INECE

International Network for Environmental Compliance and Enforcement

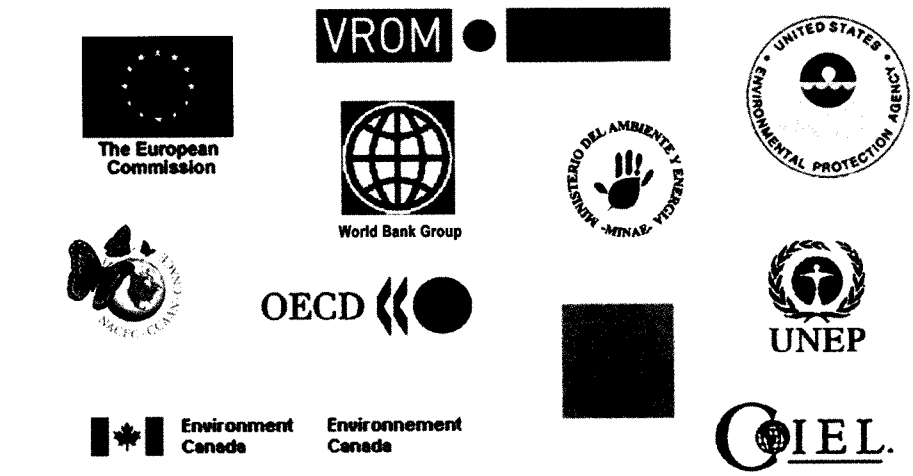
6th International Conference on Environmental Compliance and Enforcement

April 15-19, 2002
San Jose, Costa Rica

Proceedings Volume 2

6th International Conference on Environmental Compliance and Enforcement

San Jose, Costa Rica
April 15 -19, 2002



SIXTH INTERNATIONAL CONFERENCE ON ENVIRONMENTAL COMPLIANCE AND ENFORCEMENT

CONFERENCE PROCEEDINGS
VOLUME 2

April 15-19, 2002
San Jose, Costa Rica

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Sponsors:

Inspectorate of Housing, Spatial Planning and the Environment, The Netherlands
United States Environmental Protection Agency
European Commission
The Ministry of the Environment and Energy of the Republic of Costa Rica (MINAE)
Center for International Environmental Law
The World Bank
United Nations Environment Programme, IE
Environment Canada
Organization for Economic Cooperation and Development
Comisíon Centroamericana de Ambiente y Desarrollo (CCAD)

These Proceedings, Volume 2, include opening and closing remarks, keynote speeches, additional papers, summaries of plenary themes, workshops, site visits, and regional meeting discussions, results of the participant evaluations, the co-chairs Final Conference Statement and a list of participants at the Sixth International Conference on Environmental Enforcement and Compliance, April 15-19, 2002 in San Jose, Costa Rica.

PREFACE

These Conference Proceedings contain papers submitted by speakers, conference participants, and other enforcement professionals dedicated to achieving the environmental compliance and enforcement goals discussed during the Sixth International Conference on Environmental Compliance and Enforcement held in San Jose, Costa Rica, April 15-19 2002. These papers are made available to all enforcement practitioners throughout the world to further the dialogue in this important discipline. For the first time, the web played an integral role in providing information to conference participants and distributing the results of the Conference to other compliance and enforcement stakeholders. These materials are also available through the Web site of the International Network for Environmental Compliance and Enforcement (www.inece.org) where papers presented in San Jose are indexed by topic along with papers presented at the first five conferences, and Volume 1 of the proceedings from this Sixth International Conference.

The Sixth International Conference brought enforcement professionals together to share experiences and make plans to take the environmental compliance and enforcement fight to the next level. In addition, INECE made a conscious decision to focus on enhancing regional cooperation and networks, adopting new methods for measuring success, and generally raising awareness about the importance of compliance and enforcement efforts. Conference accomplishments included:

- Hosting a successful pre-conference workshop on *"Environmental Issues of Importance to Costa Rica and other Central American Countries for Local Professionals"*, in Spanish, for 90 local compliance and enforcement practitioners on Saturday, April 13, 2002.
- Hosting 172 Conference participants from more than 80 countries and organizations, including 37 who were assisted with outside funding.
- Presenting ten plenary panels with 35 speakers, 22 workshops with 59 facilitators and rapporteurs, and six regional meetings.
- Publishing Volume 1 of the Conference Proceedings in print and electronic formats.
- Drafting and presenting the Conference Statement from the Co-Chairs.
- Reviewing and discussing Annotated Outline on Compliance and Enforcement Indicator project, including two workshops, as well as a specially scheduled breakfast meeting.
- Reviewing and discussing draft list of project for INECE Strategic Plan.
- Arranging field visits to six sites, with local experts as guides, and providing written case studies.
- Posting presentations and other Conference documents on the INECE.org web site every evening during the Conference.
- Video taping all plenary sessions of the Conference.
- Providing a Cyber Café with ten high-speed Web connections and other business services.
- Hosting a Press Conference for Co-Chairs with resulting news story in *The Tico Times*.
- Presenting copies of the best-selling text on International Environmental Law & Policy to all participants, along with a Treaty Viewer CD with over 70 environmental treaties in a searchable

database by i-Sciences and the World Resources Institute.

For more information on these and other Conference accomplishments, please visit http://www.inece/conf/accomplish6th.htm

In addition to the anticipated accomplishments listed above, several additional accomplishments resulted from the rich networking opportunities at the Conference, including:

- Forming the INECE International Network for Environmental Prosecutors.
- Agreeing on funding from the European Commission to support follow-up planning for regional networks in Africa, Asia, and South America.
- Agreeing on INECE partnership with UNEP to host the Global Judicial Symposium at the WSSD in Johannesburg, South Africa, in August.
- Agreeing on funding from the European Commission for the Global Judicial Symposium.
- Establishing the Asian Environmental Compliance and Enforcement Regional Network, with funding for initial meeting committed by the Ford Foundation.
- Hosting various side meetings at the Conference, including meetings by Prosecutors, NGOs, Inspectors, Judicial Symposium organizers and funders, African meeting with World Bank and UK, and an additional session on INECE Compliance and Enforcement Indicators.

Ultimately, the success of the Sixth International Conference was built upon the strength of the individual commitments renewed in San Jose, the durability of the bonds that are forged between local, regional, and international networks and interests, and the vision contained in the strategic plan that will guide INECE over the coming years. For the first time, the Sixth International Conference prepared a Conference Statement that was submitted to the World Summit on Sustainable Development. In addition to the Conference Statement, the draft Strategic Plan was discussed, including the planned efforts to fulfill the INECE goal of fostering and strengthening regional enforcement networks within Africa, Asia and Latin America. These networks will benefit from the experience of current INECE partner networks such as the European Network for Implementation and Enforcement of Environmental Law (IMPEL) and AC-IMPEL, its sister organization serving the accession countries to the European Union.

On behalf of the Executive Planning Committee and the Secretariat staff, we look forward to your continued and productive use of these conference materials. Comments and suggestions should be sent to the INECE Secretariat by email at inece@inece.org or by fax to 1-202-249-9608 or by mail to 1367 Connecticut Avenue, NW, Suite #300, Washington, DC 20036.

THE EDITORS

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CO-CHAIR FINAL CONFERENCE STATEMENT

Sixth International Conference on Environmental Compliance and Enforcement

San Jose, Costa Rica, April 19, 2002

INTRODUCTION

1. As the international community prepares to meet in Johannesburg for the World Summit on Sustainable Development from 26 August to 4 September 2002, the need to strengthen environmental enforcement and compliance continues to be a dominant theme. There is a growing recognition that past environmental lawmaking has not sufficiently arrested environmental degradation and that enforcement and compliance must become a priority in the coming decades. Building the capacity to carry out the needed enforcement and compliance initiatives requires global cooperation.

2. One key actor in this effort will be the International Network for Environmental Compliance and Enforcement (INECE), a global network of practitioners that has done pioneering work in this field since its founding in 1990 by the environmental agencies in the Netherlands and the United States, in partnership with UNEP, the European Commission, the World Bank, OECD and others. The INECE Co-Chairs are Gerard Wolters, Inspector General, the Ministry Inspectorate of Housing, Spatial Planning, and the Environment, The Netherlands, Sylvia Lowrance, Acting Assistant Administrator for Enforcement and Compliance Assurance, U.S. Environmental Protection Agency; and Charles Sebukeera, Director, Department of Environmental Monitoring & Compliance, National Environmental Management Authority, Uganda.

3. The Sixth INECE Conference was held in San Jose, Costa Rica from April 15-19, 2002 and featured a full program of panels, workshops and field visits for the participants selected to attend this event. Mr. Wolters, Ms. Lowrance, and Mr. Sebukeera served as the Co-Chairs of the Conference, and issued this Conference Statement affirming the critical role environmental compliance and enforcement must play in achieving the rule of law, good governance, and sustainable development.

4. The conference participants acknowledge the assistance and support of the Costa Rican government and express their deep gratitude for the generous hospitality provided, including the cultural event at Pueblo Antiguo, and the field visits to explore and appreciate the natural environment and its management for which the country is so justly renowned.

5. The conference participants also acknowledge the assistance and support of the organizations providing financial and other assistance for the Conference, including the Ministry of Housing, Spatial Planning & the Environment in The Netherlands, the U.S. Environmental Protection Agency, the European Commission, the World Bank, the NAFTA Commission for Environmental Cooperation, Environment Canada, and the

International Fund for Animal Welfare, as well as the embassies of the United States and The Netherlands.

6. The conference participants also thank the governments, agencies, international organizations, and non-governmental organizations that have, since the Rio Earth Summit, supported enforcement and compliance efforts, and express the hope that they, as well as others in a position to do so, will continue to support the implementation of measures aimed at enhancing and strengthening enforcement and compliance of environmental laws at the national, regional, and international levels.

THE ENFORCEMENT GAP

7. Despite a growing body of environmental law at the national and international level — more than 300 international and regional agreements have been developed in the thirty years since the 1972 Stockholm conference — measures of environmental quality show continuing degradation across a broad spectrum, with serious consequences for ecosystems and public health, as well as the rule of law and good governance. A telling example is the substantial mortality from lack of clean water, lack of clean air, and other forms of industrial pollution.

8. While poverty is a major cause and consequence of environmental degradation and calls for urgent remedial action, the failure to invest in the strengthening of enforcement and compliance programs is a key reason for the continuing degradation of environmental quality.

9. The Capacity Development Initiative of UNDP and the Global Environmental Facility concludes that there is a need to strengthen domestic capacity to enforce laws and policies to implement global environmental conventions. The enforcement gap is pointedly illustrated by the Convention of International Trade in Endangered Species (CITES): of the 154 parties, 76 are believed generally not to meet one or more of the requirements for implementing CITES. Without stronger enforcement and compliance, CITES cannot succeed in protecting endangered species, nor can the other conventions. This situation is repeated in other agreements at the international, regional, and national level, and is unacceptable if we hope to leave a positive environmental legacy for future generations.

MANDATE TO STRENGTHEN ENFORCEMENT

10. The need to address the enforcement gap was recognized at the Rio Earth Summit in Agenda 21, Chapter 8, which specifically directs that States develop their compliance and enforcement capacity; in the European Commission's effort with the current twelve accession countries and in the recent 6th Community Environmental Action Program; in the Ministerial Communiqué from the Meeting of Environment Ministers of the Americas, held in Montreal, Canada March 29-30, 2001; in UNEP's final MONTEVIDEO III PROGRAMME, adopted in February 2001; in UNEP's Guidelines for Compliance and Enforcement, adopted February 15, 2002 in Cartagena, Columbia; and in the G-8 MINISTERS STATEMENT ON ENVIRONMENTAL ENFORCEMENT, INTERNATIONAL COOPERATION, AND PUBLIC ACCESS TO INFORMATION, issued in 1997 in Miami, U.S.A.

11. Most recently the preparatory discussions for the upcoming World Summit on Sustainable Development recognize the important role of enforcement and compliance in sustainable development governance and cite the need to "promote the establishment or strengthening of existing authorities and mechanisms necessary for policy-making, coordination and enforcement" and "develop and maintain effective legal systems, including strong and clear laws related to compliance, monitoring, enforcement, and for citizen participation."

BENEFITS OF ENFORCEMENT

12. Protection and maintenance of our life-sustaining natural ecosystems is the fundamental benefit realized from addressing the enforcement gap. These benefits generally outweigh costs, especially when the ecosystem benefits are considered along with the resulting benefits to public health, enhanced respect for the rule of law, improvements in governance, and improvements in the competitiveness of countries and firms, as well as new jobs and assistance in combating unemployment.[1]

EXPANDING ROLE FOR INECE

13. The growing emphasis on enforcement and compliance is expected to increase the demand for a more active involvement of INECE and the enforcement practitioners who participate in the network from 130 countries. These practitioners come principally from governments, but also from NGOs and academia.

14. The INECE mission is to strengthen enforcement and compliance at the national, regional and international levels, thereby contributing to the strengthening of the rule of law and good governance. INECE is the only global environmental network exclusively dedicated to this critical mission. Its goals are to:

    a. Strengthen institutional capacity, *inter alia,* by exchanging experience and developing best practices,

    b. Develop effective interlocking networks at the national, regional and international levels, and

    c. Raise awareness of the importance of environmental enforcement and compliance.

15. The accomplishments of INECE include the landmark INECE PRINCIPLES OF ENVIRONMENTAL ENFORCEMENT issued in 1992 to "help individuals responsible for environmental protection in difference countries, regions and localities design and implement compliance strategies and enforcement programs." Other accomplishments include the conference proceedings from the six INECE international conferences, training materials, the INECE Web site and the INECE Newsletter.

16. These accomplishments are mirrored in the efforts of regional enforcement and compliance networks, most notably the work of the European Network for the Implementation and Enforcement of Environmental Law (IMPEL), the AC-IMPEL, comprised of candidate countries to the European Union, New Independent States Environmental Compliance and Enforcement Network (NIS-ECEN), the BERCEN network, comprised of Balkan countries, and the North American Working Group on

Environmental Enforcement and Compliance Cooperation of the Commission for Environmental Cooperation.

17. Continuous efforts are required to be undertaken by all countries and relevant organizations and operational agencies, including local governmental agencies and non-governmental organizations, concerned with ensuring the effective implementation and enforcement of national, regional, and international environmental law. INECE will play a vital role in these efforts.

18. The Internet is an important and valuable part of INECE's efforts to establish national, regional and international networks, promote their cooperation, build capacity around the world, link the society of environmental practitioners, and raise awareness of the importance of enforcement and compliance.

CALL TO ACTION

19. Therefore, the Co-Chairs of the Sixth International Conference of the International Network for Environmental Compliance and Enforcement:

a. *Urge* the International Community, through the World Summit on Sustainable Development and other related meetings, to reaffirm the commitment to strengthening environmental enforcement and compliance as an essential part of sustainable development governance;

b. *Appeal* to developed countries to provide necessary resources and technical assistance, on request, to developing countries to strengthen their enforcement capacity and performance;

c. *Encourage* INECE to continue expanding its training and capacity building initiatives, and to strengthen its partnerships with international, regional, and national organizations, as well as NGOs and academic institutions, with a view to pooling their respective comparative advantages, avoiding duplication and optimizing the use of available resources;

d. *Reaffirm* INECE's commitment to strengthen and develop regional networks, especially in Africa, Latin America and Asia;

e. *Recognize* the important role non-governmental organizations can play in enforcement and compliance, as independent actors and as adjuncts to government enforcement and compliance efforts;

f. *Call* upon INECE to develop uniform minimum criteria and pilot test INECE Environmental Compliance and Enforcement Indicators, in cooperation with regional networks, with a view to improving performance, public policy decisions, and environmental governance globally, as well as the quality of the environment;

g. *Note* that, INECE, in partnership with UNEP, is planning a Global Judicial Symposium in conjunction with the forthcoming World Summit for Sustainable Development, with the view to promoting networking initiatives and international cooperation amongst members of the judiciary in order to more fully integrate national environmental governance and sustainability principles into the judicial process;

h. *Commit* INECE to build upon its accomplishments, including its conferences, newsletters and Web site, and to develop new products and services, including new

ways to disseminate information through continuing expansion of the INECE Web site and other appropriate means;

i. *Draw the attention* of the World Summit on Sustainable Development to INECE's accomplishments and its future efforts, noting in particular the contribution that INECE Enforcement Indicators can make to the need for the International Community to measure progress under Agenda 21, including at future summits, and request cooperation with INECE in accomplishing these critical goals; and

j. *Request* the INECE Secretariat to forward this Conference Statement to the World Summit on Sustainable Development, as well as to other relevant national, regional, and international institutions and meetings; and

k. *Also request* conference participants to promote the Conference Statement within the process of the World Summit on Sustainable Development, and subsequently, in their own national systems, with a view to strengthening and enhancing environmental enforcement and compliance at the national, regional, and international level.

April 19, 2002, San Jose, Costa Rica

[1] The Benefits of Compliance with the Environmental Acquis for Candidate Countries (2001); Esty & Porter, Measuring National Environmental Regulation and Performance, in THE GLOBAL COMPETITIVENESS REPORT 2001-2002 (Oxford 2001); Pratt, Rethinking the Private Sector-Environment Relationship in Latin America, Inter-American Development Bank Annual Meeting (March 25, 2000); and Dowell, Hart & Yeung, Do Corporate Global Environmental Standards Create or Destroy Market Value?, 46 MANAGEMENT SCIENCE 2000.

CONFERENCE PROGRAM

Sixth International Conference on
Environmental Compliance and Enforcement

Real Intercontinental Hotel
San Jose, Costa Rica
April 15-19, 2002

INTRODUCTION AND WELCOME

As the international community prepares to meet in Johannesburg for the World Summit on Sustainable Development, the need to strengthen environmental enforcement and compliance is emerging as an important theme. This follows the growing recognition that decades of environmental lawmaking have not sufficiently arrested environmental degradation, and that enforcement and compliance must become a priority in the coming decades. Building the capacity to carry out the needed enforcement and compliance will require global cooperation. One key actor will be the International Network for Environmental Compliance and Enforcement (INECE), a global network that has done yeomen's work in this field since its founding in 1990 by the Netherlands and United States environmental agencies, in partnership with the European Commission, The World Bank, United Nations Environment Programme (UNEP), the Organization for Economic Co-operation and Development and others.

The Conference will meet its purpose and goals through five days of plenary discussion, participatory workshops, exhibits, and regional meetings. The Conference will be co-chaired by Ms. Sylvia Lowrance, Acting Assistant Administrator for Enforcement and Compliance Assurance, United States Environmental Protection Agency, Mr. Gerard Wolters, Inspector General, Ministry of Housing, Spatial Planning and the Environment, the Netherlands, and Mr. Charles Sebukeera, Director, National Environment Management Authority, Uganda. Conference moderators, presenters, facilitators and participants are drawn from all regions of the world to represent a wide variety of approaches to and strategies for environmental compliance and enforcement.

The Conference program is designed around six themes:

Theme 1 The INECE Mission: Environmental Results Through Enforcement

Theme 2 Ensuring Effective Environmental Enforcement Through Institutional Capability and Performance Assessment

Theme 3 Raising Awareness: The Importance of Environmental Compliance and Enforcement

Theme 4 Case Studies: Visits to the Field

Theme 5 Constructing Effective Interlocking Networks at the Country, Region and Global Levels

Theme 6 Sustainable, Effective Regional Networks

Many participant countries and organizations will offer exhibits and demonstrate new advances in training, technology, and communications related to environmental compliance and enforcement. On Wednesday, participants will take field trips to compliance and enforcement projects throughout Costa Rica. Regional meetings on Thursday afternoon and Friday morning are designed to develop regional elements for INECE strategic plan. Participants will: identify existing relevant networks to engage, critical environmental challenges, and specific project needs; explore enforcement indicators and assessment methodology; and communicate ways to benefit from technology and the Web. A closing plenary session will charter future directions for INECE.

Durwood Zaelke, Director
INECE Secretariat

SATURDAY, APRIL 13TH

8:30 – 15:00

PRE-CONFERENCE WORKSHOP:

Environmental Issues of importance to Costa Rica and other Central American countries for local professionals. (Locally co-sponsored event conducted in Spanish, with limited English translation).

TALLER PRELIMINAR: Dirigido a profesionales de la región sobre temas ambientales de importancia para Costa Rica y los demás países centroamericanos. (Evento co-auspiciado y conducido en español, con traducción al inglés limitada)

12:00 – 16:00

REGISTRATION

16:00 – 18:00

RECEPTION:

Dutch Ambassador's Residence (invitation only)

EXHIBITS THROUGHOUT THE WEEK

SUNDAY, APRIL 14TH

9:00 – 17:15

PRINCIPLES OF ENVIRONMENTAL COMPLIANCE AND ENFORCEMENT:

This course is one of a series designed to build capacity for implementing environmental management programs in a variety of governments and cultures. Its format and content stimulate participants to think creatively about how to translate national goals, laws, and requirements into actions that effectively changes behaviour in society as to achieve the desired environmental results. (Tom Maslany and Susan Bromm, USEPA and others)

10:30 – 12:30

BUSINESS MEETING:

INECE Executive Planning Committee

12:30 – 13:30

LUNCH FOR EPC MEMBERS

12:00 – 18:00

REGISTRATION

17:00 – 18:00

TRAINING SESSION FOR WORKSHOP FACILITATORS

19:00 – 21:00

WELCOME RECEPTION

at Hotel for all participants

DINNER:

On your own

MONDAY, APRIL 15TH

Day Chair: Sylvia Lowrance,
Acting Assistant Administrator,
Office of Enforcement and Compliance Assurance, USEPA

OPENING PLENARY SESSION

8:30 – 8:45

WELCOMING REMARKS

The Honorable Dr. Miguel Angel Rodriguez-Echeverria, President of the Republic of Costa Rica (invited)

8:45 – 9:00

INTRODUCTION

by Sylvia Lowrance, *Day Chair*

Opening Conference Statement, Introduction to INECE, Conference Goals, Strategic Plan, Review Process

9:00 – 9:15

KEYNOTE ADDRESS

The Honorable Elizabeth Odio-Benito, Second Vice President and Minister of the Environment and Energy of the Republic of Costa Rica (invited)

THEME 1

The INECE Mission: Environmental Results Through Enforcement

9:15 – 10:15

PANEL 1:
The Role of Institutions and Networks in Environmental Enforcement

This panel will provide institutional perspectives on the merits of networks and explore ways for institutions to work with INECE to make it more successful in the future. The panellists will provide the viewpoint from their organizations and the results that have been achieved.

Moderator: Michele de Nevers, The World Bank

- Donald Kaniaru, United Nations Environment Programme
- George Kremlis, European Commission
- Antonio Benjamin, Brazil

10:15 – 10:45

COFFEE BREAK

10:45 – 11:45

PANEL 2:
The Regional Network Experience

This panel will highlight examples of regional networks that have successfully supported environmental compliance enforcement and will focus on achieving global environmental results through regional and local efforts. Perspectives from the Africa, North America and Central Europe will be highlighted.

Moderator: Carlos Manuel Rodriguez, Costa Rica

- Antonio Azuela, Mexico
- Jonathon Alloty, Ghana
- Krzysztof Michalak, OECD

THEME 2:

Ensuring Effective Environmental Enforcement Through Institutional Capability and Performance Assessment

11:45 – 12:45

PANEL 3:
Organizing for Environmental Compliance and Enforcement

This panel will examine the issues of "good governance" that are intimately tied to the fair, predictable and consistent application

of the law by enforcement officers. Panellists also will explore mechanisms and strategies for developing well-written, enforceable legal requirements.

Moderator: Adriana Bianchi, The World Bank

- Maria Eugenia DiPaola, FARN Argentina
- John Cruden, USDOJ
- Waltraud Petek, Austria

Ms. Di Paola will present an analysis of environmental enforcement in Argentina that focuses on hazardous waste law and considers unique national challenges. She concludes that coordination between national and provincial governments is critical to effective enforcement in a federal country and public participation and transparency play critical roles.

Mr. Cruden will discuss the importance of strong environmental enforcement within the context of "good domestic governance." Based on his experience as a senior environmental official at the US Department of Justice, he will elaborate upon those particular mechanisms, institutions and policies which are critical to achieving effective enforcement at the federal level.

Ms. Petek will discuss constitutional, legislative, and administrative policies that shape the development of clearly defined environmental requirements. The law-making process should include all relevant stakeholders and must consider new knowledge and emerging technologies. The enforcement authorities must have the proper tools—including procedures, compliance monitoring mechanisms, statutory reporting requirements, and criminal and civil sanctions—to act effectively.

12:45 – 14.00

LUNCH AT HOTEL

14:00 – 15:00

PANEL 4:
Raising Awareness and Measuring Results — How to Define Success

This panel will explore the difficulties involved with defining the success or failure of environmental enforcement initiatives and discuss environmental enforcement indicators.

Moderator: Lambert Verheijen, North Brabant, The Netherlands

- Michael Stahl, USEPA
- Brad May, Environment Canada

Mr. Stahl will discuss the development of improved performance indicators for USEPA's national enforcement and compliance assurance program. In an attempt to move beyond evaluating performance based on number of program activities (e.g., inspections and enforcement actions conducted each year), USEPA has developed and implemented a set of performance indicators that measure environmental results achieved (e.g., pounds of pollutants reduced, improvements in environmental management practices by facilities). Mr. Stahl will present USEPA's phased approach: identify indicators, design and implement indicators, report indicators to public, and use indicators to improve programs.

Mr. May will argue that measuring the success of environmental enforcement is one of the more elusive, yet fundamental parts of a successful regulatory program. Success goes beyond mere measurement of the actual level of fines and penalties, and must include more creative approaches. Mr. May will illustrate through case studies how innovative sentencing is one way to achieve measurable success in national regulatory programs.

15:00 – 17:00

WORKSHOPS

(Coffee break in workshop rooms)

1A Measuring Success Through Performance: Defining Environmental Enforcement Indicators

This Workshop will consider: activity measures that document enforcement outputs; levels of compliance and behavioral change achieved in key target populations; outcome measures for improved environmental and public-health results and relates to national priorities, and; levels of support provided both to the regulated community as compliance assistance, and to enforcement partners (e.g., sub-national units of government including those of indigenous peoples).

a. Mike Stahl, USEPA

b. Krzysztof Michalak, OECD

1B 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.

a. Wout Klein, VROM

b. Chris Currie, Canada

1C Building Effective In-Country Networks for Environmental Compliance and Enforcement

This workshop will explore networks among complementary organizations within a country, and how they work together to more efficiently carry out compliance and enforcement objectives. The Workshop will identify a set of elements that lead to successful in-country networks, as well as reveal some of the potential difficulties that may be anticipated.

a. Greg Linsin, USDOJ

b. Neil Emmott, Environment Agency, UK

1D The Negotiation Process Leading to Compliance

This Workshop will consider the settlement negotiation process and resulting compliance agreements, schedules, and action plans. Emphasis will be placed on the art and science of selling the 'social good' behind the law, and how it may be used to trigger alternative modes and techniques of environmental compliance and enforcement. The Workshop will result in a set of themes that are designed to achieve positive compliance results through the negotiation process.

a. Tom Maslany, USEPA

b. Tony Oposa, Philippines

1E Training Programs for Compliance Inspectors

This workshop discussion will concentrate on ensuring the appropriate level of training for compliance inspectors. Although some regional networks (e.g. IMPEL) have made progress, there is no internationally recognized benchmark setting the level of competencies and skills for enforcement practitioners. This discussion will identify the opportunities and constraints (national and international) in organizing training for inspectors, investigators and legal personnel and identify a potential role for INECE.

a. Markuu Hietamaki, Finland

b. Erin Heskett, IFAW

1F Environmental Offenses: Criminal and Civil

Internationally, the role for criminal enforcement is widely 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.

a. Jose Pablo Gonzalez, Costa Rica

b. James Lofton, USDOJ

19:00 – 21:30

DINNER AT HOTEL

Guest Speaker: Ambassador Franz Tattenbach, Costa Rican Ambassador to the United Nations Framework Convention on Climate Change

TUESDAY, APRIL 16TH

Day Chair: Gerard Wolters, Inspector General, Ministry Inspectorate of Housing, Spatial Planning and the Environment (VROM)

THEME 3

Raising Awareness: The Importance of Environmental Compliance and Enforcement

9:00 – 10:00

PANEL 5:
Economic Instruments and Voluntary Measures

This panel will explore voluntary compliance mechanisms, including building public support and partnerships and encouraging voluntary compliance by industry. Panellists will offer a public interest perspective and consider cost-effective ways to achieve adherence with environmental requirements through agreement and partnership. Panelists will explore governmental response to private sector environmental management systems, considering the views of the regulated community toward traditional enforcement approaches.

Moderator: Susan Bromm, USEPA

- Lorenzo Thomas, Mexico
- Lawrence Pratt, INCAE, Costa Rica
- Beatrice Olivastri, Friends of the Earth, Canada

Mr. Thomas will discuss the new vision for Mexico's National Environmental Auditing Program, which recognizes environmental auditing as a useful tool for small and medium size industries to identify needs and improve environmental performance and compliance with the laws. The new program promotes voluntary mechanisms as a tool to improve competitiveness in the international markets.

Mr. Pratt will discuss how environmental regulators worldwide are seeking to identify a wide variety of means to bring about improved environmental performance and compliance with environmental laws and regulations, including so-called "voluntary agreements" whereby firms or industries agree to meet certain goals and objectives as a positive step toward reaching improved environmental performance and compliance. Mr. Pratt will raise awareness to the formidable obstacles to improved performance faced by companies in the developing countries. This presentation seeks to explain some of the dynamics between reaching voluntary agreements and recommendations for opportunities and initiatives for regulators.

Ms. Olivastri will discuss opportunities and challenges for public participation in non-regulatory initiatives. She will share a set of principles that have been developed by a multi-stake holder group to build credibility for voluntary measures.

10:00 – 10:30

COFFEE BREAK

10:30 – 12:30

WORKSHOPS

2A Encouraging Public Role in Compliance Monitoring and Impact of Public Access to Environmental Information

This workshop will examine mechanisms for promoting public involvement in compliance monitoring. The underlying issues includeconstitutional and human rights, nature of public involvement, practical reasons for public involvement in compliance monitoring, difficulties encountered and other requirements and institutional practices to ensuring that citizens have access to relevant information.

a. Carl Bruch, Environmental Law Institute

b. Geoff Garver, Commission on Environmental Cooperation

2B Government Programs to Encourage and Respond to Public Involvement in Enforcement

This Workshop will identify Government programs and implementing methodology that encourage the public to participate in the enforcement process. The Workshop will result in strategies for more meaningful public participation and identify ways for INECE to assist capacity building.

a. Patricia Madrigal, Costa Rican Environmental Law Association

b. Maria Comino, Australia

2C Promoting Voluntary Compliance: Environmental Auditing and Outreach and Incentives for Private Sector Compliance, Communicating Enforcement Success to Encourage Voluntary Action

This workshop will examine 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 will also examine 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.

a. Tony Oposa, Philippines

b. Lorenzo Thomas, Mexico

2D Self-Monitoring Data: How to Ensure Accuracy and Integrity

This workshop will discuss the key opportunities and barriers in establishing appropriate regulatory procedures along with sufficient incentives, for enterprises to provide good quality information using self-monitoring. The ways to establish mechanisms for ensuring quality data (e.g. by requiring self-monitoring only in facilities with the appropriate technical capability and developing quality control standards for monitoring and record keeping will be

discussed along with the ways to reduce the possibilities for falsification of data. The workshop will also address the role of self-monitoring in reviewing compliance with environmental permits and its comparability and links to environmental information systems developed by the governments. Furthermore, we will aim to identify the ways to encourage industry to invest and maintain self-monitoring equipment.

a. Markuu Hietamaki, Finland

b. Krzysztof Michalak, OECD

2E Environmental Information Systems: Institutional Requirements for Collection, Management and Access

This workshop will consider different information systems currently in use, their role in environmental management, their strengths and weaknesses. What data is necessary to ensure an adequate decision making process and how it should be collected and managed? How one could meet the challenge of ensuring public access to the information and what the related limitations are. What new technologies can we adopt to reduce our workload and increase our efficiency; are they reliable and equally feasible in developed and developing countries? What needs for international exchange of information among enforcement agencies exist and how INECE may be instrumental in satisfying such needs?

a. Robert Choinard, Quebec, Canada

b. Piet Muskens, The Netherlands

2F Information Management and Enforcement: Ensuring Effective Application at the Working Level

This workshop will discuss methods to identify the needs of users of information and develop systems responsive to their specific tasks, functions, roles, decisions and problems. Participants will share ideas on data, the Web, geographic information systems (GIS) and satellite remote sensing. The Workshop will result in recommendations for applying technology at the working level to lead to more protective, sustainable, measureable and cost-efficient decisions.

a. Kenneth Markowitz, INECE Secretariat

b. Gil Nolet, Inter-American Development Bank

12:30 – 14:00

LUNCH

14:00 – 15:00

PANEL 6:
Information Collection, Standards, Sharing, Access, Credibility and Use

This panel will discuss information management needs and present ideas on data systems that assist enforcement persons. The panel will address the management and accessibility of data and information as well as the issues of public access.

Moderator: Terrence Shears, European Commission

- Adele Cardenas, USEPA
- Achmed Santosa, Indonesia
- Hua Wang, World Bank

Ms. Cardenas will discuss the alignment of EPA Performance Track and Texas Clean Industry program to support the development of environmental management system that limit waste and pollution and encourage recycling. He will also discuss Electronic Data Plans (Eplans), which provides immediate access to current facility information, and data for first responders and Performance Track.

Mr. Wang will present examples of how public disclosure of industrial pollution is making an important contribution to pollution control in several Asian developing countries. He will discuss the motivating concepts, implementation, and results of public disclosure programs in China, Indonesia and Philippines, focusing particularly on China, which is currently

implementing one of the most ambitious public disclosure programs in the developing world.

15:00 – 15:30

COFFEE BREAK

15:30 – 17:30

PANEL 7:
The Evolving Role of the Judiciary in Environmental Compliance and Enforcement

Members of the judiciary present their views on the role of the judiciary in deciding environmental disputes. Consideration will be given to existing and innovative methods used to quantify environmental damages.

Moderator: Winston Anderson, University of West Indies

- Michael Decleris, Hon. Vice Pres. of the Council of State, Greece
- Justice Kuldeep Singh, Former Supreme Court Justice, India
- Lal Kurukulasuriya, UNEP

Winston Anderson will examine the existing and proposed role of the judiciary in ensuring environmental compliance and enforcement. The presentation will highlight a recent UNEP/ROLAC judicial symposium that found promising signs that judges are often prepared to rethink the judicial function. It will be argued that the assumption of a more proactive stance towards environmental protection can be accommodated within existing legislative and judicial frameworks.

Michael Decleris will present ideas on how the Judiciary is rapidly becoming the most effective branch of government for resolving environmental disputes, because of the judiciary's ability to craft comprehensive decisions that embrace the general legal principles for sustainable development. Mr. Decleris will present Greece as a good example of the evolving role of the judiciary, characterized by several factors: constitutional review of statutes, preliminary control of governmental regulatory instruments, power for the annulment of illegal administrative acts and suspension of their implementation. During the last decade, decisions of this Court have resulted in a case law containing a complete system of legal principles for sustainable development. These successes have cascaded across Greek environmental policy influencing government, NGOs, and civil society.

Lal Kurukulasuriya will highlight UNEP's Guidelines for Compliance and Enforcement as well as UNEP's efforts to sensitize the judiciaries around the world to promoting the further development and enforcement of environmental law. Mr. Kurukulasuriya will present findings from seven Regional Judicial Symposia, and UNEP's planned a Global Judges Symposium planned for Johannesburg the week before the World Summit on Sustainable Development in August 2002. Against this background, the presentation will focus on the role of the judiciary promoting compliance and enforcement of environmental regulations, balancing environmental and developmental considerations in judicial decision-making, providing an impetus to the incorporation of contemporary developments in the field of environmental law for promoting sustainable development. This will include issues of access to justice, right to information and public participation. The focus will be promoting enforcement through the development of regional environmental accords and implementation of global and regional environmental conventions along with the promotion of national policies and strategies for environmental management in the context of the respective socio-economic and cultural realities.

Justice Kuldeep Singh will focus on the fundamental principles of environmental justice in India such as right to life, clean air, potable water, inter-generational equity, the precautionary principle and the pol-

luter-pays principles as they are enforced by the judiciary. In addition, important judgments such as those delivered by Supreme Court of India on Environmental Law, including issues of the Public Trust Doctrine, Sustainable Development, Precautionary Principle, Polluter Pays Principles and Saving the Taj Mahal from Yellow Cancer, will also be addressed.

19:00 – 22:00

CULTURAL EVENT and DINNER

Buses will transport participants to Pueblo Antiguo, a Costa Rican village recreating life as it was at the turn of the century. Pueblo Antiguo is a center for culture and the conservation of Costa Rican traditions that acquaints visitors with the values and customs that have molded Costa Rica's national identity.

WEDNESDAY, APRIL 17TH

THEME 4

Case Studies: Visits to the Field

7:30

FIELD VISITS

Meet in hotel lobby for all day event

Participants will travel by bus to the site of their choice, accompanied by a local expert. There will be short case studies distributed for each site in advance.

Coffee Cooperative

CoopeCafira in San Ramon works to improve the competitive position of Costa Rican coffee in the international coffee market by producing a sustainable coffee. The Sustainable Coffee (SUSCOF) consortium was established in 1999 consisting of 6 coffee cooperatives; CoopeCafira is one of them.

Market Based Conservation

FUNDECOR is a non-governmental organization founded in 1991 to protect and increase the Costa Rican forests located in the country's central plateau.

Wildlife Rescue Center

ZOO AVE accepts orphaned, injured and former pet animals at their Center for Wildlife Rescue and Rehabilitation (CWRR) located on the Zoo grounds in La Garita de Alajuela.

National Biodiversity Institute

National Biodiversity Institute's mission is to promote a new awareness of the value of biodiversity, and thereby achieve its conservation and use to improve the quality of life.

Ecotourism

The Sarapiquis Neotropical Center is a place where conservation of nature and eco-development, in combination with sustainable tourism, has become a reality.

Conservation Easements

With help from The Nature Conservancy (TNC), the Environmental and Natural Resources Law Center (CEDARENA in its Spanish acronym), first established a conservation easement in Costa Rica eight years ago and now has fostered 60 contracts with private landowners, protecting some 7,000 acres.

DINNER:

On your own.

THURSDAY, APRIL 18TH

Day Chair: Charles Sebukeera,
Director, NEMA, Uganda

THEME 5

Constructing Effective Interlocking Networks at the Country, Region and Global Levels

9:00 – 10:30

PANEL 8:
Implementation of International Environmental Agreements Through the Domestic Legislation of Signatory Countries

This panel will first examine the new UNEP guidelines for enhancing compliance with multilateral environmental agreements and for combating violations of national laws implementing these agreements. It will then explore how consistent, or inconsistent, is the enforcement of multilateral agreements by individual countries and offer examples of cooperative efforts. Panelists will present examples of regional networks that assist domestic implementation efforts, ideas on how to draft laws that consider domestic capacity and encourage real enforcement at the operational level. The panelists will share ideas on methodology for the various Secretariats to communicate with INECE and each other for more effective and resource efficient capacity building and enforcement cooperation.

Moderator: Donald Kaniaru, UNEP

- Marcia Mulkey, USEPA
- Roy Watkinson, Environment Agency, UK
- Andrew Lauterback, INTERPOL
- Greg Linsin, USDOJ

Ms. Mulkey will discuss implementation of the international environmental treaties on Persistent Organic Pollutants (POPs), Prior Informed Consent (PIC) and the MARPOL Agreement on Tributyltin Anti-Foulant Paints (TBT).

Mr. Watkinson will explore transfrontier enforcement cooperation in a broad range of examples including G-8 Lyon Group on transfrontier shipments of hazardous waste, IMPEL project report, CFC enforcement, and INTERPOL's focus on environmental pollution, wildlife, nuclear/environmental security.

Mr. Lauterback will present on Interpol's Environmental Crimes Committee (IECC), its origins, its mission and organization; the "greening" of Interpol and the UNEP guidelines; projects and priorities of IECC, and specifically the Crimes Training Program.

10:30 – 11:00

COFFEE BREAK

11:00 - 13:00

WORKSHOPS

3A Role of Police as Environmental Enforcers: INTERPOL Training

This workshop will discuss the experiences of INTERPOL and the National Environmental Crime Unit that began operations in The Netherlands in 2000. Workshop participants will evaluate the unique role of police as environmental enforcers, methods, analyses of recent cases, and overall results of criminal enforcement activities.

a. Andrew Lauterback, USEPA/INTERPOL

b. Rene Bastiaansen,
The Netherlands Police

3B Illegal Transfrontier Movements of Hazardous Waste (International Link to Basel Convention): Establishing the Network/Contact Database

This workshop will discuss the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their disposal and will develop a proposal to establish a Network/Contact Database that would enhance environmental enforcement and compliance of Basel Convention by improving control and monitoring of confirmed and alleged cases of illegal transfrontier movements of hazardous wastes. This workshop will also explore challenges to identifying, targeting and intercepting illegal transfrontier movements; identify country-specific differences in classification of illegal hazardous waste; and discuss possible approaches for the rapid dissemination of intelligence through effective use of Web and network/contact database at the local and regional level.

a. Brad May, Environment Canada

b. Sylvia Nonna, FARN, Argentina

3C Development of Sustainable Regional Enforcement and Compliance Networks: Elements and Examples

This workshop will focus on the role regional/sub-regional organizations can play in compliance and enforcement of multilateral environmental agreements. Participants will: examine and evaluate current institutional framework of regional organizations ("institutional" meaning the organizational structures and their 'rules and practices'); their linkages at national and international levels; Identify constraints in compliance and enforcement at regional level and their impact at national and international level; Identify a set of innovative capacities that could bring about effective compliance and enforcement; and revolutionize approach to thought in compliance and enforcement.

a. Daniel Sabsay, FARN, Argentina

b. Ignacio Gonzalez, CEC

3D International Targeting on Environmental Crime/Activities

This Workshop will consider issues including: measures to build national capacity to investigate domestic violations and crimes, as needed to fulfill national obligations under

MEAs; interagency cooperation between environment and customs ministries to control imports and exports and international cooperation to address common problems including transborder pollution spillover from one nation to another, damage to ecosystems shared by two or more nations, and illegal trafficking across national borders.

a. Greg Linsin, USDOJ

b. Roy Watkinson, United Kingdom

3E Enforcing Domestic Programs Implementing International Agreements

This workshop aims to discuss policy and institutional requirements to ensure appropriate and comprehensive transposition of the requirements of MEAs in national legislation, incorporation of additional requirements in inspectors schedules and mobilization of adequate resources for increased or new enforcement burdens. The workshop will also discuss the need for sharing information about the requirements of international agreements, strengthening capacities of enforcement agencies in overseeing the implementation of MEAs at the national level and strengthening involvement of enforcement agencies in co-operation among the Parties to various international agreements

a. Krzysztof Michalak, OECD

b. Ladislov Miko, Czech Republic

3F Designing a Pesticide Forum: Identifying Common Elements of a Forum as Well as Specific Information Needs for Pesticides

This forum will result in a network with a clearinghouse service placed at different centers (both in private and state and international institutions). It will play a catalytic role in promoting information on pesticides and their impact on the environment and human health. It will facilitate participatory processes and try to integrate the disperse groups and networks on this issue preferably at a regional level, create a state of opinion, support and advise local stakeholders in their endeavors to organize themselves around a common concern relating to pesticides impact and the need for safe use. The knowledge of the international conventions (POPs, PIC and BASEL) and their implementation should be used as one of the tools to achieve the Forum goals.

a. Marcia Mulkey, USEPA

b. Marco Gonzales, CCAD

13:00 – 14:30

LUNCH

THEME 6

Regional Network Meetings: Africa, Asia, Central America/Caribbean, North America, Europe, and South America.

(Coffee break in workshops)

14:30 – 17:30

Regional leaders will develop regional elements for INECE strategic plan. Participants will: review and comment on the 6th INECE conference statement; identify existing relevant networks to engage; recognize critical environmental challenges; and recommend specific project needs; explore enforcement indicators and assessment methodology; and communicate ways to benefit from technology and the Web. INECE has designed the Workshops with a vision toward future INECE activity, and will guide the regions toward defining specific actions and opportunities to work with INECE. Each Region will prepare results for the poster session on Friday morning and designate a spokesperson to present findings in plenary Panel 9.

19:30 - 22:00

CALYPSO NIGHT

Music and dinner by the hotel pool

FRIDAY, APRIL 19TH

Day Chair: Sylvia Lowrance,
Deputy Assistant Administrator,
USEPA

9:00 – 10:30

REGIONAL POSTER SESSION

Each Region will present results from the previous day's Regional Workshop for other conference participants to review and discuss in anticipation of Regional reporting to follow. Exhibits from throughout the Region will also be displayed.

10:30 – 11:00

COFFEE BREAK

11:00 – 13:00

PANEL 9:
Reports of Regional Meetings and Workshops

Designated spokespersons will share the findings of the Regional Workshops and present elements for incorporation into the strategic plan of INECE and a work program for the Region.

Moderators: Tony Oposa, Philippines and
Wout Klein, VROM

13:00 – 14:30

LUNCH

14:30 – 15:45

PANEL 10:
The INECE Strategic Vision

Presentation and discussion of the future vision for INECE, including Strategic Plan as charted with the input and recommendations made during the Conference.

Moderator: Durwood Zaelke, Director
INECE Secretariat

- Gerard Wolters, VROM
- Sylvia Lowrance, USEPA
- Charles Sebukeera, NEMA, Uganda

15:45 – 16:00

CLOSING REMARKS:

Gerard Wolters, VROM

16:00

ADJOURN

17:00

CLOSING RECEPTION

GERARD WOLTERS — LOCAL EVENT OPENING COMMENTS

Buenos Dias! Bienvenidos y Gracias por compartir con nosotros este sueño de promover un medio ambiente mejor.

Good morning. My name is Gerard Wolters, and I am the Inspector General at the Dutch Environment Ministry. I am pleased to join you this morning both on behalf of my ministry, and on behalf of the International Network for Environmental Compliance and Enforcement, known as INECE, where I serve as one of the co-chairs. INECE is proud to be one of the sponsors of this important seminar.

I am privileged to be in your beautiful country not only for your seminar, but also to present the 6th International Conference for INECE. We hope many of you will be able to join us for that event as well, which will be held in this same hotel all of next week.

I should tell you a bit more about INECE. We are a network, of course, and we are dedicated to protecting our shared environment by strengthening enforcement and compliance.

We have three goals. The first is to strengthen the capacity of the institutions dedicated to enforcing our environmental laws, and ensuring compliance. Our second goal is to develop effective enforcement networks at the national, regional, and international level (including through seminars such as yours today). And our third goal is to raise awareness of the importance of environmental enforcement and compliance.

All of us in the business of enforcement and compliance are hard working professionals, but not everyone appreciates the importance of our work as much as they should. And why is this? It is because we do not explain our work to others. We seem to talk more among ourselves, and rarely to those outside the business of enforcement. One of our goals is to change this, and let everyone know what we stand for and what we do.

We must start with the laws we have to protect the environment. We have many wonderful laws in all of our countries. We have wonderful laws at the regional and at the international level as well. In fact, in the 30 years since the Stockholm Conference on the Human Environment in 1972 we have developed more than 300 new agreements or treaties. Our lawmakers actually have done a pretty good job. But in spite of all of these laws to protect the environment, the environment itself is getting worse. Most measures of environmental quality show continuing degradation across a broad spectrum, with serious consequences for public health and ecosystems, as well as for the rule of law and good governance.

A key reason for the continuing deterioration of our environment is the failure to enforce our environmental laws. It is the failure to invest in the strengthening of enforcement and compliance programs. At the international level, this Enforcement Gap is illustrated by CITES, the Convention on International Trade in Endangered Species, one of our better know treaties, which dates back to the early 1970s. There are 154 countries that are parties to CITES. Yet 76, nearly half do not meet one or more of the requirements for implementing and enforcing this key treaty. This is clearly not right. Without stronger enforcement and compliance, CITES cannot do its job of protecting endangered species. The facts speak for themselves: by some estimates, we are losing 27,000 species a year. That is 74 species every day, 3 every hour, a rate of extinction at least a thousand times greater than the natural rate.

This situation is repeated at the national, regional and international level for

many other laws. And it is unacceptable if we are to have any realistic hope of leaving a healthy environment for the future. Closing this Enforcement Gap is the mission of INECE. And we are proud of the work we do, even if it is not always appreciated! We do seem to inspire fear in people, although this is often as not based on a misunderstanding of the benefits of enforcement and compliance. Not enough people know that closing the Enforcement Gap generally brings benefits that outweigh the costs. One of your speakers today is an expert on this, Lawrence Pratt, and I'm sure he will tell you more about this, because it is a very important thing to know.

