who had responsibility for overall coordination of Region IX support to man the registration desk, offer clinics, coordinate site visits, and provide rapporteur support to conference workshops and meetings and press liaison including: Jo-Ann Semones, enforcement coordinator, Laura Fujii, Laura Gentile, Lon Payne, and Sam Farrel, Clyde Morris, Jacques Landy, Ken Greenberg, Pam Tsai, and Paula Bruin.

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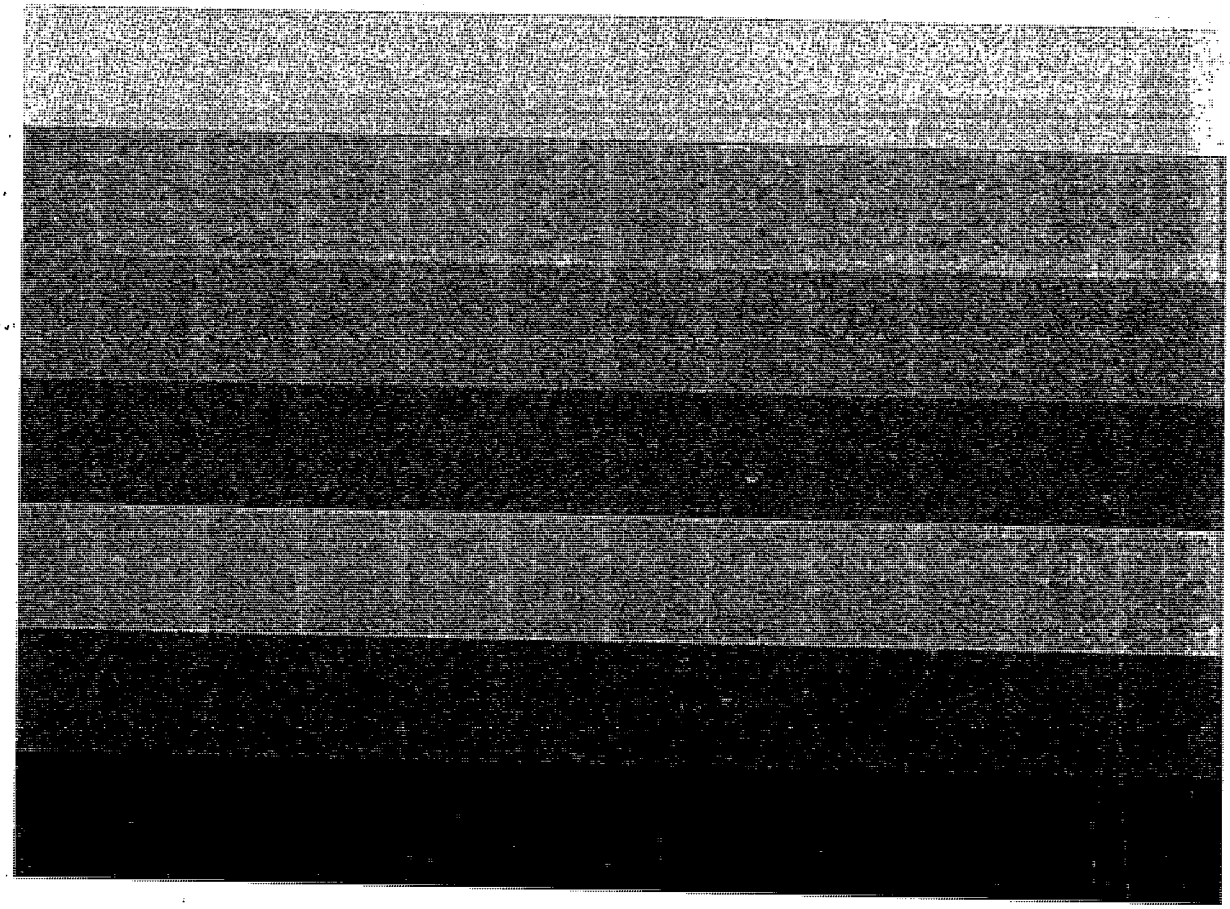

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