So, as you can see, our mission and our goals at INECE are similar to the goals of your seminar. Your seminar today will give you the opportunity to learn more about the topic of enforcement and to understand the tools of the trade. We are all dedicated to improving our environment, through environmental law that is better enforced and better complied with. We all have the same responsibility to the environment, whether we are citizens, enforcement officials, or whether we work for an NGO or a university. We have the duty to protect and improve our environment, which we all depend upon, for life itself. If we do not enforce the laws against pollution of our water and our air, our citizens will suffer, and some will die. If we do not enforce the laws protecting our natural resources so that they are managed sustainably, our species will continue to be driven to extinction, and our fisheries and other resources will continue to be depleted. And our citizens will suffer, and some will be without the food they need to live. For all of us, our world will be impoverished, and much of the mystery and magic of the natural world will be lost forever.

But by sharing our ideas in seminars and conferences, we all have the opportunity to learn how to do our jobs better, and the lives of all of our citizens will be better. By learning from one another and building networks together, we will learn to protect the environment better, and the lives of our grandchildren will be better. But you all already know this, and that is the reason you are here, on a Saturday at that. So I will let you get on with your important work, and wish you well with your seminar.

SYLVIA LOWRANCE (DAY CHAIR) — OPENING COMMENTS

Thank you, Mr. Ulate for your warm welcome and hospitality. On behalf of the three INECE co-chairs, Gerard Wolters from the Netherlands, Charles Sebukeera from Uganda, and myself, I extend our heartfelt thanks to you for agreeing to host this conference in Costa Rica. Costa Rica is widely recognized as a country that acknowledges and embraces the benefits and importance of environmental protection, and all my colleagues here from around the world and I salute your leadership. As you may know, on Wednesday we will have the opportunity to see first hand some of the environmental success stories here in your beautiful country. We look forward to it.

My name is Sylvia Lowrance, and, in addition to being one of the three co-chairs of INECE, I am the Acting Assistant Administrator for Enforcement and Compliance Assurance in the US Environmental Protection Agency. In addition to our domestic work to protect the environment and human health, the US EPA works worldwide to help build the capacity of environmental programs and to build relationships that help protect and improve our global environment. We have been, and commit to continue to be, a strong supporter of international partnerships.

Networking among enforcement officials is critically important in today's world. Industries are global and fluid in their movements; Trade in environmentally-regulated products is an integral part of this new global economy; and, Transboundary pollution and natural resource pressures are known to create public health problems and constrain economic growth.

We in the United States have benefited tremendously from networking. For example, the U.S. and Mexico have a long history of transboundary cooperation. So when we learned that a Mexican company with a U.S. parent was illegally sending hazardous waste into the U.S., the U.S. and Mexico worked swiftly on an investigation which resulted in a penalty being paid by the company and the company instituting a training program — overseen by PROFEPA — for other companies on transboundary waste shipment requirements of the two countries.

Similarly, we have benefited by our networking with Canada, particularly, in the area of illegal CFC refrigerant trafficking. In one of our many cases, we secured criminal pleas in connection with illegal importation of 75 tons of CFC refrigerants. Without close partnership with Mexico and Canada, these and many other cases would simply not have been possible.

As you can see, INECE and its success is important to us all - as public servants and as private citizens. Let me now turn to INECE and how it can help us meet this need. First, its history. While the name and organization was not formalized until 1997, the International Network of Environmental Compliance and Enforcement, known as INECE, truly began at our first conference in the Netherlands in 1990. In the twelve years that followed, the organization has grown to well over 84 counties and at least 15 NGO's you find represented here today. Through the hard work and commitment of many of you we now have an organization that goes beyond borders and which has increased the awareness worldwide of the importance and necessity of environmental compliance and enforcement as a component of any country's framework for environmental protection.

Ten years ago in Rio de Janeiro,

the world's leaders wrote "Agenda 21", setting ambitious goals for a sustainable future. That framework was influenced by INECE partners and Chapter 8 of Agenda 21 specifically directs that States develop their compliance and enforcement capacity. This awareness of the role of environmental enforcement and compliance is especially evident now, as the international community prepares for the World Summit on Sustainable Development in Johannesburg this fall. Environmental compliance and enforcement is an integral part of discussions on good governance and the role of civil society in sustainable development. As our countries prepare for Rio + 10 this August, INECE is in a unique position to help build the capacity for good governance. For example, INECE has been asked by UNEP to co-sponsor a Global Judges Symposium on Environmental Law and Sustainable Development in South Africa as a side event to the WSSD, and we have been asked to become involved in the ENVIRO-LAW 2000 conference also related to the WSSD.

Much has happened in INECE since the fifth conference in Monterey California four years ago: We publish a high quality newsletter, and have published an index of all the papers and proceedings from each of the previous conferences into one reference guide. After this conference, the Executive Planning Committee will take new papers from this conference, the best of the papers from previous conferences, and a few special papers, and publish a book to serve as an additional tool for environmental compliance and enforcement.

INECE also has continued to work with partner organizations on many events, both regionally and globally, to help build international capacity to conduct enforcement and compliance activities. These events include distance learning courses through the World Bank Institutes, inspector training workshops in Asia and other parts of the world, judicial and prosecutor awareness symposia with the United Nations Environment Programme, and a wide range of activities from the different regional networks. I can only mention a few Regional activities such as the IMPEL conference in 2000 for members of the European Commission, and NICECEN's recent conference in Azerbaijon for the newly independent states from the former Soviet Union.

In addition, INECE has established a dynamic and continually improving internet site to help facilitate global communication among the partners. This web site includes several topical forums for real-time discussion among practitioners in different parts of the world to foster increased sharing of knowledge and issues, and contains links to partner organizations. Improvements to the website will be presented this week during the conference for your comments and suggestions. This website will become a crucial part of our network. In fact, you can view and comment on the draft conference statement by the co-chairs on behalf of INECE on the website and the website will be used for our conference follow-up.

As we look to the future, we are working to expand the role of Regional Networks and to make INECE a more proactive partnership that becomes a continual supplier of information and capacity building assistance. As stated in the recently adopted terms of reference, we need to work to effectively interlock in-country, regional, and global networks with four goals: 1) create a visible and seamless net to deter and detect environmental violations; 2) support cooperation to protect shared resources and address common environmental problems caused by violations of environmental law; 3) provide easy access to contacts, experts and capacity building resources; and 4) periodically

assess country, regional and global progress and capacity building needs.

One of the outcomes of this conference will be a conference statement that goes beyond a summary of the proceedings and demonstrates INECE's commitment to the role of enforcement and compliance in sustainable development. This statement will be a message to the World Summit on Sustainable Development about environmental compliance in the twenty-first century.

We also will work this week on an important building block of a long-term strategic plan for INECE. You have for review a list of projects that have been suggested. We need to hear from you what the most important needs are for global and regional networks. Your work will be used to plan our work for the next three years and beyond.

Let me note that we all owe a debt of gratitude to Durwood Zaelke, Ken Markowitz, Carolina Mauri, and all the staff at the INECE secretariat for working long hours to ensure a successful conference.

For this conference and our network to succeed, we must all participate fully and contribute ideas. This is not meant to be a series of lectures. Instead, the conference will focus on the workshops each day that are designed to guide the EPC as we go forward. We have planned ample opportunities for you to get to know each other, and certainly hope that everyone has a pleasant experience and leaves invigorated with newfound energy as you return home to do the extraordinarily important work you do to ensure a safe, clean, sustainable future for our world and the generations to follow.

Now let me pass the podium to Michele de Nevers, who will be moderating the first panel discussing the Role of Institutions and Networks in Environmental Enforcement.

KEYNOTE ADDRESS OF MR. RICARDO ULATE, DIRECTOR OF INTERNATIONAL COOPERATION MINISTRY OF THE ENVIRONMENT AND ENERGY OF COSTA RICA

Distinguished Co-Chairs of INECE, Miss Sylvia Lowrance, Principal Deputy Assistant Administrator of the United States Environmental Protection Agency, Mr. Gerard Wolters, Inspector General of the Ministry of Environment of the Netherlands, Mr. Charles Sebukeera, Director of the National Environmental Management Authority of Uganda, distinguished Director of INECE, Mr. Durwood Zaelke, distinguished participants, ladies and gentlemen; On behalf of the government and the Ministry of Environment and Energy of Costa Rica, it is my pleasure to welcome all of you to this sixth meeting of the International Conference on Environmental Compliance and Enforcement organized jointly by INECE with the support of many international environmental related organizations and institutions.

This is probably one of the forums that will provide important input to the forthcoming World Summit on Sustainable Development to be held in Johannesburg later this year. And I said this because many of the findings coming from the experience obtained during the ten years after Rio indicates that there have been a lot of opportunities for international and national dialogue, that there have been several global and international legal and political instruments, both binding and non binding, and there have also been a lot of international and national initiatives oriented towards a common objective, obtaining sustainable development, but there is still a feeling that a lot more commitment and concrete results are to be expected, both at the national and international levels.

Environmental enforcement and compliance is a relatively new area in many developing countries. Many of our countries have experienced a deep legal and institutional transformation in the recent years in order to follow "the trends of the fashion" in environmental issues, by implementing new and more strict legislation and creating new institutional settings in order to achieve goals shaped by the international community but where developing countries participated in a limited way and whose legal and institutional frameworks probably had not reached the level of maturity required for such a transformation.

The capacity of the countries to guarantee the fulfillment of the regulations included as a result of many legislative improvements as well as legal international developments is without any doubt, one of the critical elements of environmental governance. As in many other fields in modern politics, environment could no longer be seen as a responsibility of the governments only. Civil society and private sector in particular, have a particular role to play in achieving national sustainability goals. In this regard, raising awareness among the different actors and sectors of the society, both at the national and international levels, should be seen as a strategic tool to promote the attitudinal changes required by a new culture, a culture that requires a clear commitment from all towards a goal that is a global responsibility: environmental sustainability for the current and new generations.

Achieving environmental enforcement and compliance is also one of the issues to be addressed from an intersectoral perspective; not only from the executive, but from the legislative and judicial branches of the government. Harmonization of both, legislation and practices is critical to

provide a clear message to all interested sectors. The provision of resources to increase the capabilities of the governments to obtain the desired goals should be addressed from a development perspective.

During the last two decades, Costa Rica has been devoting a lot of efforts and resources to the consolidation of a system of conservation areas and to the payment of environmental services as a mechanism to guarantee the sustainability of biodiversity and forest related resources to the new generations. During the last decade, new issues have raised to the international consciousness and the country is still on the process to find out the right paths to be followed in order to fulfill all the society expectations. The results of this conference would be an additional input to the search for knowledge, but in particular to the search for successful experiences already gained.

Again, welcome to Costa Rica. It is our hope that all of you have the opportunity to widely contribute to the discussions of the very interesting areas to be covered during the conference, and also to enjoy at least a bit of our country.

THEME #1

The INECE Mission: Environmental Results Through Enforcement

Theme #1: The INECE Mission included two panels entitled "The Role of Institutions and Networks in Environmental Enforcement" and "The Regional Network Experience." Panel 1 provided institutional perspectives on the merits of networks and explored ways for institutions to work with INECE to make it more successful in the future. The panelists provided the viewpoint from their organizations and the results that have been achieved. Panel 2 highlighted examples of regional networks that have successfully supported environmental compliance enforcement and focused on achieving global environmental results through regional and local efforts. Perspectives from the Africa, North America, and Central Europe will be highlighted.

Included under this theme are the summaries of the panel presentations and following papers:

- UNEP Governing Council Adopts Guidelines on Compliance With and Enforcement of MEAs, *Kaniaru, Donald*
- The Role of Institutions and Networks in Environmental Enforcement, Kaniaru, Donald
- The Region Network Experience: Presentation on the Ghana EPA Experience, *Allotey, Jonathan*
- New Independent States Environmental Compliance and Enforcement Network (NISE-CEN): An Effective Mechanism to Strengthen Environmental Compliance and Enforcement in Eastern Europe and Central Asia, *Michalak, Krzysztof*
- Environmental Law Enforcement and Compliance in Central America, *Mauri, Carolina*
- From "The Mexican Problem" to a Regional Experience: Environmental Enforcement And Compliance In North America, *Azuela, Antonio*

SUMMARY OF PLENARY SESSION #1: THE ROLE OF INSTITUTIONS AND NETWORKS IN ENVIRONMENTAL ENFORCEMENT

Moderator: Michele de Nevers
Rapporteur: Evan Wolff

1 INTRODUCTION

This plenary session assessed the role of networks and international institutions in environmental enforcement. It concluded that they have a critical role to play in rising to the challenges inherent in any effort to restrain the wide array of environmental violations occurring across the globe. These networks and institutions can help develop and implement environmental policy, provide information and training, and serve as sources and conduits of assistance that is critical to leveling the playing field for countries and regions with vastly disparate capacities and needs, especially in the face of the constantly changing environmental challenges. Both networks and international institutions bring together specialists from both the environmental sciences and enforcement worlds. INECE, in particular, provides an excellent opportunity for professionals from varied disciplines to learn from each other and work together to address common problems. While these networks and institutions have achieved significant success both internationally and regionally, there is room for improvement. Enhanced and streamlined institutions are needed as well as additional national and regional networks. In addition, increased cooperation among networks, institutions, and MEA secretariats are needed, especially in the areas of monitoring and reporting. The European Commission network building actives and preparations for the World Summit on Sustainable Development were also discussed. INECE can help raise awareness of the importance of compliance and enforcement and the shared responsibility of all nations for improvement. The success of the European Union's Implementation and Enforcement of Environmental Law, also known as the IMPEL network, was discussed as an excellent example of a successful network. In addition, the value to individual environmental practitioners is also significant. Successes, challenges, and networking experiences were detailed as part of the discussion period and the overall value of networking and institutional commitments to environmental enforcement appeared to be significant.

2 PRESENTATIONS

The moderator, Michele de Nevers, opened the panel by stressing that networking is very important to the World Bank even though it is not an enforcement agency. The Bank supports organizations that perform enforcement and compliance activities and believes strongly that enforcing environmental laws is critical to preserving the environment. Ms. de Nevers also stressed the importance of bringing together people that are specialists in different areas of the environment policy, including enforcement, and that INECE provides an excellent opportunity to learn from each other. To this matter, the World Bank has a vibrant distance-learning program allowing people to learn remotely and benefit from networks while reducing the problems associated the conference related travel.

The first panelist, Donald Kaniaru from UNEP, stated that many institutions exist today and some are prime movers in environmental policy development and implementation. These institutions have

mushroomed at the global and regional level but so have the efforts of actors to evade laws and regulations. Clearly, enhanced and streamlined institutions are needed as well as informal network at the national, regional, and international level.

Mr. Kaniaru continued with a review of the institutional framework of compliance and enforcement of environmental laws, then discussed the mandate as stated in Agenda 21 Chapter 38, and began to discuss the role of institutions and networks.

Mr. Kaniaru discussed the importance of enhancing institutions, realizing that environmental management must be integrate into work and polices in other areas. This includes working with other areas of law, bodies and institutions of international environmental agreements and regulations. This is important in areas of monitoring, reporting and other areas of compliance that are particularly critical for success of these agreements. Mr. Kaniaru discussed guidelines by which INECE can bring together people from across governments and non-governmental areas in an informal setting to share experiences and expertise and create networks. This is being done in global, regional and national settings.

Mr. George Kremlis from the European Commission stated that the European Commission is fully committed to INECE's work, to building environmental networks and being an influential participant at the World Summit on Sustainable Development. All institutions need to raise awareness of compliance and enforcement and realize that it is a shared responsibility of all nations. The EU has many networking initiatives, including criminal sanctions for environmental laws, implementing the polluter pays principle and making member states responsible for pollutions activities in there territories. The EU Implementation and Enforcement of Environmental Law network, or known as IMPEL, is an excellent example of a successful network. The EU is also revisiting the ratification of the Aarhus Convention, which is critical to improving access to environmental information. The EU wants to improve this convention and enlarge its scope. Access to justice is another initiative that they are actively pursuing. In addition, they have created a strong informal networking allowing experts to speak frankly on behalf of their countries. Other new networks deal with the New Independent States and Balkans. Mr. Kremlis concluded by stating that networking is a very important tool in improving enforcement and enhancing effectiveness of environmental laws.

The last panelist was Antonio Benjamin from Lawyers for a Green Planet Institute. Mr. Benjamin stated that networking is the heart of INECE's mission. Most environmental practitioners know what networking is and do it in daily life but would be hard pressed to explain the goals of networking and discuss its operations. Mr. Benjamin discussed four topics in his presentation:

- the goals of networking;
- why and when we network;
- examples of types of networking; and judicial networking.

Mr. Benjamin outlined 5 goals of networking:

- cooperation with common goals and mandates;
- networking is a means of increasing communication to avoid overlaps and duplications;
- use networking for conflict avoidance and mitigation;
- learning technique for new agencies and units helping them learn how to accomplish their goals and missions by communicating with others doing similar area; and
- raises stakeholder participation.

Next Mr. Benjamin discussed why

we network. He began by stating that, as a general rule, there are environmental systems throughout the world but there are not many centralized organizations that work with these systems. But why do these networks exist? First, we network when none of the partners have full authority to solve the problems and therefore, organizations must work together towards a common goal. Second, networking is when one partner has authority but does not have the resources, expertise, or political support. Networking also occurs when we need support of another partner to fully accomplish all the goals of the agencies or organizations. These are all voluntary networking opportunities, but there are times when networking is required. This occurs most commonly when a legislature requires interagency networking. Additionally, there are also horizontal and vertical networking, among environmental and non-environmental institutions, and between governmental and non-governmental organizations. However networking does have its limitations and challenges. Mr. Benjamin described how it is important that each agency recognize their natural limitations and their capacities. Networking does not occur at any time or at any price, while it is our goal to develop seamless and larger networks and we hope it will continue and all parties would like to keep the channels of communication open. This allows adversaries to engage in open discussions on often neutral subjects. But it is critical that in networking each partner needs to maintain their own values and identities, this is especially true for INECE.

Mr. Benjamin concluded with a discussion of judicial networking and how it is necessary for enforcement in an enforcement and judicial process.

3 DISCUSSION

Question by Jose Pablo Gonzalez (Attorney General, Costa Rica). In judicial networking there are often difficulties in working between government agencies, especially arising when a prosecutor is a part of the executive branch and the judicial branch decides the cases that the prosecutor raises. Mr. Benjamin answered this question by discussing the tradition of judicial enforcement in most countries. As opposed to administrative enforcement, there is much more collaboration at the executive level than at the judicial level. Giving the judiciary more support will not result in more enforcement; we need to look at other actors to make enforcement work better, including administrative agencies and NGOs. Examine areas of standing and criminal vs. civil prosecution. Recognizing that the judicial agencies may be limited by the legislative and legal framework that it operates under.

Question by Steve Herman (Unites States): Have the EU regional agreements and networks resulted in specific compliance and enforcement actions in Europe and if so, what are some examples? Mr. Kremlis responded to the question by stating that the European Commission has a broad set of regulations and laws and is in the process of setting up a system for ensuring enforcement and compliance with these regulations. The system will allow for problems with compliance to trigger regulatory actions involving the member state, but these are still developing initiatives and have not been adopted by all member states. Included in these regulations being developed by the European Commission are criminal sanctions for environmental laws. Currently of all the complaints received by the European Commission, 46% of these complaints are for the environment and this trend is expected to continue.

Question by Beatrice Olivastri (FOE, Canada) – What is the importance of networking with corporate communities and how will it further develop? Mr. Benjamin answered this by discussing that

ethical principles are stricter when networking between state and non-state actors, especially regarding due process. We cannot allow networking to become a unilateral way to influence decision-making. Mr. Kaniaru discussed UNEPs efforts to network with corporations, developing codes of conduct, and increasing transparency between these actors. There are appropriate and inappropriate times to partner with industry, especially when creating regulations of pollution and development.

4 CONCLUSION

International institutions and networks play an important role in promoting effective national, regional, and international implementation of environmental laws and policies. INECE should continue its efforts to develop institutional and network capacity.

UNEP GOVERNING COUNCIL ADOPTS GUIDELINES ON COMPLIANCE WITH AND ENFORCEMENT OF MULTILATERAL ENVIRONMENTAL AGREEMENTS

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SUMMARY

This paper focuses on the recently adopted guidelines on compliance and enforcement of multilateral environmental agreements (MEAs). This is an important response of the international community to the urgent need for enhancing compliance with MEAs through institutional improvements, enhanced organizational co-ordination, strengthened national environmental implementation and enforcement mechanisms, capacity building and training. The guidelines, a pragmatic outcome of experience-sharing, and based on the views of governments and MEA secretariats, seek to engage countries through a menu of options for strengthening implementation of MEAs and enforcement of national laws, regulations and policies.

1 INTRODUCTION

Since the 1970s, MEAs were developed quickly, many duplicating each other in several respects including personnel and institutions at national level that would backup implementation, follow up, reporting and coordination. It was thus apparent that coherent implementation was lacking. There were loopholes too undermining the very measures that were intended to be curbed. It became clear too that funding had to be made available for developing countries to be enabled to participate in negotiations of new instruments, and thereafter in their implementation.

The international context of compliance and enforcement is provided by MEAs and the felt need to increase their efficacy for delivering on environmental objectives. The last thirty years or so have seen the rapid development of MEAs. Over 200 already exist, and several more are currently under negotiation at global and regional levels. During this period, UNEP's primary focus too has been in the development of international environmental law and it has facilitated, inspired, spearheaded and played a catalytic role in the development of several soft law and hard law instruments. Now the international community's important task is to advance and enhance the implementation of agreed international norms and policies, to monitor and foster compliance with environmental principles and international agreements. However, as international environmental law and its accompanying national legislation for environmental protection increase in number, complexity and sophistication, so do opportunities and determination to evade such laws through orchestrated criminal activities.

Shortcomings were noted not only globally but also at regional and national levels. UNECE, for their region, moved into action and are developing guidelines for environmental compliance and enforcement building upon the UNEP Guidelines to be adopted in 2003. INECE embraced

action including regional initiatives through its informal partnership to promote and strengthen environmental compliance and enforcement. Other regional initiatives were also taken, such as:

- The Latin America and Caribbean convened in November 1999 a workshop for English speaking Caribbean and adopted a set of Guidelines on MEAs implementation in the Caribbean.
- The ASEAN too are developing mechanisms to promote compliance and enforcement of MEAs. The Guidelines propose options for more effective MEAs implementation in the countries. They also draw upon selective elements in the implementation strategies adopted with success in individual countries of the region.
- Furthermore, in the 1990s UNEP facilitated and coordinated the development of, and served as an interim secretariat for the implementation of a regional wildlife enforcement agreement called the *Lusaka Agreement on Co-operative Enforcement Operations Directed at Illegal Trade in Wild Fauna and Flora.* UNEP, still a partner in the implementation of this treaty, coordinated its negotiation process until its adoption in 1994 as a regional wildlife law enforcement treaty. The Lusaka Agreement, enforcing CITES in Africa, aims at reducing but ultimately to eliminate illegal trade in wild fauna and flora.

Convention secretariats and UNEP moved to promote adherence of countries to bring MEAs to force. They also showed concerns on compliance and, besides Montreal Protocol; other instruments have, or are taking steps, to move into compliance and enforcement. For instance: Parties to the UNFCCC are developing procedures and mechanisms for compliance under the Kyoto Protocol. The same is also true for the parties to the Basel Convention that are developing elements for monitoring the implementation of and compliance with obligations under the Convention. The parties to the CBD are developing procedures and mechanisms to promote compliance and to address cases of non-compliance within the framework of the Biosafety Protocol. The parties to the CITES are equally developing a comprehensive plan to concretely address, *inter alia*, compliance and enforcement issues. CITES secretariat regularly reviews and analyzes national laws of Parties to determine whether such laws meet CITES implementation requirements. Consequently, collaboration with and support from the Convention Secretariats, including Interpol and World Customs Organization in this process is, *sine quo non*, for the successful implementation of the guidelines on compliance and enforcement of MEAs.

In view of all these parallel efforts initiated by the MEAs secretariats and other regional groupings, it was in deed time to address, in a focused and coordinated way, such efforts which would provide much needed tools and approaches to negotiations and measures to ensure developing countries and countries whose economies are in transition have the fullest appreciation of their overall interest in becoming party to, and the means to implement, the different instruments.

Notwithstanding the increase of international agreements and enabling national legislation, there have been shortcomings in compliance, along with increasing incidence of evasion of laws and rules. In this backdrop, the guidelines for compliance and enforcement of MEAs were prepared consequent to intense consultations. These guidelines, first mooted in 1999, were reviewed in October 2001 by a meeting of an intergovernmental group of experts to which all countries were invited. The guidelines were adopted by the Seventh Special Session of the

Governing Council (GC) of the United Nations Environment Programme (UNEP) in February 2002 and are now broadly available to governments, Convention Secretariats and all those interested.

2 LEGISLATIVE AUTHORITY AND IMPETUS FOR THE GUIDELINES

The guidelines are drawn from decision 17/25 of the UNEP GC (May 1993), which adopted the Programme for the Development and Periodic Review of Environmental Law, also referred to as Montevideo II Programme. This had emphasized the need for promoting effective implementation of international legal instruments related to the environment. This priority was reinforced during a mid-term review meeting in December 1996 and endorsed by UNEP's GC decision 19/20 of 1997. UNEP had the legislative basis to undertake work on guidelines but financial resources were wanting.

In April 1998, G-8 Environment Ministers, at their meeting in Leeds, U.K., recognized that there were serious environmental effects of MEA violations, and the need also to combat organized crime in this area. A number of those governments, including the United Kingdom, Canada, Germany were ready to provide funding for initiation of concerted action with selected MEAs, namely CITES, the Montreal Protocol and the Basel Convention on Hazardous Wastes. Thus UNEP, along with the three Secretariats of MEAs, World Customs Organization, Interpol, and a number of experts, held the first meeting in Geneva in July 1999. Important lessons were available from studies about the three MEAs in question and the extent of illegal trade. Similar problems may be envisaged in other areas, such as chemicals. In the G-8 Environment Ministers meeting, in Otsu, Shiga in Japan in April 2000, the commitment was reiterated for supporting compliance, implementation and enforcement. The Ministers further acknowledged that developing countries and countries with economies in transition needed external assistance in this regard.

To maintain momentum, compliance and enforcement was accorded a high degree of attention in the 2000-2001 programme of activities at UNEP in the field of environmental law. It is notable that the Ministerial Declaration from the first Global Ministerial Environment Forum held at Malmö, Sweden in May 2000 also identified compliance and enforcement of MEAs as a crucial issue. Subsequently, the Nairobi meeting (October 2000) of government experts prepared a new Programme for the Development and Periodic Review of Environmental Law for the first decade of the twenty-first century. The Programme, which included implementation, compliance and enforcement of environmental law, both international and national as a key priority, was reviewed and endorsed by the UNEP GC in February 2001 in decisions 21/23 and 21/27, pursuant to which the draft guidelines were given their final shape.

3 FORMULATION OF THE GUIDELINES

Preliminary elements of the draft guidelines were prepared by UNEP in 1999. These were reviewed by a Working Group of Experts on Compliance and Enforcement of Environmental Conventions at Geneva from 13-15 December 1999. The experts decided that the guidelines be split into two sets, one related to compliance, and the other related to enforcement and environmental crime. The drafts were submitted to governments for review and comments, wherein governments recognized the need for continuous work on issues of compliance, enforcement and environmental crime.

Governments emphasized that the

guidelines be non-binding and of voluntary nature. The need for transparency and information flow was underlined. The establishment of mechanisms such as common reporting formats, timely reporting and public access to information was emphasized. The value and importance of international co-operation and co-ordination in combating environmental crime was recognized and different ways of achieving results in this area were suggested.

Further exchange of views on the draft text of the Guidelines was accomplished through two geo-politically balanced advisory group meetings held in Nairobi from November 13-15, 2000 and in Geneva from August 27-29, 2001. Also represented were relevant MEA secretariats. Inputs from these meetings were used to prepare the final text of the guidelines. An intergovernmental working group of experts was subsequently constituted in which the participation of all governments was invited. 78 governments were represented at the meeting, which took place at Nairobi from October 22 to 26, 2001. This meeting finalized the guidelines, which were adopted by the UNEP GC in February 2002.

4 NATURE AND SCOPE

The guidelines provide approaches to enhancing compliance, recognizing that each MEA has been negotiated in a unique way and has its own independent legal status. The guidelines acknowledge that compliance mechanisms and procedures should take account of the particular characteristics of the MEA in question. Enforcement is essential for securing the benefit of laws, protect the environment, public health and safety, deter violations, and encourage improved performance. The guidelines are relevant to present and future MEAs, and anticipate a broad range of environmental issues, including global and regional environmental protection, management of hazardous substances and chemicals, prevention and control of pollution, desertification, conservation of natural resources, biodiversity, wildlife, and environmental safety and health.

The purpose of these guidelines is to assist governments and MEA secretariats, relevant international, regional and sub regional organizations, national enforcement agencies, NGOs, the private sector and relevant stakeholders in enhancing and supporting compliance with MEAs. The guidelines outline actions, initiatives and measures for States to consider for strengthening national enforcement and international cooperation in combating violations of laws implementing MEAs. The guidelines are intended to facilitate consideration of compliance issues at the design and negotiation stage and also after the entry into force of the MEAs, at conferences and meetings of the parties.

The guidelines address enforcement of national laws and regulations implementing MEAs in a broad context, under which States, consistent with their obligations under such agreements, develop laws and institutions that support effective enforcement and pursue actions that deter and respond to environmental law violations and crimes. Approaches include the promotion of appropriate and effective laws and regulations. The guidelines accord significance to the development of institutional capacities through cooperation and coordination among governments and international organizations for increasing the effectiveness of enforcement.

5 BROAD DIRECTION OF THE GUIDELINES

Though the terms 'compliance' and 'enforcement' are often used loosely and interchangeably, as far as the guidelines are concerned, 'compliance' refers to the situation in which a State is, with regard to

its obligations under an MEA; i.e., whether it is in compliance or not. 'Enforcement' refers to a set of actions, i.e., adopting laws and regulations, monitoring outcomes, etc., including various enabling activities and steps, which a State may take within its national territory to ensure implementation of an MEA. In other words, 'compliance' is used in an international context, and 'enforcement' in a national one. A term that was problematic throughout the process was "environmental crime" because it is understood differently in different jurisdictions. The guidelines therefore opted for the term violations as discussed.

Overall, the guidelines seek solutions for addressing shortcomings in compliance and enforcement which otherwise undermine the effectiveness of an MEA regime, or a party's ability to live up to its obligations. Such shortcomings may include:

- Lack of national legislation.
- Lack of awareness of the relevant regulations, including among industry and consumers or enforcement authorities.
- Lack of financial resources.
- Costs of compliance, creating a financial incentive for evasion.
- Inadequate penalties.
- Problems with detection.
- Dearth of human resources, institutional and technical capability.
- Lack of information and economic intelligence.
- Shortcomings in transboundary co-operation and monitoring.

6 STRUCTURE OF THE GUIDELINES

The guidelines, divided in three parts, are intended to inform and affect how parties implement their obligations under MEAs. The opening part, the introduction, recalls the basis of preparing the guidelines. It acknowledges that the guidelines are advisory in nature and that parties to the agreements are best situated to choose and determine useful approaches for carrying out MEA obligations. The guidelines are non-binding and in no way affect or alter the obligations in MEAs. Following the introductory part, chapter I of the guidelines deals with enhancing compliance with MEAs.

Chapter I comprises 29 paragraphs, wherein "compliance" has been defined as the fulfillment by the contracting parties of their obligations under an MEA. "Implementation" covers all relevant laws, regulations, policies, and other measures and initiatives, that contracting parties adopt and/or take to meet their obligations under an MEA. The guidelines touch upon the preparatory work required for negotiations, effective participation in any debate, assessment of domestic capabilities during negotiations, review of effectiveness, compliance mechanisms after an MEA comes into effect and dispute settlements provisions. Other issues in this chapter include national implementation, detailed to include a variety of possible national measures. Capacity building and technology transfer are also emphasized as important components without which effectiveness of MEAs is undermined.

After chapter I on compliance, chapter II of the guidelines deals with national enforcement of laws implementing MEAs. It comprises 15 paragraphs. Like the compliance chapter, it contains paragraphs dealing with definitions of the terms used. "Enforcement" refers to the range of procedures and actions employed by a State, its competent authorities and agencies to ensure that organizations or persons, potentially failing to comply with environmental laws or regulations implementing MEAs, can be brought or returned into compliance and/or punished through civil, administrative or criminal action. "Environmental crime" refers to the violations or breaches of

national environmental laws and regulations that a State determines to be subject to criminal penalties under its national laws and regulations. This flexible approach is intended to accommodate practices under different systems of law.

The subjects handled within the chapter on enforcement include national laws and regulations, institutional framework, national coordination, training for enhancing enforcement capabilities and public environmental awareness. The strengthening of the institutional framework includes the designation of responsibilities to agencies and clear authority for carrying out enforcement activities. The need for consistency in laws and regulations is emphasized, as well as cooperation in judicial proceedings. Capacity building and strengthening includes coordinated, technical and financial assistance to develop and maintain institutions, programmes and action plans for enforcement.

7 COMPLIANCE

The guidelines on compliance underline:

- Significance of preparatory work, including: (a) regular exchange of information among States, (b) consultations, (c) experience-sharing, (d) coordination at national level, (e) synergies with existing MEAs.
- Effective participation in negotiations, including: (a) assessment of the geographical scope of the environmental problem being addressed, (b) identification of countries for which the environmental problem may be particularly relevant; (c) establishment of special funds and other appropriate mechanisms to facilitate participation, (d) approaches, e.g., common but differentiated responsibilities, framework agreements, or limiting the scope of MEA to subject areas with relatively more likelihood of agreement.
- Assessment of domestic capabilities during negotiations, as well as regular review of the overall implementation of obligations under an MEA, and examination of specific difficulties in compliance and consideration of measures aimed at improving compliance.
- The need to enhance compliance through: (a) clarity in stating obligations in MEAs, (b) national implementation plans, including monitoring and evaluation of environmental improvement; (c) reporting, monitoring and verification, (d) establishment of compliance committee with appropriate expertise, (e) inclusion of non-compliance provisions and mechanisms.
- Regular review of MEA effectiveness in meeting objectives.
- Introduction of compliance mechanisms after coming into effect of MEA.
- Dispute settlement provisions.
- National implementation measures, to include: (a) compliance assessment, (b) compliance plan, (c) appropriate laws and regulatory framework, (d) national implementation plans, (e) enforcement frameworks and programmes, (f) economic instruments, (g) identification of national focal points, (h) coordination among national departments, (I) enhancing efficacy of national institutions, (j) cooperation of major stakeholders, (k) dialogue with local communities, (l) role of women and youth, (m) media, (n) public awareness, (o) access to administrative and judicial proceedings.
- Capacity building and strengthening, including financial and technical assistance for environmental management.
- Technology transfer, which should be consistent with the needs, strategies and priorities of the country concerned and which can build upon similar activities already undertaken by national institutions or with support from multilateral or bilateral organizations.
- International cooperation generally, and

in particular at regional and sub-regional levels.

8 ENFORCEMENT

The guidelines on enforcement underline:

- National laws and regulations, which are: (a) clearly stated with well-defined objectives, (b) technically, economically and socially feasible to implement, capable of being monitored effectively, with objectively quantifiable standards to ensure consistency, transparency and fairness in enforcement, (c) comprehensive with appropriate penalties for environmental law violations.
- Conducive institutional framework, which promotes: (a) designation of responsibilities to agencies for enforcing laws and regulations, monitoring and evaluation of implementation; collection, reporting and analysis of data, including its qualitative and quantitative verification and provision of information about investigations, (b) assistance to courts, tribunals and other related agencies, (c) coordination among agencies, (d) strengthening of national environmental crime units, (e) certification systems, (f) public access to administrative and judicial procedures, and environmental information, (g) review of adequacy of laws and regulations.
- National co-ordination among relevant authorities and agencies, environmental authorities, tax, customs and other relevant officials at different levels of government, linkages at field level among cross-agency task forces and liaison points, as well as coordination among authorities for promoting licensing systems to regulate the import and export of illicit substances and hazardous materials.
- Training for enhancing enforcement capabilities, including for public prosecutors, magistrates, environmental enforcement personnel, customs officials and others pertaining to civil, criminal and administrative matters, including training that promotes common understanding among regulators, enforcement personnel and other agencies, as well as development of capabilities to coordinate action among agencies domestically and internationally.
- Environmental awareness and education, particularly among targeted groups, about relevant laws and regulations, rights, interests and duties, as well as the social, environmental and economic consequences of non-compliance, and encouragement of public involvement in monitoring of compliance.
- Consistency in laws and regulations that provide appropriate deterrent measures, including penalties, environmental restitution and procedures for confiscation of equipment, goods and contraband, and for disposal of confiscated materials, and the setting up of appropriate authorities to make environmental crime punishable by criminal sanction.
- Cooperation in judicial proceedings related to testimony and evidence, including exchange of information, mutual legal assistance and other cooperative arrangements agreed between the concerned countries, and developing appropriate channels of communication.
- International cooperation and coordination by establishment of communication channels and information exchange among UNEP, MEA secretariats and relevant organizations, as well as for developing infrastructure to control borders and protect against illegal trade, including tracking and information systems, as well as measures that could lead to identification of illegal shipments and prosecutions. (Thus regional networks spurred by the INECE could play an invaluable role).
- Capacity-building and strengthening to

formulate effective laws and regulations and develop institutions, programmes and action plans for enforcement, monitoring and evaluation of national laws implementing MEAs.

9 IMPLEMENTATION OF THE GUIDELINES

The UNEP GC adopted the guidelines in February 2002. The GC sought dissemination of the guidelines to governments, MEA secretariats and relevant international organizations. The GC further sought implementation of the guidelines through the UNEP work programme, in close collaboration with States and international organizations. UNEP has been asked to take steps for advancing capacity building and strengthening of developing countries, particularly the least developed countries and countries with economies in transition.

UNEP GC has requested UNEP to seek additional extra-budgetary resources to facilitate the implementation of the guidelines. So far Belgium is providing some funds for this, and we hope that other interested governments will similarly make some funds available. The Council further requests that a report be submitted to it at its next session on the implementation of the decision. Consequent to the GC decision, work has already been initiated for the preparation of a compliance and enforcement manual. Three workshops to test the draft manual shall be held, during the course of the year, in Africa, Asia and Latin America, for capacity building and strengthening.

10 CONCLUDING REMARKS

The guidelines on compliance and enforcement of MEAs are an important development in international environmental governance. During the inter-governmental consultative process promoted by the UNEP, the MEA secretariats and governments were fully involved; their input was very relevant and was built into the guidelines. Capacity building and strengthening was emphasized by the UNEP GC, and the guidelines, give due weight to this. International co-operation and coordination is also underlined. The guidelines acknowledge the importance of the preparatory stage of MEAs. They, in large measure due to detailed consultations with governments and MEA secretariats, elaborate comprehensively on the requirements for effective compliance and enforcement. Do the guidelines go far enough? This may be debatable. However they only go as far as the governments were prepared to at that stage of negotiation. They make a clear beginning and constitute an enabling framework. At UNEP, we feel satisfied that all the pertinent international and national aspects were touched upon in the guidelines which may be refined in future as more lessons are learnt in the process of their implementation.

THE ROLE OF INSTITUTIONS AND NETWORKS IN ENVIRONMENTAL ENFORCEMENT

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SUMMARY

This paper discusses the roles that institutions and networks play in environmental enforcement. Within that role, institutional frameworks are necessary to provide guidelines for institutions as well as define roles and responsibilities for governments, civil society and individual citizens. Agenda 21 has recognized the role played by international institutional arrangements in the integration of environment and development issues at national, sub-regional, regional and international levels (Chapter 38). In part, Chapter 2 of the UNEP Guidelines urges states to consider institutional frameworks that promote effective enforcement of environmental laws and policies. As such, institutional and network influence has grown at the local, national and international levels in the past 10 years.

1 INTRODUCTION

Many formal institutions, intergovernmental at various levels exist today, and are prime movers in environmental policy development and implementation. Such institutions have mushroomed at the global and regional levels and have direct implications at the national level; the most important being ineffective implementation because of lack of human, financial, scientific and technical resources. Equally significant are increasing trends to evade laws and regulations put in place. Clearly, therefore, enhanced and streamlined institutions are needed as well as a network of informal networks, springing from national, regional to global level to enhance enforcement measures. Such is the challenge offered in this discussion.

2 INSTITUTIONAL FRAMEWORK

Legal and institutional arrangements for environmental management have gradually evolved and changed as scientific understanding of the dynamics of environmental processes and the impact of anthropogenic activities on such dynamics has increased. Trends indicate a move from sectoral approaches that isolate and exploit the environment, to a holistic eco-system approach that is concerned with sustainability and promotes an integrated and coordinated approach to environment and the economy. Institutional arrangements have also been influenced by participatory approaches to development and the devolution of power to sub-national levels, including the empowerment of grass-roots communities to decide and act on the political, economic and social issues that affect them.

Environmental laws and regulations are considered indispensable frameworks and basis for the effective implementation. They establish mandates for institutions as well as define roles and responsibilities for governments, civil society and individual citizens. These rights then have the backing of the law and, hence, are enforceable.

Thus, when one discusses the implementation of environmental laws and

regulations one is also speaking about the implementation of the environmental management frameworks.

Since environment is an area that transcends all sectors, it is now accepted that its management requires the coordination of a multitude of stakeholders. In other words, its management requires inclusiveness. Effective management of the environment requires diverse national and international institutions and individuals with a wide range of skills to work in harmony.

National and international institutional arrangements for environmental management inevitably will compose all stakeholders in the formulation and implementation of environmental laws, including their enforcement. These will include: government institutions (coordinating bodies, line agencies, legislative/judicial branches, and the police); academic institutions; NGOs and CBOs; professional associations; and the private sector as well as international and regional networks.

3 AGENDA 21 CHAPTER 38

Agenda 21 recognizes in Chapter 38 the importance and the role played by international institutional arrangements in the integration of environment and development issues at national, sub-regional, regional and international levels. Chapter 38.21, for instance, emphasized the need for an enhanced and strengthened role of UNEP and its governing bodies. Agenda 21 also recognizes the specific roles played by other UN bodies including specialized agencies within their field of expertise, competence and comparative advantage including the need for these international bodies to cooperate and coordinate their relevant activities to avoid duplication in the implementation of agenda 21. Consequently, UNEP has cooperated and will continue to cooperate with other relevant bodies to implement Agenda 21 in general and in particular in order to ensure coordinated action in implementation and enforcement of environmental law and policies.

4 THE ROLE OF INSTITUTIONS AND NETWORKS

The past decade or so, in particular, after the 1992 UNCED process, the international community has witnessed phenomenal growth, establishment and strengthening of institutions both at national, regional and global level dealing with different aspects on environment. With the growth in importance on the subject of environmental management came also the development of institutions to ensure and facilitate effective coordination and management of natural resources at all levels. Institutions at global and regional levels refocused their activities and environment became an important activity in a number of them. At national level, likewise, environmental management has been institutionalized with the establishment or designation of national institutions by law. Framework environmental laws of many countries today establish environmental management and/or inter-ministerial bodies to oversee enforcement of environmental laws and regulations in a country (see: Compendium of Laws in African Countries Vol. I Framework Laws and EIA Regulations).

Similar development is witnessed in the development of formal and informal environmental networks to support international, regional and national institutions in the enforcement of environmental laws and regulations. These networks both internationally, such as INECE, and regionally, such as Implementation and Enforcement of Environmental Law - EU Network (IMPEL) and Network for Environment and Sustainable Development in Africa (NESDA), to mention but a few, have become important mechanisms to reckon with. They support government efforts in

their endeavor and activities on environmental enforcement of multilateral environmental agreements (MEA) and national laws. It is satisfying to see how networks have grown in recent years to ensure that no developments at national level pass unnoticed without the global chain of members being aware in virtually all countries. INECE and IUCN networks effectively use information technology facilities (email, internet and tele and video conferences) to reach their constituencies and instantly keep them abreast of developments in the field of environment, globally. These developments will inevitably continue to grow and offer opportunities for regional and international networks to work together to enhance environmental enforcement.

Environmental institutions, as mandated by Agenda 21 and re-emphasized by virtually all governing bodies, place focus on the need and importance to cooperate and collaborate with governments, relevant other bodies (networks and convention secretariats) in all related programmes and activities. Such collaboration and/or coordination of activities has an advantage of ensuring that limited and meager resources are used effectively to avoid waste and duplication. It creates synergy and harmonization of relevant policies and activities to effectively support and build upon existing activities by the partners or constituencies for the common goal. It is the need and importance of such collaboration that institutions like UNEP is a participatory member in the Executive Planning Committee (EPC) of INECE. This ensures that its environmental enforcement and compliance activities and policies are built in and/or complement those of INECE and create synergy and harmony taking into account its comparative advantage. Collaboration with relevant networks, INECE and others regionally and globally, provides a conduit for sharing and exchanging information, data, experiences and expertise which are vital for the effective implementation and enforcement of environmental laws. Focal points and/or persons have been established or designated in many institutions and networks to ensure smooth flow of data and information. Their importance continue to grow bearing in mind the fluid nature of national boundaries/frontiers and the sophisticated nature of criminal activities in violation of environmental laws and policies. All international, regional and national institutions have to work together with established networks to ensure the success of environmental enforcement and implementation of environmental framework laws.

5 INSTITUTIONAL FRAMEWORK UNDER UNEP GUIDELINES ON MEAs

Part D Chapter 2 of the UNEP Guidelines for national enforcement and international cooperation in combating violations of laws implementing MEAs urges states to consider institutional frameworks that promote effective enforcement of environmental laws and policies. The Guidelines urge states to designate agencies with responsibilities for enforcement of laws and regulations; monitoring and evaluation of implementation of laws and to raise awareness to the public, in particular, regulated community and the general public. The agencies will collect, report and analyze data as well as provide information about investigations. They will assist courts and tribunals, where appropriate, with relevant information and data for their work. Such institutional frameworks will endeavor to control import and export of substances and endangered species at border crossing ports and other areas of know or suspected illegal activities.

The Guidelines urge states to give clear authority to enforcement agencies involved in enforcement activities to enable them to obtain relevant information, have

access to relevant facilities such as ports and border crossings and coordinate with other agencies. They require authority to monitor and verify compliance with national laws and regulations; be able to order action to prevent and remedy environmental law violations as well as impose sanctions including penalties for environmental law violations and non-compliance.

States are expected to promote policies and procedures that ensure fair and consistent enforcement and imposition of penalties based on established criteria and sentencing guidelines. There is also need to establish or strengthen national environmental crime units to complement civil and administrative enforcement programmes. Use of economic instruments has been identified as one of the measures institutions could use to promote compliance. Institutions should invariably promote access of the public and civil society to administrative and judicial procedures to challenge acts and omissions by public authorities and corporate persons that contravene national environmental laws including support for public access to justice. Participation of appropriate communities and NGOs in processes contributing to the protection of the environment ought to be guaranteed to ensure effective environmental enforcement. Use of media to publicize environmental law violations and enforcement actions as well as highlighting examples of positive environmental achievements should be encouraged. Periodic review of the adequacy of existing laws, regulations and policies for the fulfillment of environmental objectives needs to be put on the agenda of such institutions. Courts ought to be given authority to impose appropriate penalties for violations of environmental laws and regulations as well as other consequences.

The Guidelines thus provide a checklist of the functions, tools and mandates of a national institutional framework which states may wish to consider to put in place, if they do not yet exist or to strengthen the existing ones, so as to ensure and guarantee effective national environmental enforcement of laws and policies. If requested, UNEP would assist in such efforts and is in the process of preparing a manual that can be used by those in need.

However, for the institutional framework to work, coordination among relevant authorities and agencies becomes *sine quo non* for effective enforcement mechanism. Coordination is inevitable among various enforcement agencies, environmental authorities, tax, customs and other relevant officials at different levels of government. Linkage at the field level among cross agency task forces and points is equally crucial. Coordination by government agencies with NGOs and the private sector is required. Coordination among authorities responsible for promoting licensing systems to regulate and control the importation and exportation of illicit substances and hazardous materials cannot be avoided but should be encouraged.

Furthermore, consistent with relevant provisions in MEAs, national enforcement of laws and regulation implementing MEAs could be supported through international cooperation and coordination that can be facilitated by international institutions such as UNEP.

The Guidelines also encourage states to enhance international cooperation and coordination to contain or prevent environmental crimes with transboundary aspects. States are urged to consider strengthening institutional frameworks and programmes to facilitate international cooperation and coordination by designing and establishing channels of communication and information exchange. Such channels could be with MEAs Secretariats, World Customs Organization, NGOs, international law enforcement agencies such as International Criminal Police Organization

(Interpol) and networks such as INECE and IMPEL.

Although the Guidelines are not binding but advisory in nature, they do provide a useful tool for states to use an instrument guiding their relations with other enforcement bodies or networks. The Guidelines have synthesized various expertise and experiences into a friendly useable document to guide states as appropriate.

Interpol, though not having actual enforcement function, has been active in coordinating and facilitating international cooperation between law enforcement agencies in the world during their investigations of international criminal cases. Interpol mostly pursues cases reported to it by its member countries through established national central bureaus. Hence, for Interpol, the necessity and effectiveness of the multi-agency approach has been recognized and extensively used in many countries is inevitable.

The World Customs Organization, on the other hand, promotes cooperation and communication among members and with other international organizations. It fosters human resource development, improvement in the management and working methods of customs administrations and share best practices. Members cooperation with each other and with international agencies in order to combat customs and other transborder offences.

UNEP, Interpol and World Customs Organization role in environmental enforcement are provided as examples for illustrative purpose. There are many institutions in the field of environment that deal with enforcement of laws. However, their work still depends on the established networks to further facilitate their work in terms of sharing relevant information, expertise and data. This should be encouraged and strengthened and more so in cooperative arrangement by neighboring countries, sub-regional and regional levels. In many regions there are many sub-regional arrangements dealing with environmental, social, economic and other matters. These constitute possible mechanisms for formal or informal networks that underscore the need for better use of resources in the enhancement of the implementation of MEAs.

SUMMARY OF PLENARY SESSION #2: THE REGIONAL NETWORK EXPERIENCE

Moderator: Carlos Manuel Rodriguez
Rapporteur: Paul Hagen

1 INTRODUCTION

This panel highlighted examples of regional networks that have successfully supported environmental compliance and enforcement and focused on achieving global environmental results through regional and local efforts. Perspectives from Africa, North America, and Europe were highlighted.

2 PRESENTATIONS

Mr. Rodriguez began the program with brief introductory comments. He noted that Costa Rica had long ago disbanded its army and invested in education. He observed that Costa Rica had developed environmental laws but to date has placed little emphasis on EnforcementMr. Azuela addressed the enforcement of environmental law in North America. He noted that Canada and the U.S. had moved quickly to develop environmental legal regimes beginning in the early 1960s. In contrast, Mexico did not begin to seriously develop its environmental regimes until the 1980s. The negotiations for a North American Free Trade Agreement (NAFTA) among the three countries highlighted these differences. The increased focus on environmental protection and the use of the U.S. regulatory model in policy discussions regarding Mexico's environmental laws and regulations resulted in a "culture shock" for Mexico. One of the more significant outcomes of the NAFTA process was Mexico's decision to form the Federal Bureau of Environmental Protection ("PROFEPA") that enjoys broad administrative enforcement powers and has proven to be an effective administrative mechanism for enforcing environmental laws in Mexico. In addition to NAFTA, Mexico also concluded an environmental side agreement with the United States and Canada: the North American Agreement on Environmental Cooperation (NAAEC). Among other things, this agreement provides an important mechanism for the NAFTA countries to coordinate environmental policies and priorities. The NAAEC also provides a citizen submission process that provides an international forum for any citizen in the three countries to challenge the alleged failure of one of the governments to enforce its environmental laws. All three countries have been challenged under the citizen submission process. The result is a regional process that promotes cooperation among the governments and encourages citizen and NGO participation.

Mr. Allotey provided an African perspective on regional networks. He noted that Ghana established an Environmental Council in 1974, shortly after the Stockholm Conference and was therefore viewed as an environmental leader in Africa. The Council had advisory functions within the government initially. In 1994 the Council was converted to the Environmental Protection Agency and given new regulatory powers. Enforcement was initially handled through the Attorney General's office where environmental enforcement cases were not often a priority. In response, Parliament recently gave the EPA new enforcement responsibilities. The Agency is now developing an environmental enforcement and compliance network with the participation of the police and other enforcement authorities. Ghana coor-

dinates closely with several other African states, including Gambia, Tanzania, Namibia, Uganda and Benin. Ghana also serves as the Secretariat for Capacity and Linkages in Environmental Impact Assessment in Africa, which serves as a forum for African governments. He noted that a continent-wide African network could emerge from these and other regional groupings.

Mr. Michalak addressed the topic of regional networking from an Eastern Europe and Central Asia perspective. He noted that Europe had several enforcement and compliance networks aimed at promoting compliance and enforcement and exchanging experiences on best practices. One of these networks, the Newly Independent States (NIS) Environmental Compliance and Enforcement Network (NISECEN) grew out of a meeting of NIS environmental inspectors in 1999. Countries in the region share many common experiences, including the development of new policies and institutions over the past ten years, and the challenges of overcoming economic pressures and a culture of "non-compliance." The long-term objective of the NISECEN is to increase the effectiveness of enforcement agencies in the NIS and promote compliance with environmental requirements. One of the strengths of the network is that it brings together and uses a mixture of Western, Central & Eastern Eueope and NIS experience and expertise.

3 DISCUSSION

The discussion focused on the availability of resources to support active and effective networks. Mr. Michalak noted that it was important to retain links to policy makers so as to ensure future political support for the networks. The NISECEN has a small staff supported by the OECD and works to explain to Ministers and institutional funders the importance and value of the network.

In response to a question on obstacles to building effective networks, Mr. Azuela noted that in the case of Mexico, the political dynamic among the NAFTA countries places an emphasis on border-related environmental problems making it difficult for Mexico to divert governmental resources to pressing environmental problems in other parts of the country. Mexico's environmental agenda is thus greatly influenced by the larger political dynamic among the NAFTA countries.

4 CONCLUSION

Regional networks have successfully supported environmental compliance and enforcement and demonstrated how to achieve global environmental results through regional and local efforts. INECE should continue its support of existing regional networks, such as IMPEL, AC-IMPEL, and NISECEN, and help develop new networks in Latin America, Asia, and Africa.

THE REGION NETWORK EXPERIENCE — PRESENTATION ON THE GHANA EPA EXPERIENCE

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SUMMARY

The Ghana Environmental Protection Agency (EPA) is one of the oldest environmental agencies in Africa, having been established just after the Stockholm Conference in 1972. The agency created an Environmental Compliance and Enforcement Network comprising the security and regulatory agencies to assist with compliance and enforcement issues. EPA has assisted a number of sister African countries to establish environmental management programmes, especially in the areas of national environmental action plan development, environmental impact assessment (EIA), environmental information system and environmental quality monitoring.

1 INTRODUCTION

The Ghana Environmental Protection Agency (EPA)(hereinafter "the Agency") is one of the oldest environmental agencies in Africa. It was established in September 1974 shortly after the United Nations Conference on the Human Environment in 1972, Stockholm, Sweden as the Environmental Protection Council (EPC). It was initially an advisory and coordinating body, which brought for the first time under one body environmental matters.

As environmental issues gained prominence in national development, calls were made for the strengthening of the EPC and the granting of powers to enforce environmental practices. This led to the transformation of the EPC into the Environmental Protection Agency (EPA) in December 1994 under Act 490, 1994. It maintained its original functions of advising, coordination, collaboration, cooperation and awareness creation.

In addition, it was given regulatory functions of issuing environmental permits and pollution abatement notices, prescribe standards and guidelines relating to the pollution of air, water, land and other forms of pollution including the discharge of waste and the control of toxic substance among others.

Under its mandate the EPA enforces environmental requirements through issue of notice in writing to request for environmental impact assessment containing such information specified; issue enforcement notice when activities poses threat to the environment or public health to prevent or stop the activities; and an offence is committed when the enforcement notice is not complied with and liable to summary conviction to a fine and term of imprisonment.

The responsible Minister irrespective of the above actions can also take such steps, as he considers appropriate to ensure compliance with the notice. Initially enforcement through prosecution was undertaken through the Attorney General's Department but action was slow. As a result recommendations were made and with the support of Parliament, the Attorney

General's Department delegated the powers to the Agency to prosecute cases.

2 ENVIRONMENTAL COMPLIANCE AND ENFORCEMENT NETWORK

The Agency created an Environmental Compliance and Enforcement Network comprising the security and regulatory agencies to assist with compliance and enforcement issues. Environmental Inspectors appointed under the Act were trained by the Attorney General's Department in prosecution procedures. The inspectors with the Agency's lawyers ensure compliance and enforcement. An agreement has been reached with the Ghana Police Service to train police offices in environmental management. In addition four Police Officers in each of the ten divisional commands would assist with environmental crimes, investigations and prosecution.

3 TRAINING ASSISTANCE

As a pioneer environmental agency in Africa, the Ghana Environmental Protection Agency has assisted a number of sister African countries to establish environmental management programmes, especially in the areas of national environmental action plan development, environmental impact assessment (EIA), environmental information system and environmental quality monitoring. We have received delegations from these countries:

- Environmental quality monitoring and general environmental management - Gambia, Benin
- National Environmental Action Plan – Zambia, Malawi, Namibia
- EIA – Tanzania. Benin
- Environmental Audit – Uganda
- Environmental Quality Monitoring (Air) - Benin

There are plans to train environmental officers from Mozambique. Ghana also hosts the secretariat for Capacity Development and Linkages for Environmental Impact Assessment in Africa (CLEIAA), which aims at promoting the development of EIA capacity in African countries.

Due to its long period of existence (nearly 30 years), the Agency established a training school with plans for multilingual translation facilities to offer training in environmental management for national stakeholders and also officers of sister African countries.

These experiences are beneficial to these countries as we share similar historical and development experience. Sharing and exchanging these experiences with others would ensure cost-effective programmes and avoid duplication and reinventing the wheel. They would also strengthen links and cooperation among African countries.

4 CONCLUSION

The African region at moment does not have a functioning Environmental Compliance and Enforcement (ECE) Network but I believe that the experience of Ghana with other countries can be built upon to establish a functioning African ECE Network.

NEW INDEPENDENT STATES ENVIRONMENTAL COMPLIANCE AND ENFORCEMENT NETWORK (NISECEN): AN EFFECTIVE MECHANISM TO STRENGTHEN ENVIRONMENTAL COMPLIANCE AND ENFORCEMENT IN EASTERN EUROPE AND CENTRAL ASIA

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SUMMARY

This paper provides background on how the New Independent States Environmental Compliance And Enforcement Network (NISECEN) was established and its current activities. With the collapse of totalitarian governments in Central Europe, the local and international public were finally able to become aware of the degrading environmental problems in their countries. However, due to socio-economic problems, the issue of environmental protection was not always of top priority. During a meeting of environmental inspectors from Eastern Europe and Central Asia, held in September 1999 in Chisinau, Moldova and organised jointly by the Ministry of Environment and Territorial Development, the State Environmental Inspectorate of the Republic of Moldova and the OECD Secretariat, NISECEN was formed. NISECEN became an effective mechanism for strengthening environmental compliance and enforcement in Eastern Europe and Central Asia.

1 INTRODUCTION

In several countries of Eastern Europe as well as Central Asia (1) growing understanding of environmental problems were an important factor stimulating political changes, which resulted in the collapse of the Soviet Union in 1991, and subsequent democratisation and a transition to a market economy. Very quickly, however, environment slipped down on the political agenda as some environmental problems decreased with downturn in output; austere macroeconomic policies brought social and economic problems to the fore. The main challenge of the countries in the region was to tackle serious environmental problems in the period of economic transformation and to translate environmental slogans into practical programmes that would lead to real environmental improvement.

Notwithstanding severe human and resource constraints, environmental authorities have dedicated significant efforts to develop new environmental policies that would be suitable for a new economic situation; enforcement agencies have continued to control compliance and enforce environmental laws. However, there was a growing urgency for better definition of the responsibilities in these areas, strengthening the role and capacities of environmental and enforcement agencies and increasing the effectiveness of enforcement tools.

The "Environment for Europe" Conference of Environment Ministers from the whole European region, held in June 1998 in Aarhus, Denmark, called for

greater attention of the international community to the problems faced by the countries of the former Soviet Union. The Ministers emphasised the need to shift from the development to the effective implementation of environmental policies and action programmes, and more effective enforcement was one of the key areas of attention.

The NIS Environmental Compliance and Enforcement Network (NISECEN), which was established within this framework, supports countries in Eastern Europe and Central Asia in strengthening enforcement and promoting compliance with environmental regulations. The main functions of the Network are to:

- facilitate strengthening environmental inspectorates, tools for enforcement and compliance and the relations with the regulated community through the development and implementation of region- and country-specific capacity building and technical assistance projects;
- promote regional networking and international co-operation through exchange of information and experience among the countries of the region, and between the NIS and OECD and other countries, to increase compliance with national and international environmental requirements.

This paper aims to present current practices in enforcing environmental requirements in Eastern Europe and Central Asia and introduce activities of the NIS Enforcement and Compliance Network. Part 1 of this paper provides an overview of the challenges faced by enforcement agencies in the context of economic and political reform in the region. Part 2 presents briefly the structures, stakeholder relations, activities of environmental enforcement institutions, the types and application of enforcement instruments used to respond to violations of the environmental requirements and stimulate compliance with them. On that basis, the main lessons learned and recommendations to increase in the future the effectiveness of institutions and tools future are presented. Part 3 of the paper describes the role and the main features of the NIS Enforcement and Compliance Network and the experience accumulated over the last two years of its operations.

2 TRANSITION TOWARDS MARKET ECONOMY IN EASTERN EUROPE AND CENTRAL ASIA

The collapse of totalitarian regimes in Central Europe in the late 1980's, and the disintegration of the Soviet Union in the early 1990's, brought the region's serious environmental problems to the attention of the international community. A few well-known cases attracted the attention of the international community, such as the consequences of the accident at the Chernobyl nuclear power plant and the catastrophe of the shrinking Aral Sea. In many cases, severe health impacts of air pollution from industry, water pollution from point and non-point sources or overuse of natural resource were not obvious even to those living in the region. When the information about these impacts became available the growing public awareness about the magnitude and impacts was one of the catalysts for change. The reform process offered a unique window of opportunity to integrate environment into the development of democratic and market-based societies.

A number of countries, first and foremost those in Central Europe, indeed embarked on the rapid economic transition towards market-based systems. The liberalisation of prices, changes in property rights and in economic structures, as well as democratisation, created a new framework for economic development. At the same time, economic transformation prompted significant declines in industrial production. This resulted in noticeable

reductions in pollution emissions. With the decrease in pollution and the growing impact of adjustment policies on society, public interest and support for vigorous environmental policies diminished. Environmental issues lost their place on political agendas as economic and social considerations come to the forefront. As a consequence, the "window of opportunity" for integrating environmental concerns into economic development began to close considerably.

The economic reform and transition towards market economy and democratic societies in the countries of the former Soviet Union have been much slower than the development in Central Europe. It was influenced by a number of factors, including:

- Over seventy years of the influence of the totalitarian system which governed political and economic development and society.
- Slow democratisation of the political systems and limiting access of the society to information and to the decision-making, which was coupled with the strong influence of narrow interest groups.
- Much deeper than in Central Europe, and in many cases continuing, economic declines, as well as internal and border conflicts which followed the disintegration of the Soviet Union.

While technological, social and economic progress has been recorded in some countries of the region during the Soviet period, a number of them are now classified as developing countries.

2.1 Environmental Policy in Eastern Europe and Central Asia before 1991

Before the political changes of early 1990's, environmental policies within the Soviet Union (as well as in other central and eastern European countries) shared several common characteristics, such as:

- ideological, over-ambitious planning goals
- declarative and non-realistic standards which were neither enforceable nor enforced;
- "command and control" legislation combined with a lack of enforcement will;
- extremely centralised decision-making and discretionary allocation of resources;
- focus on technological solutions;
- restricted access to information and lack of public participation.

Environmental policies were built on extensive systems of environmental legislation supplemented by a set of stringent ambient and/or effluent standards. In many cases, enforcement required more data than monitoring systems could provide. Responsibilities for environmental protection were dispersed among sectoral agencies and only in the late 80's and early 90's did consolidated environmental agencies start to emerge. Although environmental committees and ministries were established, their capacities, budgets and influence were generally low; their role was limited to co-ordination and advice.

In environmental management, various policy instruments were used, mostly of a regulatory character. In a number of countries, systems of environmental fees and fines on pollution emissions and natural resource extraction were in place. However, fees and fines, which were either negligibly low or unrealistically high, did not generally reflect the real costs or value of environmental damages. They did not create sufficient incentives for economic actors to meet environmental standards. Centrally prepared five-year plans included provisions for environmental investments by enterprises as well as by regional and local government bodies. A portion of state budgets was allocated for these pollution

control investments, such as large sewage treatment plants, air pollution control installations, and solid waste disposal systems. Usually, however, construction of such facilities extended over many years and capacities were often insufficient and their technologies obsolete by the time of completion. In many cases, due to overcapacity and lack of budget transfers, facilities were never completed. It should be pointed out however that, central planning as well as patterns of economic development where industrial activities have accumulated around deposits of natural resources resulted in the underdevelopment of some parts of the region. This helped to preserve a diversity of wildlife and areas with unique natural features richer than those in other European countries.

2.2 A New Context of the Transition Period

In early 1990's, all the New Independent States developed new environmental policies and National Environmental Action Programmes. The main goal of these new programmes was to establish the overall policy framework for environmental protection adapted to the process of political, economic and social changes that they were undergoing. The new programmes were comprehensive and served a variety of purposes: taking stock of environmental problems and establishing an information base, elaborating principles of new policies, and redesigning policy instruments and institutions.

In many cases, however, the implementation of these programmes has been slower than expected. The new policy and legal frameworks developed by NIS governments, in many cases, followed the old patterns of planning with ambitious, often unrealistic goals and prohibitive standards and lack of effective implementation methods. In particular, enforcement has not received sufficient attention and violations of environmental laws have been widespread. At the same time, compliance by enterprises was constrained. The slow pace of economic reform, lack of restructuring industry and their poor financial conditions, complicated legal frameworks and, as well as cultural and social development factors, were major factors of non-compliance. In some countries, however, the economic downturn and cuts in production helped enterprises to comply with the existing environmental regulations in the short term.

Notwithstanding difficulties and severe human and resource constraints, environmental enforcement agencies have continued their efforts to control compliance and enforce environmental laws. Many inspectorates, as well as the Ministries of Environment, are currently undergoing structural changes. These changes reflect strive for improving management of environmental institutions, while others are occurring within the context of wider administrative changes.

Nevertheless, the need to define better the responsibilities in these areas, to strengthen the role and capacities of enforcement agencies and to increase the effectiveness of enforcement tools is still great and capacity building actions required. It was acknowledged, however, that these efforts would not be effective unless environmental policies are revised to provide a more realistic framework for compliance by the regulated community, and more generally, further progress is made in establishing the rule of law. Exposure of enterprises to market forces, supported by comprehensive environmental regulatory reform process, are necessary to create better incentives to meet environmental requirements.

3 CURRENT PRACTICES AND LESSONS LEARNED FROM REVIEWING ENFORCEMENT EFFORTS IN EASTERN EUROPE AND CENTRAL ASIA

In 1999-2000, the Environmental Action Programmes Task Force Secretariat carried out a survey of enforcement and compliance in countries of Eastern Europe and Central Asia. The final report (2) compiled the answers provided by environmental enforcement agencies from the twelve countries to a questionnaire, as well as in follow-up interviews. The report also presented general discussions of the best practices concerning effective enforcement and compliance, which was, in most cases, drawn from materials developed within the International Network on Environmental Compliance and Enforcement (INECE), and in particular from a USEPA publication entitled "Principles of Environmental Enforcement". With the description of state-of-the-art approaches as the starting point, recommendations were made for how these might be taken forward in the context of Eastern Europe and Central Asia. The main findings of the survey, which reflect the situation as in 1999, are presented below.

3.1 Institutional Framework for Enforcement

The environmental enforcement agencies in the NIS possess wide responsibilities for controlling compliance by enterprises and enforcing them but their current institutional set-up hinders the achievements of these goals. Their position in the governmental structure is weak and their relations with policy-making bodies, i.e. Environmental Ministries and Committees, are blurred. These features limit inspectorates' impacts on other governmental agencies and industry. Limited financial and human resources of enforcement agencies is also a major cause of low effectiveness of their efforts. Resources are spread too thinly, or fragmented, among many functions that include permitting, compliance control, environmental monitoring, reporting and compliance promotional functions.

The situation in Eastern Europe and Central Asia resembles a "top-down policy implementation staircase" rather than "policy-making - enforcement - policy revision - compliance circle" which exists in many OECD countries. The feedback from the inspectors to policy makers on the results of environmental policy implementation and the effectiveness of policy instruments is lacking and policy design is very often driven by a regulatory process independent of the results of enforcement efforts and compliance.

The results of the survey show an urgent need for strengthening skills of inspectors. These could be enhanced by extensive training and capacity building programmes and the development of guidance documents. The increase of capacities of inspectorates, however, cannot be implemented without adequate financing and there is also the need to develop realistic funding strategies for the Inspectorates (they, however, should not compromise their independence versus polluters).

Experience from the region shows that environmental enforcement cannot be confined to one institution. Many governmental agencies, environmental (such as environmental funds, information and monitoring institutions), and sectoral (such as Ministries of Health, Natural Resources, Industry, Transport, Justice, Interior, Customs, etc.) play an important role. Only concerted efforts can bring about the required compliance. At the same time, the different responsibilities of governmental institutions can lead to overlaps and duplications. While some overlap is often inevitable, this should be minimised. Thus, the roles of different institutions in the area of enforcement and compliance promotion

require clear definitions and making these relations formal.

3.2 Participation of Stakeholders

Effective enforcement also requires an active participation of stakeholders beyond the government administration. Professional associations, universities, citizens' groups and industry are important partners of environmental inspectorates, especially in compliance promotion.

The limited stakeholder participation in the NIS region reduces the potential for utilizing the public and peer pressure, voluntary enforcement promotion actions by the public and voluntary responses by industry. The role of the public and NGOs in the region can be one of the most important elements in recognition of non-compliance and compliance promotion. Industry should be consulted to determine compliance problems and the best means of harmonising action by enforcement institutions at different levels.

Although experience from effective participation of the public in enforcement efforts, as well as mechanisms for a dialogue between authorities and enterprises, exists, further analysis of mechanisms for increasing public and other stakeholders participation in enforcement and compliance efforts, and increasing the transparency of inspectors operations is needed. The role of courts in enforcement is generally insufficient. Enforcement institutions have to continue to press for legal action in cases of serious or persistent non-compliance. Mechanisms are needed to improve the awareness of court personnel on environmental enforcement.

The role of courts in enforcement is generally insufficient. Enforcement institutions have to continue to press for legal action in cases of serious or persistent non-compliance. Mechanisms are needed to improve the awareness of court personnel on environmental enforcement.

3.3 Compliance Control

Compliance control covers the areas of permitting and inspection. In several countries of Eastern Europe and Central Asia, responsibilities for these two functions are not well defined among institutions and this causes several problems. The lack of provisions for feedback from environmental inspectors on the environmental permit design is one of the key obstacles to effective enforcement. Permits must take account of the real operating conditions of each process and local environmental constraints. This can only be done with effective interaction between those issuing permits and those involved in inspection and enforcement. This may be achieved by establishing new procedures between permitting and inspection staff, or by a reform of the institutional structures themselves.

Inspections have also significant resource implications for both enforcement agencies and for enterprises. In order to reduce the number of inspections, and to make more effective use of resources, the overall system of permitting should be reviewed with the aim of developing a more integrated and cross-media permitting system. A great deal of experience exists in this area in OECD countries and the European Union that could provide models for the region. A follow-up project is now being implemented within the NISECEN that analyses environmental permitting procedures and institutional framework for permitting and control procedures. Preliminary results of the project are presented in Box 1.

It is important that inspectorate resources are targeted at the most important regulated installations. There are a number of criteria, which are used to achieve better inspection targeting. However, more information sharing is needed among the inspectors on the nature of the criteria used to define the "worst" polluters or those processes with the greatest hazard. This should enable

inspections to optimise environmental benefits. Enforcement institutions also have to invest significant effort into follow-up procedures. Permitting and inspections require significant resources but these may be wasted if the follow-up activities are not well targeted. If undertaken correctly, well-targeted follow-up procedures can result in less work in subsequent inspections.

The inspectorates face serious problems with regard to the quality of support facilities and equipment, especially the quality of laboratories and monitoring equipment. Some of them are in critical state. Many laboratories lack basic measurement instruments and reagents. It is, therefore, necessary to prioritise monitoring programmes by targeting those pollutants or industries that are most important to the immediate impact on human health and on eco-systems. However, this cannot be done without changes in the legal requirements in order to limit the number of pollutants subject to control. (See Box 1. Current Permitting Systems in the NIS and Major Elements of Transition to Integrated Permitting).

Self-monitoring can be one of the options for ensuring adequate environmental monitoring and industry should be encouraged to carry out self-monitoring and self-reporting. Government institutions need to ensure that the same quality criteria are applied to government and industrial laboratory facilities. In cases where enforcement institutions undertake monitoring for industry, procedures are needed to ensure that this does not result in conflicts of interest.

3.4 Enforcement Powers and Tools and Non-Compliance Responses

The enforcement institutions in the region possess extensive enforcement powers and have at their disposal a variety of informal and formal enforcement tools. However, the extent to which these are being applied in practice is not obvious and there are indications that some powers remain largely theoretical. Non-compliance responses are more widely used, mostly in the form of non-compliance administrative fees. Greater use of enforcement powers and non-compliance responses is constrained by institutional barriers, such as weak position of enforcement agencies within the governmental structure and vis-à-vis industry, and insufficient levels of penalties. Formal enforcement, especially judicial actions, is constrained by general problems faced by the courts but also by lack of understanding of environmental cases in the courts.

Another obstacle to effective enforcement is the high degree of discretion enjoyed by inspectors, in particular, provisions for waivers and exemptions. This is reinforced by the lack of transparency of enforcement actions, which may lead to politically driven actions by enforcement agencies and benefit-driven actions by individual inspectors. Further efforts are needed to eliminate corruption by increasing the transparency of inspectors' operations.

The impacts of enforcement and non-compliance responses, especially non-compliance fees, is limited due to low rates. In many cases, polluters choose to pay the fines rather than invest in pollution control; this approach is more economically beneficial. The low collection of fees and fines also contributes to the problem. Thus, there is a need to modify the levels of non-compliance fees to create a deterrent effect and increase their collection rates. Although neither revisions of the base and the rates of non-compliance fees and fines nor the collection of payments are the responsibility of enforcement agencies, practical experience which inspectors could provide on the effectiveness of the policy instruments could be extremely useful for policy-makers considering the adjustment of these instruments.

3.5 Effectiveness of Enforcement

There are major constraints to effective environmental enforcement, including the heritage of the Soviet system, cultural and historical features, economic and social environment. Many of these cannot be overcome by internal action of enforcement agencies. However, economic hardships necessitate more careful management and targeting of resources, which could increase the effectiveness of inspectorates and, at the same time, contribute to the increased confidence in the government institutions by the public.

A comprehensive evaluation of enforcement efforts has not been a feature in the countries of the region. Some assessments have been done using activity indicators (e.g. revenue from sanctions imposed by inspectors, number of violation cases or complaints, number of inspections). In some cases, reports on environmental quality refer to inspectors' actions. These attempts were good starting but further work is needed to develop better criteria and methodologies for carrying out the assessment of enforcement efforts and performance of inspectorates. Particular emphasis could be put on assessing compliance rates.

During the reviews of inspectorates' performances it was clear that some enforcement institutions were much more ready to provide information on successful rather than unsuccessful actions. Publicising the results of all enforcement action, whatever the outcome, should be encouraged. Unsuccessful action is not always the fault of the enforcement institution and a lack of openness can undermine confidence in, and relationships with, enforcement institutions for important citizens groups.

3.6 Promoting Environmental Compliance

The system of strict control of compliance with environmental requirements and penalisation of violations was an exclusive approach in policy implementation in the Soviet Union. This approach, which does not consider compliance problems faced by enterprises, has continuously been applied in many countries to date. As a result, the promotion of environmental compliance is a new area of activity for many enforcement institutions. However, before promotion activities are considered there is a need to establish an effective economic and environmental policy framework. Several examples of necessary actions are presented in the Policy Statement on Environmental Management in Enterprises adopted at the Ministerial Conference in Aarhus in 1998, which is being promoted in the region. At the same time, enforcement institutions work on encouraging enterprises to improve environmental management using the following activities:

- Development of an environmental compliance promotion policy by governments, including provision for a broader application of Cleaner Production measures and promotion of Environmental Management Systems, economic incentives and targeted financial support actions.
- Developing specific goals for enterprises and processes, through compliance schedules for example, established by inspectors and industry.
- Seminars and training programmes for staff and enterprise managers on compliance promotion to establish contacts between the two stakeholders and to lay the ground for voluntary compliance.
- Organising information and dissemination seminars with the participation of policy makers, inspectors and industry to discuss environmental requirements, and problems with, and opportunities for, compliance.

- Developing communication lines, using seminars, documentation dissemination and exchange, and other tools, between the inspectorates and the citizen's groups to build public support for enforcement efforts and promoting compliance.

Case studies are needed, documenting successes and failures of compliance promotion and analysis of best possible approaches, including institutional and policy framework. Special links should be established by inspectorates with institutions that aim to promote better environmental management in enterprises, such as Cleaner Production Centres, professional associations and universities.

3.7 Transboundary Issues

Compliance with international (multi-lateral global and regional) agreements, including national enforcement actions require special consideration. Sharing information about requirements of international agreements, both multilateral and bilateral, should be promoted among and within each NIS. The NIS inspectors underlined the importance of the involvement of environmental enforcement agencies in the process of negotiating, ratifying and implementing international commitments as they can realistically assess the capacity to comply with new requirements. In addition, detailed implementation programmes have to be drawn to facilitate the implementation of the conventions. These programmes should include cost estimates and the provisions for generating necessary resources to address additional burdens. Additional requirements should also be reflected in individual inspectors' schedules and adequate resources should be secured for transboundary enforcement co-operation.

Historical conflicts or national security issues may prevent effective transboundary co-operation. Political and military conflicts have occurred quite often in the short history of the former Soviet Union nations and even though the military activities have stopped they still may shadow bilateral relations between neighbouring countries and the relations between the neighbouring communities. Environmental co-operation, including addressing transboundary issues, can provide an important mechanism for establishing free of political weight dialogue and co-operation between authorities and communities. Development of intergovernmental agreements and carrying out joint activities between the inspectors can assist in better understanding of the differences in the legal requirements and can also lead to their harmonisation. The NISECEN has already provided a framework for establishing initial contacts between enforcement agencies of the neighbouring countries.

4 NIS ENVIRONMENTAL COMPLIANCE AND ENFORCEMENT NETWORK — HISTORY AND CURRENT PRIORITIES

4.1 The Origins

In 1993, the Environmental Action Programme for Central and Eastern Europe provided recommendations on how to integrate environment into the development of democratic and market-based societies in the region following the political changes in Europe in late 1980's. At the 1993 Ministerial Conference in Switzerland, a Task Force was established to assist central and eastern European countries (CEECs) and the Newly Independent States (NIS) to:

- Promote the integration of environmental and economic policies.
- Upgrade institutional and human capacities for environmental management.
- Broaden political support for environmental improvement.
- Promote mobilisation and cost-effective

use of financial resources.

Several activities have been carried out in the period 1993-1998 to reach these objectives. These have focused on supporting the development of National Environmental Action Programmes, increasing the effectiveness of environmental financing and promoting environmental management in enterprises.

Following a Ministerial Conference, held in June 1998 in Aarhus, Denmark, the EAP Task Force adopted a new work programme, which called for greater focus on the New Independent States of the former Soviet Union and emphasised the need to shift from the development to the implementation of environmental policies and action programmes. Strengthening enforcement and compliance with environmental requirements in the NIS emerged as an important focus within the new Work Programme.

An important milestone in implementing Ministerial decisions was a meeting of environmental inspectors from Eastern Europe and Central Asia that was held in September 1999 in Chisinau, Moldova. The meeting was organised jointly by the Ministry of Environment and Territorial Development and the State Environmental Inspectorate of the Republic of Moldova and the OECD Secretariat within the framework of the EAP Task Force. The participants included officials and inspectors from Eastern Europe and Central Asia as well as invited experts and representatives of donor agencies from Western and Central Europe.

The participants discussed the problems and opportunities related to the different institutional settings of enforcement agencies worldwide and in the region as well as existing and potential enforcement tools and non-compliance responses. The role of the public, industry and other stakeholders in inducing compliance was an important part of the discussion along with the identification of more effective ways in which enforcement agencies could promote compliance by enterprises in the transition period. Finally, possible criteria and ways for assessing the effectiveness of enforcement tools and the evaluation of environmental inspection performance were discussed.

One of the main outcomes of the meeting was the establishment of the NIS Environmental Compliance and Enforcement Network (NISECEN). The establishment of the NISECEN reflected the trust of the Aarhus Ministerial Declaration where the importance of international co-operation to strengthen the enforcement of national environmental law was stressed.

The next "Environment for Europe" Ministerial Conference to be held in Kiev in 2003 will take stock of progress in addressing environmental problems in the region. The work on enforcement and compliance will constitute one of the elements contributing to the Ministerial discussion.

4.2 NISECEN Objectives, Value Added and Main Programme Elements

Exchange of experience, know-how transfer and co-operation among countries can provide important support for strengthening enforcement and compliance efforts. While sharing a common heritage such a process can help to compare positive and negative experience with applying different instruments or institutional framework. At the same time, since environmental enforcement institutions in the region have diverged in important respects international co-operation can stimulate the development and introduction of new ideas adapted to the specific conditions of individual counties.

The NIS Environmental Compliance and Enforcement Network aims to provide a framework for dialogue and actions at two levels, including:

- Promoting regional co-operation.
- Exchange of information and experience among the countries of Eastern Europe and Central Asia and between them and countries from other regions.
- Assisting in developing and implementing region- and country-specific capacity building and technical assistance projects to support enforcement agencies and promote compliance.

The discussions within the NISECEN cover a wide array of issues, such as horizontal and vertical institutional frameworks and responsibilities for enforcement, regulatory and non-regulatory instruments, engaging the public and regulated community, and international co-operation to implement bilateral and multilateral environmental agreements. The dialogue, which is conducted at plenary and expert meetings, is supported by the development of case studies as well as best practices, guidance and reference documents. The main elements of the Work Programme are presented in Annex 1 and the key outputs in Box 2.

The NISECEN is a unique initiative as it is the only one providing a forum for dialogue between environmental inspectors in the region where they can exchange experience and lessons learned. During the discussions the ideas are generated for further in-country actions.

The Network also provides opportunities to link with practitioners and experts from other regions to enable the NISECEN Members to build upon on the rich experience accumulated in other networks. The NISECEN co-operates very closely with the International Network of Environmental Compliance and Enforcement (INECE) and other European networks such as IMPEL (enforcement network of EU Member States) and AC-IMPEL (enforcement network of EU candidate countries).

The Network also provides an important forum to identify capacity building and know-how needs and communicate them to the donor community. A number of demonstration and pilot projects, supported by donors on the bilateral basis, have been launched.

Finally, the Network has a direct link to the high-level environmental policy-makers through the EAP Task Force and "Environment for Europe" process so the recommendations developed within the Network are communicated to high-level policy makers so they can receive a high political support for reform of environmental policies and institutions at both national and local level. The key lessons learned from the initial period of the NISECEN operations are presented in Box 3).

4.3 Organization of the Network

The activities of the Network engage officials that develop policy at a national level as well as practitioners who undertake inspections of installations. Dissemination of experience and results is also carried out beyond the Network members in the region and representatives of other interest groups, such as judges, NGOs, industry, Cleaner Productions Centres, professional associations are invited to the Network activities on a permanent or ad-hoc basis. Experts from other regions are invited to take part in the Network meetings and specific projects. The NISECEN meetings are also attended by the representatives of the donor agencies. This provides them with the opportunities to discuss the scope of assistance projects with the recipients and identify the ways to make their assistance more effective. (See Box 2: Key Outputs of the NIECEN Work Programme)

Key Principles for Effective Environmental Enforcement in the NIS: The NIS officials and experts agreed on the need to develop a concise policy document that would identify guiding principles

and key structural elements of effective environmental enforcement systems, tailor-made to the NIS context. This document should be instrumental in identifying targets for institutional development in individual countries in regards to environmental enforcement and compliance promotion. The Principles will be addressed to environmental ministries, central and regional enforcement agencies. Eventually, the Principles' endorsement at the national level will demonstrate the governments' commitment to improve existing enforcement systems.

An Update of the Survey on Enforcement and Compliance in Eastern Europe and Central Asia: The update of the Survey on Current Practices in Environmental Enforcement and Compliance Promotion in NIS will be prepared as a complimentary document to the Principles. While the Principles will state the desired situation, the Survey will scrutinise it in comparison with the actual situation in the NIS and will assess recent changes in environmental enforcement systems.

Synthesis Report on Environmental Permitting Systems in the NIS: This document will describe major features of the environmental permitting systems in the NIS, identify deficiencies and screen the needs and potential to reform these systems.

Inspection Toolkit: The toolkit will provide general elements of and contribute as much as possible to the needs of the individual NIS in improving their inspection organisation. The toolkit will facilitate the adjustment of inspection criteria and procedures to current requirements and, mainly, will be addressed to managers and practitioners.

Glossary of Enforcement Terms: The purpose of the glossary is to provide a common understanding of the terminology and enable users across NIS to easily communicate among themselves and with partners in OECD and CEE countries.

Terms of Reference for Training Programme(s): The Network intends to design training programmes in individual countries and/or at the regional level. The programme's Terms of Reference will describe priority target groups, overall and specific objectives of training, its content and possible approaches, inputs, outcomes, timeframe and budget estimates.

Other Supporting Documents:

- English/Russian Glossary of Terms;
- Training Materials;
- Directory of the NIS Enforcement Agencies and Their Main Partners;
- NISECE Web Site (www.oecd.org/env/policies);
- Russian translations of supporting publications, such as OECD two volume publication "Environmental Requirements for Industrial Permitting in OECD countries" and a USEPA "Principles of Environmental Enforcement";

The principal mechanism for programming and exchange of experience are the annual Network meetings. The first launching meeting of the Network which was held in September 1999 in Chisinau, Moldova focused on the general problems and opportunities related to enforcement and compliance worldwide with a particular emphasis on defining the priority need of the inspectors in the region. The second annual meeting, which was held in November 2000 in Baku, Azerbaijan, focused on environmental permitting and also agreed upon the elements of Network activity in 2001-2003. The third Network meeting, held in September 2001 in St. Petersburg, Russian Federation, discussed the framework and targets for institutional development of the NIS enforcement agencies.

A number of activities of the Network are being implemented through the small Working Groups established to work on specific elements of the work programme.

The Groups consist of selected Network Members interested in working on a particular subject. For example, small working groups have recently been formed to analyse in more depth such aspects of the work programme as environmental permitting, inspection criteria and tools, and inspectorates' institutional development. The groups meet on an ad-hoc basis to discuss the scope of the activity and results. The final findings are presented in analytical reports at the annual meetings of the Network for discussion among the Network Members. (See Box 3. Key Lessons Learned from the Initial Period of the NISECEN Operations).

The activities of the NISECEN are co-ordinated by a small secretariat located at the OECD in Paris. The Secretariat, which was established in September 2000, is composed of one full-time Project Manager and part-time Assistant. The Project Manager assists the Members in developing and implementing the work programme. The Manager also takes the lead in preparing Network annual and expert meetings, commissions and administers the preparation of analytical reports, carries out technical assistance needs and brokers between the NIS Members of the Network and donors. The Project Manager also maintains communication and information dissemination channels between Network Members and beyond. In addition, a half-time Local Co-ordinator is located in one of the Network Member countries and assists the Secretariat in Paris in liasing with Network Members and carrying out research and information collection activities.

Core activities, managed directly by the NISECEN Secretariat, are "twinned" with demonstration projects, i.e. projects implemented by donor agencies as part of their direct aid to individual countries. This synergy of regional and country-based work allows to achieve changes "on the ground", disseminate and replicate results. The Secretariat works closely with the Network partners on the development of project concepts and more detailed Terms of References and fundraising (Box 4). The Secretariat also keeps the close contacts with these projects to ensure that their results and lessons learned are widely disseminated throughout the Network (See Box 4: In-Country Demonstration Projects developed within the NISECEN framework).

A range of demonstration projects are currently under way supported by the EU Tacis Programme, Sweden and the USAID. These include:

- Proposals to Improve Institutional Setting in Moldova and development of the Inspectorate's Management Plan.
- Inspector Manuals and Training in Armenia, Belarus and Moldova.
- Inspectorate's Communication Strategy in Uzbekistan.
- BAT-based regulation in St Petersburg, Russian Federation.
- Approximation of the IPPC Directive in Moldova and Ukraine.
- Proposals to Reform Environmental Permitting Systems in Armenia, Kazakhstan Uzbekistan and Ukraine.
- Inspector Manuals and Training in Armenia, Belarus and Moldova.

The Network budget for a two and a half programming period (2001-2003) is 750.000 EUR. Staff and activity costs are supported by voluntary contributions from individual OECD countries. The main supporters of the Network are the Netherlands, the European Commission, Sweden, Germany and Denmark. In kind support is provided by Sweden, the UK and the US. Increasingly, in kind contributions are being sought from the NIS Members of the Network to support selected activities of the Network.

REFERENCES

1. In the context of this paper the region of Eastern Europe and Central Asia is composed of the following countries: Armenia, Azerbaijan, Belarus, Georgia, Kazakhstan, Kyrgyzstan, Moldova, the Russian Federation, Tajikistan, Turkmenistan, Ukraine and Uzbekistan. This group of countries can also be referred to as the New Independent States of the former Soviet Union – NIS, or the Commonwealth of the Independent States – CIS.
2. "Environmental Compliance and Enforcement in the NIS: A Survey of Current Practices of Environmental Inspectorates and Options for Improvements" [CCNM/ENV/EAP(2000) 87], OECD 2000

ANNEX 1: MAIN ELEMENTS OF THE NISECEN WORK PROGRAMME 2001-2003

TASK 1: SUPPORT TO INSTITUTIONAL REFORM

Objective: Gaining support for and catalysing institutional improvements in the NIS enforcement agencies

Main activities:

3rd thematic NISECEN Meeting and follow-up activities

Meeting proceedings

Development of the Key Principles of Enforcement by a Working Group and the Secretariat

Input to the law development process (e.g. in the Russian Federation)

Assistance in project identification, writing ToRs and support to the implementation of donor demonstration projects

World Bank IDF project in Moldova

Preparing an Update of the 2000 Survey of Enforcement Practices in the NIS, results to be reported at the Kyiv Ministerial Conference

TASK 2: ENVIRONMENTAL PERMITTING

Objective: Advocating lower burdens for regulators and industry and a better link between environmental permitting and enforcement

Main activities:

Two volume OECD manual on permitting translated into Russian language

Country profiles and analysis of environmental permitting in the NIS in comparison with OECD/CEE countries

Development of recommendations and case studies

Working Group and Expert Meetings (December 2000 and 2001)

Preparation of a Reference Book on Environmental Permitting

Demonstration projects and training (e.g in Armenia and Kyrgyztsan; a regional training for inspectors)

TASK 3: INSPECTION CRITERIA AND PROCEDURES

Objective: Providing guidance in setting up a more effective compliance control system and inspection prioritisation;

Main activities:

Inspection Working Group (IWG)

Development of a Toolkit on Environmental Inspection Criteria and Procedures,

Previously developed inspection manuals gathered and reviewed (USEPA, USAID, IMPEL, Ukraine Tacis)

Co-operation with the World Bank IDF projects in Belarus and Moldova on developing inspection

manuals

TASK 4: PROFESSIONAL TRAINING

Objective: Contributing to professional growth of officials and practitioners from NIS enforcement agencies

Main activities:

English/Russian Glossary of Enforcement Terms

Exchange programmes between Inspectorates

Assistance in identification of relevant training courses (cooperation with the WB Institute)

Terms of References for human capacity building projects and selected materials translated into Russian

TASK 5: COMPLIANCE PROMOTION AND COMMUNICATION

Objective: Fostering communication with regulated community and civil society;

Main activities:

Development of a communication strategy in Uzbekistan together with the World Bank IDF project

Thematic 4th NISECEN Meeting; Working Paper on Compliance Promotion Tools;

Participation in NGO forums;

Other public relation activities.

TASK 6: GLOBAL NETWORKING

Objectives: Promoting understanding of problems faced by the NIS enforcement agencies and gaining support from policy makers at the international level; and contributing to widening of international cooperation by the NIS inspectorates

Main activities:

Participation in the preparation of the 6th International INECE Conference;

Input to the development of the UNECE Guidelines on Enforcement and Compliance

Active participation in INECE EPC meetings;

Participation in IMPEL and BERCEN meetings;

Synopsis of projects and results achieved by other networks, translation of relevant materials

TASK 7: INFORMATION AND MANAGEMENT

Objectives: Knowing better the project stakeholders and ensuring that as many as possible institutions and individuals are participating and contributing to work plan implementation and as many as possible of them benefit from the results of NISECEN activities

Main activities:

Web site www.oecd.org/env/policy;

Directory of institutions and database;

Progress Reports and Biennial Report ;

Development of the NISECEN Work Programme for the subsequent period

Box 1: Current Permitting Systems in the NIS and Major Elements of Transition to Integrated Permitting

Generally, all countries of the region have long-lasting experience in permitting industrial activities. The "polluter-pays" principle has been introduced as an environmental policy tool in late 1980-ies. Nowadays, in some countries there are intentions to harmonise legislation with EU environmental acquis, and the political will to introduce integrated pollution prevention and control.

Environmental permits are used to limit emissions into the environment. However, the permits are mostly oriented towards end-of-pipe solutions rather than pollution prevention. Typically, they set Emission Limit Values for individual facilities, and cover a significant number of pollutants. The Emission Limit Values are derived from and calculated to meet ambient standards (Maximum Allowable Concentrations). In the majority of cases, limit values are unrealistically high, difficult or impossible to achieve even technically.

The number of regulated substances is not clearly identified in permits and abnormal operation conditions are not taken into account. Permit conditions are rigid towards process and product changes, increased or decreased production capacity. Reporting obligation and other conditions are rarely set in permits. Permits have validity for a limited time period, maximum up to 5 years. In some countries a permit renewal is requested on annual basis, while Emission Limit Values might be valid for a longer period. Permits and conditions set thereof are hardly available to the general public. Although legal requirements are in place, experience in systematically informing public opinion is recent or almost absent.

Industry has an important role to play in permitting and large enterprises are used to go through the permit application process. Industry is required to initiate the permit application process and is responsible for supplying true information. Facilities also ensure limited monitoring and reports to the authority(-ies). At the same time, the regulated community is poorly identified and country overviews on companies subject to permitting are usually incomplete (if any).

Pollution taxes are paid for agreed levels of emissions and companies exceeding the limit values, which are set in permits, are fined. Absence of a permit is penalised based on the rates applicable in case of non-compliance with Emission Limit Values. However, financial incentives to apply for, and respect conditions of a permit, are weak due to low levels of pollution fees and fines, the erosion of their value caused by high inflation and low fee collection rates.

Various environmental authorities are responsible for permitting. Institutional set-up is highly dependent on national environmental administrative systems, which have gone through several changes during the last decade. As a rule, permitting authorities are responsible for checking the content of the applications, issue the permit, and supervise permit owner. Inspectorate carries out compliance control. The human, material and financial resources, available to environmental authorities, do not ensure the adequate functioning of the actual permitting system. For instance, there is little experience in conduction negotiations, providing technical assistance or establishing partnerships between entrepreneurs and authorities.

(Box 1 continued)

Since a clear development trend towards integrated permitting emerges across regions, which stems from the process of harmonisation of the regulations with those of the European Union, several NIS have started the transition to an integrated permitting system. Based on the experience from OECD countries the main elements of reform should be as follows:

- Adjust the legal and regulatory framework.
- Identify the range of industry subject to integrated permitting requirements.
- Define the introduction time-scale and sequence of industries.
- Develop guidance for industry.
- Define who and how much pays for permitting.
- Elaborate the content of application and process of applying for a permit.
- Set up the mechanism of public consultation.
- Elaborate the permit structure.
- Analyse financial implications of moving to integrated permitting.
- Build capacity of institutions and staff.

Box 2: Key Outputs of the NIECEN Work Programme

Key Principles for Effective Environmental Enforcement in the NIS: The NIS officials and experts agreed on the need to develop a concise policy document that would identify guiding principles and key structural elements of effective environmental enforcement systems, tailor-made to the NIS context. This document should be instrumental in identifying targets for institutional development in individual countries in regards to environmental enforcement and compliance promotion. The Principles will be addressed to environmental ministries, and central and regional enforcement agencies. Eventually, the Principles' endorsement at the national level will demonstrate the governments' commitment to improve existing enforcement systems.

An Update of the Survey on Enforcement and Compliance in Eastern Europe and Central Asia: The update of the Survey on Current Practices in Environmental Enforcement and Compliance Promotion in NIS will be prepared as a complimentary document to the Principles. While the Principles will state the desired situation, the Survey will scrutinise it in comparison with the actual situation in the NIS and will assess recent changes in environmental enforcement systems.

Synthesis Report on Environmental Permitting Systems in the NIS: This document will describe major features of the environmental permitting systems in the NIS, identify deficiencies and screen the needs and potential to reform these systems.

Inspection Toolkit: The toolkit will provide general elements of and contribute as much as possible to the needs of the individual NIS in improving their inspection

(Box 2 continued)

organisation. The toolkit will facilitate the adjustment of inspection criteria and procedures to current requirements and, mainly, will be addressed to managers and practitioners.

Glossary of Enforcement Terms: The purpose of the glossary is to provide a common understanding of the terminology and enable users across NIS to easier communicate among themselves and with partners in OECD and CEE countries.

Terms of Reference for Training Programme(s): The Network intends to design training programmes in individual countries and/or at the regional level. The programme's Terms of Reference will describe priority target groups, overall and specific objectives of training, its content and possible approaches, inputs, outcomes, timeframe and budget estimates.

Other Supporting Documents:

- English/Russian Glossary of Terms;
- Training Materials;
- Directory of the NIS Enforcement Agencies and Their Main Partners;
- NISECE Web Site (www.oecd.org/env/policies);
- Russian translations of supporting publications, such as OECD two volume publication "Environmental Requirements for Industrial Permitting in OECD countries" and a USEPA "Principles of Environmental Enforcement".

Box 3: Key Lessons Learned from the Initial Period of the NISECEN Operations

- Proceed from needs and clear objectives.
- Agree on a practical, realistic and measurable work programme as soon as possible and focus on delivering specific products.
- Rely on a strong stakeholder ownership.
- Define clearly the responsibilities, including those of the Secretariat.
- Keep the link to policy-makers in order to gain political support.
- Focus on human capacity development and commitment as main driving forces of changes.
- Maintain communication, including the general public.
- Interact with international partners.
- Stimulate country specific activities through promotion of demonstration projects.

Box 4: In-Country Demonstration Projects developed within the NISECEN framework

A range of demonstration projects is currently under way supported by the EU Tacis Programme, Sweden and the USAID. These include:

- Proposals to Improve Institutional Setting in Moldova and development of the Inspectorate's Management Plan.
- Inspector Manuals and Training in Armenia, Belarus and Moldova.
- Inspectorate's Communication Strategy in Uzbekistan.
- BAT-based regulation in St Petersburg, Russian Federation.
- Approximation of the IPPC Directive in Moldova and Ukraine.
- Proposals to Reform Environmental Permitting Systems in Armenia, Kazakhstan Uzbekistan and Ukraine.
- Inspector Manuals and Training in Armenia, Belarus and Moldova.

ENVIRONMENTAL LAW ENFORCEMENT AND COMPLIANCE IN CENTRAL AMERICA

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SUMMARY

Environmental Enforcement and Compliance is a critical issue for Central American countries. The Central American countries have a number of laws that attempt to address different environmental problems. In practice, however, they cannot be effectively implemented because they are not clear, not flexible, and do not have effective mechanisms for achieving their stated goals. Existing legal and institutional mechanisms have not helped to solve many of the environmental problems and in some cases have caused additional obstacles to protect natural resources and the environment. Environmental law enforcement and compliance in the region is very weak in general due to many different factors. Some of the main limitations include: lack of political will; inefficient legal frameworks that do not address environmental issues in an appropriate manner; failure to included environmental issues in the national policy plans and planning processes; and lack of financial and human resources. This paper provides a general overview of the environmental law and policy process in Central America and some of the most important environmental provisions in the legal frameworks of each of the countries in the region. It also examines main obstacles and limitations for an efficient enforcement and compliance of environmental legislation in the region.

1 INTRODUCTION

Central American countries have been rapidly depleting their natural resources. Population growth is a major problem in all countries, increasing pressure on natural resources and creating pollution problems, particularly in urban areas. Continuing high indices of poverty in the region exacerbate natural resource depletion. Legal and political institutions do not at present provide an effective framework for environmental protection.

Although Central America has great biological diversity (about 8% of all biodiversity of the planet) the rate of biodiversity loss is rapid and many species are disappearing even before being discovered. For about 40 years, between 1950 and 1990, the region lost more than 70% of its forest cover and along with it valuable wildlife and environmental benefits. Air and water quality is also decreasing due to increasing industrial activities in the region, ineffective treatment facilities for solid and liquid waste, as well as weak laws and enforcement.

The principal environmental problems in Central America can be summarized as follows:

- Deforestation caused by expansion of agricultural frontiers for increased pastureland, subsistence agriculture, and agricultural production. This situation leads to deterioration of watersheds, loss of habitat, reduced biodiversity and soil erosion.
- Loss of biological diversity due to habitat

loss, illegal hunting and trade, and perhaps global climate change effects.

- Increased levels of chemical pollution from input-intensive agriculture, aquaculture operations, industrial production and growing urban populations.
- Increased logging and mining causing significant social and environmental impacts.
- Over-fishing by industrial vessels causing severe deterioration of fish stocks.
- Sewage and pesticide residue runoff transported to streams, beaches and coral reefs
- Population growth leading to increased demand on limited resources, more concentrated urban areas and pollution problems.

The end of the 1980's and the decade of the 1990's were very important because of the legal and institutional building in Central America. Countries adopted constitutional provisions to include the right of a healthy environment, enacted specific laws for environmental protection such as General Environmental Laws, Environmental Impact Assessment law, Biodiversity Law, Forestry Law, and creation of new institutions such as Environmental Prosecutors in the Attorney General's Office.

However, existing legal and institutional mechanisms have not helped to solve many of the environmental problems and in some cases have caused additional obstacles to protect natural resources and the environment. Environmental law enforcement and compliance in the region is very weak in general due to many different factors. Some of the main limitations include:

- Lack of political will.
- Inefficient legal frameworks that do not address environmental issues in an appropriate manner.
- Environmental issues that are not included in the national policy plans and planning processes.
- Lack of financial and human resources.

This paper provides a general overview of the environmental law and policy process in Central America and some of the most important environmental provisions in the legal frameworks of each of the countries in the region. It also examines main obstacles and limitations for an efficient enforcement and compliance of environmental legislation in the region.

1.1 Regional Environmental Policy

In 1989 the Presidents of the Central American countries created the Central American Commission for Environment and Development (CCAD, Spanish acronym), to design and implement regional coordination of environmental policy. This initiative is part of the Central American System for Integration that also includes other secretariats on economic, cultural and parliamentary affairs. In August 1994, the Central American Presidents agreed to issue a joint declaration calling for the creation of an "Alliance for Sustainable Development," as a "comprehensive Central American initiative that addresses political, moral, economic, social, and environmental issues."

1.1.1 Central American Alliance for Sustainable Development

On October 12, 1994, the Central American Presidents met in Nicaragua to sign the Alliance for Sustainable Development (ALIDES).[1]

ALIDES defines sustainable development as "a process that pursues progressive change in the quality of human life and which targets human beings as the central and primary target of development. It is achieved through economic growth with social equity and changes in production and consumption patterns, based on

ecological equilibrium and the support of the region." This implies respect for regional, national and local ethnic and cultural diversity, and the enhanced and full participation of all citizens, living together in peace and harmony with nature, not jeopardizing but rather guaranteeing the quality of life of future generations".

ALIDES main principles include:

- Respect for all life forms;
- Improvement in the quality of human life, including explicit mention of democratic participation, cultural diversity, and social equity;
- Respect for sustainable use of the vitality and diversity of the earth, including protection of biodiversity, pursuit of regeneration, and sustainable management of natural resources;
- Promotion of peace and democracy, including explicit reference to the struggle against violence, corruption, and impunity;
- Respect for cultural plurality and ethnic diversity, including explicit reference to the overlap between indigenous peoples and the location of sites with great biodiversity;
- Pursuit of greater economic integration, including a call for incorporation of Central America in broader regional trade blocs; and
- Explicit recognition of the intergenerational equity issues that underlie sustainable development.

1.1.2 Agreement between Central America and the United States (CONCAUSA)

During the Summit of the Americas, held in Miami in December 1994, the U.S. joined Central America in its ALIDES[2] commitment when the Central American Presidents and Vice-President Albert Gore signed the Agreement between Central America and the United States (Convenio Conjunto Centroamerica-USA, best known by its Spanish acronym CONCAUSA). The Agreement consists of a Plan of Action that establishes individual responsibilities for the US and the Central American countries.[3]

CONCAUSA's plan of action includes the following areas:

- Biodiversity conservation: Identification, preservation and sustainable use of the unique biodiversity of the region;
- Energy: Promotion of clean and efficient energy use;
- Environmental legislation: Strengthening of the legal and institutional frameworks and improvement and harmonization of environmental laws and regulations; and
- Sustainable economic development.

In addition to the specific components of the plan of action, CONCAUSA also supports and promotes the implementation of the Alliance for Sustainable Development. In order to implement its obligations under CONCAUSA, the US Government (through USAID) established the Regional Environmental Program for Central America (PROARCA), a 5-year 24 million dollar program that was extended in the fall of 2001 for 5 more years and with an additional 25 million dollars. This program is presently managed from the USAID regional office in Guatemala City.

1.2 Regional Environmental Law

Central American Countries have developed a regional legal framework to address some of the most pressing environmental issues in the region such as climate change, biodiversity and transboundary movement of toxic wastes. These regional agreements provide an important framework that help countries enact domestic legislation in order to implement and comply with international and regional agreements. All of these agreements that

have been signed and ratified by all Central America countries have entered into force. The secretariat of these agreements is the Central American Commission on Environment and Development.

1.2.1 Regional Agreement on Climate Change

Central America's largest contribution to climate change is from loss of forest cover. Reducing the rate of loss of forest cover, or growing additional forest will help contribute to mitigating global climate change. The Regional Agreement on Climate Change was signed in Guatemala on October 1993 as a regional effort to address the impacts of climate change.

The Agreement provides that "[s]tates must protect the climatic system for present and future generations based on equity and in conformity with their responsibilities and capacities to ensure that food production is not threatened and to allow economic development."

According to the Agreement, Central American countries must develop conservation and development strategies that include climate protection measures as a priority (Article 13). It is important to note that countries must implement economic and legal measures, as well as incentives to promote research on climate change and protection measures. In addition, countries must also promote the creation of a law on climate protection (Article 15).

The implementing institution is the Central American Commission on Environment and Development in coordination with the Regional Committee on water Resources and the Meteorological Institutes in each country.

1.2.2 Central American Agreement for Biodiversity Protection and Priority Wild Areas Protection

The exploitation of wild species for commercial purposes is a major threat to global biodiversity. Central American countries have established as a priority helping to conserve biodiversity and ensuring that illegal trade in endangered species is reduced in the region. The Central American Agreement for Biodiversity Protection and Priority Wild Areas Protection was signed in Nicaragua, in June 1992 during the Central American Presidential Summit.

The objective of the Agreement is to "ensure conservation of biological, terrestrial and coastal-marine diversity for present and future generations" (Article 1). The Agreement also requires Countries to develop conservation and development strategies to ensure biodiversity conservation and establish as a priority the management of protected areas (Article 14). Furthermore, countries must create a national Biodiversity Law to implement at the domestic level measures for conservation and sustainable uses of biodiversity.

In addition, the Agreement directs countries to implement economic and legal measures to ensure conservation and sustainable use of biodiversity (Article 13). Countries should also establish permit procedures to regulate and control access and collection of biodiversity resources from natural habitats and regulate commerce of biological resources at the national level (Article 27). The Agreement also recognizes the importance and value of traditional knowledge and practices from local groups that contribute to conservation and sustainable use of biodiversity resources.

The Agreement creates the Central American Council for Protected Areas responsible for coordinating regional policy efforts related to the regional system of protected areas.

1.2.3 Central American Agreement on Transboundary Movements of Toxic Wastes

There is an increasing awareness about disposal of toxic wastes in Central

America, and Presidents of the region signed the Central American Agreement on transboundary Movements of Toxic Wastes in Panama in December 1992.

The Agreement requires Parties to enact specific dispositions in their legislation to impose criminal sanctions to anyone that plans or participates in illegal transport of toxic wastes. In addition, each Party must identify a national authority to implement this Agreement that must be informed to the Central American Commission on Environment and Development.

1.2.4 Regional Agreement on Management and Conservation of Natural Forestry Ecosystems and Forestry Plantations Development

Deforestation is a serious threat to ecosystems and biodiversity with secondary impacts on economic development. Forests provide important and in many cases valuable ecological services such as carbon fixation, protection of watersheds, biodiversity, and tourism attraction. The Regional Forestry Agreement was signed on October 29, 1993 and provides a regional framework for sustainable management and conservation of natural forestry ecosystems and promotes the development of forestry plantations.

The objective of the Agreement is to prevent land-use change in forestry areas or to recover these areas that have been deforested. The Agreement also establishes set of principles and guidelines for institutional, judicial and economic policies to achieve this objective. Dispositions include rehabilitation of degraded forests, management of natural forests, reforestation and maintenance of forestry inventories.

At the institutional level, the Agreement promotes the strengthening of National Forestry Action Plans in each country, establishment of an "Environmental Ombudsman", and creation of the Central American Forestry Council that includes the Directors of forestry Services from each country and coordinators of the National Forestry Action Plans.

2 ENVIRONMENTAL LAW IN CENTRAL AMERICA

Most of the economic activities in Central America depend largely on natural resources, for example: forestry production, agriculture and tourism. Industrial activities are sources of pollution that have a negative impact on the environment and natural resources. In the past most of the externalities from productive activities were ignored, placing a significant burden on natural resources.[4]

During the 1960's and 1970's, Central American countries enacted laws and regulations to address existing problems in areas such as hunting, fishing, logging, and health, which were spread among many different codes and legal instruments.

During the 1980's, countries in the region sought to regulate environmental problems in a more systemic manner. They adopted specific laws and institutions that expanded the authority and size of the State but also created conflicts between the laws and institutions because of the lack of integration and coordination among them and previous laws and regulations. These laws were based on a command and control approach but the Governments lacked the capacity to establish specific regulations and norms to monitor compliance.

The decade of the nineties included some important changes to previous approaches to environmental legislation to create more general and integrated legal frameworks through the adoption of "General Environmental Laws."

This section includes a brief review of the environmental legal framework in each of the Central American countries that addresses main dispositions in their

Constitution, General Environmental Law and other relevant laws and regulations, as well as the institutional structure for environmental compliance and enforcement.

2.1 Costa Rica

Environmental Law in Costa Rica is spread among specific laws, regulations, and decrees. In some areas, these norms are not well integrated because they were created at different times to address emerging situations.

2.1.1 Constitution

The Constitution of the Republic of Costa Rica was amended in 1994 to include a provision on the right to a healthy and ecologically balanced environment. The Constitution establishes, among civil rights that "The State will ensure the overall well-being of all inhabitants of the country, organizing and stimulating production and adequate distribution of wealth. Every person has the right to a healthy and ecologically balanced environment, and is empowered to denounce acts that violate this right and to recover damages for caused harm. The State will guarantee, defend and preserve this right. Legislation will determine responsibilities and corresponding sanctions".[5]

The objective of the constitutional provision is to ensure a healthy environment and protect against any infraction to such right that would directly affect human beings, their health and their right to enjoy a clean environment. It is important to note that the Constitution establishes that the "standing" is broad and includes any citizen even if he or she was not directly involved in the harm or dispute. The constitutional Court had established on several occasions that "the preservation and protection of the environment is a fundamental right and the transgression of this right is a constitutional violation."[6]

2.1.2 Organic Environmental Law

The Organic Environmental Law [7] provides a general framework law or umbrella that aims to integrate and coordinate the different environmental norms spread through the legal framework. The Law includes general environmental principles and regulates a broad range of issues such as environmental impact assessment, biodiversity, pollution and the establishment of new institutions, among other issues. This Law is very general and does not provide specific implementing mechanisms.

The Organic Environmental Law defines the environment as "common patrimony of all the inhabitants of the nation" and determine that the "State and individuals must participate in its sustainable conservation and use, that are of public use and social interest." In addition, it states that everyone, in order to develop, has the right to enjoy a healthy and ecologically sustainable environment, as well as the duty to maintain it, consistent with Constitutional Article 50.

The Law also includes dispositions on the National Technical Environmental Secretariat (known as SETENA, its acronym in Spanish), which is the agency responsible for reviewing; evaluating and monitoring environmental impact assessments in Costa Rica. SETENA has the authority to order the interruption of works when there is harm to the environment. SETENA has a specific implementing regulation that includes guidelines on the EIA process, the scope of SETENA's jurisdiction and creates a special unit for environmental monitoring.

Unfortunately, SETENA is one of the most criticized environmental agencies because it is seen as an "obstruction" to development. This criticism is based on the fact that all procedures within SETENA take a long time and in many cases investors and developers are not happy with either the delays, or the recommenda-

tions made. SETENA's main limitation is the lack of a stable work team due to a continuous rotation of staff. In addition, the office has a very limited budget and little technical equipment to carry out a heavy workload.

The Organic Environmental Law has faced many limitations to its effectiveness because its language is not always clear, depends solely on the Central Government for its implementation and there just very few recent regulations that provide more specific guidelines for its implementation.

Other important Laws include the Wildlife Conservation Law of 1992, the Forestry Law of 1996, the Biodiversity Law of 1997, the Water Law of 1942, Law of the Coastal and Maritime Zone, Soil Conservation Law, Fishing and Hunting Law and the General Health Law of 1973.

2.1.3 Main Institutions with Environmental Responsibilities

- Ministry of Environment and Energy: The Ministry of the Environment and Energy (MINAE by its Spanish acronym) is responsible for implementing the Organic Environmental Law. Its principal obligations include design, planning and implementation of national policies related to natural resource, energy, mining, and environmental protection. In addition, the Ministry must direct, control, supervise, promote, and develop programs in those areas. Through the National System for Protected Areas (SINAC by its Spanish acronym) the Ministry carries out, in a decentralized manner, its policies on the conservation of protected areas.
- National System of Conservation Areas: The National System of Conservation Areas was established to coordinate the creation and implementation of policies related to the use and management of natural protected areas. In Costa Rica, there are 11 conservation areas, divided by bioregion. Each Area has a director, Technical Council and a local committee that are responsible for preparing and implementing Sustainable Development Plans.
- The Geology and Mines Direction: The Geology and Mining Direction is an office within the Ministry of the Environment responsible for issues related to the use of river bed materials, exploration and extraction permits for underground mineral extractions.
- National Technical Environmental Secretariat: The National Technical Environmental Secretariat (SETENA) is an independent agency within the Ministry of the Environment responsible for reviewing, evaluating and monitoring the environmental impact assessments. SETENA must also analyze the environmental impact assessment (EIA) and recommend necessary actions to minimize negative impacts on the environment.
- Ministry of Health: The Ministry of Health is responsible for undertaking all actions, activities, and general and specific measures towards the conservation and improvement of the environment, seeking the protection of the public health.
- Ministry of Agriculture: The Ministry of Agriculture and Livestock is responsible for monitoring and imposing land use limitation types according to their geographical conditions, classifying them in zones for agriculture, livestock, and forestry production.

2.1.4 Mechanisms for Environmental Enforcement and Compliance

The Organic Environmental Law created two new important institutions: the Environmental Attorney and the Administrative Environmental Tribunal. The Environmental Attorney is responsible for prosecuting any violation of environmental

laws to the Attorney General's Environmental Office, as well as participating in national environmental programs such as the ecological vehicle registration and the Ecological Flag (a program to recognize companies with good environmental performance).

The Administrative Environmental Tribunal is an independent office within the Ministry of the Environment that receives administrative complaints and makes administrative decisions. The Tribunal is comprised of three Judges that are responsible for enforcing sanctions established in the General Law. They are the last administrative procedure before moving into Judicial Courts, and its resolutions are obligatory. Its jurisdiction is to hear and resolve all administrative complaints against all public or private parties that violate environmental and natural resource protection legislation, and accusations referring to actions or omissions that violate or threaten the legislation, and to establish administrative indemnities for damages.[8]

The Tribunal is responsible for imposing administrative sanctions for violating environmental laws, or causing harm to the environment. Some of the protective measures and sanctions include: execution of a compliance guarantee provided in the environmental impact evaluation; partial or total restriction of activities; immediate cessation order for the activities causing harm; or total, partial or definite closure of facilities; and, partial, total or temporary cancellation of permits and patents.[9]

At the Judicial level the Environmental Prosecutor's Office, within the General Prosecutor's Office is responsible for building the case when there is an environmental violation bringing responsible parties to court. In Costa Rica, the Environmental Prosecutor's Office is based in San Jose and is comprised of three prosecutors for the entire country. They face many limitations, especially when they have to travel to distant locations to gather evidence, due to limited resources and technical support, and a lack of field experts. The Environmental Prosecutors are playing a key role demonstrating to the judges how to analyze evidence and to impose jail sentence to violators of environmental laws.

2.2 El Salvador

2.2.1 Constitution

The Political Constitution of El Salvador[10] has two general dispositions related to the environment. As a general statement, the Constitution provides that Citizens' health is a public good and that the State and individuals are responsible for its protection. The Constitution also establishes that natural resources are of public interest. Specifically, Article 117 establishes that "The protection, restoration, development and use of natural resources are declared to be of public interest. The state will create the economic incentives and provide the technical assistance necessary for the development of adequate programs. The protection, conservation and improvement of natural resources will be subject to specific legislation."

2.2.2 General Environmental Law

The Environmental Law of El Salvador [11] includes general principles for the sustainable use of natural resources, and states that the State, the Municipalities and the society in general are responsible for a sustainable environmental management. The Law establishes rights and responsibilities for citizens, and the society in general, and for the State, which is mainly responsible for public environmental management through the Central Government or Municipalities.

The first part of the Law establishes definitions, principles and rights for the citizens including, among others, the "right

of all people to a healthy environment in ecological equilibrium" (article 2,a) and the right of public participation (article 8). In addition, the Law states the responsibility of society, the State, and legal and physical persons to compensate or replenish natural resources used in their activities (article 2, d); and the responsibility to compensate or restore environmental damages to the State or individuals (article 2,e). The State has the responsibility to adopt measures to prevent, avoid and control environmental disasters (article 53) and to protect natural resources in coastal-marine areas, in coordination with Municipal Councils and competent authorities.

The second part of the Law sets up a framework for the protection of renewable and non-renewable natural resources and introduces the environmental component as mandatory in all proposed development or use of these resources. The third part establishes legal, judicial and administrative procedures to enforce environmental violations.

Other important environmental laws include the General Health Law, Forestry Law, Irrigation and Drainage Law, Wildlife Conservation Law, General Fishing Activities Law, Mining Law and Hydrocarbons Law.

2.2.3 Main Institutions with Environmental Responsibilities

- Ministry of Environment and Natural Resources: The Ministry of Environment and Natural Resources has the Constitutional mandate to promote environmental protection, conservation and recovery, sustainable use of natural resources, and to promote a high quality of life for present and future generations. The Ministry is responsible for making national environmental policies and enforcing environmental laws.
- Ministry of Health: The Ministry of Public Health and Social Assistance is responsible for controlling the quality of chemical, pharmaceutical, and veterinary products. In addition, the Ministry must monitor and control the quality of nutritional food products and environmental conditions that may affect human health.
- Ministry of Agriculture: The Ministry of Agriculture and Livestock is mainly responsible for developing sectoral laws, especially regarding natural resources such as forests, wildlife and water for agricultural and livestock uses.

2.2.4 Mechanisms for Environmental Enforcement and Compliance

The Environmental Law establishes sanctions for environmental misdemeanors committed by individuals or corporations, as well as by the State and the municipalities. There are also provisions regarding civil liability to compensate those who suffer harm to their health or a risk to the environment. Civil liability will be set through compensation, restoration of the environment or ecosystem, or fines.

"It is an obligation of the State, decentralized entities, and of all legal or physical persons, which by action or omission deteriorate the environment, to restore and repair damages caused to the environment."[12]

The Environmental Law also states that civil actions for environmental damages to the community could be initiated by any individual or corporation directly or indirectly affected by such damage; by five citizens members of a community; or by the Attorney General.

The Criminal Code was amended to be more consistent with the Environmental Law and cover crimes related to environmental pollution, deforestation, depredation of protected flora and fauna, burning of waste, and transport of toxic substances. The common sanction for these crimes is imprisonment and in some

circumstances just fines.

The Environmental Law calls for certain preventive measures to avoid foreseeable damages to the environment and ecosystems (Article 83).

At the Judicial level, there are 17 Environmental Prosecutors in the General Prosecutor's Office responsible for building environmental cases. They cover the entire country and receive financial and technical support from Multilateral Organizations such as the Inter-American Development Bank through Cooperation Agreements.

2.3 Guatemala

2.3.1 Constitution

The Constitution contains a statement on environmental policy that establishes rights and obligations for the State and its citizens. Article 97 establishes that "The State, the municipalities and the inhabitants of the national territory are obligated to propagate the social, economic and technological development that prevents environmental pollution and maintains the ecological balance. All the necessary rules will be dictated in order to ensure that the usage and the exploitation of fauna, flora, soil and water, are made rationally, avoiding its waste."

2.3.2 Environmental Protection and Improvement Law

The Environmental Protection and Improvement Law [13] states as its main objective that State, municipalities and individuals must promote social, economic, scientific and technological development to prevent environmental pollution and to ensure an ecological balance through the rational use of natural resources.[14]

In addition, the Law establishes specific responsibilities of the National Environmental Commission (CONAMA by its Spanish acronym) which includes among others: protection, conservation, and improvement of natural resources; prevention, regulation and control of activities that cause harm to the environment and pollution to ecological systems; design of the national environmental policy, and creation of incentives for protection, improvement and restoration of the environment.

The agency responsible for implementating the Law is CONAMA. The Law is comprised of general principles and measures to prevent pollution, manage waste, environmental impact assessment and protection of natural resources. The Law requires CONAMA to enact specific regulations for its implementation.

Other important environmental laws include the Protected Areas Law, Hunting Mining Law, Health Law and the Criminal Code. Some specific regulations include the Regulation of Minimum Requirements and Maximum Permissible Limits for the Disposal of Waste Waters, Regulation for the Evaluation of Environmental Impact and Regulation of the Protected Areas Law.

2.3.3 Main Institutions with Environmental Responsibilities

- National Environmental Commission: The National Environmental Commission is responsible for coordinating actions in the development and implementation of the national environmental policy. The CONAMA is responsible for implementing the Law of Protection and Improvement of the Environment. CONAMA's main responsibility is to review and approve Environmental Impact Assessments. However, this responsibility is beyond CONAMA's current capacity because of insufficient staff and inadequate resources.
- National Council of Protected Areas: The National Council of Protected Areas (CONAP by its Spanish acronym) has the lead responsibility for promoting conservation and improvement of the natural

patrimony of the country; organizing and directing the Guatemalan System of Protected Areas, SIGAP. In addition, CONAP must coordinate the administration of the resources of wild flora and fauna and biological diversity; implement dispositions regarding conservation of biological diversity, and build a national fund for the conservation of natural resources in Guatemala.

- Ministry of Public Health and Social Assistance: The Ministry of Public Health and Social Assistance is responsible for coordinating actions to protect human health and implement actions to ensure basic environmental sanitation, protection of water resources, especially for human consumption.
- Ministry of Agriculture, Livestock and Food: The Ministry of Agriculture, Livestock, and Food is responsible for developing and implementing policies for agriculture and cattle ranching development, water irrigation and sustainable use of renewable natural resources.
- Ministry of Energy and Mines: The Ministry of Energy and Mines formulates the national energy policy and proposes the regulation and supervision of the exploration, and extraction of hydrocarbon and "mineral commercialization systems."
- Ministry of National Defense: The Ministry of National Defense is responsible for controlling and patrolling protected areas in border zones.

2.3.4 Mechanisms for Environmental Enforcement and Compliance

CONAMA is responsible for imposing administrative sanctions for violations to the Environmental Protection and Improvement Law that comprises of warnings, fines and confiscation of equipment. The sanctions are imposed according to the seriousness of the violation, the environmental impact, harm to individuals and the background of the offender. In addition, CONAMA implements "environmental audits" as an instrument of control. These are submitted by interested parties for a periodical evaluation.

At the Judicial level there are four National Environmental Prosecutors in the General Prosecutor's Office and one auxiliary Environmental Prosecutor in each of the Judicial Districts of the country. The Environmental Prosecutor's Office is responsible for conducting criminal investigations for crimes against the environment.

The Attorney General's Office has an environmental division that provides advice to the State entities on legal environmental matters and represents the State in civil actions.

2.4 Honduras

2.4.1 Constitution

The Political Constitution of the Republic of Honduras [15] establishes a basic obligation of the State to protect the environment and natural resources. Specifically, Article 145 states that "the State shall preserve the environment appropriately to protect human health."

Furthermore, the Constitution calls for the rational uses of natural resources in Article 340: "The technical and rational exploitation of natural resources are declared of public utility and necessity. The State shall regulate their use according to public interest and shall establish the conditions to grant such exploitation to citizens. Reforestation and conservation of forests are declared of national convenience and collective interest."

2.4.2 General Environmental Law

The main objective of the General Environmental Law [16] is the protection, conservation, restoration and sustainable management of the environment and natural

resources that are of public utility and social interest. The State and its agencies are responsible for the defense of the environment and for undertaking measures to prevent environmental degradation.

In addition, article 10 of the Regulation for the General Environmental Law recognizes the citizen's right and duty to participate in all activities aimed at the protection, conservation, and restoration of the environment implemented by the State and its agencies. Public standing is recognized in the administrative and judicial when there is environmental degradation or harm to natural resources.

The Law also includes dispositions regarding the environmental impact assessment for private or public activities that involve use of natural resources or might have a negative impact on the environment and natural resources. In addition, the Law establishes dispositions for pollution prevention, waste management and prohibits importation of toxic waste.

The Public Health Secretariat and the Environmental Secretariat are responsible for the implementation of the General Environmental Law and other environmental laws regarding sanitation, air, water, and soil pollution.

The Law also creates the System of Protected Areas that includes biosphere reserves, national parks, wildlife refuges, natural monuments, and biological reserves. These areas are subject to Management Plans.

Other important environmental laws include the Forestry Law, Fishing Law, Mining Code, Health Code, Phyto-zoosanitary Law and the General Transportation Law. Some of the regulations include the Regulation for the Environmental Law and the Decree for the Creation of Protected Areas.

2.4.3 Main Institutions with Environmental Responsibilities

- Secretariat for Natural Resources and the Environment: The Secretariat for Natural Resources and the Environment (SERNA by its Spanish acronym) is responsible for implementing and enforcing environmental legislation, and the development, coordination, and monitoring of compliance with national environmental policies.
- Honduran Corporation for Forestry Development: The Honduran Corporation for Forestry Development (COHDEFOR by its Spanish acronym) is an independent agency within SERNA. The Natural Resources Secretary appoints the General Manager. COHDEFOR is responsible for implementing national forestry policies, and monitoring the use of natural resources, while ensuring their protection and conservation.
- Secretariat for Agriculture, Livestock and Food: The Secretariat for Agriculture and Livestock is lead by the Minister of Natural Resources. The main functions of the Secretariat include coordination of the agriculture sector, and promotion of the agriculture and forestry development.
- Secretariat for National Defense and Public Safety: The Secretariat for National Defense and Public Safety, in coordination with the Public Health and Natural Resources Secretariat, is responsible for monitoring continental and coastal waters.

2.4.4 Mechanisms for Environmental Enforcement and Compliance

The Secretariat for Natural Resources and the Environment is responsible for enforcing provisions established in the General Environmental Law for actions or omissions against the environment through criminal or administrative sanctions. Penalties include incarceration, fine, closure, suspension, seizure, cancellation,

compensation, and when possible, replacement or restoration of the affected areas to their previous state.

The Regulation to the General Environmental Law also states the Secretariat's duty to conduct inspections and monitoring, and also to impose preventive and corrective measures at the national level. At the local level, municipal governments have authority to implement inspection and monitor actions within the "scope of their power and jurisdiction."

The Criminal Code imposes imprisonment as a penalty for crimes against public health. At the Judicial level, there are thirteen Environmental Prosecutors; eight are located in Tegucigalpa and five in different departments. In addition there are Technical Environmental Units in three of the country's regions.

2.5 Nicaragua

2.5.1 Constitution

The Political Constitution of Nicaragua [17] contains provisions regarding environmental protection. Specifically, the Constitution states in Article 60 that "Nicaraguans have the right to a healthy environment. The State has the obligation to ensure the preservation and conservation of the environment and natural resources."

Furthermore in its Article 102 states that "Natural resources are part of the national heritage. The State is responsible for the preservation of the environment and the conservation, development and rational exploitation of natural resources; the State may enter into contracts for a sustainable exploitation of these resources, when there is a national interest."

2.5.2 General Environmental and Natural Resources Law

The General Environmental and Natural Resources Law [18] is comprised of a series of general principles on conservation and use of natural resources. The Law includes general dispositions on environmental management, natural resources, environmental quality, jurisdiction of governmental institutions and sanctions.

The main objectives of the Law are: to prevent, regulate and control causes or activities hat deteriorate the environment or pollute ecosystems; to establish measures for a rational exploitation of natural resources in the National Planning Policy; to promote conservation and sustainable use of water resources; and, to promote a healthy environment.

The Law is very general and is supported by more specific legislation such as the Regulation on Permits and Environmental Impact Assessment. The Ministry of the Environment and Natural Resources implements this Regulation through the Office for Economic Activities Control. The list of activities that require an EIA is very extensive, however, it leaves out some activities. Environmental permits are granted after the interested party presents the required documentation and officials of the Ministry make a site visit. The EIA processes are registered in a computer system that allows better control of the developed activities.

2.5.3 Main Institutions with Environmental Responsibilities

- Ministry of the Environment and Natural Resources: The Ministry of the Environment and Natural Resources (MARENA by its Spanish acronym) is responsible for the implementation and enforcement of environmental legislation, and to develop, coordinate, and monitor compliance with national environmental policies.
- Ministry of Agriculture and Livestock: The Ministry of Agriculture and Livestock is responsible for coordination of the agriculture sector, and promotion of the

agriculture and forestry development.

- Ministry of Health: The Ministry of Health (MINSA by its Spanish acronym) is responsible for coordinating actions to protect human health and implement actions to prevent pollution to the environment. The MINSA is required to protect human health from risks of air, soil and water pollution as consequences of transport, storage or disposal of toxic waste. In addition the MINSA must control hygiene and sanitation for drinking water.

2.5.4 Mechanisms for Environmental Enforcement and Compliance

The Ministry of the Environment and Natural Resources is responsible for enforcing sanctions established in the General Environmental and Natural Resources Law. Sanctions include warning, fine, temporary or permanent cancellation of permits, partial, total or temporary closure or suspension of activities.

The Regulation of the General Environmental and Natural Resources Law includes more specific dispositions on actions or omissions subject to administrative sanctions and contains a classification of minor, serious and very serious violations. The Regulation also establishes some criteria to apply administrative sanctions such as harm caused to human health, valuation of damages, economic benefit received by the violator of the law, and type of violation.

The General Environmental and Natural Resources Law created the Office for Environmental and Natural Resources Defense, within the Attorney General's Office. There are six Environmental Officers that represent and defend the interest of the State and society on environmental issues.

2.6 Panama

2.6.1 Constitution

The Political Constitution of the Republic of Panama [19] establishes the obligation of the State to guarantee a clean environment. Article 15 of the Constitution states that "It is a fundamental duty of the State of Panama to guarantee its people a healthy, pollution-free environment, and an environment in which the quality of the air, water, and food meet the standards for appropriate development and maintenance of human life."

2.6.2 General Environmental Law

The General Environmental Law [20] establishes that the State is responsible for the management of the environment. In addition, the Law states that all individuals or legal entities are also responsible for preventing environmental damages and for controlling environmental pollution.

Law creates the National Environmental Authority (ANAM by its Spanish acronym) as an independent agency responsible for coordinating with other agencies on natural resources and environmental protection and environmental management issues.

The Law states that ANAM is required for coordinating the national environmental policy comprises of measures, strategies, and actions, as well as to provide guidelines for actions and conducts of the public and private sector, and individuals on environmental issues. ANAM is also required to develop national environmental policies and plans for the sustainable use of natural resources. These policies and plans shall be coordinated with the development plans of the State.

The National Environmental Authority is also responsible for directing, supervising, and implementing national environmental policies, strategies, and programs. The National Environmental Authority is also responsible for drafting environmental laws and regulations to be submitted to Congress

through the President.

Other important environmental laws include the Forestry Law, the Law of Wild Flora and Fauna and the Regulation on the Use of Water Resources.

2.6.3 Main Institutions with Environmental Responsibilities

- National Environmental Authority: The National Environmental Authority is required to ensure that the laws, regulations and national policy on the environment are complied with and enforced.
- Ministry of Agrarian Development: The Ministry of Agrarian Development is responsible for promoting a rational use of natural resources, identification of lands for agriculture use through a rational use of water and irrigation systems. The Ministry is also responsible for controlling introduction of exotic species and compliance with importation permits and inspection and quarantine requirements.
- Ministry of Health: The Ministry of Health is responsible for implementing health and occupational health measures and for implementing norms related to disposition of waste waters and implement measures to protect human health for environmental degradation.

2.6.4 Mechanisms for Environmental Enforcement and Compliance

The General Environmental Law establishes the mechanisms to achieve compliance with and enforcement of environmental laws and regulations. The Law includes administrative sanctions that are imposed by the National Environmental Authority such as written or verbal warnings, temporary suspension of operations, closure of facility, and fines.

In addition, the National Environmental Authority has authority to order the offending party to pay for the cost of clean up, mitigation and compensation for the environmental damages.

The Forestry Law includes several dispositions on ecological crimes against natural resources such as forest fires, illegal logging, unauthorized change of land use, and changes in the flow of natural waters. Sanctions include seizure of equipment, fines, and imprisonment from 6 months to 5 years.

3 OBSTACLES TO COMPLIANCE

3.1 Issues related to authority

The general environmental framework for environmental enforcement and compliance in Central American countries is not very effective. Existing laws do not establish the necessary control mechanisms for successful implementation. In addition, environmental norms have not yet been effective in preventing environmental harm and authority is generally limited to sanctions to punish illegal conducts.

The institutions tasked with ensuring environmental compliance in the region face many challenges and obstacles. The primary responsibility falls on the environmental ministries. In Central America, these ministries tend to be under funded and have unclear lines of authority and responsibility. In addition, they face obstacles from unclear laws and regulations, as well as numerous contradictory mandates and objectives.

In spite of these difficulties, the ministries of the environment play a key role in environmental enforcement and compliance. Their main responsibility is to watch over the compliance with minimum environmental standards in the realm of economic activities. However, many environmental problems are not just a responsibility of the ministry of the environment but other ministries as well. For example some agricultural practices and subsidies promote the use of chemicals products that

cause harm to the environment and human health, but there is little coordination between the Ministries of Environment, Agriculture and Health. Another example is the conflict over land use planning and designation of forestry of agricultural lands for rural development.

Countries in the region have many environmental laws, however these are not always enforced due to different circumstances. Some laws are not very clear, many do not have specific implementing regulations, and others are in conflict with other laws. And, as a general rule, the ministries do not have personnel to review compliance or otherwise enforce the laws.

The most critical issue is the clarity of the laws. Environmental laws seek to prevent harmful actions against the environment and natural resources or to impose a sanction if harm is caused. Some laws have very detailed descriptions of their objectives, definition of terms, implementing agencies, but do not include specific mechanisms to achieve results, such as enforcement authorities, or specific definitions of infractions. Governmental agencies such as the ministry of the environment and the ministry of health are responsible for developing the specific strategies to implement and enforce legislation. These agencies have the task of developing specific regulations that include the guidelines on how to apply the law. These regulations are the basis for an effective enforcement.

Most of the Central American countries do not have appropriate regulations to implement their environmental legislation. Most environmentally related laws in the region have little or no implementing regulations, making enforcement a difficult and sometimes impossible task. This lack of clarity of the legal frameworks creates a lot of uncertainty for enforcers, the private sector and the general public. In addition, these laws become subject to interpretation that will vary depending on the interests of the administration or the influence of specific sectors. For example, all the countries in the region have General Environmental Laws that create new institutions, however, not all countries have adopted regulations or coordination mechanisms to implement these laws.

Governmental agencies responsible for enforcing environmental laws and regulations have many limitations because of their legal structure. If there are no specific regulations that establish and determine the scope of a norm, it will be the task of governmental agencies to determine when a conduct has caused harm and carry the burden of proof to bring violators of the law to court or to face administrative sanctions. This case-by-case approach is cost-prohibitive in developing countries.

As mentioned earlier, the evolution of environmental legislation in Central America went through different phases and in general developed new legal instruments to address new environmental issues that in some situations were adopted as copies from other countries. The result is a lack of integration of previous laws and authorities, which leads to conflicting mandates. In particular, sectoral laws (forestry, hunting, fishing, and waters) are frequently in conflict with each other because they were drafted without coordination. For example, in Costa Rica the Wildlife Law protects all species of wild flora and fauna however, it does not include forestry species. On the other hand, the Forestry Law does not include specific provisions to protect forestry species that are endangered or threatened.

Some of the limitations for compliance with environmental laws in the region are related to government programs such as subsidies and incentives that influence the private sector's motivation to comply with environmental laws. In several cases, especially in the agriculture sector, the government provides tax breaks or other subsidies for agrochemical products that are

used in an inappropriate manner, causing environmental pollution, water contamination and health related problems. In addition, some incentive programs do not promote a better environmental conduct because they reward harmful conducts. For example the Forestry Law of Costa Rica provides the highest incentives for reforestation of pasturelands, but the lowest incentive for preservation of natural forests.

In some instances laws and regulations require the implementation of measures or equipment that involve investment of financial resources, but which do not provide tax benefits. For example, the importation of wastewater treatment plants and pollution control equipment is subject to duty tax (that in Costa Rica is up to 100%). In addition, the financial sector applies a higher interest rate for this type of investment because it is classified as a "non-productive asset".

Environmental legislation in the region tends more towards application of sanctions for violations instead of promoting more prevention measures to avoid environmental damages. The regulated sectors always look for existing loopholes in the legislation and choose the least expensive alternative. For example, if the law establishes low fines for dumping untreated wastewater into water bodies, the option of paying a fine is frequently less expensive than buying an expensive wastewater treatment plant. In this situation, an effective measure will be to provide an incentive to promote cleaner environmental conduct and at the same time establish a higher sanction if there is a negative conduct.

3.2 Financial and Human Resources Issues

Environmental institutions in Central America face a critical situation due to a lack of financial resources and qualified staff. In addition, there are personnel constraints in nearly all countries of the region because of the reduction in the size of the State and its budget— largely a result of structural adjustment programs. Countries have enacted numerous environmental laws and created many new institutions, but the governments do not allocate new resources or staff to carry out such tasks. For example, the Organic Environmental Law of Costa Rica of 1995 created 9 new institutions but the Government has not provided any additional resources or personnel to help in its successful implementation.

Most of the governmental officials and employees that work on environmental issues do not have a formal training in this field and are entrusted with a wide variety of responsibilities and tasks that they are not capable of undertaking. In other cases, even where there are many public officials with sufficient experience to carry out an efficient performance; they encounter many infrastructure limitations to carry out their job. For example, many institutions do not have technical equipment, monitoring equipment, vehicles or travel budgets.

Furthermore, some of the problems of the implementation of environmental laws are the lack of control and monitoring mechanisms, frequently attributable to budget or human resource limitations. For example, monitoring of national parks is a task that requires qualified and trained personnel, equipment (cars or boats depending on the location of the park) and knowledge of poaching regulations to provide all necessary information and evidence when they find a person violating the law. Some of the countries have support from other governmental agencies and non-governmental organizations to help carry out this task. For example, in El Salvador, the NGO SalvaNatura carries out management and monitoring responsibilities in El Imposible National Park. In Honduras, El Salvador and Nicaragua, the Ministry of Defense provides support to the Ministry of the

Environment in monitoring national parks and protected areas.

It is obvious that many of the existing laws in Central America were designed without considering the financial costs of their implementation. Many laws establish strict measures and controls but cannot be implemented because responsible institutions do have the appropriate budget and have a lack of resources, equipment and staff. There are laws that promote fiscal incentives but the Treasury does not respect the legal mandate. Consequently, resources are not allocated in environmentally sound or conservation activities.

4 EVALUATION OF OBSTACLES AND OPPORTUNITIES

4.1 Structure, Authority and Political Will

Effective enforcement and compliance of environmental laws depends on the structure and effective functioning of the government and its national environmental policy. Such a policy must focus on environmental monitoring and control, but also include a system of economic instruments that helps eliminate overexploitation of natural resources and rewards more sustainable activities.

In addition to command and control mechanisms, the adoption of economic incentives could help as a support to involve the private sector in environmental responsibilities that in many situations the government does not have the capacity to handle effectively.

Governments should empower the environmental ministries with more financial and technical resources. In addition, it is necessary to clarify jurisdiction of all agencies responsible for environmental issues. At present, coordination between governmental institutions is not always effective and there is very little coordination among the agencies that oversee the implementation and enforcement of environmental laws. This situation causes confusion among the responsible agencies that in many cases are not sure about the extent of their responsibility. For example in most of the countries, water issues are regulated by the Ministry of Health (safety and quality standards for drinking purposes), the Water Agency (quantity, distribution and fees), Ministry of Environment (protection of water resources) and the Ministry of Agriculture (irrigation for agricultural purposes).

The governmental structure should provide appropriate resources and mechanisms for effective enforcement and compliance with environmental legislation, for example: programs or plans for enforcement and compliance in the different agencies involved in environmental issues, training of staff and provide technical equipment and infrastructure.

The environmental law-making process requires additional political support to address pressing environmental issues. Laws need to be more consistent with socio-economic realities and environmental issues should be consistently reflected in other legislation. In addition, national development planning should include a stronger environmental component and reflect the economic costs of enforcement and compliance with environmental laws.

4.2 Needs for decentralization and its benefits

Many of the responsibilities of the ministries of the environment are being decentralized to provide better outreach. This process allows the Ministries to take on more of a coordinating role of the environmental policies in each country and become a better enforcer.

Decentralization of administrative responsibilities could have positive results, but could bring problems in some areas. Decentralization should be done just when

the regional offices have the experience and technical resources to address the issues. Since the current limitation is one of staff and financial resources, decentralization will only be as effective as allocated resources allow. On the other hand, municipal and other local authorities could prove to be more efficient and cost-effective, particularly when supported by local citizens and environmental groups.

4.3 Importance of Collaboration with Ministries, NGO's, Universities

Private NGO's, universities and international organizations have experienced staff, technical knowledge and resources to address specific environmental problems more directly and support the work of the Ministry of the Environment. Certain activities could be delegated to these organizations to relieve some of the heavy load of the government's bureaucracy, reduce discretional decisions and perhaps make the fight for environmental quality more effective.

5 CONCLUSIONS

Environmental law is an evolving field that tries to adopt norms to redirect negative conduct. It is a fact that command and control mechanisms are not sufficient by themselves for an effective enforcement and compliance with environmental laws in developing countries such as those of Central America. The Central American countries have a lot of environmental laws that attempt to address different environmental problems. In practice, however, they cannot be effectively implemented because they are not clear, not flexible, and do not have effective mechanisms for achieving their stated goals.

The basic principle for environmental protection is the "polluter pays principle" that is included in many of the laws of Central American countries. However, this principle in practice is more of an enunciation that is not provided of mechanisms for a real implementation. For example, environmental legislation in the region needs to promote a conduct that internalizes environmental costs and prevents environmental and natural resource degradation. Legal frameworks should include more flexible mechanisms to prevent environmental damages and more effectively incorporate the polluter pays principle.

The reliance on the role of the State is very strong and most of the enforcement and compliance actions are highly centralized. All the different actors of a society could contribute to a more decentralized structure, which could achieve more effective compliance with environmental legislation. Local governments need to be empowered to carry out more of these responsibilities and to have a higher impact in their communities. The private sector needs to take new and innovative challenges to mitigate their environmental impact by improving their environmental performance even though they have to adopt voluntary measures that are beyond the legal requirements of the country. In addition, public participation is very important to give the opportunity to interested parties to participate in the law-making and decision-making processes, perhaps as well as environmental enforcement and compliance.

Information and education are key elements to redirect negative environmental conducts. In Central America, there is little awareness about the consequences of current damages to the environment and natural resources and the options that civil society has to demand actions from the government or carry out activities to support the government's tasks. There is also little investment in programs to correct this deficiency.

There are very important initiatives that support efforts to improve environmen-

tal enforcement and compliance in the region. For example, the Central American Commission on Environment and Development in coordination with the US Environmental Protection Agency are already working to facilitate the creation of a regional network of legal and enforcement experts in Central America. This network focuses on transboundary environmental problems or violations of law, achieving greater compatibility of national laws at higher levels of protection, and improving implementation of international commitments to protect the environment. They also assist their members in identifying capacity-building priorities and potential cooperative projects that promote compliance with environmental requirements and sustainable development.

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3. It is important to note that CONCAUSA places more emphasis on environmental issues than ALIDES.
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FROM "THE MEXICAN PROBLEM" TO A REGIONAL EXPERIENCE. ENVIRONMENTAL ENFORCEMENT AND COMPLIANCE IN NORTH AMERICA

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SUMMARY

One of the most interesting aspects of the institutional arrangment created by the North American Free Trade Agreement (NAFTA) is the inclusion of environmental commitments between countries that show had a very uneven development in their environmental policies. By the early nineties, when the agreement was being negotiated, Canada and the USA had been enforcing their laws for more than two decades. Indeed, the USA is regarded as one of the world leaders in the enactment and implementation of environmental legislation. On the other hand, Mexico had a promising legislation but very little experience in its implementation. This asymmetric situation raised concerns on the feasibility of the treaty as a whole, and gave way to some interesting institutional innovations, as well as to some responses from both the Mexican government and NGOs throughout the region. Almost one decade later, it is interesting to reflect on the consequences of those developments. In this paper, we will argue that there is little chance that the worst predictions will materialize. Environmental policies have been strengthened, not weakened and, at the same time, free trade has not been affected by the asymmetries of environmental performance throughout the region. In particular, Mexico did not become the sort of environmental heaven that some feared. As we will see, this is due both to developments at regional level and within Mexico.

1 NAFTA NEGOTIATIONS (CONCERNS AND PREJUDICES

The North American Free Trade Agreement (NAFTA) was questioned while it was being drafted for putting in the same basket countries with such a different level of development as the USA and Mexico. One of the main cries for attention came from the environmental community, who saw Mexico becoming a pollution heaven in no time after signing the document. Several members of the USA Congress embraced this point of view and pushed for further negotiations within NAFTA.

Although a good deal of prejudice was the basis of that claim, there was no evidence to counteract that prejudice. As of 1992, Mexico had nothing to show regarding the enforcement of its environmental laws. Several surveys showed that Mexico's legislation was good, the problem was it did not have 'teeth'. As we will see, Mexico made an effort to change that image, but

that could not be done overnight. Not surprisingly, the fear of an environmental heaven became a serious obstacle to NAFTA. Also, it gave the opportunity to the incoming Clinton administration to introduce changes that made NAFTA more acceptable to the environmental community in the USA.

It is true that within the original text of NAFTA, the "parties had already committed themselves to avoid the relaxation of domestic health, safety and environmental standards in order to promote investment But that was not enough and negotiators had to produce something else, as we will see below.

To be sure, the 'environmental heaven' was not the only issue at stake. Other prejudices and fears were present in the proces. For free trade opponents, NAFTA would bring about further environmental deterioration. At the other extreme, those who believe in free trade at all cost, feared that environmental restrictions could become an obstacle for economic development. Also, some industrial groups in Mexico feared they could be put out of business with the implementation of environmental standards they would not be able to meet. Finally, nationalism, a very strong ideology in Mexico, gave rise to fears that Mexico had to adopt the American legal model – with all the 'adversarialism' that allegedly distorts environmental policies in the USA (Zamora, 1993). A discussion of these issues would take us far from the purpose of this paper, although they will be part of the debate for many years[1]. Nevertheless, beyond the complexity and the density of that debate, there is an undeniable reality: The outcome of the environmental negotiations— i.e. the adoption of an environmental side agreement — was "more the product of the US legislative battle over NAFTA than the result of an acute environmental conscience in the governments of Canada, Mexico and the US" (Hufbauer et al, 2000).

2 A UNIQUE SIDE - AGREEMENT

As we have said, NAFTA had not entirely ignored environmental concerns. Article 1114 (in Chapter 11) clearly stated that "[T]he Parties recognize that it is inappropriate to encourage investment by relaxing domestic health, safety and environmental measures". However, the political process in the USA drove the negotiations into a more specific "environmental side agreement", where those issues could be directly addressed. Thus the parties signed the North American Agreement for Environmental Cooperation (NAAEC), in order to establish a framework, to facilitate effective cooperation in the conservation, protection and enhancement of the environment. One of the creations of NAAEC was the North American Commission for Environmental Cooperation (CEC)[2].

As we can read in the CEC web page, "one of the principal aims of the NAAEC is the promotion of effective enforcement by the Parties of their domestic environmental legislation". Of course, due to the legal nature of the Agreement, it does not make explicit the real origin of the whole initiative. But it is obvious that there was a dominant perception about one of the parties (the "Mexican problem"). No one in the negotiation process raised concerns that Canada or the USA could create problems by failing to enforce their laws. However, as we will see, the Agreement created an authentic regional dynamic, i.e. much beyond the original concern that engendered it.

Before we explain the specific mechanisms created by NAAEC in order to promote environmental enforcement in the region, it is worth mentioning one of the assumptions behind those mechanisms. In the negotiations, it was recognized (or rather, Mexico managed to establish) that

common environmental standards at regional level were out of the question. It was taken for granted that Mexico would not be able to meet the allegedly much more stringent standards of its counterparts. Although nobody challenged this assumption, it was never backed by serious studies. Indeed, there are many indications that standards adopted by Mexican law are as strict as American and Canadian ones and, also that most firms in Mexico is capable of complying with them (*PROFEPA*, 2000). Thus, the idea of sovereignty took the place of the debate about levels of environmental protection. Each party in the Treaty retained the privilege to establish their own levels, as long as they made an effort to keep them high. This also meant that the debate shifted from strictly environmental issues to environmental *legal* issues. The question is not whether the environment is protected and how, but whether the law is complied with. For some people the difference is not irrelevant.

The agreement puts a heavy emphasis on cooperation among the member countries, fostering joint committees on different subjects, particularly a working group on enforcement issues where even regional compliance indicators have been worked at, making it a breakthrough on regional environmental policies. However, the main issue the Agreement had to address was that of lack of enforcement of environmental legislation. And it did so by establishing two kinds of *consequences* for the party that failed to enforce it. One is to be publicly exposed and the other is trade sanctions.

The mechanism to publicly expose governments that are failing to enforce environmental law (a proceeding that leads to the elaboration of a 'factual record) is provided for in Articles 14 and 15. These provisions give a right to anyone living in any of the three countries of North America "to bring the facts to light" concerning the enforcement of environmental legislation in any of the three countries".(CEC web page). If a citizen has gone through all the national instances of an environmental demand without authorities giving him/her a convincing answer, the CEC Secretariat can take his/her denunciation and ask the national government for a response. If this fails, it is assumed that the highlighting of the government's mistakes is enough to embarrass it and force it to improve its enforcement actions.

In the design of the 'factual record' proceeding, the intentions were to avoid the creation of anything that resembles a court or any form of adjudication. Once the Council of the Commission authorizes the Secretariat to make a factual record in response to a citizen's submission, the Secretariat must undertake an investigation, gather information from all involved parties, and produce a report (the 'factual record') that outlines, in as objective a manner as possible, the history of the issue, the obligations of the Party under the law in question, the actions of the Party in fulfilling those obligations, and the facts relevant to the assertions made in the submission of a failure to enforce environmental law effectively. This outcome is not free from ambiguities. As we will see, it is even less than mere 'soft law', because the report is not formulated in normative terms, i.e. the Secretariat does not 'command' anything to the party involved. It is supposed to simply state the 'facts'. However, it would be very naive to expect that a 'mere description' does not have normative implication, when the issue is whether or not the law is being followed. As long as the facts under consideration are related to laws, it is impossible to describe them without at least implying what should be done.

At any event, the possibility of having a 'watchdog' that could investigate cases of lack of environmental enforcement was seen as a big step to make govern-

ments accountable before a new kind of constituency: those who live in the countries of North America. This was considered a very important accomplishment. However, it was not enough. More serious consequences were necessary in order to avoid the temptation of ignoring the political consequences of public exposure. Thus, the countries agreed to establish a mechanism that could lead to economic sanctions. When, even after a factual record, a country falls into a persistent pattern of failure to effectively enforce its environmental law, an arbitration panel may be created in order to examine the case. If the parties do not reach an agreement, the panel may impose a monetary enforcement assessment (a fine) of up to 0.007 percent of total trade in goods between the Parties. The sum goes to a fund and shall be expended to improve or enhance the environment or environmental law enforcement in the Party complained against. If the country fails to pay the fine, the panel can determine the withdrawal of the trade benefits derived from NAFTA.

The text of NAAEC is very cautious about this extreme possibility and establishes a proceeding that allows the parties in conflict to reach an agreement before a monetary assessment is established. Moreover, as we will see below, after almost a decade there has been no attempt from any of the three parties to initiate this procedure against another and that possibility seems unlikely. However, from a strictly legal point of view, the existence of this procedure creates a completely novel situation in the relations between the countries of North America: the obligation to enforce environmental law is not only part of their (internal) legal systems, since NAAEC is also an international duty. This is why NAFTA and its side agreement can be said to create the obligation to protect investment and also to protect the environment. It is true that the legal mechanisms provided for the former are much stronger than those for protecting the environment. But most observers agree that this was an important step. After all, NAFTA is the first trade agreement in the world that addresses environmental issues.

3 MEXICO'S INTERNAL RESPONSE

Not surprisingly, the relevance that environmental issues acquired during the negotiations of NAFTA meant a lot of pressure upon the Mexican government. But its willingness to sign an environmental side agreement was not enough; it was necessary to show a serious commitment at home. This circumstance combined with a tragic event: in April 1992 more than one thousand people were killed as a result of an explosion in the sewers of Guadalajara, the second largest city in the country. The public outcry that followed forced President Salinas to make changes in the environmental organization of the Federal Government. Three months later, the *Secretaría de Desarrollo Urbano y Ecología* (Ministry for Urban Development and Ecology) was replaced by the *Secretaría de Desarrollo Social* (Ministry for Social Development). Within the new ministry, two semi autonomous agencies were created in order to develop and implement environmental policies: the *Instituto Nacional de Ecología* (National Institute of Ecology, or INE) and the *Procuraduría Federal de Protección al Ambiente* (Office of the General Attorney for Environmental Protection) or *Profepa*.

It is worth stressing the unique character of this arrangement, as Mexico is probably the only country in the world with a two–tier environmental administration, with one agency in charge of norms and regulations and another one that specializes in enforcement. In any case, the creation of *PROFEPA* in July 1992 meant the start of an aggressive program of environ-

mental enforcement. The agency was created with the 'teeth' that critics were signaling during the negotiations of NAFTA, although this did not mean any fundamental legal change, as the authoritarian tradition of the Mexican State has traditionally given wide discretionary powers to the administration to regulate economic activities. In fact, the environmental legislation *PROFEPA* was meant to enforce[3] already gave the Government powers to decide closures and impose a variety of measures, without the intervention of the Courts.

With all the legitimacy provided by both the internal and the external circumstances, and with the help of a timely World Bank loan that allowed the hiring of more than three hundred new inspectors, *PROFEPA* began its enforcement program in mid 1992. Not only did the number of inspections increase by more than ten times - from one thousand a year to one thousand a month[4], the measures taken as a result of visits became more severe. In its first year, one of every four inspections ended with a (total or partial) closure, a measure that was lifted only when violations were corrected or when a clear timetable was established to correct them. Although some companies complained that this was 'environmental terrorism', it was the only way that industry would begin taking its legal obligations seriously. In two years, the proportion of the inspected facilities with 'serious violations' dropped from 24 to 4 percent. By 1996 it was less than 2 percent[5]. This does not mean that in such a brief period Mexican industry reached levels of 'excellence' in their environmental performance[6]; but it does mean that many of the gross violations (that are not so difficult to correct) were dealt with for the first time. This should not be surprising, when one thinks that before environmental enforcement was almost non-existent in the country.

Now the scheme was not only bold; it was also smart. It combined the 'stick' of administrative inspections with the 'carrot' of voluntary environmental audits[7]. Obviously, it was unthinkable to close down every industrial facility with serious violations. Power plants, oil refineries and other facilities could not stop operating overnight. So *PROFEPA* established a voluntary program. Those who join the program are free from inspections (except if there is an emergency or a citizen complained) and are given the time they need to correct the problems identified by a private auditor. In exchange, the audit is comprehensive, i.e., it covers all aspects of the facilities' environmental performance. This means that apart from complying with Mexican standards where applicable, they have to adopt international standards in those areas not covered by the former. The audit results in an Action Plan, with a detailed list of corrections. Once the facility concludes that Plan, it gets a 'Clean Industry' Certificate.

At that time, there was not even a reference to environmental audits in Mexican legislation.[8] Interestingly enough, however, auditing was mentioned by the NAAEC as one of the means through which North American Countries could promote compliance (Article 5,1,f). So it is obvious that the adoption of this innovative instrument in Mexico was a direct product of the NAFTA negotiations. In a few years, many large facilities throughout the country joined it, mainly because it offered a 'safe harbor' against inspections. For most observers, the environmental benefits were worth the price of not imposing sanctions, for each facility spent around one million dollars in average in order to comply with the Action Plan. Every year an average of 250 new plants joined the program and by year 2000 they reached a total of 1,700. To give an idea of the coverage of the program, it suffices to say that those plants produce over 60% of the industrial GNP in the country (*PROFEPA*, 2000).

Thus, when the Clinton Administration had to report to Congress on the effects of NAFTA, the auditing program was highlighted as a proof that Mexico was committed to take environmental compliance seriously:

"The Mexican government has instituted an innovative auditing program to promote industry leadership in voluntary compliance. As of April 1997, 617 facilities have completed environmental audits, and 404 have signed action plans to implement recommended improvements to attain, continually assure, and exceed compliance." (President of the United States of America, 1997, 125)

Later, an independent report by Harvard University confirmed that the Mexican auditing program was a sound instrument for getting beyond compliance with environmental law[9]. Obviously, if firms joined the 'voluntary' program, that was because they feared the possibility of being shut down. Those were clear signals that Mexico was making a real effort in the area of enforcement.

Another turning point was the creation of a new ministry at the beginning of Ernesto Zedillo's Administration (1994-2000). *Semarnap (Secretaría de Medio Ambiente, Recursos Naturales y Pesca*, or Ministry for the Environment, Natural Resources and Fisheries) integrated for the first time the green and the brown agendas. The enforcement branch of *Semarnap, Profepa* began to operate in forestry, fisheries, endangered species and coastlines, the only environmental area at federal level in which *Profepa* does not have enforcement powers refers to water pollution.

At this point, we can address a fundamental question: Is it possible to enforce environmental law in all its areas? The truth is that the difficulties of complying with the law are extremely diverse. Even if this is an over simplification, we can say that most industrial firms are capable of reaching reasonable levels of compliance. That is what the experience of *Profepa* makes clear. In contrast, there are two other areas in which it is extremely difficult for any enforcement agency to bring about compliance. Those areas are deforestation and domestic water discharges. It is worth looking at the social and political conditions under which those 'violations' take place, in order to consider whether or not they can have 'consequences' for Mexico in terms of the NAAEC.

Mexico has one of the highest deforestation rates in the hemisphere. More than one million acres of forests of different sorts are lost every year. This takes place through three different categories of practices: unsustainable forestry, the conversion of forested areas into agriculture, and the intensification of certain practices associated with traditional rural society. Although we can find situations in which these three categories occur, it is important to recognize their differences, because they are part of different economic processes.

Unsustainable forestry — i.e. the extraction of timber beyond the rate of self-renewability — is a commonly known form of deforestation. Misconceived and erratic government policies have played a mayor role in encouraging unsustainable forestry. For the most part of the twentieth century, the primary way in which the Mexican government tried to avoid the destruction of forests was by establishing *vedas* (i.e. a moratorium on logging). This of course creates a black market for forest products and prevents the development of professional skills among the owners of forests ant its resources. Moreover, when forest projects were approved, permits were given not to the owners of those forests but to private or state owned corporations. Although more than three fourths of Mexico's forests are the common property of agrarian communities (*ejidos* and *comunidades*), they were

only able to collect a small rent for allowing those corporations to use their forests. In the late-eighties, government policies began to promote forestry projects conducted directly by the owners of the forests. Thus, in many regions of the country they have just begun to engage directly in the use of their own forests. The learning process is only beginning and there are still serious problems with community forestry, but most observers agree that sustainable use of the forest by the owners is a better alternative than just making all logging illegal.

The second category of practices that lead to deforestation is the conversion of forests into agricultural areas. Indeed, it has been the major cause for deforestation in Mexico. Although the data available is extremely scarce, we can agree on the fact that much more tropical forest has been lost to agriculture and cattle raising than to forestry. The causes for this 'change of land use' are multiple, including an encouragement by certain public policies that recently have been recognized as fundamentally wrong. One of the worst mistakes of agricultural policies of the last four decades refers precisely to the belief that land in the tropics would be more 'productive' without its native vegetation. 1) peasants' property rights over forests were protected only if they converted them into agricultural production. 2) colonization policies populated the tropics with peasants with no previous experience in the management of these fragile ecosystems. 3) public loans were available for cattle rising, even in natural protected areas, and 4) huge agricultural projects were intended to profit with the supposed fertility of land in the tropics (Tudela, 1988).

By and large, those policies were still in effect during the eighties, so it is not surprising that many rural communities still now want to transform their forested areas for producing crops and/or cattle. This happens particularly where there is no timber with significant economic value (as in the seasonally dry forest type, or *selva baja caducifólia*) and residents have not developed the ability to make a sustainable use of the resources of the forested areas. In all these cases, peasants do not take advantage of the forest. They simply remove it because it is an obstacle to short-term profitable activities. In spite of recent efforts (*Semarnap,* 2000 and Giugale, et al, 2001) there is still a long way to go before the inertia of many decades of wrong policies can be offset by new policies.

The third category of practices that lead to deforestation is associated with certain activities that are traditional in rural life. The use of wood as fuel at home, the use of forested areas for grazing, as well as the use of fire in the 'slash and burn' technique, are some of these traditions that pose a threat to tropical ecosystems, when population growth make them unsustainable.

This brief account does not try to cover all the different processes that lead to deforestation. We only try to illustrate how different practices can fall into the same legal category. Cutting trees without a permit (an illegal action) can be part of very different economic activities. It can be part of the world of sustainable forestry or of agricultural production – i.e. using the forest versus just destroying it. Also, it can be related to consumption practices of poor rural societies (fuel woods) or to those of affluent urban societies - charismatic flora and wildlife species. Above all, those activities can be seen as the normal way of doing things (mainly by local communities), or as crimes (through a legalistic gaze). In other words, violations are not seen at the local level as 'deviant' behavior, and that is why compliance with environmental law cannot be attained only through enforcement actions. Adapting human behavior to legal rules involves, in the case of deforestation, nothing less than profound

changes in the cultural and economic structure of rural societies.

There is another area in which we can observe a massive lack of compliance with environmental law: Domestic water discharges. Certainly, several industrial sectors are responsible for the contamination of lakes and rivers. But that can be dealt with through instruments like those *Profepa* has used for air emissions, hazardous waste, and so on.[10] Nevertheless, domestic water discharges are a far more difficult problem. As a recent report by the North American Environmental Cooperation Commission states, "in Mexico only a small proportion of municipal...discharges is adequately treated" (CCA, 2001, 37). Here, a 'small proportion' means just around 10 percent (Giugale et. al. 2001, 121). For a country with more than seventy million people in urban areas, this represents an enormous challenge. The problem, of course, is the extremely weak financial situation of local authorities in Mexico. Compliance involves the building and operation of treatment facilities for which there are not enough public resources. If collecting taxes from urban dwellers for the provision of water is difficult, when it comes to charging for the treatment of their waters, most local politicians consider that as an impossible task. According to the law, local authorities should pay penalties to the Federal Government for discharging untreated water. But this law has been systematically ignored. Last December, President Fox issued a Decree absolving municipalities from all the debts they had accumulated for not treating their discharges. The justification, explicitly stated in the Decree, was that local authorities just do not have the resources to comply with the law.

We have gone to some length regarding two particular areas in which there is a 'persistent pattern' of violations of environmental law; and the pattern is persistent because there are structural limits to what can be attained through enforcement actions. Also, these areas are important because they represent extremely severe environmental problems. Now the interesting thing is that none of them can lead to the imposition of the economic sanctions established in the NAAEC. The fear that created those sanctions referred to the use of a country as an 'environmental heaven' (i.e. to the economic consequences of certain behaviors against the environment, not to environmental degradation as such). Activities of practices that do not produce such economic consequences are not sanctioned. Some observers have taken this point too far. For example, for Barbara Hogenboom, "[t]he enforcement provisions of the supplemental agreement concern environmental laws and are explicitly non-applicable to domestic regulations that primarily regulate exploitation and harvesting of natural resources, and to environmental matters that are not connected with trade" (Hogenboom, 1998, 218). The truth is that this exclusion applies only to the economic sanctions established by the agreement, and it is still possible to promote a factual record for lack of enforcement even if this does not have trade implications. To be sure, the possibility of embarrassing a government is still there for environmental violations in all areas. Nevertheless, it remains a fact that the worst consequences that the NAAEC established for those countries that do not enforce their laws will only apply when economic interests are at stake. This means that Mexico will not have to bear an economic cost for the most serious and generalized forms of non-compliance of its environmental laws.

It is important to stress that in those areas directly related to international trade, compliance is not a problem for those responsible for industrial facilities. After all, most environmental standards in industrialized countries adapt to what

industry can actually do. Thus, fears from all sides proved wrong, mainly because the widespread violations of environmental law we have just described do not have an impact in international trade. By the same token, no one was put out of business due to the economic cost of attaining compliance. Far from the dark scenarios that some observers depicted ten years ago, NAFTA and its environmental side agreement have benefited the region by putting the environment in the emerging regional agenda.

4 NAAEC NINE YEARS LATER

A clear indication that fears around environmental issues in the negotiation of NAFTA were basically wrong is the fact that, almost a decade later, no party in the treaty has threatened to use economic sanctions against another party for some persistent pattern of lack of enforcement of environmental law. On the other hand, there has been an important number of citizens' submissions. As of May 2002, 33 submissions had been received: 14 against Mexico,[11] against Canada and 8 against the USA. However, the consequences of these procedures have been perfectly tolerable. In fact, even if Mexico has had to respond to more submissions than Canada and the USA, this has not meant a major problem for authorities or for investors in the country.

It is true that Mexico had problems in accepting the first factual record (Construction and Operation of a Public Harbor Terminal for Tourist Cruises on the Island of Cozumel). But the reason was that the government actions that were being put into question in that case had taken place before NAFTA entered into force. So Mexico had to allow a retroactive application of the new mechanisms, so as not to appear as 'boycotting' them.11 Thereafter, Mexico, as much as the other two countries, has responded to citizens' submissions as one more of the various tasks of environmental administration, i.e., as a matter of routine. Unfortunately, for too many observers, it is very important that a government accepts a factual record 'grudgingly' or 'willingly', as if human emotions (the mood of politicians and civil servants) were a relevant issue in international relations. If we look at the 'facts' – and we will see this is a tricky question – factual records have not recorded any 'persistent pattern' of lack of environmental enforcement. They is a new arena for the debate of environmental issues, and its consequences have been very similar throughout the region: raising the intensity of the environmental debate.

Moreover, the Commission for Environmental Cooperation has become an institutional space in which cooperation has been far more important than conflict. The environmental authorities of the three countries have had an opportunity to share their views on policy options, to develop common indicators and, above all, to foster debates about environmental problems at a regional level. This is apparent with a quick view to the list of publications of the CEC web page.

One example of cooperation is the Resolution adopted by the Council in its 1998 meeting at Pittsburgh, regarding environmental management systems (EMS) and compliance certification. For some

Citizens' Submissions before the CEC: May 2002

Country	Active Files (11)	Closed Files (22)	TOTAL (33)
Mexico	6	8	14
Canada	4	7	11
USA	1	7	8

years, the ISO 14001 series had become a fashionable way for corporations to display environmental excellence. For the Mexican authorities this presented a problem, because some big corporations that were still far from full compliance of their legal obligations began to announce that their ISO certification was proof that they were going beyond the law[12]. Some of them were in the process of a voluntary audit but they had not completed their Action Plans. After months of consultation in the context of CEC, it was clear that the USEPA faced the same problem. Thus these two countries used the CEC as a forum for a strong policy statement: ISO 14001 and other EMS were recognized as useful tools for improving environmental performance, but they did not guarantee full compliance with legal obligations. That was recognized jointly by the three environmental ministries as the Council of the CEC.

Now the fact that the NAAEC has not created the sort of problems that worried some people ten years ago does not mean that the results of its operation are unproblematic. There is one aspect of the factual record proceeding that should be critically considered: the profound ambiguity of the very notion of a factual record in the context of a legal debate. It is logically impossible to produce a neutral (i.e., a non-normative) description of a fact, when that fact is seen from the perspective of the law, because law is a normative form of discourse. If one tries to make a description of a (legal) situation without clearly stating that it is legal or illegal, the result can be extremely ambiguous. In fact, many of the factual records that have been issued by the Commission, fail to declare explicitly whether the law has been broken or not in the case in point. Thus, everyone will draw his or her own conclusions. Traditional rulings of a court system are interpretations – that one can always put into question – but they must be of a conclusive nature. In contrast, a factual record may be a text that has to be interpreted.

Let us take as an example the final report on the *Metales y Derivados* case. As in many legal cases, the applicability of certain legal rules was at stake. But the authors of the report decided that they were not going to deal with the issue. Thus the report 'concludes' that

'Without aiming to reach conclusions of law on whether Mexico is failing to enforce LGEEPA Articles 170 and 134 effectively, the information presented by the Secretariat in this factual record reveals that, as a matter of fact, the site abandoned by Metales y Derivados is a case of soil contamination by hazardous waste in relation to which measures have been taken to date have not prevented the dispersal of pollutants or prevented access to the site, which relates to the issue of whether Mexico is effectively enforcing LGEEPA Article 170. It also reveals that, as a matter of fact, no actions have been taken to restore the soil to a condition in which it can be used in the industrial activities corresponding to the zoning of the area, i.e., the Mesa de Otay Industrial Park in the city of Tijuana, Baja California, in order to enforce effectively LGEEPA Article 134. (CEC, 2002, 59/60)

How can one understand this? Although there is a clear implication that something is wrong, a reluctance to making a legal interpretation is seen in this paragraph. The text lacks a fitting conclusion, making it difficult for the common citizen to understand if a country is enforcing its environmental law or not, or even more, if the environment is being damaged or not. In this scenario, the results of factual records like this one can be quite disappointing.

5 CONCLUSIONS

We have tried to show that none of the fears that the NAFTA negotiations gen-

erated on environmental issues have materialized. Almost one decade later, there are no significant social or political actors that press for a change in the statu quo and the CEC has become an important space for cooperation between the three countries.

For Mexico, NAAEC has also created a favorable atmosphere for the development and consolidation of enforcement activities within the country. Although it is difficult to assess the specific weight of internal vis á vis international factors, it is undeniable that, nowadays, Mexican authorities recognize they have a regional responsibility regarding the environment. Even if some extreme nationalists regret this as a loss of sovereignty, the fact remains that environmental policies are not responding only to developments within the country.

At the same time, there has been no indication that the worst consequences of a poor environmental performance (economic sanctions) can be suffered. Not because there is a generalized compliance with environmental law, but because the areas in which there is widespread lack of compliance are exempted from those consequences. In this respect, both the text and the operation of NAAEC are loyal to their origins: the fear of the economic consequences of environmental heavens, not environmental concerns as such. This also means that, even if NAAEC represents some interesting legal innovations, we cannot expect those innovations to play a significant role in addressing some of the most pressing environmental problems in countries like Mexico – i.e., deforestation and water pollution. The consolidation of national law (with all its socio political prerequisites) is a condition for addressing those problems.

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1. For an excellent discussion on the process, see Hogenboom, 1998.
2. The Commission comprises a Council (with representatives of the three governments) a Secretariat and an Public Advisory Committee.
3. The *Ley General del Equilibrio Ecológico y la Protección al Ambi*ente (or Ecological Balance and Environmental Protection General Act) was in force since 1988.
4. This means the Mexican Government has the capacity to inspect all the facilities within federal jurisdiction every two and a half years.
5. These gross indicators were replaced years later with the a system of indicators of compliance. By 1999, the ICNAs (*Indices de Cumplimiento de la Normatividad Ambiental*) provided detailed information about the level of compliance of more than eight thousand plants throughout the country.
6. Indeed, there are indicators that around one third of the corporations under inspection processes do not comply with the technical measures ordered by *Profepa. Profepa*, 2000[a].
7. The merit of the original institutional design of *Profepa* rests on the first Attorney General, Santiago Onate and the deputy Attorneys (engineers, by the way) Francisco Bahamonde and José Luis Calderón.
8. They were recognized as instruments of environmental policies in 1996 with the reform of the General Ecological Balance and Environmental Protection Act .
9. One of the major findings of that survey was that "[t]he Voluntary Audit Program in Mexico is unique because it is much more than a system for verifying compliance.... risks that are not specifically regulated under Mexican federal law are also targeted for identification and cor-

rection....We could find no other program in the world that offers all the features of the Voluntary Audit Program to its participants" (Harvard.... 2000, 39)

10. If that has not happened it is because the agency responsible for this (the National Water Commission) has neglected its enforcement program.
11. In the end, the final report in the Cozumel case did not show anything like a persistent pattern of lack of enforcement of Mexican environmental law.
12. An embarrassing situation emerged in Mexico when the first ISO 14001 certificate was issued to AHMSA, a big metallurgic compound. After the company proudly announced this as a great achievement, *Profepa* had to publicly deny that the facility in question was in compliance. That company had to wait for two more years before getting the 'clean industry' certificate for completing the Action Plan of its environmental audit.

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THEME #2

Ensuring Effective Environmental Enforcement Through Institutional Capability and Performance Assessment

Under Theme #2, panel 3 "Organizing for Environmental Compliance and Enforcement" examined the issues of "good governance" that are intimately tied to the fair, predictable, and consistent application of the law by enforcement officers. Panelists also explored mechanisms and strategies for developing well-written, enforceable legal requirements. Panel 4 "Raising Awareness and Measuring Results — How to Define Success" explored the difficulties involved with defining the success or failure of environmental enforcement initiatives and discussed environmental enforcement indicators.

This section includes the panel presentations as well as the following papers and workshop summaries:

- Environmental Compliance and Enforcement at the United States Department of Justice and the Role of Enforcement in Good Domestic Governance, *Cruden, John*
- National Compliance and Enforcement of International Environmental Treaties, *Mulkey, Marcia*
- Organisation Model of Services Responsible for Control of State of the Environment: Vs. Their Effectiveness of Work Based on Experience of the Inspection for Environmental Protection in Poland, *Zareba, Krzysztof*
- Legislative Bases of Ecological Control in Russia, *Egorova, Marina*
- Domestic Programs for Implementing MEAs: Establishing MEA Implementation Mechanisms, *Anderson, Winston*
- Experience of the Inspection for Environmental Protection in Implementation and Enforcement of Environmental Law in Poland, *Panek-Gondek, Krystyna*
- Behavioural Control by Means of Enforcement in Case of the Surface Water Pollution Act, *Zeegers, Ingrid*
- Legal Control of Water Pollution in Huai River Valley, China: A Case Study, *Xi, Wang*
- Performance Indicators for Environmental Compliance and Enforcement Programs: The U.S. EPA Experience, *Stahl, Mike*
- Raising Awareness and Measuring Results: How Do We Define Success? May, Brad
- Environmental Risks Associated with Activities Involving Ammonium Nitrate in the Netherlands, *Van der Veen, Henk and Müskens, Peter*
- Summary of Workshop 1A: Measuring Success Through Performance: Defining Environmental Enforcement Indicators
- Summary of Workshop 1B: Administrative Enforcement Mechanisms: Getting Authority and Making It Work
- Summary of Workshop 1C: Building Effective In-Country Networks for Environmental Compliance and Enforcement
- Summary of Workshop 1D: The Negotiation Process Leading to Compliance
- Summary of Workshop 1E: Training Programs for Compliance Inspectors
- Summary of Workshop 1F: Environmental Offenses: Criminal and Civil

SUMMARY OF PLENARY SESSION #3: ORGANIZING FOR ENVIRONMENTAL COMPLIANCE AND ENFORCEMENT

Moderator: Adriana Bianchi
Rapporteur: Piet Müskens

1 INTRODUCTION

This panel examined the issues of "good governance" that are intimately tied to the fair, predictable, and consistent application of the law by enforcement authorities. Panelist explored mechanisms and strategies for developing well-written, enforceable legal requirements.

2 PRESENTATIONS

Maria Eugenia Di Paolo of FARN (Fundación Ambiente y Recursos Naturales) in Argentina described the legal framework on hazardous waste in Argentina. The Hazardous Waste Statute dates from 1992 before the Constitution Amendment of 1994. Currently 38 % of the 23 provinces have not implemented the statute. Formal and informal coordination structures between the Federal bodies and the provinces are needed to fill the gap because of outdated legislation. A plea was made to institutionalize and formalize coordination and organization structure of hazardous waste enforcement by sharing coordination and supervision between the Federal Authority and the Consejo Federal del Medio Ambiente (CoFeMa)

John Cruden of the US Department of Justice described the framework of enforcement in the USA as a pyramid. The broad base level consists of the people "in the field", including the government investigators, non-governmental organizations, and citizens. The middle level consists of state administrative agencies. The top level consists of both civil and criminal enforcement. Enforcement is important to protect human health and environment, to reward compliance and deter non-compliance. Finally, enforcement is critical for "good domestic governance" for several reasons, inducing:

- citizens need to have confidence that non-compliers are dealt with in a proper way;
- businesses need to have confidence that the government is acting consistently, and
- by setting a good example and by consistent enforcement Good Governance must be noticeable in behavior of government, businesses and all the citizens.

Waltraud Petek of the Federal Ministry for Environment, Youth and Family Affairs in Austria described the process of defining and developing environmental requirements. The regulatory chain for setting environmental requirements goes through legislation; implementation; compliance control; compliance promotion; enforcement; and assessment and feedback. The development of clearly defined environmental requirements needs careful constitutional, legislative and administrative policies. In this law making process, a thorough analysis of the problem and identification of possible solutions based on the most recent knowledge and technologies need to be identified, whereas in the decision making, all relevant stakeholders need to be involved, so that the relevant interests are considered. To act effectively, the enforcement authorities must have the proper tools, including procedures, compliance monitoring mechanisms, statutory reporting requirements, and criminal and civil sanctions.

3 DISCUSSION

Question from Dr. B. Sengupta

(India): How can balance be determined between administrative enforcement and judicial enforcement? Due to enforcement of air pollution demands for vehicles the use of buses was forbidden and consequently school had to be closed.

Answer by John Cruden: In fact there are two questions. The first regards the balance between administrative and judicial enforcement: To answer this question for the USA, judicial enforcement has "greater teeth". If one does not comply, he can even go to jail. It is more stringent than administrative enforcement but also more time consuming. Administrative enforcement can lead to quicker environmental results.

The second question refers to the "buses problem". In general the question is "How do you bring someone back in compliance without disrupting society". This may be achieved to set milestones to get in compliance. This can give assurance that compliance is achieved without disruption of society. Be careful that enforcement does not lead to this kind of disruption.

Answer by Waltraud Petek: The balance between administrative and judicial enforcement depends on the system in the countries. In Austria, administrative enforcers have the authority to close industries by administrative law and do not have to go through court. This can lead to quick overcoming of environmental problems.

Answer by Maria Eugenia Di Paola: Administrative and judicial enforcement are different instruments. However, they should be coordinated, since different government bodies are involved. For this in Argentina, guidelines for coordination between the different bodies are needed.

Question from Dr. Silvia Nonna (Argentina): Administrative enforcement authorities are not political authorities. The National Federal Register is an example of an enforcement authority. It is useful to state that the hazardous waste law is an example of an outdated law. Your presentation depicted clearly what an outdated law can bring for a country. Environmental law should be updated al the time. This brings me to my question whether an administrative authority may step aside with an outdated law.

Answer by Maria Eugenia Di Paola: At the moment the Federal Register has to deal with an outdated system, which does not meet enforcement requirements. Therefore the enforcement possibilities are limited. My plea is to involve the Federal Register in building of coordination. Scope of executive power: think about how to draft laws? Authority with experience: consensus building process; opinion of officials who enforce the law: Share between authorities and include enforcement.

Remark by George Kremlis (European Commission): Better law making is an important message. However laws and law making is extremely difficult. Policy makers who try to make laws with a holistic approach make life difficult. Therefore it is extremely useful to involve people with experience in execution and enforcement of laws in the process of law making. In proposals for new laws the consequences for execution (e.g. the calculated costs for implementing laws) and for enforcement should be taken into account.

Answer by John Cruden (USA): Indeed enforcement people should be involved in the legislation process. But don't wait for a perfect law to enforce. There will never be one!!!

4 CONCLUSION

Good governance is intimately tied to the fair, predictable, and consistent application of the law by enforcement authorities. Well-written and enforceable legal requirements are critical to good governance. Therefore, INECE should help develop the enforcement capacities of legislators and rule makers around the world.

ENVIRONMENTAL COMPLIANCE AND ENFORCEMENT AT THE UNITED STATES DEPARTMENT OF JUSTICE AND THE ROLE OF ENFORCEMENT IN GOOD DOMESTIC GOVERNANCE

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SUMMARY

Environment and Natural Resources Division (ENRD) of the United States Department of Justice has responsibility for over 10,000 cases filed in all 94 federal judicial districts, utilizing over 400 attorneys. In this paper, four topics are covered:

- How ENRD is organized and how it handles environmental litigation
- Where ENRD fits into environmental litigation efforts in the United States, and in particular environmental enforcement.
- The value of strong environmental enforcement.
- The concept of good domestic governance and how it relates to enforcement.

1 THE ENVIRONMENT AND NATURAL RESOURCES DIVISION (ENRD)

ENRD is one of the six litigating divisions of the Department of Justice. Our specific goals are to:

- ensure strong and fair enforcement of our Nation's civil and criminal environmental laws;
- provide effective stewardship of our natural resources;
- protect the rights of Native Americans;
- ensure that land acquisition activities are well managed;
- protect wildlife and marine resources;
- balance energy needs with environmental protection; and
- help protect the nations security.

In addition, the Division seeks strong relationships with our locally based federal prosecutors, the United States Attorneys, and with state law enforcement officials. Finally, ENRD represents the interests of all our client agencies, such as the Environmental Protection Agency (EPA) and the Departments of Agriculture and Interior. Indeed, in regards to enforcement, ENRD has no investigators of its own, and instead relies on its client agencies, as well as on investigator groups like the Federal Bureau of Investigation, states, and citizens.

ENRD was created on November 16, 1909 as the Public Lands Division. For the first 50 years, the Division's litigation was primarily concerned with federal lands, water and Native American disputes. As the Nation grew and developed, ENRD's areas of responsibility expanded to include litigation concerning the protection, use and

development of the Nation's natural resources and public lands, wildlife protection, Native American rights and claims, cleanup of the nation's hazardous waste sites, the acquisition of private property for federal use, and defense of environmental challenges to government programs and activities. ENRD has its headquarters in Washington, D.C., and maintains branch offices in Denver, Colorado; San Francisco and Sacramento, California; Anchorage, Alaska; Boston, Massachusetts; and Seattle, Washington. Division attorneys, however, litigate in all federal district courts, which include Puerto Rico and the Virgin Islands, as well as in special courts such as the Court of Federal Claims and the Court of International Trade. ENRD attorneys litigate at the district and appellate level, and frequently participate in litigation before the United States Supreme Court.

At present, ENRD has approximately 650 persons on staff, which includes over 400 attorneys. About half of the attorneys are dedicated to environmental (e.g. pollution) matters and the other half to natural resource issues, Native American issues, and land acquisition. In fact, the Division is sometimes referred to as the Nation's largest environment law firm. ENRD is organized into nine litigating sections with different areas of expertise, and an Executive Office. The Appellate Section handles appeals culminating from the litigating sections, as well as various matters originating in the courts of appeals, and assists the Department of Justice's Solicitor General when the Division's cases reach the Supreme Court. Pollution litigation is handled principally in the Environmental Crimes Section which prosecutes criminal environmental cases, the Environmental Defense Section which defends EPA's rulemakings and administrative actions against challenge, defends all federal agencies in litigation under the pollution control laws and brings wetlands enforcement actions, and the Environmental Enforcement Section which enforces the Nation's environmental laws in civil cases.

The General Litigation Section conducts affirmative and defensive litigation involving federal property and natural resources not subject to one of the Division's specialized sections, and defends claims filed by Native American tribes against the United States. Native American litigation is also handled in the Indian Resources Section, which litigates either to defend tribal interests or to bring actions on their behalf. The Land Acquisition Section handles the acquisition of property for Congressionally-authorized purposes. The Policy, Legislation and Special Litigation section provides advice on legislation, policy, and international issues, serves as special counsel to the Assistant Attorney General, acts as liaison with interagency working groups, monitors citizen suits under the environmental laws and participates as amicus curiae, when appropriate. The Special Litigation section works on specific complex matters.
Finally, the Wildlife and Marine Resources Section prosecutes and defends criminal and civil cases arising under the federal fish and wildlife laws.

ENRD is relatively unique among the justice ministries in the world for creating a large unit focusing exclusively on environmental and natural resources litigation. This has enabled the Department of Justice to develop expertise and experience in environmental litigation, to better coordinate major national enforcement initiatives and to maintain consistent positions in its litigation. Currently, approximately 30% of ENRD's cases are affirmative environmental enforcement matters. The majority of our attorney time is spent on non-discretionary cases, e.g. defensive litigation and land acquisition.

2 THE ROLE OF ENRD AND ENVIRONMENTAL ENFORCEMENT WITHIN THE U.S. GOVERNMENT

Environmental enforcement relies on many elements to be successful. If you can visualize the entire enforcement picture as a huge triangle with four levels, the base of the triangle has the largest volume in terms of enforcement actions. In the U.S., that base consists of state and local enforcement actions that are by far the biggest number of cases filed annually. I also include citizen group enforcement in this category. And, that is precisely as it should be, with those closest to the polluting activity being the ones that care the most.

Next, moving up the triangle to a second level by volume are federal administrative actions, brought principally by the EPA and other federal agencies. These actions tend to be smaller, tend not to involve a penalty, and are usually resolved faster without any court involvement. Although significant, administrative enforcement represents a smaller volume of cases than state and local actions.

Only now, as one moves up toward the top of the triangle at the third level do you get to ENRD's role, which is to file civil judicial actions in federal court. In fiscal year 2001 we filed 219 civil cases and resolved 218 by consent decrees. Although smaller by volume, civil enforcement cases are typically more significant cases than administrative and non-federal ones. This can be demonstrated by our accomplishments last year (fiscal year 2001): we obtained $95.3 million in civil penalties; we secured $78.4 million worth of supplemental environmental projects; and we recovered $103.6 million in natural resource damages. The value of injunctive relief for environmental cleanups under our Comprehensive Environmental Response, Compensation and Liability Act (also known as Superfund) was $1.076 billion and we obtained another $562.8 million to replenish the Superfund for money the government has spent to clean up contaminated property. Finally, we obtained $1.901 billion in the value of injunctive relief under the Clean Air Act, Clean Water Act, Resource Conservation Recovery Act, and Safe Drinking Water Act; a great portion of this amount will be spent by industry on state-of-the-art pollution control equipment. While this is one of our most successful years ever, it gives you some idea of what we are accomplishing.

Finally, at the very top of the pyramid, with the smallest volume, are federal environmental criminal cases brought by our environmental crimes section and United States Attorneys nation wide. As these often result in criminal fines and imprisonment, they provide the most deterrent value and are reserved for the most serious acts of illegal misconduct. In fiscal year 2001, we obtained 150 convictions, the majority of which were through guilty pleas. We secured $52.9 million in criminal fines and $62.3 million in fines, restitution, special assessments, environmental compliance plans and court costs.

3 THE PURPOSES OF ENVIRONMENTAL ENFORCEMENT

Why enforce at all? Although there are many reasons to have strong environmental enforcement, for the purpose of this paper, four reasons are identified. These are not in order of significance, but are all important:

- Environmental Protection - Enforcement protects human health and the environment. Everyone deserves to breathe clean air, drink pure water, swim in safe waters, and live in neighborhoods not threatened by toxic waste dumps.
- Deterrence - Prompt and effective environmental enforcement deters illegal conduct. That is precisely the reason that

countries should aggressively reach out to notify and involve the public regarding their enforcement actions so that the results are visible, understood, and accepted. Every enforcement action has a cascading effect on potential wrongdoers, encouraging them to abide by the law.

- Level Playing Field - Uniform, fair and comprehensive environmental enforcement protects companies and individuals who comply with the law. To assure that air and water emissions do not harm human health or the environment, pollution abatement equipment, good management practices and an overall culture of compliance are necessary. This can be expensive or reduce capacity at times. To assure that complying companies are not put at an economic disadvantage by companies violating the law, effective enforcement is critical. And, at a minimum, effective enforcement includes recouping any economic benefit that the noncomplying party gained from violating the law.
- Protecting Government Resources - Strong and effective enforcement protects government resources. At a time where every nation is guarding its economic resources and carefully budgeting where money is to be used, environmental resources are all the more important. Each time a government spends cleanup money where another party is responsible, environmental enforcement can be used to recoup the money so it can be used elsewhere. The principle that the polluter should pay is not only sound enforcement strategy, but also valuable resource strategy for all governments.

4 THE ROLE OF ENFORCEMENT IN GOOD DOMESTIC GOVERNANCE IN THE U.S.

4.1 Good Domestic Governance and Environmental Enforcement

Having discussed the organization of ENRD, how it fits into the enforcement picture in the United States, and the overall value of enforcement, I now want to turn to the concept of good domestic governance and how it relates to environmental enforcement. By good domestic governance, I mean the manner in which governments can work with the public and private sectors to make sound decisions and promote sustainable development, including environmental protection. Good domestic governance includes a number of principles such as effective institutions, public access to information, public participation in official decisions and access to justice. It is also a concept that the U.S. and others are underscoring in preparations for the World Summit on Sustainable Development, to be held in Johannesburg in August 2002, since good governance is critical to achieving sustainable development. In my view, good domestic governance has three primary components:

- First, businesses need confidence that, if they comply with laws, their competitors will do the same.
- Second, citizens need to be confident that they will have access to information and that their voice will be heard before decisions are made and actions taken that will affect their health, livelihoods and communities.
- Third, governments have a responsibility to enact laws to protect the public welfare, to educate their citizens about the laws, to inspect and assure compliance with the laws, and to effectively enforce the laws when they are violated.

As I will describe, these three components are interrelated with and support effective enforcement. In turn, strong enforcement helps bolster other governance institutions and mechanisms. In the U.S., we strive to integrate all these components into the daily functioning of government, and in particular, into the devel-

opment and implementation of our environmental and sustainable development policies. Thus, our environmental enforcement is made effective by strong laws and regulatory and enforcement authorities, as well as fair judicial institutions - all critical elements of good domestic governance.

For example, we have a broad range of laws that protect air, water, natural resources, public health and other important interests, and clear authority to enforce those laws, including statutorily prescribed and meaningful penalties. Just as important, we provide adequate resources for and political commitment to compliance and enforcement.

Moreover, at the federal level in the U.S., we fully integrate the expertise and resources of law enforcement and environmental agencies. Environmental agencies establish and implement regulations, work with regulated entities to assure compliance, monitor their compliance, and, when necessary, initiate administrative enforcement actions. Only at the end of this process would they refer a matter to ENRD for judicial enforcement. This integration allows agencies to focus their expertise and resources appropriately and to coordinate enforcement and compliance efforts, including pro-active enforcement approaches that address broad patterns of noncompliance by industrial sectors or by media.

Finally, in the U.S. we can rely on a fair, independent and impartial judicial system, with judges who are informed about environmental laws and the environmental and economic harm caused by non-compliance. In the criminal area, consistency in punishment is ensured by use of nationally applicable sentencing guidelines. Impartiality, fairness and consistency are key to broad public acceptance of judicial determinations, which is itself vital to the rule of law and creating a public culture of compliance.

4.2 Graduated Responses to Non-Compliance

Another important aspect of enforcement that relates to good governance is the availability of graduated responses to violations. In the U.S., our environmental laws provide a range of responses to noncompliance, based on the type and degree of violation. This helps our enforcement agencies develop flexible approaches tailored to specific situations. It also helps with institutional integrity and public credibility since actions can be taken that are proportionate to the violation and there can be some consistency developed in enforcement approaches. Governments are also more likely to take actions if they have a range of choices, from administrative to criminal, from which to choose rather than one response that may be too weak or too strong for a given case.

For example, an administrative agency such as the EPA can respond informally to identified instances of minor noncompliance. Such informal actions include phone calls, site visits, warning letters and notices of violations. These actions advise a company about the violation and direct compliance by a date certain. They can also initiate a more formal legal process such as civil administrative order which is a legal, independently enforceable order that describes the violation, provides evidence of the violation, and requires corrective action by a certain date. Administrative orders may include cease and desist orders, requirements to abate a hazard, or authority for the agency to enter and correct an immediate danger to the public or the environment. Such an order is handled by the administrative system within the agency. However, if a company violates the order, the agency then can refer the matter to ENRD for enforcement in a federal court. Some environmental laws authorize an agency to assess administrative penalties as well, which may also be enforced in

court by ENRD if the entity does not pay. Overall, administrative actions are the most common type of federal enforcement response.

Civil judicial enforcement in the U.S. generally results from a referral to ENRD from one of the agencies that monitors environmental compliance, such as the EPA or the Fish and Wildlife Service. Sometimes, referrals are also made by state agencies and private citizens. For example, ENRD may initiate a legal action against a company for failing to comply with an administrative order. Or we will sue to recover funds spent by an agency in responding to an environmental harm. Where necessary, we will bring an action to respond to an emergency or abate an immediate endangerment to human health or the environment. ENRD will ask the court to provide the appropriate relief, such as an order enjoining present and future harmful actions, requiring payment of fines or penalties, and/or mandating mitigation or remediation of the environment. Other types of relief can include denial or revocation of permits, shutdown of facilities, and requiring further reporting, inspections, training or other actions designed to ensure long term compliance.

The U.S. environmental statutes provide specific maximum amounts of penalties that can be assessed for violations of the law. Under that authority, ENRD will generally seek to secure a penalty that recoups any economic benefit the violator might have enjoyed as a result of noncompliance as well as an additional amount appropriate to the nature and gravity of the violation. ENRD also is committed to resolving civil actions, where appropriate, through settlement. Settlements can allow the Division to secure effective remedies and actions at substantially less cost than trying a case before a judge. In such instances, the Division may consider cooperative actions by the defendant as mitigating any penalty sought. For example, in addition to an order to comply, the settlement may require a defendant to perform a supplemental environmental project (SEP). A SEP must have some nexus to the violation. Examples include establishing a voluntary compliance program beyond that required by law or an agreement that the defendant purchase and/or protect sensitive habitat. Settlements are generally embodied in consent decrees, which are agreements signed by the court and enforceable as judicial orders.

At the other end of the spectrum, criminal enforcement is generally appropriate when a person or company has knowingly and willfully violated the law. Examples include falsifying documents, operating without a permit, or deliberately taking an action prohibited by law. Again, ENRD will receive referrals from relevant federal agencies, state agencies or the public that such conduct has occurred. ENRD will then consider whether the matter merits criminal charges. Depending on the alleged crime, we may seek monetary penalties and imprisonment, as well as seizure or forfeiture of property. Criminal cases are particularly appropriate where violations are serious or have caused serious harm. Criminal cases must satisfy a higher burden than civil cases because of the rights accorded criminal defendants by the U.S. Constitution. Several U.S. environmental laws provide for criminal penalties and enforcement, but federal prosecutors may also rely on general criminal provisions that make it illegal to report false information or obstruct justice. This frequently occurs in prosecutions for wildlife and the smuggling of ozone depleting substances.

Finally, citizen involvement in enforcement is encouraged and specifically provided for in several U.S. environmental laws. This kind of public involvement generally ensures the integrity of the enforce-

ment system and augments the often-limited government resources. These so-called private attorneys generally can file civil judicial actions, with notice to the relevant agencies, to enjoin pollution and force compliance. As an incentive, some statutes allow citizens to recover the costs of litigation and attorney's fees if they substantially prevail on the merits. The public is also provided an opportunity to review and comment on consent decrees. Citizens are not authorized to bring criminal actions, but citizen complaints and tips can lead to successful ENRD prosecutions.

4.3 Enforcement Programs and Approaches

Whatever differences countries may have in their enforcement schemes, we all share a common concern: How to maximize our limited financial and technical resources. In the U.S., we have developed a number of programs and approaches that seek to make the most effective use of resources and ensure other good governance principles.

4.3.1 Focusing on High Impact Industries and Top Executives

We are utilizing a multi-media and sector-based enforcement approach to focus some of our enforcement efforts on violations that occur in particular industrial sectors that have a significant impact on the environment and human health. For example, we have had initiatives focusing on the refinery and wood product industries. This type of approach allows us to address environmental problems in a number of media and to take high-profile national actions that will have significant environmental benefits. It also serves as notice to the regulated community of the government's intention to enforce the law vigorously. Similarly, where appropriate, we enforce against the highest levels of a corporation to ensure that we reach the real decision makers in environmental violations. The threat of criminal penalties presents a powerful incentive to top executives to comply with the law.

4.3.2 Focusing on Ecosystems

Similarly, another major priority is focusing enforcement efforts to protect ecosystems of special concern. For example, we joined other federal agencies and concerned state agencies to coordinate enforcement efforts to address the conditions of the Mississippi River and its tributaries. We have also focused enforcement efforts on cleaning up the Great Lakes.

4.3.3 Environmental Justice

We have followed the U.S. government's express policy that federal agencies evaluate and take into account environmental justice concerns in their work. We have focused enforcement efforts to ensure we are providing environmental protection to minority and low-income communities and Native American tribes that may be particularly at risk from harm due to the locations in their communities of hazardous waste sites or industrial sources of pollution.

4.3.4 Pro-active Programs and Interagency Coordination

Finally, we are looking for opportunities to address non-compliance more broadly and maximize our resources. In the past, enforcement efforts have often been reactive, for example responding to tips, news of incidents and referrals from agencies. However, we are developing more coordinated approaches whereby prosecutors and investigators at the local, state and federal levels share their knowledge and expertise to identify and respond to broader patterns of non-compliance - whether by industry or region or nationwide. I will describe later how this approach has been particularly effective in combating the growing black market in ozone depleting sub-

stances. The approach has also been quite successful in combating illegal traffic in endangered species and vessel source pollution.

4.4 Enforcement Policies

In the U.S., we have also developed enforcement policies and goals to guide our efforts, again based on principles of good governance such as fairness, transparency, science and public involvement. As I stated earlier, our enforcement policies seek to ensure equity and fairness by leveling the playing field; provide deterrence; and ensure benefits to environment and human health. For example, EPA and ENRD utilize an established penalty policy to determine the appropriate amount of penalties and other relief to seek in a given case. This policy provides general consistency while allowing flexibility in individual cases. In addition, to determine when noncompliance occurs, we rely on a full menu of information derived from agency inspections, investigations, self-reporting and citizen monitoring.

4.5 Implementation of International Environmental Obligations

Finally, strong enforcement is vital to the full implementation of international obligations the U.S. and others have undertaken in multilateral environmental agreements. These agreements represent a unified response to global concerns and they cannot be fully effective unless member countries fully implement their obligations through domestic laws and enforcement. This area, in particular, is a clear example of how strong enforcement and other governance components are critical to achievement of environmental protection and sustainable development on a global level.

In the U.S., we have made effective enforcement of our international obligations a priority. In particular, we have focused our criminal enforcement efforts on the growing and lucrative illegal trade in ozone depleting substances and endangered species which are governed by the Montreal Protocol on Substances that Deplete the Ozone Layer and the Convention on the International Trade of Endangered Species of Wild Fauna and Flora (CITES), as well as on the discharge of pollutants into the oceans from vessels, which is governed by Convention and Protocol on the Prevention of Pollution from Ships (MARPOL.) This focus has required effective use of all elements of good governance. For example, we have developed strong laws, such as the Endangered Species Act, the Clean Air Act and the Act to Prevent Pollution from Ships to implement our international obligations. These laws proscribe substantial penalties for violations, and ENRD and its client agencies vigorously enforce the laws before a judiciary well informed about the environmental significance of the issues. Our enforcement also relies on citizen monitoring to identify violations of law.

Our enforcement efforts are further bolstered by interagency coordination and pro-active enforcement approaches. For example, ENRD is working cooperatively with law enforcement and environmental agencies in the United States and other countries to share information necessary to prosecute smuggling of chlorofluorocarbons (CFCs) and other ozone depleting substances through a National CFC Enforcement Initiative. We meet regularly with representatives from EPA, Customs, other relevant federal, state and local agencies and representatives from other countries to share experiences and information and discuss possible areas for targeting enforcement resources. We follow a similar procedure regarding vessel source pollution. In the wildlife area, we have also broken up several international enterprises trading illegally in protected birds and reptiles. For example, our Division has worked

with the U.S. Fish and Wildlife Service and Customs Service to identify and interdict illegal smuggling of reptiles, including tortoises, turtles, snakes and lizards from Africa, Asia and South America - part of a $5 billion dollar yearly international black market in live animals and animal products. These joint efforts have led to numerous indictments, guilty pleas and sentences. In many instances, our enforcement efforts have required and benefited from the assistance of enforcement officials in other countries.

The transnational nature of illegal trade and other violations of multilateral environmental agreements requires an effective international enforcement network to allow countries to work cooperatively with law enforcement and environmental agencies in other countries to share information to prosecute crimes and to notify each other of suspected illegal actions. We at ENRD would like to continue to share information on specific matters as well as more general expertise on investigation and prosecution experiences, including through joint enforcement projects and efforts to build capacity in other countries for strong enforcement. To this end, we look to INECE to enhance these networks and cooperative work and hope that the upcoming World Summit will highlight the importance of joint efforts to implement multilateral environmental agreements.

5 CONCLUSION

In summary, four major themes were discussed:

- the structure of ENRD;
- the role of ENRD in U.S. environmental enforcement;
- why we enforce;
- and how strong enforcement and other components of good domestic governance are critical for the U.S. in terms of achieving environmental protection and sustainable development.

The U.S. and other countries have especially stressed good domestic governance in the run up to the August 2002 World Summit on Sustainable Development in Johannesburg, South Africa. It is our hope that conferences such as the 6th INECE Conference and the work of INECE in general will help strengthen environmental enforcement and good domestic governance and provide for future opportunities for information exchange and collaboration.

NATIONAL COMPLIANCE AND ENFORCEMENT OF INTERNATIONAL ENVIRONMENTAL TREATIES

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SUMMARY

This paper discusses the importance of compliance and enforcement to any environmental regulatory program, especially in the context of effective international relations. Before international negotiations may begin, countries must develop their national positions. Upon completion of an international agreement, each country must then translate the treaty obligations into national law. Governments must be empowered to implement laws and regulations in order to promote compliance. The views expressed herein are those of the authors and not necessarily those of the United States Government.

1 INTRODUCTION

The role of compliance and enforcement is critical to the success of any environmental regulatory program. No matter how good the science or how carefully regulatory decisions are crafted, their value is limited without compliance. The connectivity among programmatic design, implementation, and compliance, provides a good basis for describing the key elements for promoting compliance and enforcement of international treaties.

Since the 1992 Rio Conference, there has been a great deal of progress in addressing environmental problems on an international scale, especially in the area of hazardous chemicals, products, and pesticides. Over the last ten years, international cooperation has become a norm for addressing environmental issues of global concern. The growing support for international cooperation and action has, in itself, introduced a number of challenges for countries. National governments must think beyond their traditional domestic approaches in order to adapt and develop new strategies for influencing international debate and for implementing international agreements. Also, the international community has become more aware of the connectivity between international trade and international environmental concerns. The experience of the North American Free Trade Agreement (NAFTA) has been singular in that regard, and certainly, the public, at large, will continue to focus on this interconnectivity.

Three basic principles are important for achieving international cooperation through effective national implementation. First, when engaged in international treaty negotiations, governments must develop responsible national positions and negotiate in good faith. Second, governments must translate international agreements into effective national laws, regulations, and enforcement mechanisms. Third, governments must promote a "culture of compliance." Three recently negotiated environ-

mental conventions will be used to illustrate these principles: 1) the Stockholm Convention on Persistent Organic Pollutants (POPs), 2) the Rotterdam Convention on the Prior Informed Consent Procedure (PIC) for Certain Hazardous Chemicals and Pesticides in International Trade, and 3) the International Convention on the Control of Harmful Anti-fouling Systems on Ships (Antifouling Treaty).

The Stockholm Convention on POPs focuses initially on the so-called "dirty dozen" chemicals (Table 1). The convention seeks to either completely eliminate the production, sale, and use of these substances, or to severely restrict them to a handful of compelling uses such as DDT for certain public health purposes. The twelve chemicals, for the most part pesticides, are already banned or largely restricted in some areas of the world. With the signing of the Stockholm Convention, many governments face the challenge of meeting the treaty obligations that effectively require the use of alternatives.

The Rotterdam Convention on PIC establishes both a framework and a procedure for regulating the international trade in hazardous chemicals and for assuring that countries have complete and timely information about chemicals that may be imported. With a focus on hazardous chemicals, many of which are pesticides, PIC establishes a threshold whereby any chemical that is banned or severely restricted in two regions of the world can be subject to export and import controls (Table 2). This enables a country to choose whether those substances can be imported. It also empowers countries to prevent the trade of chemicals and pesticides with hazardous formulations that cannot be used safely under particular circumstances.

The Antifouling Treaty is a convention designed to control the type of substances that are applied to protect the hulls of ships, in particular, organotin biocides. These pesticides can have serious adverse effects in marine environments. The convention prohibits the application of organotin biocides, particularly tributyltin (TBT), on ships beginning January 1, 2003. Because of the longevity of these biocides on ship hulls, the convention provides a period of 5 years after which they must either be removed or sealed to prevent leaching. The convention also establishes a risk and benefit review process for other antifouling systems to ensure that alternatives do not cause unreasonable adverse affects on the marine environment.

2 DEVELOP RESPONSIBLE NATIONAL POSITIONS AND NEGOTIATE IN GOOD FAITH

In order to have international agreements that are effective, governments must begin to plan and develop national positions before the start of negotiations. If countries enter into an international negotiation having considered questions about implementation and issues about enforcement and compliance from the outset, the negotiation is more likely to result in an effective and meaningful international agreement. Issues to consider include: a) level of national commitment and political will, b) institutional capacity to enforce and promote compliance, c) clarity of organizational roles, responsibilities, and relationships among governments, the regulated community, and the public, and d) mechanisms for consulting with public stakeholders.

In the U.S., it is customary to first reach a unified governmental position among the various federal (and, if appropriate, state) governmental agencies. As a large complicated bureaucracy, this initial step can pose several challenges. This process also includes consultation with public stakeholders that may be affected by the potential activities. The affected industry, which often has the necessary resources and motivation, is likely to be

engaged; however, other parts of the public may need assistance in order to be adequately engaged. After finalizing the government position, stakeholders continue to participate in the negotiation process as observers, and it is common for the government and stakeholders to continue a dialogue during the negotiations.

The Antifouling Treaty illustrates the complexities of this dynamic process for involving industry and other stakeholders. First, it was necessary for EPA to understand the myriad number of issues from the perspective of the ship builders, port operators, and the manufacturers of both the organotin coatings and potential substitutes. Second, it was necessary to understand the dynamics and sensitivities of the estuarine environment. A public-private dialogue ensued in order to reach a sophisticated fine-tuned position. This involved issues of enforceability and feasibility of potential new requirements. In considering these issues, it became clear that a purely standard setting approach is not sufficient. Two key elements were necessary to develop an effective treaty: 1) the introduction of safer alternatives that can protect ships from the build-up of barnacles, and 2) a method for detecting the presence of organotins on ships. Even with these elements in place, treaty implementation will be challenging and will likely require additional resources at the national level.

3 TRANSLATE INTERNATIONAL AGREEMENTS INTO EFFECTIVE NATIONAL LAWS, REGULATIONS, AND ENFORCEMENT MECHANISMS

After successfully negotiating an international agreement, it is necessary for each country to translate the treaty obligations into national law. Some of the challenges of this second stage could be avoided if countries, prior to and during the negotiation phase, planned for some of the expected outcomes of the agreement. Three elements are important in this phase: 1) status of national legal authorities, 2) availability of information and technical expertise, and 3) understanding and support from the affected parties.

In order to create the legal authority needed for implementing the agreements at the national level, countries may need to pass statutes, prepare regulations, issue orders, and interpret existing laws. Recent activity in the U.S. to ratify the Stockholm and Rotterdam Conventions illustrates the importance of creating adequate legal authority. In the U.S., existing federal legislation (The Federal Insecticide, Fungicide, and Rodenticide Act and the Toxic Substances Control Act) establish the basic legal authority for EPA to implement the agreements. After further legal analysis, some specific statutory changes to these laws were considered necessary. Therefore, a package with these proposed statutory changes was submitted to Congress along with the treaties for ratification in April 2002.

Information and technical expertise provide a basis for implementing laws at the national level. This can include general information and technical documents, national and international chemical assessments, and information on alternatives. In the area of tributyltin, EPA is in the process of implementing the phase-out schedule established under the Antifouling Treaty. This involves both voluntary and mandatory approaches based on the risks and availability of alternatives. Also, the Coast Guard is reviewing monitoring techniques, including certificates and placards for documenting the types of antifouling paints being used on ships entering U.S. ports. Thus, necessary information and monitoring mechanisms will be in place to support the effective application of national laws.

Finally, understanding and support, within the government, the regulated community, and from anybody who has a role to play, is needed for successful compliance

and enforcement. To promote awareness and support, governments can organize consultations with the regulated community and other stakeholders and can support training seminars and workshops. Stakeholders, too, can engage their sectors through similar awareness raising activities. Thus, both the public and private sectors can accelerate implementation by becoming fully engaged and supportive of national implementation efforts.

4 PROMOTE A "CULTURE OF COMPLIANCE"

Promoting a culture of compliance around legal requirements poses a complex set of challenges. Governments must be empowered to implement laws and regulations through:

- Clearly stated goals, requirements, regulatory and non-regulatory tools, and consequences
- Technically and economically feasible standards
- Market mechanisms
- Financial and technical resources
- Incentives and deterrents
- Citizen involvement

The first step is to have requirements that people can comply with, that are understood, and that are mandatory when needed. Standards are not meaningful if they are not both technically and economically feasible. It does not mean they must be easy, or that they cannot reach for technical capacity that currently does not exist. Nor does it mean that they cannot push the system to internalize more costs than it readily does. However, in the end, regulations must be possible to implement.

The use of market mechanisms can also be highly effective in promoting compliance. In addition, adequate financial and technical resources are critical both within and outside the government. While incentives are important, deterrents are also needed. The regulated community needs to have a reason to comply and that almost always includes a strong deterrent. Lastly, citizen involvement makes a significant difference, both in terms of information flow and enforcement activity.

In the chemical area, pesticides and other chemicals fulfill a valuable function as products. Without alternatives to these products, the willingness to halt their use will be difficult to achieve. Also, incentives and deterrents, penalties and fines, and license revocations all have particular relevance in the chemicals arena. In the pesticide area, license revocations and modifications can operate as enforcement tools. Finally, citizens can do a lot to assist government enforcement. Governments should provide citizens with whistle blower protections and other safety measures especially in contexts where citizens feel relatively powerless.

5 CONCLUSION

International agreements are exciting and they can also make a huge difference for generations to come. However, they will do so only when they are implemented and when affected parties comply with the requirements. Toward this end, government has a critical role to assure there is a culture of compliance throughout the world with regard to these major and valuable agreements. The role of the private sector should be to work with government and to independently help assure that policy is informed by their practical knowledge. The general public can affect political will through democratic processes and can promote the exchange of information and assure enforcement. International agreements, if implemented effectively on a national basis, can result in stronger environmental and public health protection on a global scale.

Aldrin
Chlordane
DDT
Dieldrin
Endrin
Heptachlor
Hexachlorobenzene
Mirex
Toxaphene
PCBs
Dioxins
Furans

Table 1. List of 12 Persistent Organic Pollutants

2,4,5-T
Aldrin
Binapacryl*
Captofol
Chlordane
Chlordimeform
Chlorobenzilate
DDT
Dieldrin
Dinoseb and dinoseb salts
1,2-dibromoethane (EDB)
Fluoroacetamide
HCH (mixed isomers)
Heptachlor
Hexachlorobenzene
Lindane
Mercury Compounds
Pentachlorophenol
Toxaphene*
Methamidophos (Soluble liquid formulations of the substance that exceed 600g active ingredient/l)
Monocrotophos (Soluble liquid formulations of the substance that exceed 600g active ingredient)
Phosphamidon (Soluable liquid formulations of the substance that exceed 1000g active ingredient/l)
Methyl parathion (emulsigiable concentrates (EC) with 19.5%, 40%, 50%, 60% active ingredient and dusts containing 1.5%, 2%. And 3% active ingredient)
Parathion (all formulations)
Crocidolite (Industrial)
Polybrominated biphenyls (PBB) (Industrial)
Polychlorinated biphenyls (PCB) (Industrial)
Polychlorinated Terphernyls (PCT) (Industrial)
Tris (2,3-dibromopropyl) phosphate (Industrial)

Table 2. Chemicals Subject to the Prior Informed Consent Procedure

ORGANISATION MODEL OF SERVICES RESPONSIBLE FOR CONTROL OF STATE OF THE ENVIRONMENT: VS. THEIR EFFECTIVENESS OF WORK BASED ON EXPERIENCE OF THE INSPECTION FOR ENVIRONMENTAL PROTECTION IN POLAND

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SUMMARY

From 1991 to 1999, the Polish State Inspectorate for Environmental Protection developed and successfully implemented a program to enforce environmental laws and encourage industry to adopt pro-environment activities. This article discusses the effects of the administrative reforms on the Inspectorate's work and highlights the advantages and disadvantages of decentralisation.

1 DEVELOPMENT OF INSPECTION SERVICES IN POLAND

The origins of environmental protection services in Poland date back to 1980 when the Environmental Protection and Management Law created a basis for the establishment of a national level Inspectorate. The Inspectorate was headed by the Chief Inspector for Environmental Protection, who managed Field Offices in the 9 largest Polish cities and 2 teams that carried out inspections and assessments of the state of the environment and were responsible for the prevention of extraordinary environmental hazards throughout Poland. At that time, the Inspectorate was an agency of the Minister of Environment. Additionally, each Voivodship (Region of Poland) had its own Environmental Protection Department operating under the structure of the Voivodship Office (regional administration), and an Environmental Research and Control Centre (or Laboratory); both bodies were subordinated to the Voivod (head of regional administration) and implemented tasks related to the inspection of compliance with environmental law for the needs of the regional government.

This situation did not contribute to the effective use of environmental law enforcement resources. Research was carried out according to different procedures, enterprises were evaluated based on various criteria, and measurement data was taken on different types of equipment and according to different methodologies. Due to this, the results achieved were not comparable and could not be used for the development of overall assessment and reports. Thus, one of the changes proposed in 1990 by the Solidarity movement, which organised a special "small round table" to solve environmental problems, was to integrate the uncoordinated and chaotically working environmental protection services into a single body. In 1991, as a result of a thorough reorganisation of personnel, property and technical facilities of the central inspection and the regional centres, the State Inspectorate for Environmental Protection was established. It was a two-level structure. The Chief Inspector for Environmental Protection performed his tasks via the central unit – the Chief Inspectorate for Environmental Protection and the 49 Voividship (regional)

Inspectorates working in the field. Work plans, budget and overall implementation of the Inspection's tasks were supervised by the Chief Inspector for Environmental Protection.

Working under that structure for almost 10 years, the Inspection developed coherent and comprehensive rules of conducting inspections. Standard measurement methodologies were also developed and implemented. The laboratory potential of Voivodship Inspectorates was extended, which enabled research on the state of the environment throughout the country and reliable control of compliance with environmental regulations by industries. Central management enabled effective planning of laboratory equipment purchases; central budget allowed for effective co-financing of purchases financed by the National Fund for Environmental Protection and Phare programmes. Since late 1990s the Inspection had a network of 48 laboratories with state-of-the-art equipment and quality system certificates for compliance with the PN-EN 45 001 and ISO/IEC 25 Manual standards. Also, most of the buildings in which environmental protection services are located were constructed or modernised in the years 1991-98.

The Inspection implemented a number of modern solutions in the fields of environmental law enforcement and industries' stimulation for pro-environmental activities. The solutions include, among others, a system of imposing obligatory fines for transgression of environmental regulations, with the option of suspending the fine, which allows the fined enterprises to change the sanctions imposed into investments eliminating the cause of non-compliance. Another instrument was the creation of the so-called "List of 80" which specifies the largest polluters whose names are made available to the general public. Being under a strict inspection regime and pressure by Non-Governmental Organisations, all plants from the list started environmental adjustment programmes. By now, many of them have completed their programmes and reached full compliance with environmental regulations. A new solution was the development, together with consultants from the US Environmental Agency, of adjustment programmes which have the status of regular legal instruments specified in the Polish environmental law system.

Also in 1990s the rules of work of the State Environmental Monitoring were developed. Under the existing system environmental data is collected, further research and measurements are recommended, environmental change trends are analysed and regular reports on the state of the environment in individual regions and in the country are developed. Since 1991, under the standardised series "State Environmental Monitoring Library" almost 500 different titles have been published which include a variety of papers, reports and analyses. Another achievement of the centralised, uniform inspection system included the implementation of the programmes for counteracting extraordinary environmental hazards and control of transboundary movement of wastes.

In the opinion of environmental decision-makers, the centralised, strongly managed State Inspection for Environmental Protection had an excellent impact on the creation of a coherent and effective environmental management system in Poland. In the country in which environmental issues had been significantly neglected, that system was of special importance. The effective work of the Inspection guaranteed enforcement of fees for economic use of the environment and of fines for non-compliance with emission limits. The fees and fines were paid into environmental protection funds, which, in turn, granted preferential credits for pro-environmental investments. The whole system, based on the "stick and carrot rule", i.e.

sanctions on the one hand and preferential cheap credits on the other hand, led to the development of a big environmental investments market. Annual investments into environmental projects constituted about 1.5-1.7 % GDP, which over the last 20 years contributed to a major improvement of the state of the environment in Poland.

However, the centralised structure of the Inspection, based on a strong enforcement regime, was associated with a police-like system. Thus the popular name "the Green Police", used even today by the media and NGOs to express their high opinion on the Inspection services. Yet the system in its previous central-control shape was perceived as unfriendly by inspected industries. The inspectors, although having good knowledge of environmental protection regulations and pro-ecological solutions and technologies, were not able to act as consultants or advisors and could not be partners to industries without being suspected of corruption.

2 EFFECTS OF THE ADMINISTRATIVE REFORM ON THE INSPECTION'S WORK

The beginning of 1999 brought the administrative reform of the country, aimed at decentralisation of the State administration system and transfer to lower levels of all competencies that could be taken over by local governments, in accordance with the principle of subsidiariness. The Voivod, as a representative of the central administration, lost many of his prerogatives, transferring them to Voivodship (regional) governments. Instead, as compensation, he was vested with supervision over the Voivodship conjoined administration, under which all inspections and special forces existing in the Voivodship were included. This way the Voivodship Inspectorates for Environmental Protection came under the responsibility of the Voivods (heads of Voivodship administration). At the same time however, they formed and still form a part of the structure of the Inspection for Environmental Protection supervised by the Chief Inspector. The Inspection lost the word "State" from its name, in spite of the fact that its activities still cover the whole of the country. The Chief Inspector still sets the directions of the Inspection's work, supervises its task performance and is an appeal body for decisions taken by Voivodship inspectors, but is no longer in charge of the organisation's budget.

In the first years after the reform, the work of the Inspection services was automatically running along the old track. But the dual subordination – to the Voivod and to the Chief Inspector – is starting to be more and more troublesome. Especially that one of them assigns the tasks without allocating any funds and the other one limits the Inspection's budget to finance other, more neglected services. It is estimated that most of the Voivodship Inspectors have at their disposal only 50% of funds as compared with 1999. Other factors that need to be taken into account are inflation and the fact that a number of tasks increase each year, for instance, due to the implementation of new legislative acts. A lot indicates that due to the shortage of funds, instead of being strengthened, the Inspection services will be limited and some of the field offices will have to be closed down.

The tasks of the Chief Inspection should be implemented in a uniform manner in order to ensure comparability, and co-ordinated on the national scale in order to obtain reliable results. However, in practice the work of individual Voivodship inspectors is becoming more and more differentiated due to different policies, development plans and priorities promoted in individual regions. Coordination of laboratory work and investment purchases for laboratories to use the resources more effectively is impossible, because each

Voivodship finances only its own inspection office, based on the policy and funds determined by the Voivod. Therefore sometimes the costly equipment that could serve several Voivodships is left unused. Renewal of Good Laboratory Practice certificates is now at risk.

Privatisation is rapidly progressing in Poland, but there still is a large group of State-owned enterprises. Application of enforcement measures towards those enterprises, for which the funding authority is the Voivod, in situations where the Voivod is also the head of the environmental inspection, creates a conflict of interest. The Voivod imposes fines on his own entities and is a judge in his own cases. In the current structure, the Chief Inspectorate has limited possibilities of submitting to Voivodship Inspectors of recommendations and guidelines regarding methods of performing the Inspection's tasks. This applies in particular to the performance of follow-up inspections and to analysis of claims and requests. It is much more difficult, and in practice even impossible, for the Chief Inspectorate to react to negligence and irregularities in the work of the Voivodship administration or to demand verification of incorrect administrative decisions.

The society perceives the decentralisation of the Inspection, implemented in 1999, as the lowering of its rank and importance, and limitation of its independence in implementation of enforcement activities. Opinions that the effective system was disassembled or disintegrated are frequent. And this happens in the situation when the Inspection is facing new challenges connected with Poland's integration with the European Union. For example, only the implementation of the European Parliament's recommendations regarding the minimum criteria of environmental inspection's work requires inter alia:

- Uniform planning of inspection activities.
- Keeping of a consistent register of inspected installations.
- Evaluation of control of compliance of the inspected facilities with the EU legal requirements.
- Guaranteeing appropriate frequency of inspections for particular categories of installations.
- Presenting reports and collective data regarding the effects of inspection activities carried out.

Such requirements can be met only when national coordination of inspection activities is ensured and the policy of the Minister of the Environment is consistently implemented.

3 OPTIMUM SOLUTIONS TO BE APPLIED IN THE FUTURE

In view of the threats to the continuity of tradition and to the quality of inspection work, the search for good model solutions for the future was undertaken. The Chief Inspectorate analysed and compared the experience, structures and work organisation of counterpart organisations in the USA, Ireland and Denmark. We have thoroughly analysed all reports developed within the framework of AC IMPEL, i.e. the European Network for the Implementation and Enforcement of Environmental Law, of the countries associated with the EU. Those reports evaluated inter alia structures responsible for environmental protection in Estonia, Poland, Czech Republic, Slovenia, Cyprus and Latvia. We looked for guidelines and recommendations that would be adequate to the Polish conditions. Within the framework of the twinning PHARE project aimed at the strengthening of Polish public administration bodies, including Inspectorates for Environmental Protection, in the field of law enforcement, an analysis was performed as to the division of competencies, organisation structures and interrelations among institutions responsible for environmental protection

management in Poland after the reform. Taking into account all advantages and disadvantages and the experiences of other countries, the experts are to propose the solutions that are most appropriate for the Polish conditions.

On the basis of the analyses made so far, we know that good law enforcement organisation requires strategic planning in order to define tasks and schedules, indicate responsible persons and sources of funding, evaluate factors that can have an impact on execution, and conduct appropriate consultations with the society. In Poland the work plan for inspection activities is developed by Voivodship Inspectors on the basis of the Chief Inspector's guidelines in which selected priorities are specified. Voivodship Inspectors also take into account issues identified in the State and regional Environmental Policies, results of previous inspections, monitoring data, and complaints by citizens. The annual and quarterly plans cover routine inspections, i.e. comprehensive inspections of overall environmental impact of the inspected enterprise on the environment, and follow-up inspections to check the fulfilment of post-inspection orders issued after the previous inspections. The plan includes a time reserve for potential non-routine inspections, i.e. follow-up inspections conducted as a result of complaints and interventions by citizens. It seems that in the future the plans should also take into account the proportion of the inspected installations to the total number of installations of a given type. Such strategic plans for the issuance of permits and inspections of enterprises should be prepared by one central authority in cooperation with the parties involved.

Improving the state of the environment or counteracting environmental damage requires regulatory actions, i.e. issuance of permits regulating, for example, permissible emission levels or operational processes. If the process of issuing a licence for the use of the environment is to take into account all aspects of the enterprise's impact on the environment and possibilities created by best available techniques as in the case of integrated permits, it has to be carried out by a group of experts with nationally recognised qualifications. It is also very important to ensure cooperation of inspection services and permit-issuing staff, to ensure joint consideration of conditions required from and possible to be complied with by the enterprise. Information from inspections is of key importance for the revision of permits. Also information on the state of the environment, so-called monitoring, impacts both the inspection planning process and the parameters defined in the permit. Thus, an optimum solution for the environmental management system is a national organisation with regional branches, responsible both for implementation and enforcement of the law, for instance an agency combining the permit-issuing, inspection, and monitoring functions.

In the future environmental protection agency model, we would like the inspectors to retain their current powers and competencies. In particular, during an inspection an inspector should be authorised to access the installations 24 hours a day, and other facilities between 6 and 10 a.m., as it is currently the case. We would also like to retain an inspector's right to inspect vehicles at any time of the day and night. During the inspection, the inspectors may take samples and conduct other activities in order to verify if the enterprise carries out its activity in accordance with the environmental permit. The inspectors may also:

- Demand written or verbal information from the personnel in order to determine facts;
- Demand access to documents and data connected with the inspected facility;
- Verify whether the methods of operation

of the installation, including transport means, are correct;

- Verify whether protective installations and devices are used and correctly maintained.

During an inspection, the inspectors examine the impact of the enterprise on all environmental media. The inspectors also check the formal and legal documentation, permits, payment of the fees and charges, type of technologies and raw materials used.

Following the inspection, an official inspection report is prepared which includes measurement data, information about sample collection and surveys, administrative decisions, declarations, etc. If irregularities are found, relevant law enforcement instruments are applied, depending on the type of the irregularity. The sanctions include: post-inspection orders, fines, obligation to take steps to eliminate the source of negative environmental impact before a specified deadline, suspension of the operations that violate environmental regulations, notification to the public prosecutor's office or to public administration agencies. In addition to individual reports, the Inspection for Environmental Protection prepares an annual report– so-called summary of notice tasks executed. We evaluate all these experiences very positively and we are convinced that they should be used in the process of organising the new inspection organisation/agency.

In practice, the Inspection in Poland relies on measurements performed by its internal laboratories. Since results are the basis for imposing any penalties, it is imperative that measurements are carried out in a reliable manner so as not to be questioned by industrial plants. In western countries, industrial plants themselves perform many measurements. This self-monitoring is of great importance for the discipline of the industrial plant, because it enables the plant to control its own impact on the environment and to take corrective action independently before an inspection is started. The self-monitoring is vital for plants that demonstrate a voluntary, active approach to environmental issues. However, self-monitoring provides no basis for enforcement measures. Therefore, for indifferent or unwilling plants, the only form of law enforcement is inspections with measurements under so-called "compliance monitoring" with the use of appropriate enforcement instruments such as fines, post-inspection orders, notification to the prosecutor's office or suspension of the plant's operation. Many inspections outsource these measurements to certified third party laboratories. The Polish Inspection is fortunate enough to be the owner of such laboratories, which allows for their wide and comprehensive use both in inspections of industrial plants and in monitoring of the environment. We would like to preserve this situation in the future organisational solutions.

Ensuring adequate levels of expertise and qualifications of employees that issue permits and conduct inspections requires a standardised training system, which should be arranged by one nationwide organisation. A single institution should collect information, prepare periodic reliable reports, and present them to the public in a systematised manner.

The opinions and experiences presented in this paper will be used as guidelines in the organisation of services responsible for the environmental protection management in Poland. We will endeavour to use all the experience of the State Environmental Protection Inspection (a centralised, uniformly managed organisation, which operated between 1991 and 1999), and also to incorporate new valuable elements, which we have discovered while cooperating with the IMPEL network, such as partnership approach to industrial

plants or linking of the permit issuing function with the compliance control function. I am also sure that the experience presented by the inspectors participating in the INECE Conference in Costa Rica will inspire us to come up with new ideas to shape our new organisation for environmental law implementation and enforcement in Poland.

LEGISLATIVE BASES OF ECOLOGICAL CONTROL IN RUSSIA

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SUMMARY

This paper discusses the legislation related to the ecological control system in Russia. The Environmental Protection System in Russia is of extreme importance, but unfortunately it is operating under extreme shortage of funding and other necessary resourses for effective environmental control. The new Constitution of Russia in 1993 provided the public with the right for a safe environment, and disclosure of authentic information relating to the environment. Problems existed with the actual practice of this rule. The prior Law "about protection of an environment " created in 1988 and accepted in 1991 established many more effective policies, giving municipal bodies the ability to organize ecological control.

1 INTRODUCTION

Environmental protection, ecological safety and sustainable development issues are of vital importance for Russia. The Environmental protection system and all its parts are functioning in the conditions of such an acute shortage of funding and other resources that, at times, concern for their own survival distracts them from solving the vital issues of environmental protection. In almost all cities and towns in Russia with a population of more than 100,000 people, the average content of different harmful agents in the atmosphere exceed the existing air-quality standards. About 40 million of the country's population live in areas where the level of concentration of harmful agents exceeds the permissible standards by ten times. Almost everywhere, the water reservoirs in Russia are polluted. Because of the shortage of reagents and the poor public waterworks and water-supply systems, half of the country's population consumes water that does not meet drinking water standard.

The development policy of new areas rich in natural resources was ecologically unacceptable. The mining industry always developed in a hurry under the pressure of the military complex. The result was one-sided development of the new areas. They specialized only in raw material extraction and cooperated with the other regions of the country in a specific form of increasing the flow of goods while steadily decreasing the efficiency of obtaining them. As a result, the new territory had to be provided with everything whereas it gave back only its main produce. This strategy was harmful not only for the ecosystem of North Russia, but also for the natives living there. The ecologically unsafe areas per capita are extremely large in Russia. With 8 million square kilometers of wildlife left in Russia, we have managed to cause greater environmental damage than any other group of people the size of Russia's population (150 million people) on the planet.

All these problems induce us to search out new ways for more natural and non-violent formation of socio-economic development fundamentals, originated from the principles of sustainable development.

The idea of sustainable development occurred as a result of the human realization that natural resource potential is limited, that it is essential to maintain economic growth at a rate which allows adequate consumption requirements of the constantly increasing population, and the awareness of the imminent threat of irreversible environmental changes.

The local and regional ecological problems in industrialized countries were more or less solved successfully during the 1980-1990s. They managed to improve the air quality in the cities drastically, treating land waters and not only reducing the amount of industrial and domestic solid waste but also cleaning up open dumps, which had been generated for decades. However, all these have been achieved mainly at the expense of the ecological expansion and exploitation of natural resources outside their own countries, including Russia. Thus, the solution of the local and regional ecological problems in industrialized countries did not contribute to the improvement of the environment on the planet. In fact, it promoted deepening of the contradiction between technology's impact on the environment and the ability of the biosphere to neutralize and regenerate it. Though the general strategy that has been applied by the industrialized countries for the previous 30 years in solving ecological problems is unacceptable for both the whole humanity and Russia, many methods of these countries are worth being applied here.

2 NEW CONSTITUTION OF RUSSIA

To begin, in 1993 the new Constitution of Russia was accepted, in which the right of a favorable environment was guaranteed. In addition, the Constitution has fixed the federal state device of Russia with the republican form of government. The right and freedom are announced by maximum value. The recognition, observance and protection of these rights are a duty of the state, under the Constitution.

The right for a favorable environment, and disclosure to the public of authentic information relating to the environment are the lawful constitutional rights of the citizens of Russia. However, it cannot be realized in practice without enough advanced assurance for environmental safety.

On of the main concerns is how will ecological control be enforced to avoid infringement of environmental legislation, as well as utilizing warning signs in order to maintain a favorable environment.
The question also remains on how to exhibit maintenance of this control at all levels of state and municipal authority.

In Russia, as in the United States and a number of others countries, a federal authority exists. Authority of the Russian Federation is a complex formed by state, municipal and local authorities. Until 1993, Russia had no municipalities, which independently address the concerns and issues of the population in their area. Legislative and executive authority worked together to carry out all authority in the country.

3 LAW "ABOUT PROTECTION OF AN ENVIRONMENT"

After acceptance of the Law "about protection of an environment" in 1991, the following has been put into effect:

- a legal basis has been created for nature conservation, for more efficient use of nature and for ensuring ecological security of the population and the environment;
- a vertical subordination system of the multi-purpose regional nature conservation bodies has been formed. Among them ecological monitoring and inspection are the most important;
- a basis for the economic mechanism of

environmental protection and a more efficient use of nature has been laid. It includes putting into life the principle that 'those responsible for the pollution should pay, introduction of payments for use of natural resources, licenses for use of nature, an ecological insurance and certificate system, formation of the system of ecological funds;

- an instrument of state ecological programmers has been put into practice. The main purpose of it is to combine the funds of the federal budget, the budgets of the Federation Subjects, local budgets, ecological funds, enterprises and other sources for purposeful successive solution of ecological problems (regional, municipal and industrial);
- a mechanism for ecological expert examination has been started up, which is necessary for all projects and programmed economic documents;
- a network of specially protected areas, mainly preserves, has been enlarged and developed;
- international co-operation in the sphere of environmental protection and ecological security has been extended fundamentally;
- ecological monitoring has been substantially developed.
- The quality and quantity of the ecological information available for the general public, administration, subjects involved in economy and for public organizations have been improved.

The foundation for systems of protection for the environment was laid in 1988. For this reason, systems of protection, including control in the field of protection, have been a centralized structure. This method does not provide the right for subjects of the Russian Federation to carry out ecological control of the environment in their territories. Additionally, it does not establish responsibility for environmental protection. Therefore, in Russia the centralized system for protection of the environment was kept from the Soviet time.

However, after the federal level of a separate state authority responsible for protection and control of the environment merged with the Ministry carrying out management of natural resources, the country began the process of easing ecological control. The Federal ecological fund, made up of payments for pollution of an environment, was liquidated. The old law did not allow the subjects of the Russian Federation to carry out their own ecological control. Thus, the federal system of ecological control was practically liquidated, and no other ecological control was created to take its place. Therefore, the new Federal law of Russia " about protection of an environment " accepted in January 2002 has created other systems for ecological control in the Russian Federation.

Under the new Law were new principles for protection, and ecological control such as:

- Principle of ecological danger of planned economic activity;
- Compulsion for realization of an estimation of influence on an environment and ecological examination;
- Prohibition of economic and other activities with unpredictable consequences that can result in destruction of natural ecological systems, change and/or destroy genetic funds of plants, animals, birds or fishes, exhaust natural resources and other negative changes to the environment;
- Priority for preservation of natural ecological systems, natural complexes and natural landscapes, biological variety;
- Maintain a continuous decrease in negative influences of economic and other activities of an environment according to the specifications in the protection of an environment, which can be achieved on

the basis of using the existing technologies that have the best environment effect;

- Responsibility of authoritative bodies on the state level, and local self-management level for maintenance of a favorable environment and safe ecology, and also the principle of independence of ecological control;
- Duty of compensation for harm to the environment;

The ecological control in Russia will be carried out with the purpose of maintaining the legislation for environmental protection, observance of the requirements, including specifications and normative documents, for protection of the environment, and also maintenance of ecological safety. The system of state ecological control includes two levels — the Federal ecological control and ecological control of the subjects of the Russian Federation. All inspectors of the state ecological control are the state inspectors.

In the Russian Federation, the state, industrial, municipal and public control takes part in carrying out necessary actions for environmental protection. The state control (state ecological control) is carried out by federal bodies of the executive authority and bodies of the executive authority of the subjects of the Russian Federation. The state (state ecological control) is carried out in the order established by the government of the Russian Federation. The government of the Russian Federation defines the list of objects subject to the federal state ecological control according to the present Federal law, and other federal laws. The government of the Russian Federation establishes the list of officials of a federal body of the executive authority carrying out the federal state ecological control (federal state inspectors). The list of officials for the bodies of state authority are the subjects of the Russian Federation, who will carry out the state ecological control (the state inspectors), is established according to the legislation of the subjects of the Russian Federation.

Overlapping functions of the state control and functions of economic use of natural resources is forbidden (state ecological control). The state inspectors in the field of protection of an environment are obliged:

- to warn, reveal and stop infringement of the environmental legislation;
- to explain to violators of the legislation of their rights and duties;
- to observe the rules of the law.

The decisions of the state inspectors can be appealed according to the legislation of the Russian Federation. The state inspectors are subject to state protection.

4 CONCLUSION

The new Law for the first time has defined and has given rights to municipal bodies to organize ecological control. The municipal ecological control in territories of municipal formation is carried out according to the legislation of the Russian Federation and established by the normative legal acts of municipalities. It realizes the international and constitutional principle of independence of municipal authority. Thus, in Russia the legislative basis for high-grade and effective ecological control is creating the rights for each man for a favorable environment.

DOMESTIC PROGRAMS FOR IMPLEMENTING MULTILATERAL ENVIRONMENTAL AGREEMENTS: ESTABLISHING MEA IMPLEMENTATION MECHANISMS

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SUMMARY

Describes the framework of legislative, institutional structure and processes for Caribbean multilateral environmental agreements (MEA) implementation including the process of Caribbean treaty making, the requirement for implementing legislation, and the utility of having national implementing institutions. The place of regional project-based activity is briefly outlined.

1 ENVIRONMENTAL TREATY MAKING

The legislative/institutional structure and process for establishing MEA implementation mechanisms are inseparably connected with the general principles of environmental treaty making. In the Caribbean, the Cabinet is responsible, on behalf of the State, for the adoption of all international environmental agreements. This is in keeping with basic constitutional principles that the Executive has a monopoly on treaty making. The Minister of Foreign Affairs generally represents Cabinet in this regard but there are several exceptions to this rule. For example, in relation to MEAs of especial global significance it may that the Prime Minister (even if not the Minister of Foreign Affairs) signs on behalf of the State. A Minister in relation to whose portfolio the subject matter of a particular treaty falls may be authorized by Cabinet to adopt that treaty. Other representatives may be empowered to act on behalf of the State by the conferral of "full powers".

As a general rule, there is no necessary conjuncture between environmental treaty making and any assessment of the institutional/managerial resources/capabilities available for implementation. However in one case the lead environmental agencies is empowered to negotiate environmental treaties initiated by regional and international inter-governmental organizations (see: National Conservation and Environment Protection (Amendment) Act, 1996 (St Christopher and Nevis) (No. 12 of 1996), sect. 4 2B (iv)). Less pointedly the agency may be authorized to establish and coordinate institutional linkages locally, regionally, and internationally (see e.g., Environmental Management Act 1995 (Act No. 3 of 1995) (Trinidad & Tobago), sect. 16 (1) (i)).

2 THE REQUIREMENT FOR AND TYPOLOGY OF IMPLEMENTING LEGISLATION

2.1 Requirement

The law of the Caribbean for the most part knows nothing, generally speaking, of self-executing treaties: the operating assumption is that legislation is required to give the force of law to environmental treaty obligations. This is the basis for the decision given, for example, by the Court of

Appeal of Jamaica in the Natural Resources Conservation Authority v. Sea Food and Ting (1999) in respect of the Convention on International Trade in Endangered Species of Flora and Fauna (CITES). Although Jamaica is a contracting party to CITES the Natural Resources Conservation Authority could not impose a quota and export permit system to implement that Convention in the absence of specific enabling legislation enacted by the Parliament of Jamaica.

Given that treaty law generally has no force in Caribbean law without implementing legislation, it might be expected that when a Caribbean State takes the solemn decision to become a party to a treaty, implementing legislation would follow as a matter of course. This logic was not reflected in British practice, which is replete with treaties that have not been followed by enacting legislation. The situation in the Caribbean, until the departure from tradition by Antigua and Barbuda in its pioneering Ratification of Treaties Act (cap. 364), universally reflected the illogicality of the British tradition inherited by Caribbean states.

2.2 Typology

The speed of legislative response to the international obligation to enact enabling statutes could be a function of the typology of legislation adopted. In basic terms enabling legislation may implement a MEA by re-enactment; i.e., by repeating verbatim or by paraphrase, the substantive provisions of the treaty to which the State is party. The Act excludes those substantive treaty provisions in respect of which the State entered a reservation. Implementation by re-enactment is the traditional Caribbean approach and places a premium on State possession of legislative drafting resources, familiarity with the nuisances of international treaty law, and sensitivity to the translation of "soft law" treaty obligations into "hard law" legislative rights and duties.

An alternative to the traditional implementation by re-enactment is the more modern approach of incorporation by reference, a good example of which is provided by the National Conservation and Environment Protection (Amendment) Act, 1996 (St Christopher and Nevis) (No. 12 of 1996). There are many variations on incorporation by reference (see Anderson (1998), at pp. 198-200) but the classic form comprises a short statute whose central provision is that the treaties listed (and sometimes reproduced in a schedule) have "the force of law" in the country concerned. Incorporation in this way represents an economy of legislative competence and facilitates speedier Parliamentary response to the responsibility for legislative action. Correspondingly, other difficulties may be presented in terms of actual implementation and compliance, as is explained below.

3 IDENTIFICATION OF A NATIONAL IMPLEMENTING AGENCY

In the Caribbean, there is no necessary co-relation between treaty making and the identification or designation of national implementing agencies. The Ministry of Foreign Affairs, although generally responsible for treaty making, is not usually involved in the designation of national focal points or project-based implementation strategies except for those MEAs that fall specifically within the substantive portfolio of that Ministry. There is therefore a disjuncture between the agency responsible for accepting environmental obligations on behalf of the state and those responsible for designating the agencies/ groups that are to comply with those obligations. This is unsatisfactory since the Organization of Eastern Caribbean States (OECS) Case Studies and Workshop (1998) suggested instances in which envi-

ronmental agencies were unaware of the nature and extent of international environmental rights and obligations binding on the state.

Neither is the problem resolved by the mere enactment of implementing legislation, whether by re-enactment or reference. Implementing legislation might not resolve the conundrum of identifying the most suitable implementing agency for the simple reason that the legislation is often silent on the point. In other instances the legislation may place the responsibility on a parochial agency having no over-arching responsibility for environmental management in the country.

In the absence of formal rule or standard practice concerning responsibility for designating national implementing agencies the best tradition appears to allow for the ministry with responsibility for the environment to assume, de facto, the task of assigning implementation of specific MEAs to particular agencies. In Jamaica, the Ministry of Housing and the Environment performs that function. Alternatively, the lead environmental agency may interpret its legislative environmental mandate as sufficiently broad to encompass the award of responsibilities for MEA implementation. This appears to be the position in Trinidad and Tobago with the Environmental Management Authority.

In these instances therefore, a distinction must be drawn between the political focal point for MEAs (usually the Ministry of Foreign Affairs) and the technical focal point (generally the Ministry of the Environment and/or the lead environmental agency).

4 IDENTIFICATION OF FOCAL POINTS FOR IMPLEMENTING ACTIVITY

Designation of a national implementing agency must often be supplemented by identification of a specific focal point for implementing activity in respect of specific environmental conventions. The most successful Caribbean approaches to date (e.g., in Jamaica, Trinidad and Tobago, St. Kitts and Nevis) have involved identification of the focal point with the lead environmental agency or the delegation by that agency to other subsidiary bodies over whom the agency exercises some control.

The reasons for the appointment of focal points are not always logical and appear not to follow any standard criteria. Treaties may be assigned on the basis of recognized specialist competence and qualification (e.g., the assignment of United Nations Framework Convention On Climate Change (UNFCCC) to Meteorological office in Jamaica). Alternatively, a MEA whose subject matter was traditionally dealt with by a particular government Department may be assigned to that Department. A new MEA concerning conservation of forest would be assigned to the Forestry Department, Ministry of Agriculture, Forestry and Fisheries. A new MEA on conservation of biological diversity containing provisions for protection of intellectual property rights while making provisions for areas not traditionally dealt with in Forestry may nonetheless be similarly assigned. MEAs may be allotted to a department on the basis of the personal competence, skill and experience of a particular individual. Such assignment often "follows" the person where he/she is relocated to another Department or even after leaving the Civil Service. This is the case even though new Department/Private Sector agency might be an inappropriate location for those treaty-implementing responsibilities.

In practice responsibility for implementing MEA is increasingly assigned to the national lead environmental agency either because of the existence of the required competence and skills in house, or in default of such qualifications being found elsewhere. The lead agency often co-opts

"outside" expertise to complement its own; the University of the West Indies and the Institute for Maritime Affairs (Trinidad & Tobago) are examples of quasi-government institutions that provide expertise in this regard. NGOs and private consultants may also be contracted to perform particular tasks.

5 AVAILABILITY OF RESOURCES AND PROJECT-BASED ACTIVITY

Caribbean public sector resources tend to be limited and do not allow for acquisition and retention of scientific, technical and other expertise on a permanent basis. Externally funded regional project-based activity often represents the "nuts and bolts" of environmental treaty implementation (see for example, the work of Caribbean: Planning for Adaptation to Global Climate Change (CPACC), Wider Caribbean Initiative on Ship Generated Wastes (WCISW), and OECS Waste Management Project (below)).

National project-based activity has been used to facilitate the drafting of implementing legislation and compilation of inventories of greenhouse gases and ozone depleting substances, and the reporting on remedial measures to the relevant conferences of parties. Similarly, inventories have been made of national biological diversity resources and remedial National Strategic Action Plans formulated. Areas of cultural and natural heritage of outstanding universal value have been identified and conserved, especially vulnerable species and ecological areas have been designation and Management Plans formulated. Endangered species of wild fauna and flora have been identified and their international trade regulated. Contingency plans have been drafted, assimilation exercises conducted and regional alerting and telecommunications systems established in preparation for dealing with major oil spills. Plans have been developed for construction of oil reception facilities in ports.

National Environmental Agencies and/or the Focal Point for the relevant Convention are generally responsible for identifying possible lines of funding, drafting and submitting the project proposal, engagement of consultants, monitoring implementation and compliance with the project document with the terms of the convention. Projects are generally organized on a national or local basis. Successful project based activities have represented significant variation on this theme. For example, implementing activities have been initiated and largely controlled by international agencies; projects have been organized on a regional and sub-regional basis. Sustainability is a ubiquitous problem that permeates all project-based implementing activity.

6 ESTABLISHMENT OF MONITORING PROCESSES

It is widely acknowledged that the nature and content of the rules in the conventions is critical to ensuring that multilateral environmental agreements are complied with. Most MEAs operate on the basis of self-reporting. Provisions may be made for the regularity of reporting, reporting formats, and national assistance in respect of international inspection and monitoring. These provisions in turn generate the national establishment of systems for ensuring the generation of information and data, and for monitoring implementation and compliance.

7 ENVIRONMENTAL TREATY MAKING

7.1 Introduction

The Ratification of Treaties Act of Antigua and Barbuda was enacted to remedy a fundamental defect in Caribbean law

and practice by legislating a role for Parliament in treaty conclusion and thus facilitating public awareness. The Act provides that certain treaties cannot be accepted by the State unless the approval of Parliament is first obtained. Accordingly, the Act furthers the objectives of participatory democracy by giving parliament, parliamentarians, and by extension, the populace, a voice in the treaty conclusion process. Anecdotal reports suggest that the Act has been the catalyst for a significant increase in public appreciation of, and sensitivity to environmental treaties, among others.

7.2 The Ratification Requirement

A treaty to which the Act applies must be ratified by Parliament before the Minister of Foreign Affairs may deposit an instrument of formal acceptance. There are two different procedures for ratification. Where the treaty concerns the status, security, sovereignty, independence, unity or territorial integrity of the country, ratification must be by Act of Parliament. As regard these treaties, too, Parliament must be afforded the opportunity to debate any relevant act of a foreign state (section 3 (5)). Legislative approval is also required if the treaty is to become enforceable as part of the law of the land (section 3 (2) (a)). Where the treaty concerns the relationship of the country with any international organization, agency, association or similar body, Parliament may ratify by way of Resolution. It follows from the foregoing that an Act of Parliament or Resolution may ratify MEAs.

Mixed views have been expressed concerning the overall impact of the Act. On the positive side, public information and awareness, as well as democratic discussions on treaty obligations and implications are facilitated. On the negative front, treaty acceptance becomes politicized and subject to lengthy parliamentary debates. Grandstanding and political attacks can lead to delays in treaty acceptance. Treaty adoption has also been slowed by failure to adopt treaties within the slated parliamentary sessions, necessitating a 'rollover' into a subsequent session.

7.3 Ratification and Implementation

The Ratification of Treaties Act ratification process bears no necessary relationship to implementation of the treaty provisions in the law of Antigua and Barbuda. It is perfectly possible for Parliament to ratify the treaty without the treaty becoming part of national law. This is apparent from the fact that parliamentary ratification may be by way of an Act or Resolution. A treaty may also be ratified by Resolution with its provisions being legislated into local law on a subsequent occasion.

Where the route of implementing legislation is taken, the treaty may be adopted by repetition of its provision or by reference. In the latter case, the convention will normally be included as a schedule to the implementing Act.

The general lack of automatic incorporation/implementation is evident in section 3, paragraph 3. This is to the effect that "no provision of a treaty shall become part of the law of Antigua and Barbuda except by or under an Act of Parliament." Antigua and Barbuda has therefore given an enhanced legislative status to the old dualism of the British common law. The Act does not attempt to articulate international law into the national law in such a way as to make treaties accepted by the state the source of rights and obligations for individuals without more. Nonetheless, the democratization process is envisaged as bringing greater awareness of international law making into the national realm.

7.4 Reform of Rules Governing Parliamentary Participation

The Ratification of Treaties Act model could be improved by the adoption of an amendment to Caribbean constitutions

that entrenches the principle of parliamentary participation in treaty making. Constitutional entrenchment would bring greater protection to the ratification process by making it immune from repeal by ordinary Act of Parliament and would enhance the international law efficacy of the process. Embodiment in constitutional law implies that the process is manifest and of fundamental importance in furthering the objectives of democratization and governance in civil society, and that treaties concluded in defiance of the process cannot be regarded as legally binding upon the state.

8 IMPLEMENTING LEGISLATION

8.1 Incorporation by Re-enactment

8.1.1 General

Traditionally, most treaties have been incorporated by re-enactment i.e., repetition, in the statute, of the treaty provisions. The usual procedure is that the treaty is identified by name in the definition section of the Act; the substantive sections then repeat, verbatim or by paraphrase, the provisions of the treaty, but the final clauses and any provisions to which the state has entered a reservation are excluded. A standard variation is for the statute to make no reference at all to the treaty while laying down rules that are, for the most part, in conformity with the treaty requirements. In the present context, re-enactment is particularly evident in relation to treaties establishing substantive rules of environmental standards. The main weakness of transformation by re-enactment is the risk of inconsistency between the treaty and legislation because of misinterpretation, omissions, and the insertion of incongruous provisions. The Law of the Sea provides a particularly fertile area for researching such inconsistencies. For example, Trinidad and Tobago is virtually unique in reproducing verbatim, the Law of the Sea Convention's provisions that the innocent passage of a foreign ship though territorial waters is compromised if the ship engages in any act of 'willful and serious' pollution contrary to the Convention. (Compare Article 19 (2) (h) of UNCLOS with s. 12 (2) (h) of the Archipelagic Waters and Exclusive Economic Zone Act 1986 (Act No. 24 of 1986) of Trinidad and Tobago). Elsewhere passage is deemed non-innocent if there is "any act of pollution calculated or likely to cause damage or harm to the state, its resources or its marine environment." (See e.g., s. 7 (1) (d) Barbados Territorial Waters Act 1977 (cap. 386); s. 7 (1) (d) The Maritime Areas Act 1982 (18/1982) (Antigua & Barbuda) a clear deviation from the conventional position).

In addition to the difficulty of ensuring consistency, there are practical problems relating to the resources required to articulate the burgeoning volume of binding international obligations into the increasingly complex network of domestic legislation. In Natural Resources Conservation Authority v. Seafood and Ting (1999) the Court of Appeal of Jamaica castigated the Executive for its failure to incorporate the provisions of the CITES by domestic legislation but the fundamental problem appears to have been related to the lack of available drafting resources. Assistance from international organizations in the form of the familiar 'model legislation' or 'code of recommendations and guidelines' has not proved adequate to the difficulty.

Theoretically, the failure to adopt the required legislation leaves the State vulnerable to an international claim in state responsibility, although any claimant state would be required to prove that the failure to enact implementing legislation caused the damage/loss of which it complained.

8.1.2 Shipping Oil Pollution Act 1994 as Amended 1997 (Barbados)

The Shipping (Oil Pollution) Act

1994 (1994-16) as amended by the Shipping (Oil Pollution) Act 1997 (1997-22) provides an excellent example of incorporation by re-enactment. The principal Act received the assent on 29th April 1994 and entered into force on 12th May 1994. Its avowed purpose was to make provision concerning oil pollution of navigable waters by ships, to provide for civil liability for oil pollution by ships "and to give effect to certain international conventions relation to pollution of the sea."

The conventions re-enacted are listed in Part VIII:

- Protocol of 1978 relating to the International Convention for the Prevention of Pollution from ships (1973) as amended);
- International Convention relating to Intervention on the High Seas in Cases of Oil Pollution Casualties, 1969;
- Protocol of 1973 relating to Intervention on the High Seas in cases of Pollution by Substances other than oil;
- International Convention on Civil Liability for Oil Pollution Damage, 1969;
- Protocol of 1976 to the International Convention on Civil Liability for Oil Pollution Damage;
- International Convention on the Establishment of an International Fund for Compensation for Oil Pollution Damage, 1971;
- Protocol of 1976 to amend the International Convention on the Establishment of an International Fund for Oil Pollution Damage;
- International Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter, 1972.

The Amendment of 1997 made provision for the re-enactment of two additional international agreements:

- Protocol of 1992 to the International Convention on Civil Liability for Oil Pollution Damage;
- Protocol of 1992 to the International Convention on the Establishment of an International Compensation Fund for Oil Pollution Damage.

Part I deals with Preliminary matters. The short title of the Act is presented. There is an elaborate Interpretation section of key concepts that basically repeats the conventions' definitions. Part II adopts the substantive provisions of Under Annex 1 of MARPOL 73/78 in relation to the prevention of oil pollution. Part III deals with shipping casualties and purports to incorporate the provisions of the 1969 Intervention Convention as amended by the Protocol of 1973. Part IV deals with Civil Liability for Oil Pollution and incorporates the 1969/1992 Civil Liability Convention. Part V establishes the International Oil Pollution Compensation Fund in accordance with the terms of the 1971/92 Fund Convention. Part VI deals with various aspects of enforcement and attempts to incorporate those provisions of MARPOL 73/78 that give jurisdictional competence to the coastal and port states. Part VIII concerns identification of the conventions and protocols that are being re-enacted. A list of these agreements was presented above. The Act resolves any conflict between itself and the conventions by providing (s.57) that in the event of a conflict "the provision of the international convention or protocol prevails unless the Minister otherwise provides by such regulations as he may make in that behalf."

8.2 Incorporation by Reference

8.2.1 General

The technique of incorporation by reference involves the conferral of the force of municipal law upon rules the substantive content of which are found in the multilateral environmental treaty. Although stated in

terms of an alternative to re-enactment, incorporation by reference may involve re-enactment of treaty provisions while simultaneously requiring that specific issues be resolved by direct reference to the treaty.

The classical illustration of incorporation by reference, however, eschews re-enactment with consequential provisions for resolving conflicts. Instead, a typically short statute has as its central provision, a section legislating that the treaty or treaties have "the force of law" in the local jurisdiction. The text of the conventions incorporated in this way is generally reproduced in a schedule or several schedules to the Act. In more modern style the MEAs are simply listed in the schedule or schedules.

8.2.2 The National Conservation and Environmental Protection Act 1987 as Amended 1996 (St. Kitts & Nevis)

The National Conservation and Environment Protect Act, 1987 (No. 5 of 1987) as amended by the National Conservation and Environment Protection (Amendment) Act, 1996 (No. 12 of 1996) provides that "The International Conventions specified in the Fifth Schedule shall have the force of law in Saint Christopher and Nevis".

The Fifth Schedule does not reproduce the texts of the conventions thus incorporated into domestic law. Rather, the Schedule simply lists, by short title, the International Conventions and Agreements made part of local law in this way as follows:

- Convention on International Trade in Endangered Species of Wild Fauna and Flora 1973;
- United Nations Convention on Climate Change 1992;
- United Nations Convention on Biological Diversity 1992;
- Vienna Convention for the protection of the Ozone Layer, 1985 and Montreal Protocol on Substances that Deplete the Ozone Layer 1987;
- Basel Convention on the control of transboundary movement of Hazardous Waste 1989;
- Civil Liability Convention 1969;
- International Oil Pollution Compensation Fund Convention 1971.

As a preliminary matter it may be observed that the full benefit of this extreme form of incorporation was not obtained. Several of the conventions listed have been superceded. In particular the International Maritime Organization (IMO) and the International Oil Pollution Compensation Fund have been actively encouraging states to denounce the 1969 Civil Liability Convention and 1971 Fund Convention in favor of the Protocols of 1992, which are intended to replace these conventions. Severe financial and legal problems are anticipated for the dwindling number of contracting parties to the original agreements. Less dramatically, virtually all of the remaining conventions have been or are being amended protocols adopted by contracting parties.

The Act does enable the Minister "from time to time" to add or remove any convention in the Fifth Schedule by way of Notice, which shall be published in the Gazette and be laid before the National Assembly (s. 54C). However the history of policy formulation, administration and legislative activity is not encouraging; legislative apathy and inertia have been blamed for not providing timely responses to environmental problems (see Natural Resources Conservation Authority v. Seafood and Ting (1999)).

Another substantial concern is whether, as alluded to earlier, this stratagem of incorporation of reference accomplishes its objective. The conventions listed as having the force of law make substantial requirements of contracting parties. For

example CITES requires designation of a Management Committee and Scientific Committee. These institutions are essential to the developments of rules providing for imposition of quotas and export permits as was dramatically illustrated in Natural Resources Conservation Authority v. Seafood and Ting (1999). These institutions also evaluate whether international trade in the species would be detrimental to the survival of the species. On the one hand the provision that CITES "has the force of law" creates a qualitative difference from the position, which existed in Jamaica. On the other hand, such a provision does not, per force, create the required institutions.

The other MEAs incorporated by reference similarly make institutional, administrative, and policy requirements of the State of Saint Christopher and Nevis. National authorities are required to develop national inventories of greenhouse gas emissions and greenhouse gas removals by sinks and to strengthen research capabilities (UNFCCC, 1992). Obligations exist to identify and monitor components of biological diversity and to develop a National Strategic Action Plan to deal with loss of biological diversity (CBD, 1992). National authorities must make provision for the freeze in consumption of chlorofluorocarbons (CFCs) by July 1, 1999 and the complete elimination of their use by 2010 (Montreal Protocol 1987, as amended). There are obligations relating to establishment of competent authorities and focal points, notifications to importing states and re-importation with regard to the transboundary movements of hazardous wastes (Basel Convention, 1989). Specific legislative provisions must be made for the litigation and judicial proceedings in respect of civil liability for oil pollution damage (CLC, 1969). There are obligations of notification to the International Oil Pollution Compensation Fund in respect of the names and addresses of persons within the territory who import more than 150,000 tons of oil in any one calendar year (1971 Fund Convention).

Such illustrations of the obligations arising under the various conventions serve to support the point that merely providing that the Conventions have the force of law within the country may not be sufficient; further institutional, administrative, and policy-making may all be required to complement incorporation by reference.

9 NATIONAL IMPLEMENTING AGENCIES AND FOCAL POINTS

9.1 Anguilla: The Anguilla National Trust

In Anguilla and other dependencies/associated states MEA acceptance lies with the United Kingdom although consultation with national authorities would take place as a matter of course before any such Agreement was extended to the dependency.

The Anguilla National Trust has broad responsibility for coordinating/critiquing MEA implementation. In discharging this function the Anguilla National Trust has developed an conservation programme aimed at increasing (a) public awareness, (b) participation by stakeholders at the community level, (c) institutional support, and (d) public and private sector sensitivity related environmental issues.

The Anguilla National Trust has analysed the implications of acceptance of the Cartagena Convention and Specially Protected Areas and Wildlife in the Wider Caribbean Region (SPAW) Protocol in anticipation of Anguilla's inclusion in these Agreements under the UK's ratification (see: Ijahnya Christian "Preservation for Generations"). The Anguilla National Trust suggests that given Anguilla's small size, becoming part of the Party to the Protocol and Convention would not only be useful but necessary if the protection and devel-

opment of the marine environment and coastal resources is to be assured.

The Anguilla National Trust found that a number of the practices required for implementation were already being pursued but that the legislative framework was inadequate; the practices were not legally obligatory and may therefore ultimately be ineffective. Private land ownership and the cultural attitude of Anguillians to land also signaled the need for a strong degree of public discussion and public awareness of the objectives and provisions of the Protocol and the Convention so as to engender public support at the point of implementation. The fact that Government is a major land owner means that the state itself will need to be familiar with the Convention and Protocol and their supporting documents, and to be assured of the Agreements' concern for increased economic growth in tandem with protection of critical environmental assets.

Preserving sea turtles, one of the objectives of SPAW Protocol and CITES illustrates some of the difficulties of MEA implementation. The four species of sea turtle found in Anguilla are the hawksbill (Eretmochelys imbricata), leatherback (Dermochelys coriacea), green (Chelonia mydas) and loggerhead (Caretta caretta). Conservation efforts have organized around the Sea Turtle Conservation Project, which is supported by the Wider Caribbean Sea Turtle Conservation Network (WIDECAST). Continuing problems that frustrate the effectiveness of the conservation measures include:

- The less than complete compliance with the existing moratorium by Anguillian fishermen.
- The unlawful harvesting of turtles by fishermen from neighboring islands.
- The need to integrate the protection of these and other species into existing and proposed legislation for protected areas.

In particular, it is not clear that the legislation on marine parks, for example, is sufficient or adequate to ensure the protection of sea turtles and other endangered marine life. The hope was expressed that Anguilla's inclusion in the SPAW Protocol would create an opportunity to address the legislative requirements. Poaching by citizens of European Union countries that are already Parties has been highlighted as requiring redress at the highest levels. This means that the integrated management objective of the Cartagena Convention and SPAW Protocol would include not just collaboration between partner agencies at the national level but perhaps arrangements for legislation and jurisdiction sharing at transnational levels.

The Anguilla National Trust is also of the view that the requirements of the SPAW Protocol could strengthen initiatives to engage landowners in conservation planning for the generating revenue from their lands. Traditionally, owners of coastal lands have thought of development in terms of hotels (villas etc.), restaurants and other facilities of this type. Inclusion in the SPAW Protocol could facilitate national thinking about the importance of landscape, leaving lands in their natural state for low impact activities such as bird watching, the scientific and amateur study of flora, and passive recreation.

As regards environmental impact assessments, the Anguilla National Trust is of view that these should be mandatory for all major projects and projects to be developed in environmentally sensitive areas whether they be Government of Anguilla projects or those involving private investors. Again, the legislative and institutional framework is weak but participation in the Convention and Protocol was seen as creating the opportunity for prioritization of training courses that can strengthen Anguilla's capability, co-ordination, conduct, evaluation, EIAs and reviewing their reports. The provisions should also ensure

that development decisions are based on the recommendations of such reports and that they involve public consultation.

9.2 The Bahamas: The BEST Commission

MEA implementation in The Bahamas is generally unsatisfactory. Formal institutional and regulatory initiatives are fragmentary and largely uncoordinated. Informal initiatives exist upon an inadequate or non-existence legislative basis. There is a widely acknowledged need for institutional strengthening that results in a legislatively established lead agency with broad powers of environmental management.

The Bahamas Environment, Science and Technology (BEST) Commission was instituted by administrative procedure within the context of the recent developments in international environmental policy making. Following his attendance at UNGCSIDS (which adopted Agenda 21's call for integration of environment and development within the context of suitable institutional arrangements, the Prime Minister caused the establishment of The BEST Commission. The BEST Commission functions within the Prime Minister's Office and is the de facto national environmental agency pivotal to effective implementation of several environmental treaties and to provision of advice and recommendations, and the facilitating of inter-agency co-ordination and co-operation. In short, the Commission is an attempt to provide an interim solution to the gaps in the institutional and regulatory landscape.

In relation to its role as implementing agency for MEA implementation the Commission has created a number of sub-committees. The National Climate Change Committee is the focal point for implementation of the UN Climate Change Convention. The Ramsar Committee is the focal point for implementation of Ramsar Convention and identification and management of wetlands of international significance. The Biological Diversity Committee is concerned with implementation of the United Nations Convention on Biological Diversity Convention and is in the process of preparing a national strategy for biological diversity sustainability. Ad Hoc Committees are established as appropriate. The strategy of implementation by sub-committees facilitates the co-opting of competence and technical expertise from individuals, groups and organizations without outlandish outlays of financial resources. Service on the sub-committees is generally voluntary.

More problematic is the lack of legal status in the Commission. No legally binding obligations exist in relation to the functioning of the Commission. Consultation with it may be by-passed or ignored when inconvenient or inexpedient. There may be no legal basis for the involvement of BEST in MEA implementation; an issue that could call into question the validity of the environmental measures taken by the Commission. Accordingly, the Commission has sought support from international donor agencies in reviewing its institutional and juridical arrangements. Sub-component II of the Inter-American Development Bank-sponsored Environmental Management Policy and Institutional Strengthening Project is to be focused on preparation of a detailed institutional and organizational assessment and recommendations for the BEST Commission and other agencies involved in environmental management. The Project is also intended to develop a long-term financial plan for BEST and to assess the capacity in the government agencies for quality control, monitoring and enforcement.

9.3 Guyana: the Environmental Protection Agency

The Environmental Protection Agency Act 1996 was established by the

Environmental Protection Agency (EPA) as the national lead environmental agency of Guyana. The Guyana EPA has the substantive mandate and the institutional and administrative apparatus similar to those in Trinidad and Tobago.

Particular insights may be gained in relation to MEA implementation in Guyana by considering the implementation of the UNCBD. Guyana signed the Biological Diversity Convention in June 1992 and ratified it in August 1994. General oversight responsibility for conservation of biological diversity is conceded to the lead environmental agency, the EPA, because of that Agency's broad administrative and implementation powers.

UNCBD implementation is assisted by legislative support derived from fisheries legislation (e.g. Fisheries Act 1957, Fisheries Regulation, 1962, Fisheries (Aquatic Wildlife Control) Regulation 1966); forestry (The Forest Act and Forestry Commission Act); wildlife (Wild Birds Protection Act 1987). However, this legislation is generally outdated and inappropriate for solving modern biological diversity problems. Legislation in relation to bio-safety and intellectual property rights is even more inadequate.

A National Biodiversity Strategy was formulated in 1997 and a National Biodiversity Action Plan is being developed with local and international expertise.

The most innovative step taken by Guyana pursuant to its commitment to conserve biological diversity was the conclusion of the agreement in 1995 with the Commonwealth Secretariat for the establishment of the Iworkrama International Centre for Rain forest Conservation and Development Programme. The Programme Site covers 60,000 hectares of Guyana's rainforests that under the Agreement are dedicated to the international community. The stated objective is to conserve biological diversity and promote sustainable development, and equitable and sustainable utilization of tropical rain forests that will bring lasting ecological, economic and social benefits to the peoples of Guyana and contribute to the world's knowledge of critical aspects of rain forest management and development. The Agreement is embodied in and receives legal status from the Iwokrama International Centre for Rain Forest Conservation and Development Act 1996.

9.4 Jamaica: The Natural Resources Conservation Authority

The Natural Resources Conservation Authority (NRCA) is the central agency for the implementation for multilateral environmental agreements in Jamaica and its centrality has been recognized within the United Nations system (NRCA Mission Statement). The Authority has been designated as the focal point for activity related to effectuating Jamaica's rights and obligations under several specific MEAs. The Authority provides support and a coordinating function in relation to all environmental agreements to which the Government of Jamaica is party. The Authority also performs the role of "default agency"; where an MEA is not the responsibility of any other specific agency it may be taken that Authority has the responsibility for its implementation. To this end the Authority has undertaken or coordinated a number of MEA project-based activity, developed a large number of policy documents critical to MEA implementation, and delegated management functions related to MEA implementation to Non-Governmental Organizations.

The multilateral environmental treaties for which the Authority has specific implementing functions include:

- Vienna Convention for the Protection of the Ozone Layer, Vienna, 1985.
- Montreal Protocol on Substances that deplete the Ozone Layer, Montreal 1987.

- London amendment to the Montreal Protocol on Substances that deplete the Ozone Layer, Copenhagen 1990.
- Copenhagen amendment to the Montreal Protocol on Substances that deplete the Ozone Layer, Copenhagen 1992.
- Montreal amendment to the Montreal Protocol on Substances that Deplete the Ozone Layer, Montreal 1997.
- Convention on International Trade in endangered Species of Wild Flora and Fauna (CITES).
- Convention on Wetlands of International Importance especially as Waterfowl Habitats.
- Convention for the Protection and Development of the Marine Environment of the Wider Caribbean Region, Cartagena de Indias, 1983 (Cartagena Convention).
- Protocol to the Cartagena Convention concerning Cooperation in Combating Oil Spills in the Wider Caribbean Region [Oil Spills Protocol].
- Protocol to the Cartagena Convention on Specially Protected Areas and Wildlife.

Administration of multilateral environmental treaties necessarily falls upon the Natural Resources Conservation Authority in the absence of specific designation of other agency because the Authority has broad responsibility for protecting and conserving the physical environment of Jamaica. Conventions that are administered by the Natural Resources Conservation Authority in the absence of special designation of another agency include.

- Convention on Transboundary Movement of Hazardous Waste and their Disposal (BASEL Convention).
- Convention on the Conservation of Migratory Species of Wild Animals Bonn, 1972.

The Authority necessarily plays a coordinating role in relation to the implementation of all environmental treaties by virtue of its lead agency status. The Authority has broad responsibility for protecting and conserving the physical environment of Jamaica. There are also statutory provisions requiring consultation and collaboration between the Natural Resources Conservation Authority and other agencies exercising environmental functions. Coordination is presently most evident with Planning and Ministry of Agriculture officials. MEAs in relation to which the Natural Resources Conservation Authority performs a support/coordinating role include:

- Convention concerning the Protection of the World Cultural and Natural Heritage, 1972 [in conjunction with the Jamaica National Heritage Trust].
- International Convention on the Prevention of Pollution from Ships, London 1973 (MARPOL) [in conjunction with the Ministry of Transport].
- Protocol of 1978 relating to the International Convention for the Prevention of Pollution from Ships, London 1973 [in conjunction with the Ministry of Transport].
- United Nations Convention on the Law of the Sea, Montego Bay [in conjunction with the Ministry of Foreign Affairs].
- International Convention for the Safety of Life at Sea [in conjunction with the Ministry of Transport].
- United Nations Framework Convention on Climate Change, New York, 1992 [in conjunction with the Meteorological Office].
- Kyoto Protocol to the United Nations Framework Convention on Climate Change, Kyoto, 1997 [in conjunction with the Meteorological Office].
- Convention on Biological Diversity, Rio de Janeiro, 1992 [in conjunction with the Institute of Jamaica].

- United Nations Convention to Combat Desertification, Paris, 1994 [in conjunction with the Ministry responsible for Water].

The Natural Resources Conservation Authority has been relatively successful in the implementation of MEAs falling directly or indirectly within its purview. The Authority has attracted international funding for several of its activities in addition to the domestic sources of funding identified in its parent statute. The Authority has been able to undertake several MEA project-related activities, develop a large number of policy documents that directly impact MEA implementation. Where constraint of resources has threatened to curtail implementing activity the NRCA has developed the innovative technique of delegating management functions to Non-Governmental Organizations. NGOs are authorized in this way upon the Natural Resources Conservation Authority's approval of their corporate and institutional suitability management plans, plans for attracting funding, and indication of reasonable prospects for sustainability.

9.5 Trinidad and Tobago: The Environmental Management Authority

Prior to 1995, environmental management in Trinidad and Tobago was characterized by a lack of environmental and conservation focus. Over forty separate pieces of environmental legislation existed with many obsolete with inadequate penalty structures little cross-sectoral linkages and no facility for the establishment of broad environmental standards. After a gestation period compared to that of an elephant (Trinidad Guardian Newspaper 94-09-14) the Environmental Management Act of Trinidad and Tobago was assented to on 7th March 1995 (Act No. 3 of 1995). Not the least interesting aspect of the Act of 1995 is the unprecedented array of institutions established with varying kinds of responsibility for environmental management. The lead agency is undoubtedly the Environmental Management Agency, but there is also an Environmental Trust Fund, and the Environmental Commission. The Environmental Trust Fund was established to finance the operations of the Authority and derives resources from government, endowments, international donors, payment for EMA's services, and borrowings. The European Commission has a broad mandate to hear environmental disputes that may be conferred on the Commission and exercises the jurisdiction and powers equivalent to a High Court.

There are no express provisions in the EMA pertaining to MEA implementation but the Authority is necessarily pivotal to the effectuation of all MEA obligations. The general functions of the Authority which necessarily impinge upon MEA implementation include the following:

- Make Recommendations for a National Environmental Policy.
- Develop and implement policies and programmes for the effective management and wise use of the environment.
- Co-ordinate environmental management functions performed by persons in Trinidad and Tobago.
- Make recommendations for the rationalization of all governmental entities performing environmental functions.
- Promote educational and public awareness programmes on the environment.
- Develop and establish national environmental standards and criteria.
- Monitor compliance with the standards, criteria and programmes relating to the environment.
- Take all appropriate actions for the prevention and control of pollution and conservation of the environment.
- Establish and coordinate institutional

linkages locally, regionally and internationally;

- Undertake anything incidental or conducive to the performance of any of the foregoing functions.

The range of its functions and powers made the Environmental Management Authority the natural focal point for multilateral environmental agreement implementation. On this ground, the Authority has sought and obtained a loan from the World Bank to facilitate its institutional and administrative work relevant to the effectuation of such agreements as SPAW, United Nations Framework Convention on Climate Change, the Convention on Biological Diversity, and the Basel Convention. An important stumbling block remains the passage of enabling legislation to provide the framework for implementation. Particular concerns have been expressed that neither the Basel Convention nor MARPOL 73/78 has attracted the required domestic legislation. External funding is, however, assisting with the development of the Environmental Code, expected to be completed March 2000.

In executing its MEA implementation functions the EMA acts in concern with regional project-based activities and institutions. Particular mention was made of the Caribbean Planning for Adaptation to Climate Change in relation to the UNFCCC, and the Wider Caribbean Initiative on Ship Generated Wastes in relation to efforts to implement the MARPOL convention.

As done elsewhere, the EMA has engaged in the practice of delegating MEA implementation function to agencies over which it exercises supervisory, or at least coordinating, functions. Such agencies are in charge of attracting their own funding and marshalling their own technical competence and expertise. The Forestry Division of the Ministry of Agriculture seeks to implement CITES by inter alia, providing for declaration of sanctuaries and protected areas, and provides for protected species such as the leatherback turtle.

9.6 St. Kitts & Nevis: The Department of the Environment

Of all Caribbean framework legislation, the National Conservation and Environmental Protection Act 1987, 1996 of St. Kitts and Nevis makes the most explicit provisions for the articulation of the lead environmental agency (Department of the Environment) into MEA implementation. The Department of the Environment is expressly empowered to negotiate environmental treaties initiated by regional and international inter-governmental organizations and non-governmental organizations. The Department also has the function of implementing environmental policies, programmes and projects in order to achieve sustainable development. This function must be contextualized against the background where seven major MEAs are incorporated by the same statute and given the "force of law" in St. Kitts & Nevis. For further commentary *see* above.

10 OECS- RECENT DEVELOPMENTS

The Fifth Meeting of the Organisation of Eastern Caribbean States (OECS) Ministers' Environment Policy Committee, held in Montserrat, November 22 and 23, 2001, endorsed the recommendation from the Ninth Meeting of the Technical Advisory Committee (TAC) that a Task Force on Multilateral Environmental Agreements and Documents be established. The objective of the Task Force would be to make recommendations to the Environment Policy Committee on viable approaches to be adopted for the negotiation and implementation of, and compliance with, multilateral environmental agreements. Consideration would be given to the reduction of costs and achievement of efficiency; enhancement of compliance; and

more effective implementation.

The inaugural meeting of the Organization of Eastern Caribbean States-Natural Resources Management Unit Task Force on Multilateral Environmental Agreements and Documents was held at the OECS Secretariat, St. Lucia on March 27, 2002.

Both the Environment Policy Committee and the Task Force recognize several characteristics of treaty making and implementation in the OECS sub-region

- Inadequate participation in negotiation, lack of adequate discussion or even notification to national stakeholders prior to signing and ratification, absence of implementing legislation and institutional support, and failure to supply material and human resources for compliance were among the deficiencies identified. The divorce between state protocols for negotiation and implementation, and the fragmentation in the institutional arrangements for implementation, were identified as further obstacles to be dealt with.
- The sub-region is considering the need to revise the current methods of negotiation and implementation of MEA/Ds and that some degree of regionalization, based upon one or other of the following paradigms:
  - The Regional Negotiating Machinery
  - The South Pacific Regional Environmental Programme
  - The Alliance of Small Island States
  - Caribbean Community
  - Organization of Eastern Caribbean States-Natural Resources Management Unit Task Force
- That there was support for the position put forward in the Recent "Anderson" Report that this function could be performed by the OECS-NRMU and that the establishment of the office of Treaty Officer would be useful in that context.
- That the regional body chosen to fulfill this task should be fully accredited.
- That protocols and procedures should be established that would enable the regional body to attend negotiating sessions, conferences of the parties, and other relevant meetings, using the financial resources available from the secretariats of the conventions whenever possible.
- That the regional body would make recommendations on negotiations and implementation strategies but that ultimate decision on binding international rights and obligations would remain in the individual states, thereby preserving state sovereignty.
- That the regional entity should undertake to review and evaluate, on a continuing basis, the pitfalls and benefits arising from environmental agreements, drawing upon existing documentation wherever possible.
- The regional body would perform a catalytic role in ensuring the preparation and coordination of negotiating positions in all relevant international forums.
- That under the auspices of the regional entity or otherwise the following tasks would be undertaken:
  - Investigation of the feasibility of having a single environmental law providing regulatory and institutional support for negotiation and implementation;
  - Evaluation of the cost of compliance and of all available financial resources for compliance;
  - Provision of periodic training seminars, workshops, short courses on multilateral environmental agreements utilizing resources available at UWI and other regional institutions;
  - The further integration of the various Caribbean Community Ministerial Councils in relation to environmental

management issues;

- Examination of the feasibility of using regional conventions to implement global agreements (e.g., using SPAW to implement CITES) thereby reducing costs and furthering efficiencies.

11 RESOURCES AND PROJECT BASED ACTIVITY

11.1 Organization of Eastern Caribbean States: Solid and Ship-Generated Waste Management Project

The independent governments of the Organization for Eastern Caribbean States (OECS) have the beneficiaries of loan, credit and grant funds from the International Bank for Reconstruction and Development (IBRD), the Caribbean Development Bank, Global Environmental Facility and other agencies to finance the Solid and Ship-Generated Waste Management Project. The objective of the Project is to address the problems of managing ship and shore generated waste in the countries of Antigua and Barbuda, Dominica, Grenada, St. Kitts and Nevis, St. Lucia, and St. Vincent and the Grenadines. The improvement of solid waste management systems in the OECS is anticipated to enhance the quality of both terrestrial and marine environments.

The Project has both national and sub-regional components. The national components include provision of materials and equipment to enhance solid waste storage, collection, treatment and disposal, and the handling of ship-generated wastes. The regional component involves management support and the provision of technical assistance to the countries in order to improve the regulatory environment, strengthen management capabilities, improve day to day monitoring of waste management systems and identify opportunities for waste reduction, recycling, recovery and re-use. Specifically, the project supports and provides for five principal programmes:

- Construction of new sanitary landfills or the upgrading of existing landfills.
- A system of waste collection and disposal for MARPOL Annex V wastes.
- Enhancement of waste collection, including, where appropriate, development of transfer stations, and provision of equipment.
- Waste minimization/recycling through analysis of policy measures needed for encouraging waste minimization.
- Institutional strengthening, including development of legislation on solid waste and environmental health as well as public education programmes.

The initiation and operationalization of this project has greatly facilitated practical steps at the national level to implement relevant conventions such as MARPOL 73/78, and the London Convention, 1972, 1996.

11.2 Wider Caribbean Initiative on Ship-Generated Waste

The proliferation of MEAs relating to protection of the marine environment has informed IMO policy in relation to Caribbean states. At the Organization of American States/International Maritime Organization/USAOD/Government of Puerto Rico Workshop on Oil Pollution Regulation and Enforcement held in San Juan, Puerto Rico 11-15 October 1982 the International Maritime Organization estimated that over 30 treaties regulating the discharge of maritime pollution could be identified. In this context the Organization projected that in future more emphasis had to be placed upon the implementation and enforcement of the existing Conventions rather than the creation of new Conventions. The Organization offered assistance on a regional basis to Caribbean countries and Caribbean states indicated a preference for technical assis-

tance with the development of the required implementing legislation, and technical and financial assistance with regard to the development of port reception facilities.

Within this general context the International Maritime Organization conducted a number of Missions to several of the region's developing countries in the early 1980s. A Mission by the International Maritime Organization Inter-Regional Consultant on Marine Pollution was made to the Caribbean Islands of Antigua, Montserrat, Puerto Rico, Cayman Islands, and The Bahamas from 3 February to 3 March 1981; to the Republic of Guyana from 18 to 24 March 1980; and to the Commonwealth of The Bahamas 25 February to 11 March 1981. (The Three Reports are available as International Maritime Organization Publications compiled by Cmdr. T.M. Hayes).

International Maritime Organization was responsible for introducing the Draft Protocol Concerning Cooperation in combating Oil Spills in the Wider Caribbean to the first meeting of legal experts convened by the Executive Director of UNEP in New York from 7 to 11 December 1981 to consider flexible and general legal regional arrangements to support the then emerging Caribbean Environment Programme. The Draft was considered in detail at the second meeting of Legal Experts opened by UNEP in cooperation with International Maritime Organization at the UN Headquarters in New York from 7 to 16 July 1982. At this meeting the International Maritime Organization indicated the possibility of linking the draft protocol to the Convention. After a third and final meeting of the Legal Experts in Santo Domingo, from 3-5 November 1982 the Convention and Oilspill Protocol were finalized. Both instruments were adopted at the Conference of Plenipotentiaries on the Protection and Development of the Wider Caribbean Region at Cartagena de Indias, Colombia, from 21 to 24 March 1983 and entered into force on 11 October 1986. The Cartagena Convention, like others developed under UNEP Regional Seas Programme, is a framework document requiring cooperation among contracting states; to safeguard the integrity of this approach parties are required to accept more detailed commitment to prevent marine pollution from at least once specific source. The Oilspill Protocol remained, until June 1991, the only protocol to have been adopted pursuant to this policy. Since the Cartagena Convention requires that each contracting state becomes, simultaneously, a contracting party to at least one of its protocols, it followed that, for the first eight years of the Convention's existence, acceptance of the OILSPILL Protocol was a necessary precondition to becoming a party to the Cartagena Convention (Anderson (1997) at p. 225).

There was a relative lull in International Maritime Organization activity in the Caribbean until the development of the Wider Caribbean Initiative on Ship-Generated Waste. Wider Caribbean Initiative on Ship-Generated Waste is a Technical Assistance Project developed on the request of the 22 Developing Countries in the Wider Caribbean region. The objective is to support implementation of the International Convention for the Prevention of Pollution from Ships (MARPOL 73/78) and the Special Area designation of Annex V of the Convention. The Project is funded by the Global Environmental Facility through the World Bank, and is implemented by the International Maritime Organization.

Most developed countries have ratified MARPOL 73/78 but the status of ratification for developing countries in the Wider Caribbean region is relatively modest. Even where some States have ratified, little or no action has been taken to implement the requirements of the Convention. MARPOL 73/78 is perceived to be a highly technical

instrument making special demands in terms of provision of port reception facilities and the like which require external technical and financial assistance. A need specifically recognized was that of the development of national legislation to enable enforcement of the Convention.

Programme activities were envisaged to encourage countries of the region to invest in port reception facilities, waste management infrastructure and institutional training programmes. These would contribute towards the longer-term goal of ending the discharge of all-ship generated wastes into the waters of the Caribbean Sea. Project activities included:

- Assistance to governments and port authorities on legal, technical, and institutional measures needed to implement MARPOL 73/78.
- Provision of a forum for considering options and for reaching a regional consensus on the actions to be taken.
- Assisting ports in the Wider Caribbean Region in setting tariffs for receiving Annex I, II and V wastes, including cost recovery for waste management systems.

11.3 Caribbean Planning for Adaptation to Climate Change Project

One of the most significant initiative in Caribbean implementation of UNFCCC has been the development of the Caribbean Planning for Adaptation to Climate Change Project funded by the Global Environmental Facility. The Caribbean Planning for Adaptation to Climate Change Project is currently undoing important institutional changes but as initially conceived Project had its origin in the Global Conference on the Sustainable Development of Small Island Developing States which took place in Barbados in April/May 1994. In the words of the Caribbean Planning for Adaptation to Climate Change Project Document (1997): "During the Conference, the small island developing states of the Caribbean requested GS/OAS assistance in developing a project on adaptation to climate change for submission to the Global Environmental Facility."

The Global Environmental Facility Council approved the project as part of its Work Program in May 1995. Caribbean countries and the Caribbean Community have maintained an active level of participation throughout the project preparation phase. A Project National Focal Point (NFP) was designated for each country. During the project preparation phase, two regional workshops and a national consultation workshop took place in each of the eleven participating countries. A third regional workshop on the project was held as part of the pre-appraisal review of the project document.

In the words of the Project Document: "The project's overall objective is to support Caribbean countries in preparing to cope with the adverse effects of global climate change, particularly sea level rise, in coastal and marine areas through vulnerability assessment, adaptation planning, and capacity building linked to adaptation planning. Project encouraged adoption of specific measures for strengthening regional capability for:

- monitoring and analyzing climate and sea level dynamics and trends, seeking to determine the immediate and potential impacts of global climate change;
- identifying areas particularly vulnerable to the adverse effects of climate change and sea level rise;
- developing an integrated management and planning framework for cost-effective response and adaptation to the impacts of global climate change on coastal and marine areas;
- enhancing regional and national capabili-

ties for preparing for the advent of global climate change through institutional strengthening and human resource development.

11.4 Integrated Coastal Zone Management Project

The Integrated Coastal Zone Management Project emerged to satisfy the requirements of the Sustainable Development of Small Island Developing States-Programme of Action and has intimate linkages to Caribbean Planning for Adaptation to Climate Change. Integrated Coastal Zone Management is one of the most effective ways of planning for adaptation to climate change. To this end the OAS contracted consultants in 1998 to conduct a survey and make recommendations on integrated coastal zone management and legislation in selected countries of the Anglophone Caribbean. In 1999 US Agency for International Development (USAID) contracted consultants to broaden the Integrated Coastal Zone Management Project to include recommendations in respect of all Caribbean countries, albeit by categories. Category 1 focuses on the mainland states of Guyana and Belize. Category 2 on the larger/more developed islands such as Jamaica, Bahamas, Trinidad and Tobago, and Barbados. Category 3 includes the island states of the Organization of Eastern Caribbean States.

The Integrated Coastal Zone Management Project Report record that integrated coastal zone management is assuming increasing importance in the Caribbean. Management systems are being developed to deal with growing problems of coastal deterioration caused by rapidly expanding levels of beach tourism, growing urbanization of coastal lands and coastal sand-mining used to support the construction industry in coastal areas and elsewhere. Exposure of coastal areas to the risk of maritime oil pollution has also encouraged the stimulation of pollution control legislation.

The tradition of fragmented administrative approach to coastal zone management has experienced significant improvement in the last ten years. Currently, Caribbean countries present a multiplicity of management frameworks. There was independent stand-alone coastal zone legislation, umbrella legislation regulating coastal resources as a component within a comprehensive environmental strategy, and fragmented legislative systems in which the coastal zone is managed on an ad hoc basis in response to specific problems. In every instance, recognition of the vulnerability of the coastal zone to sea level rise and the requirement for regulation of pollutants that cause climate change tends to be implied and not expressed.

The consultants were of the view that sustainable management of coastal resources raises continuing challenges even for those countries with sophisticated management strategies. Here questions of explicating management objectives, integrating international controls, and testing, improving and maintaining efficient management strategies predominate. The existence of improved coastal management practices in some Caribbean countries provides important lessons for the regional management of coastal resources. This is especially valuable in relation to small island states with similar coastal zone problems but without the human, material or technical resources to fashion an indigenous management strategy. Adoption of new legislation in these countries brings questions of ensuring suitability to the specific local context. There are further issues of ensuring the legislation's integration into the pre-existing legal infrastructure.

Significant legislative and institutional improvements, associated with the Integrated Coastal Zone Management Project and similar project-activity have

occurred in Barbados (See: Coastal Zone Management Act 1998) and Belize (Coastal Zone Management Act 1998 (No. 5 of 1998)); and there is heightened activity in relation to ICZM in such countries as St. Lucia, Jamaica, and The Bahamas.

11.5 Regional Project Activity in Relation to Biological Diversity

In relation to the Convention on Biological Diversity (Biodiversity Convention), adopted at the Rio Earth Summit in 1992, a 1997 Review of the Implementation of the Small Island Developing States-Programme of Action United Nations Economic Commission for Latin America and the Caribbean suggested that conservation of biological diversity had been promoted by researchers and environmental and conservation organizations. However, it was found that the subject "has not found widespread support among the general population" (UNECLAC Review (1997) at p. 24). Key issues identified in the Review included the following:

- Lack of inventory of biological resources.
- Lack of integrated strategies for the management of terrestrial and marine biodiversity.
- Inadequate socio-economic and biological research on key species.
- Increasing habitat degradation and destruction.
- Unsustainable exploitation of commercially important indigenous species.
- Insufficient or non-existent safeguards against loss of rights to genetic resources.

A major regional project activity has been the relatively low budget (US$0.6 million) "A Conservation Assessment of the Terrestrial Eco-regions of Latin America and the Caribbean" funded by the World Bank, Global Environmental Facility and World Wildlife Fund. The executing agencies were the World Wildlife Fund and International Bank for Reconstruction and Development.

The Project was conceptualized on the basis of limited resources and the need to balance conservation interests and the imperatives of economic development. These considerations suggested that an objective regional framework can be a useful input to help guide the investment decisions of regional organizations such as the International Bank for Reconstruction and Development, Global Environmental Facility, or major international conservation NGOs, such as World Wildlife Fund. To this end, the International Bank for Reconstruction and Development contracted the World Wildlife Fund to carry out an in-depth study to assess the conservation status of terrestrial biodiversity in Latin America and the Caribbean. LAC was divided into 178 natural terrestrial units, called ecoregions, as well as 13 mangrove complexes. Using an approach based on the science of landscape ecology and conservation biology, the conservation status and biological distinctiveness of each ecoregion was determined. As regards Small Island developing states in the Caribbean the Project focused upon identification of biological resources, land resources and capacity building. The Project resulted in a published Report highlighting the most biologically valuable and threatened ecoregions of LAC.

Important regional activity to protect biological diversity is carried on under the Caribbean Environmental Programme, which forms the core of the UNEP's Regional Seas Programme in the Caribbean. Conservation of biological resources falls within the objective of the SPAW Protocol and thus overlaps considerably with the UN Convention on Biological Diversity.

The direct impact of these regional activities upon national implementing efforts may be characterized as average. Traditional regulatory activities in such sec-

tors as fisheries and forestry involving the taking of measures for the conservation of biological resources have evolved along separate lines. Admittedly, the widespread adoption of CBD and the increasing acceptance of the SPAW Protocol have encouraged a spate of recent activities. With Global Environmental Facility support virtually all-Caribbean countries have prepared or are preparing individual biodiversity strategy and action plans and a related first report to Conference of Parties to the Biological Diversity Convention. Funding from other external agencies sometimes demonstrate a preference for private sector-led initiatives. For example, the Montego Bay Marine Park Trust benefited from a US$25,000 grant from USAID. The Trust was the first local community group to be delegated authority for the management of park resources. The grant was used to establish basic administrative systems and equipment needed to strengthen the Trust's administrative capabilities as it prepared to assume the official responsibility for the Marine Park's sustainable management. Similarly, the private sector oriented BEST Commission in The Bahamas secured IADB funding for institutional review and strengthening. Also the National Wetlands Committee of Trinidad and Tobago, a Cabinet appointed inter-sectoral committee, responsible for formulating a wetlands policy through which the wise use the country's wetlands can be achieved, has attracted external funding. Much of the policy formulated by the Committee was in compliance with the guidelines listed in the Ramsar Convention on Wetlands but obviously also facilitate the conservation of biological resources.

12 GUIDELINES FOR MEA IMPLEMENTATION

12.1 Introduction

The most effective MEA implementing strategies are those supported by legal, administrative, institutional, technical and funding arrangements that address directly carrying out of the obligations under the conventions. Such arrangements provide a catalyst for ongoing environmental management objectives and allow for capacity building and thus respond to the requirement of facilitating the long-term sustainability of environmental management activity.

There are no prescribed formal national guidelines governing the operationalisation of MEAs in any Commonwealth Caribbean country. However, over time various practices have evolved which would, probably, be regarded as more effective in some countries of the region than in others.

The following Guidelines for MEA Implementation are drawn mainly from the experience of those Caribbean countries that have expended most energy and resources in trying to come to terms with the carrying out of MEA obligations. The Guidelines are a work in progress and are suggested as useful points for information discussion and analysis rather than as models for uncritical national action.

12.2 Environmental Treaty Making

MEA implementation has evolved on the basis of processes that require development of two types of national focal points, the political focal point and the technical focal point

The political focal point is generally the Ministry of Foreign Affairs, which is responsible for environmental treaty making on behalf of the state whereas the technical focal point is generally responsible for formulating and executing a national work programme in accordance with country obligations under the convention. In prac-

tice the technical focal point may be a Ministry, Government Department, statutory corporation, or a semi-private sector agency.

Under the present arrangements the obligations of the political focal point end with the act of formal acceptance, unless, perchance, performance of the treaty falls within the substantive purview of the Ministry. This could be unsatisfactory since instances have arisen where other agencies of state have been unaware of the acceptance of an MEA and therefore of their responsibilities for carrying out obligations under the agreement. At minimum there should be clear administrative procedures by which the political focal point conveys the nature and extent of state acceptance of MEAs to all relevant public and private sector stakeholders with relevant functions to perform.

An alternative to administrative notification is provision for overlapping jurisdiction between the technical and political focal points. This is the case in St. Kitts and Nevis where the Department of the Environment is given statutory powers to participate in the negotiation and conclusion of environmental treaties. This procedure has obvious advantages in terms of awareness and preparedness for implementation of relevant treaty obligations. Caribbean countries should:

- Identify/ensure clear delineation of the principal political and technical focal points for MEAs and ensure adequate levels of staffing and funding.
- Ensure that the political focal point is aware of and in regular contact with the technical focal point or technical focal points responsible for implementation of each MEA.
- Ensure proper notification procedures by the political focal point of all accepted MEAs accepted by to all relevant agencies and actors.
- Provide, as appropriate, for the involvement by the technical focal point in the negotiation, conclusion, and acceptance of MEAs.
- Ensure that the political focal point does not communicate final acceptance or ratification of the MEA to the Secretariat of the Convention until any required implementing legislation has been enacted.

12.3 The Ratification Process

The traditional procedure for environmental treaty making involves final acceptance or ratification by Cabinet acting through the Minister of Foreign Affairs. The Executive had and exercised a complete monopoly over treaty negotiation, conclusion, acceptance or ratification on the ground that external affairs fell within the monopoly of the Executive. Parliament played no role in treaty making.

Consistent with the constitutional principle that Executive could not make law for the citizenry, MEAs concluded on behalf of the state had no direct effect within the national legal system unless and until Parliament intervened to pass an enabling or implementing Act. In order to be effective domestically, the treaty had to "incorporated" or "transformed" into national law by legislation. There are several instances in where the Executive entered into treaties that cannot properly be implemented because there was an absence of implementing legislation (see e.g., National Resources Conservation Authority v. Seafood and Ting (1999) (Jamaica Court of Appeal)). Parliament, in its deliberative discretion could also decide against the legislative implementation of the treaty provision.

The dualistic approach to treaty making and treaty implementation followed in the Caribbean is, generally speaking, inefficient and outdated.

Antigua and Barbuda, uniquely, adopts a more modern approach. In that country, Parliament is legislatively given a

role in treaty ratification. Before MEAs and other treaties can be considered binding on the state. This procedure facilitates the involvement of the Parliament in the treaty making process. Televised parliamentary debates on treaty ratification also encourage public awareness, education and involvement. The process is intended and has the practical effect of empowering public participation at every stage of the implementation cycle as required by the Rio Declaration and basic tenets of participatory democracy.

Following parliamentary final approval of the MEA, official communication of the final acceptance or ratification is communicated to the Convention Secretariat the Executive (normally the Minister of Foreign Affairs).

Caribbean countries should:

- Identify or establish, as appropriate, clear procedures for MEA ratification.
- Legislate a role for Parliament in treaty acceptance and ratification.
- Ensure that the description of treaties requiring Parliamentary approval or ratification is broad enough to include all significant MEAs.
- Ensure development of procedures mandating that approval by Parliament be followed by communication of the state's acceptance by the political focal point to the Convention Secretariat.
- Ensure public broadcast and/or dissemination of Parliamentary debates and discussions on treaty ratification.
- Ensure that Parliamentary approval or ratification reflects, simultaneously, legislative incorporation of the MEA into domestic law.
- Subject MEA denunciation to a process of parliamentary involvement similar to that of MEA acceptance.
- Work toward constitutional entrenchment of the Parliamentary approval or ratification/denunciation process.
- Ensure, between the time of signing and ratification of the MEA, that the state and all its organs refrain from activity that would defeat the object and purpose of the treaty.

12.4 Passage of Enabling or Implementing Legislation

In the Caribbean constitutional system, the decision to accept a MEA must be conjoined with Parliamentary passage of enabling legislation; i.e., legislation that incorporates relevant provisions of the convention thus allowing for its application domestically.

Pragmatism argues that the legislation should be adopted prior to final ratification of the Convention. This avoids the unfortunate situation illustrated in Natural Resources Conservation Authority v. Seafood & Ting (1999) in which national environmental agencies have no legal authority to adopt measures to implement conventions to which the state is party because Parliament has been slow to enact the enabling legislation.

Incorporation "in advance" of ratification is generally preferable but could result in the delay of treaty acceptance during the research, drafting and passage of the law. Drafting, technical, and financial assistance may be available from the Secretariats of some of the Conventions.

Enabling legislation, whether enacted before or after ratification may be of at least two types. Legislation may incorporate by (a) re-enactment or (b) reference.

Incorporation by re-enactment is generally preferable because institutional, administrative, regulatory and penal measures required by the MEA may be translated into domestic law at the same time. This method also allows the state to translate any "soft law" type obligations into appropriate "hard law" legislative standard and to omit provisions in respect of which the state

entered a reservation. Final clause may also not be incorporated.

However, this approach places a premium on the possession of drafting skills and technical competence. There is also the risk that conventional obligations could also get lost in the translation resulting in inconsistency between the legislation and the MEA. Where the wording of the legislation is clear and unambiguous the local courts are constitutionally obliged to apply it even if in contravention of provisions in a convention to which the state is a party.

Incorporation by reference has the advantage of speed and simplicity. Ratification need not be delayed for legislative considerations and the giving of "the force of law" to the MEA must mean some inter-penetration of the Agreements into the national legal system.

However, the obligations of the referenced agreements are not necessarily (and not usually) thereby fulfilled. In particular incorporation by reference does not create any required institutions in domestic law.

The combination of both methods could possible provide the best technique in this regard. Where incorporation by re-enactment is impractical within the required time frame, incorporation by reference may be chosen as a temporary expedient. As soon as possible after the incorporation by reference, the referring legislation should be supplemented by substantive provisions contained in ancillary legislation as soon as practicable.

Caribbean Countries should:

- Ensure the passage of implementing or enabling legislation prior to final acceptance or ratification of the MEA.
- Provide for the acquisition and retention of suitable drafting skills and expertise.
- Where necessary, accept/solicit assistance with the drafting of implementing legislation from the Secretariat of the Convention and/or from competent international global and regional organizations.
- Consider the relative merits of legislation that implements by re-enactment as compared with legislation that implements by reference.
- Where because of limited resources, exigencies of time, or other reasons, passage of full implementing legislation is impractical, consider utilization of the abbreviated form of incorporation by reference illustrated by the National Conservation and Environmental Protection Act (Amendment) 1996 of St. Kitts and Nevis.
- Combine, as appropriate, the methods of implementation by re-enactment and reference.
- Ensure that the implementing legislation is consistent with the and fulfills the MEA obligations.
- Ensure that implementing legislation creates any required institutional, administrative and policy-making arrangements.
- Ensure that implementing legislation provides all appropriate administrative.
- Ensure that the implementing legislation provides adequate penalties and incentives to foster compliance with the MEA.
- Provide that in the even of conflict between the domestic legislation and the MEA, the MEA should prevail unless the relevant Minister, by formal procedure, provides expressly to the contrary.
- Ensure that the courts are empowered to take judicial notice of MEAs that have been incorporated into domestic law.
- Ensure that implementing legislation is revised and updated to keep pace with amendments to the treaty regimes that have been accepted by the state.

12.5 The Technical Focal Point: the National Implementing Agency

In the best practice, the technical focal point is also the national implement-

ing agency for MEA operationalisation.

A national implementing agency constitutes an important element in the programme of MEA implementation. Such an agency is the catalyst for environmental management and for continuing public information and awareness. The agency may also possess powers in relation to the negotiating international environmental agreements and given the typically broad environmental mandate is necessarily central to MEA implementation. Regulatory techniques include "command and control" as well as market-oriented strategies. The latter is increasingly recommended in MEAs, particularly the United Nations Framework Convention On Climate Change and its Kyoto Protocol.

The nature of the implementing function necessarily means that the NEA must be a cross-sectoral and coordinating body rather than the sectoral institutions that traditionally characterize Caribbean regulatory arrangements.

It may be that organization within the government (e.g., as a Department of the Environment within a Ministry of the Environment) may provide greater functional independence than organization as a "parastatal" organization (e.g., a statutory corporation). The bureaucratic tradition and trade union involvement in the civil service could give such a Department significant autonomy as compared with a statutory corporation where members of the Board are appointed and dismissed in the sole discretion of a Minister. Contra wise, legislating establishing Environmental Departments tends not to bind the Crown (or State) and therefore do not control governmental activity. This contrasts with the legislative arrangements in respect of "parastatal" bodies such as the Natural Resources Conservation Authority in Jamaica or the EMA in Trinidad and Tobago.

The technical focal point is generally responsible for formulating and executing a national work programme in accordance with country obligations under the convention. All day-to-day responsibilities fall under the management of the technical focal point. In practice the technical focal point may be a Ministry, Government Department, statutory corporation, or a semi-private sector agency.

The modus operandi varies but there are common elements to some of the more effective technical focal points.

Caribbean countries should develop a broad legislative framework that:

- Provides the policy framework within which MEA implementation takes place.
- Constitutes a technical focal point for MEA implementation.
- Ensures that the technical focal point is the national lead environmental agency.
- Decides, on the basis of the comparative advantages, between establishment of the lead agency within the government as opposed to establishment as a statutory corporation.
- Allows for at least minimum functional and financial independence of the agency.
- Provides that the mandate of the agency includes the co-ordination and supervision of other bodies having environmental functions.
- Ensures availability of both "command and control" measures as well as market oriented strategies.
- Ensures that the agency dedicates specific resources to MEA implementation.

The National Environmental Agency, as Technical Focal Point, should:

- Adopt specific MEA implementation strategies.
- Determine the rights and obligations accruing under the Agreement.
- Identify relevant local skills, expertise

and allied resources.

- Ensure the ascertainment of the likely impact of the treaty on economic growth and development.
- Ascertain the treaty's likely impact on sound regulation of relevant environmental problems.
- Ascertain the treaty's probable catalytic role in furthering local environmental management objectives.
- Ascertain whether and in what specific ways the treaty recognizes the special needs of developing countries.
- Ascertain whether the treaty provides assistance for participation in meetings and working groups to assure full participation.
- Ascertain whether the treaty establishes funding mechanisms and procedures for transfer of technology for treaty implementation.
- Ascertain whether the treaty allows for adjustment of obligations and timetables to recognize the social, economic, and development needs of developing countries.
- Ensure that the state derives all financial and technical resources for implementation available under the treaty.
- Ensure attendance at meetings, workshops and seminars concerned with implementation.
- Ensure the submission of timely reports, inventories etc, to the Secretariat of the convention.
- Liaise closely with the Secretariat of the Convention and (with any required clearance from the political focal point) promptly communicate problems that impede compliance with the treaty.
- Ensure proper organization and execution of project based implementing activity.
- Ensure compliance with relevant laws, including the prosecution of offenders.
- Ensure establishment and observation of proper domestic MEA monitoring and compliance procedures.
- Ensure proper coordination with regional and sub-regional bodies responsible for MEA implementation projects.
- Oversee the employment of private consultants/NGOs to provide necessary skills and expertise not available "in-house".

Where no national environmental agency exists, Government should:

- There should be the convening of a steering committee to oversee the MEA's operationalisation.
- The steering committee should be 'high powered' and appointed by Cabinet or the Minister with competence for implementation of the MEA (e.g., the Minister of the Environment).
- The steering membership of the steering committee should comprise competent persons from government agencies, civil society and NGO who possess appropriate skills and expertise relevant to the particular convention.
- The steering committee should act under the general advise and subject to the general supervision of the relevant Minister.
- In appropriate cases, constitute the steering committee as the technical focal point.

12.6 Regional and Sub-Regional Project-Activity

Regional and sub-regional project activities provide critical linkages between the global MEA and the national implementing agency. National institutions and administrative arrangements benefit significantly from the presence and operation. Harmonization of national implementing activity is fostered across a region with common historical, juridical and cultural characteristics. Existing regional integration agree-

ments (e.g., Caribbean Community) reinforce the desirability for harmonization. Regional project activity also lends to transfer of technical and financial resources and local capacity building that in turn promotes sustainability.

The critical importance of regional and sub-regional activity argues for the development of appropriate project proposal to international donor/financing agencies. Important requirements are made of such proposals in terms of clarity of objectives, institutional and administrative arrangements, viability, and sustainability. Increasingly, too, international agencies are demonstrating a readiness to fund private sector oriented management schemes and proposals should reflect this consideration in appropriate circumstances.

Caribbean countries should:

- Cooperate in MEA implementation by working through existing regional organizations such as Caribbean Community, Caribbean Environment Programme/ United Nations Environment programme, Organization of the Eastern Caribbean States, Association of Caribbean States.
- Stimulate and negotiate the conclusion of regional arrangements that are specifically designed for MEA implementation.
- Ensure that regional implementation projects reflect and respond to the local prioritization of needs.
- Ensure that regional projects contain initiatives that facilitate local capacity building and institutional strengthening.
- Ensure that attention is given to the project's long-term sustainability.
- Keep complete records of project activity within their individual territory.
- Ensure closest possible coordination between the focal point of regional activity and the national technical focal point.
- Ascertain and evaluate the precise contribution of the regional project on MEA implementation objectives and obligations.
- Report on contribution of regional project to Multilateral Environmental Agreement implementation to the Secretariat of the MEA.

EXPERIENCE OF THE INSPECTORATE FOR ENVIRONMENTAL PROTECTION IN IMPLEMENTATION AND ENFORCEMENT OF ENVIRONMENTAL LAW IN POLAND

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SUMMARY

The paper describes the development of Poland's environmental regulatory institutions and their activities. It discusses the results of their work and the effectiveness of enforcement instruments including: the "List of 80" – which focus of industries that have a particularly adverse impact on the environment, fines, and orders suspending plant operation. It gives brief descriptions of changes that have taken place during the last two years under administrative reforms and adjustments required for membership in the European Union.

1 ORGANISATION

The Inspectorate for Environmental Protection (IEP) is the body responsible for insuring compliance with environmental regulations and the monitoring of environmental conditions around the nation. The IEP is headed by the Chief Inspector for Environmental Protection. Each of Poland's 16 regions (*Voivodships*) has its own Regional Inspectorate for Environmental Protection, headed by the regional Inspector. Regions with larger territories also have field offices subordinate to the regional Inspectors. There are 33 such field offices in Poland. On the national scale, the IEP currently employs 2500 people including inspectors, laboratory staff, specialists in environmental monitoring and support personnel.

The Chief Inspector for Environmental Protection formally supervises the regional Inspectors. Thus, from the point of the Code of Administrative Procedure, the Chief Inspector is a superior body to the regional Inspector. On the other hand, regional Inspectors operate under the structures of the regional Administration subordinate to the head of the Region (*Voivod*). This double responsibility is a result of the Polish administration system reform of 1999, which also created several other sub-regional administrative entities: a local government (*Urz_d Marsza_kowski*), a middle level of local government (*powiat*), and the smallest unit of local government (*gminas*). One *powiat* usually groups 5-6 *gminas*.

The main goal of the Inspectorate's control activities is enforcement of environmental law. The Chief Inspector for Environmental Protection issues inspection directives. The regional Inspectors develop annual work plans after reviewing these directives, along with national and regional environmental policies, environmental monitoring information, inspection findings, and comments from citizens the regional environmental policy, the state of the environment as illustrated by monitoring results, the findings of earlier inspections, as well as complaints and protests of the citizens.

The Chief Inspector established the following priorities in 2001:

- Integration with the European Union by transposing the *aquis communautaire* and through projects aimed at strengthening administrative bodies and inspection services responsible for the implementation of European Union directives.
- Development and improvement of cooperation between regional inspectors and the local administration bodies, including heads of Voivodship self-governments, regarding information exchange and support to inspection work.
- Reduction of environmental impact of the country's largest polluters.
- Reduction of emission of air pollutants from energy generating sources and from industrial processes.
- Protection of water resources, with special emphasis on underground waters used by the population and by industries.
- Assessment of waste management, including hazardous waste, compliance

2 ADJUSTMENT TO EUROPEAN UNION REQUIREMENTS

One of the Inspectorate's priority tasks is to adjust its work to the requirements of the European Union, including "the European Parliament and the Council Recommendation No. 2001/331/CE, setting minimum criteria for environmental inspections in member states" of April 4, 2001. It is important to standardise inspection work so that entities receive equal treatment throughout the country, as required by Polish legislation, the code of administrative practice, and the EU guidelines.

In order to standardise inspection services in the country, the Chief Inspector issued the latest of the "Guidelines on conducting inspections and on post-inspection activities of the Environmental Inspection" on July 1, 2001. At present, these guidelines are being updated to reflect a recent amendment in the Environmental Law and to take into account the aforementioned Recommendation of the European Parliament.

The Chief Inspector plays an active role in legislative development, by proposing changes in the law and giving opinions on draft laws and regulations. Moreover, the Chief Inspector works with the Supreme Chamber of Control, with local government bodies and with Poland's other inspection authorities and enforcement bodies, including the State Sanitary Inspection, National Labour Inspection, State Fire Brigades, the Police, the Border Guard and the customs administration. Through IMPEL, the European Union Network for the Implementation and Enforcement of Environmental Law, and AC IMPEL, its twin network in the candidate countries, the Inspectorate is able to share experience and cooperate with other European environmental law enforcement agencies.

3 RESULTS OF THE INSPECTION'S WORK

The Inspectorate keeps records of business entities subject to inspection. There were 46,018 entities registered in 2001 compared to 44,045 in 2000. The inspections cover all aspects of the user's environmental impact. The objectives of an inspection are not limited to determining the type and extent of environmental violations, but also include identifying the causes of irregularities and possibilities of their elimination, as well as identifying individuals responsible for them. Post-inspection proceedings review both the causes of the irregularities and industries approach to solving the identified problems. The industries are responsible for solving their environmental problems, but the Inspectorate prefers to cooperate and propose possible solutions rather than to limit itself to sanctions.

Every year, the Inspectorate carries out over 16,500 inspections. In 2001,

there were 4,600 comprehensive inspections, covering all environmental media simultaneously; almost 9000 follow-up inspections, aimed at checking the implementation of previous post-inspection orders; and over 3000 inspections prompted by complaints and protests of citizens and Members of the Parliament. If technical conditions allow, during the inspections control, emissions are measured. In 2001, the 48 Inspectorate laboratories carried out 6,600 control measurements. All the laboratories have implemented a quality assurance system based on the standard PN – EN 45 001 and on the ISO/IEC 25 manual and are currently working to adapt their systems to the requirements of the standard PN-EN ISO 17 025. 2001.

4 POLICY TOWARDS PARTICULARLY SERIOUS POLLUTERS

The Inspectorate pays special attention to supervision of industries that, from the national perspective, have a particularly adverse impact on the environment. These industries are registered on the so-called "List of 80", which was drawn up in 1990 and originally included 80 entities. The aim was to ensure that the progress made by these industries in solving their environmental problems was systematically monitored. The Chief Inspector developed special guidelines on the control of these industries. The Inspectorate's enforcement measures, combined with great pressure from the media and NGO's, have prompted the industries to take the steps necessary to be deleted from the list.

New environmental regulations have introduced some modifications in the procedures applicable to the industries listed on the List of 80. Conditional deletion from the list is possible, provided that the industry has agreed to an adjustment programme with the environmental authorities and that it begins the implementation of measures designed to ensure compliance with the relevant permits. The industry will be permanently deleted from the list upon fulfilment of the obligations made at the time of conditional deletion.

Being on the List of 80 and under a tightened inspection regime has proved to be an incentive for the industries to implement the necessary environmental measures. 52 plants were deleted from the List of 80 between its establishment in 1990 and the end of 2001, including 36 industries which managed to fully comply with environmental regulations; 16 plants were deleted conditionally upon starting of the measures provided for in their approved adjustment programmes. In the meantime, a few new plants have been entered onto the List of 80, by the end of February 2002 the List included 40 plants.

5 SUBJECT-FOCUSED INSPECTIONS

One of the measures used by the Inspectorate to assess compliance with selected environmental protection regulations or environmental policy objectives is subject-focused inspections on the national scale

In 2001, the Inspection for Environmental Protection conducted country-wide subject-focused inspections to verify the following areas:

- compliance with asbestos waste disposal regulations;
- compliance by units which are users of the environment with the obligation to pay fees for the commercial use of the environment;
- compliance with environmental regulations by users of medical waste thermal treatment systems;
- compliance with the law of decisions issued by local governmental bodies in relation to the use of the environment;
- compliance with environmental protection

regulations by organisational units managing wholesale markets;

- compliance with environmental protection regulations by industrial plants that use animal tissue waste and carrion in the production of meat/bone feeds;
- compliance with environmental protection regulations by operators of hazardous waste incineration systems;
- compliance with environmental protection regulations by meat industry plants;
- protection against noise emission in urban areas, with particular emphasis on major transport routes;
- compliance with regulations on international trade in ozone layer-depleting substances, which are controlled by the Montreal Protocol.

6 OBLIGATORY FINES

When a plant exceeds permissible levels of pollutant emission to the environment, specified in emission decisions, or operates without necessary permits, the Inspectorate is obliged by the Polish law to impose a fine on the plant. In 2001, fines were imposed on 4,181 industrial plants (compared to 5,115 in 2000):

- 2,456 fines for sewage discharge and exceeding permissible water consumption levels (338 fines in 2000);
- 1,399 fines for emissions to the air (1,225 in 2000);
- 96 fines for illegal waste storage or waste storage not compliant with relevant requirements (153 in 2000);
- 230 fines for noise emission (356 in 2000);

In 2001, the total value of the fines imposed, calculated proportionally to the duration of excess emissions or for the period between the occurrence of the violation and the end of the calendar year, amounted to 270.5 million PLN (66 million USD). In 2000 the figure was 404.8 million PLN (99 million USD).

7 FINE SUSPENSION SYSTEM

The main objective of the fines is to stimulate pro-environmental measures by plant. Therefore, if a fined plant undertakes the obligation to implement within a specified time (no longer than 5 years) a project to eliminate the cause of the sanction imposed, the fine may be temporarily suspended. If the goal is achieved within the specified time, the fine is cancelled, if it is lower than the investment outlays. If the fine was higher, the plant pays the difference only. Thus, the fine suspension system converts sanctions into investments to eliminate environmental law transgression.

In 2001, units of the Inspection for Environmental Protection issued 668 decisions suspending penalties for the total amount of 168.9 million PLN (approximately 41 million USD). Out of 238 plants using the suspension system, which by the end of 2001 were to complete investments eliminating the cause of non-compliance, as much as 236 (99%) met the deadline (in 2000 the proportion was 94%). It should be stressed that the high efficiency of the suspension system has been observed for a number of years; the system strongly stimulates business entities to undertake pro-environmental measures.

If control measurements are taken in a plant and, based on their results, an administrative fine is imposed, the plant also has to cover the costs of the measurements. If the results demonstrate that the plant operates in accordance with the law, the costs of the inspection are covered by the state budget. In 2001, 3612 decisions were issued which imposed on the inspected plants the obligation to pay the costs of inspections for the total amount of 5.4 million PLN i.e. about 1.3 million USD (in 200, 3,567 decisions were issued for the total amount of 3.2 million PLN i.e. approx. 0.8

million USD). As in previous years, in 2001 a high level of effectiveness in collecting these payments was reported which was 92.8% (compared to 90.1% in 2000).

8 OTHER ENFORCEMENT INSTRUMENTS

In addition to administrative fines, the Inspectorate uses other instruments to enforce compliance with environmental regulations. These instruments include post-inspection orders, setting deadlines to eliminate law transgression, and, as a last resort, suspension of the operation of the plant/ installation. While taking these measures the Inspectorate is guided by the principle of adequacy of the sanction used, so that the penalty is proportional to the violation identified and takes into account the plant's overall attitude to environmental protection.

In 2001, the units of the Inspectorate issued 10,008 post-inspection orders for the plants inspected (compared to 10,435 in 2000). The orders imposed the obligation to eliminate violations detected, to regulate formal and legal issues, etc. In 2001, Voivodship (regional) environmental inspectors issued 82 decisions setting deadlines for eliminating the violations detected (in 2000 – 136 decisions) and 15 decisions suspending the operation of organisational units (compared to 19 decisions in 2000).

When a violation of environmental protection law has the status of an offence or crime, the Inspectorate is entitled to impose an additional personalised fine upon the individual guilty of the violation. In total, the Inspectorate imposed 1,260 of such personalised fines for the total sum of 176.5 thousand PLN i.e. approximately 43 thousand PLN (compared to 1,844 fines for the total sum of 238.6 thousand PLN i.e. about 58 thousand USD, in 2000). In justified cases, the Inspectorate has the right to act as public prosecutor. In 2001, environmental inspectors filed 43 cases with the police and prosecution bodies (compared to 68 cases in 2000) and 158 cases with petty offence courts (compared to 216 in 2000). At present, all applications are submitted to district courts.

9 ROLE OF THE INSPECTORATE IN EVALUATION OF NEW INVESTMENTS

The Inspectorate conducts inspections of new projects when they are put into operation to check whether a facility and/or installation comply with environmental protection requirements. If the requirements are substantially violated, the Inspectorate suspends the launching of the investment or submits its objections to the planned launching. In 2001, Voivodship environmental inspectors suspended the launching of new projects in 11 cases (compared to 13 cases in 2000) and submitted their objections to planned launching of 152 projects (214 projects in 2000).

The Chief Inspector for Environmental Protection is a second-instance body for administrative decisions by Voivodship inspectors. In 2001, 442 appeals against decisions of Voivodship inspectors were submitted to the Chief Inspector, including 8 complaints against lack of action. 62 complaints were filed with the Supreme Administrative Court against decisions of the Chief Inspector. The highest number of appeals from decisions of Voivodship inspectors was related to water and wastewater management (154), issues connected with pollutant emission to the air (105), waste management (78) and excessive noise levels (71). Other cases were related to the suspension of the operation of plants and objections to the launching of projects.

The Chief Inspector for Environmental Protection upheld decisions of Voivodship inspectors in 189 cases. 106

decisions were directed for reassessment, and in 102 cases the administrative proceedings were discontinued. In 39 cases the Chief Inspector overruled decisions of Voivodship Inspectors and issued his own decision. In 2001, the Supreme Administrative Court issued 60 verdicts, including 39 complaints dismissed or with court proceedings discontinued, and overruled 12 decisions taken by the Chief Inspector and Voivodship Inspectors and overruled decisions of the second-instance body. In 4 cases, the court declared invalidity of the Chief Inspector's verdicts and in 5 cases proceedings were discontinued.

The Inspectorate accepts and analyses complaints, interventions and applications related to environmental nuisance of plants or to deterioration of the environment. As a result of those interventions the Inspectorate conducts inspections of the users of the environment, followed by post-inspection measures according to its capacity. In 2001, units of the Inspectorate analysed approximately 5 thousand interventions. Most cases analysed were related to water quality and wastewater management (1407), protection against waste (1183), air protection (872) and protection against noise (800).

One of important tasks of the Inspectorate is the supervision over transboundary movement of wastes. The Chief Inspector for Environmental Protection issues permits for import of wastes from abroad, export of waste and transit of hazardous waste. In 2001 the Chief Inspectorate for Environmental Protection received 191 applications (50 more than in 2000) for foreign waste import permit. In 2001, the Chief Inspectorate received also 21 applications for waste export permits (40% more than in 2000), which were related to export of pesticides after the expiry date, used solvents, used catalysts, used fluorescent lights and condensers containing polychlorinated bi-phenyls. In 2001, four applications were submitted to the Chief Inspector for Environmental Protection for permits for transit of hazardous substances across Poland. 3 permits for the transit of car battery scrap were granted.

10 EXPECTED CHANGES

After administrative reform and the subordination of regional inspectors to both the Chief Inspector for Environmental Protection and to heads of Regions, the Inspectorate has reported many disruptions in the appropriate functioning of the organisation. Taking into account new tasks related to the transposition of the European Union law to the Polish legislation and new challenges connected with the accession process, it has to be concluded that the environmental inspection structures require modification and ultimately, strengthening and implementing a new more effective methods of work. It seems that the organisational model of services responsible for the implementation and enforcement of the environmental law should be similar to the model used by agencies operating in many European Union countries, in which responsibilities for the issuing of permits and the control of compliance with the law are joined. At present, we are working together with experts from the Netherlands and United Kingdom under a twinning project financed under PHARE 99 to determine directions of changes required.

BEHAVIOURAL CONTROL BY MEANS OF ENFORCEMENT IN CASE OF THE SURFACE WATER POLLUTION ACT

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SUMMARY

Suitable policy solutions are required to reduce the problem of diffuse pollution of surface water. This study addresses whether and how enforcement officers of the Dutch Surface Water Pollution Act can contribute to alleviate the problems of diffuse surface water pollution caused by inland shipping as an example of a target group. By performing (preventive) environmental inspections, enforcement officers are in the position to influence the behaviour of this target group. It does however demand a different approach to that used in checking for transgressions of rules and regulations alone. The instruments required to break through the 'social dilemma' (group pressure and educational communication) could be integrated into the enforcement officer's working procedure. This would increase the feeling of personal effectiveness amongst the target group, thereby transcending the social dilemma. A compliance-based style emerges as the most suitable process for effective enforcement, as it concentrates on cooperation, alignment of ideas and persuasion of the target group. Communication (also externally) about the results of the inspections by means of an environmental performance index will increase the return on inspection efforts. With this new preventive approach, enforcement appears to be a suitable instrument for tackling diffuse sources of pollution such as the inland shipping vessels. The Ministry of Transport, Public Works and Water Management is currently gaining practical experience in this field through environmental inspections on inland shipping vessels.

1 INTRODUCTION

The problem of diffuse sources of water pollution differs from the pollution issue caused by industrial discharge. In the case of diffuse sources, it concerns very large groups of individual polluters who cannot all be addressed individually through permits [9]. In the Netherlands, this includes for example some 100,000 farms, 10,000 inland shipping vessels, 200,000 recreational vessels, and so forth [1]. As a result of the large scope of the group of polluters, it is impossible for the enforcement authority to always and everywhere exact proper environmental behaviour.

Exacting the preferred environmental behaviour through rules and regulations is in any case not the authority's primary objective since it is not a sustainable and practicable solution. Although important and necessary, rules and regulations are just one method of ensuring proper behaviour. In cases of 'imposed proper environmental behaviour', the dilemma arises that as soon as external pressure disappears, the proper environmental behaviour does as well [2].

The authority's objective is therefore to instil proper environmental behaviour into the target group's natural behaviour. Society must take its own responsibility with respect to the environment seriously, even without the presence of the enforcement authority. It also means that traditional enforcement of environmental rules and regulations is no longer sufficient for successfully combating the problem of diffuse pollution. The authority is therefore seeking other instruments with which it can influence individuals' environmental conduct [3]. The question is whether and how enforcement of Dutch legislation such as the Surface Water Pollution Act can contribute to this objective?

2 METHOD

2.1 Literature Study

In order to gain a clear picture of policy instruments that might be suitable for influencing the behaviour of large groups of individual environmental polluters, a literature study was performed. This study also investigated the scope of the term 'enforcement'. In other words, what jurisdiction do enforcement officers have when exercising their duties? Information from policy memos, governmental and socio-economic studies and from environmental psychology was cross-referenced to form a theoretical enforcement model [4].

2.2 Field Survey

A qualitative and empirical field survey was also carried out, targeting how enforcement officers of the Surface Water Pollution Act currently operate in practice with respect to enforcement for a large group of diffuse polluters. Inland shipping was used as the example as it represents a considerable diffuse source of pollution in the Netherlands. In addition, there is considerable activity in the inland shipping sector to solve the problem and enforcement officers already have experience in performing preventive environmental inspections on inland shipping vessels.

The field survey was performed by a series of interviews in which the enforcement officers' working methods were recorded by means of a standard questionnaire. Information was also obtained from a written questionnaire submitted to both interviewed and non-interviewed officers. For verification, the questions were submitted to the target group itself (the inland shippers) [4].

3 RESULTS AND DISCUSSION

3.1 Social dilemma

The literature indicates that the cause of poor environmental behaviour by large groups of individual polluters is the result of the 'social dilemma'. This refers to the fact that short-term personal interests of individuals always take preference over a group's long-term collective burden. As a result of the large size of the target group, the consequences of individual conduct seem like a drop in the ocean. Successful intervention strategies will therefore have to address how to break through the social dilemma. In the literature, '*group pressure*' and '*(educational) communication*' are mentioned as potentially successful instruments. [5 & 2].

Educational communication refers to a process whereby the target group is shown the consequences of poor environmental behaviour, how harmful particular habits can be to the environment, that progress can feasibly be made to improve the situation and that others (colleagues, industry, etc.) are already making a contribution to solving the issue and that those efforts are genuinely bearing fruit.

Group pressure refers to a process in which individuals receive feedback within the target group as a whole on their environmental performance as compared to

other members of the target group. In other words, polluters are confronted with their own performance by means of an index. This stimulates the target group's feeling that its efforts are having a positive impact.

3.2 Enforcement Style

Coercion alone does not eradicate the social dilemma [2]. Yet the scope of operation of the controllers is generally associated with exercising coercion. The enforcement officer's job consists only in part of detection and sanctioning, or the exercise of coercion. A large proportion of the enforcement activities consist of prevention [6 & 7].

The literature defines the scope of the enforcement concept by means of the term *enforcement style* [8]. It describes two ideal forms or models of enforcement. The *compliance style* seeks cooperation, alignment of ideas and persuasion, while the *deterrence style* is based on deterrence and sanctions. Enforcement officers are in the position to execute their work in different ways, focussing on policy objectives, legislation, companies, their own organisation, or their profession. The culture of the parent organisation *and* the enforcement officers' personal character therefore determines which enforcement style is used. The enforcement style determines whether enforcement officers base their activities on coercion or on prevention.

3.3 Enforcement Model

Analysis of the theory on behavioural control and the concept of enforcement show that enforcement officers can contribute positively to instilling proper environmental behaviour into the natural conduct of large-scale diffuse target groups. In order to do so, the instruments that address breaking through the social dilemma (group pressure and educative communication) must be integrated in the officers' working methods. The compliance style emerges as the most suitable method to achieve this, as it seeks cooperation, alignment of ideas and persuasion of the target group rather than plain coercion. The resulting theoretical enforcement model consists of the following steps [4]:

- The *target group's behavioural motives* must be determined to ensure a suitable enforcement strategy.
- *Feedback between practice and policy* in order to remove the problems and barriers outside the enforcement officers' sphere of influence is necessary.
- The inspections should focus more on influencing behaviour by providing good feedback based on observed environmental performance in practice (possibly by means of an *environmental performance index*).
- The return on inspection efforts should be increased by *communicating* the results of the inspections externally, possibly in the professional literature.

3.4 What is Observed in Practice?

The enforcement model and working method as described above are not yet common practice. They are however being tested in the Ministry of Transport, Public Works and Water Management's sphere of operation. During inspections of inland shipping vessels, the current inspection method has been adapted to include the concept of the environmental performance index. Enforcement officers are therefore already gaining experience with the new preventive environmental inspections.

However, practical studies indicate that the current environmental inspections have assumed a preventive character because of the absence of regulations or because of the fact that legislation has become too complicated to enforce. The enforcement officers interviewed considered the 'detection and sanctioning of offenders' activities to be the 'genuine'

enforcement work, while prevention was considered to be of secondary importance. This is noteworthy since if enforcement officers themselves consider preventive enforcement to be of low importance, this might impede the success of the new approach (which integrates 'educative communication' and 'group pressure' into the inspections) [4].

The lack of (environmental) background knowledge may also harm the success of the new approach. In practice, enforcement officers generally have a lack of knowledge of the backgrounds of environmental rules and regulations, while this is critical for gaining the support of the surveyed target group that is expected to take appropriate environmental measures [4].

4 CONCLUSIONS

Enforcement officers of the Surface Water Pollution Act can make an important contribution to tackling the issue of diffuse water pollution. The enforcement officers are the government's ambassadors and communicate directly with the target group in the field. This means that they are in the position to influence behaviour. It will demand a different approach to the traditional inspections of transgressions of the rules and regulations, since coercion alone does not break through the social dilemma.

The instruments aimed at breaking through the social dilemma (group pressure and (educative) communication) could be integrated into the enforcement officer's operating procedure. In doing so, the compliance style emerges as the most suitable method as it seeks cooperation, alignment of ideas and persuasion of the target group.

The new enforcement approach is being tested in the Ministry of Transport, Public Works and Water Management's sphere of operation. During inspections of inland shipping vessels, the current inspection method has been adapted to include the concept of the environmental performance index. Enforcement officers are therefore already gaining experience with the new preventive environmental inspections.

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LEGAL CONTROL OF WATER POLLUTION IN HUAI RIVER VALLEY, CHINA: A CASE STUDY

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SUMMARY

The water pollution campaign control in Huai River Valley is the first river valley based, large-scale water pollution control program conducted in China. The water pollution campaign control in Huai River Valley is the first, river valley based, large-scale water pollution control program conducted in China. The first stage of the program has completed by the end of 1999 and provides valuable experiences for other river or lake valleys water pollution control programs(1). This paper studied and reviewed the history and experience of the campaign. Part 1 introduces the background of the water pollution problem in Huai River Valley. Part 2 describes the major provisions of the Interim Regulations on Water Pollution Control in Huai River Valley, which formed the legal framework for water pollution control in the valley. Part 3 examines the implementation of the regulations. The program's implementation experience shows that it is not easy for people, enterprises and governments at local level to abandon backward traditional mode of economic development and change to the new mode of sustainable development. Part 4 points out the major environmental, economic and social impacts of the campaign. Part 5 concludes the paper with some final comments.

1 BACKGROUND

Huai River originated from Tongbo Mountain, Hehan Province. It flows eastern-ward and joins Yangzte River in Yangzhou City and into Eastern Sea of China. The river is over 1,000 kilometers long. The river valley has a population of 151,000 and covers an area of 269,000 square kilometers spanning five provinces in Central, Eastern and Central South China: Henan, Anhui, Jiangsu, Shangdong and Hubei. The population density is the highest among all large river valleys in China. There are 36 cities at the prefecture level and 182 cities at the county levels. The Huai River valley a major production bases for agricultural products, coal and oil energy. 13% of the total grain output of the country is produced in this area, which feeds one seventh of the population of the country, while the area of the Valley is less than 2.8 % of the whole land territory of the State. Therefore, the Huai river valley is very important to China.

The economy of the Valley has grown very fast since the Chinese government shifted its priority from class struggle to economy construction and economic reform in I978. But unfortunately, the fast growth of industries along side the Huai River brought heavy pressure on the ecological environment of the Valley. Leading the way are rural and township industries,

characterized by small-scale, mostly family run industries, using backward or even primitive production technology, low energy and resource efficiency and high pollution. The wastes produced by those factories are mostly discharged into the environment without any pre-treatment. There are 15 categories of small enterprises, such as paper pulp mill, textile mill, dyeing mill, small chemical plant, small brewery and small currying mill. So they won the name of "15 small" enterprises in China. Those "15 small" enterprises caused heavy pollution to the water bodies of the Huai River Valley. In addition to industrial pollution, household and other wastes are also discharged directly into environment without any pre-treatment. Therefore, the water quality of the main stream of Huai River and its tributaries has deteriorated quickly. For example, the water pollution index of Huai River in 1981 was 2.95. It increased to 7.14% in 1993.(2) The 1993 Report of Environmental Condition of China issued by National Environmental Protection Agency reported that

> "pollution in Huai River is serious. The water pollution is more serious in dry season. There are 82% of rivers in the area with water quality lower than the third classes national surface water quality standards. Among the 13 monitored river sections, there is only 18.3 % reach the first and second national surface water quality standards. There is 15.7% reaching the third class national surface water quality standards. There is 66% meeting the fourth and fifth national surface water quality standards."(3)

The actual water pollution situation is more serious in some areas. There are many sections of the rivers where the eco-systems no longer function. In some places water pollution caused problems for the drinking water supply. The frequency of pollution accidents was increasing; about once every two years in 1980s. There were three serious water pollution accidents in 1993 alone.(4)

Serious water pollution in Huai River valley threatened human health of local residents.(5) and caused heavy economic losses. Water pollution caused many disputes between factories, neighborhood residents, and administrative regions. People and entities in the valley complained about water pollution since mid-1970s. During this period, Deputies to the local People's Congress and members of local Committees of Chinese People's Political Consultative Conference raised the water pollution issue again and again since then. On 5 December 1980, a large-scale accident caused the death of fish in the of Kui River, a major tributary of Huai River. In response, in 1983 the Office of the State Council required the local government to take firm measures to eliminate major water polluting sources of Kui River. But the water pollution problem in Huai River valley was not solved in 1980s. The main causes for the failure includes:

- poverty in the region;
- lack of funding and technology;
- complicated water course system;
- trans-boundary water courses; and
- complicated water disputes.

Water pollution control in Huai River Valley entered a new phase in August 1993 when the National People's Congress organized the news media to report on the water pollution problem. (6) The reports of China Central Television and major newspapers caused strong concern from both the general public and the State's leaders. Mr. Song Jian, the Councilor, led an inspection group of Environmental Protection Committee and visited Huai River Valley in May 1994. During the inspection, the group received a petition, signed by over 10 thousand people of Huai River Valley, highlighting the water pollution problem. In

response, the inspection group convened an "On-site Meeting on Environmental Law Enforcement in Huai River Valley" in Bangfu City, Shandoung Province. In this meeting, the Central Government committed ambitious targets for water pollution control with the goal of to eliminating pollution problem in Huai River Valley by the year 2000.

2 LEGAL FRAMEWORK FOR WATER POLLUTION CONTROL IN HUAI RIVER VALLEY

The State Council issued interim regulations on Water Pollution Prevention and Control in Huai River Valley (hereinafter referred as "Regulations") on August 8, 1995 and approved the implementation Program and the Ninth "Five-Year Plan for Water Pollution Prevention and Control in Huai River" (hereinafter referred as "Program and Plan") on June 29, 1996. Those two documents established the legal framework for water pollution prevention and control in Huai River Valley.

2.1 Objectives

The Regulations required that all effluent discharges from industrial sources in the valley meet the 1997 standards and that the water quality of the major sections of rivers, lakes and reservoirs meet Program requirements. Based upon the objective, the Program and Plan set forth water quality targets for year 2000 for major river sections. Mainstreams of rivers in the valley must meet the third class of the State Surface Water standard. Water quality of all the tributaries must meet the fourth class of that standard. The Program and Plan required a 40% reduction of pollution load for the entire valley by 1997 and a 30% reduction of pollution load by 2000. The maximum level of COD discharge was set at 890,200 tons by 1997 and 368,000 tons by 2000.

2.2 Measures to control

The Regulations provided the following measures for control of water pollution.

2.2.1 Leading group

The Regulations required that the Leading Group of Water Resources Protection in Huai River Valley be strengthened. The membership of the Leading Group was enlarged to cover the State Planning Commission, State Economic and Trade Commission, Financial Ministry, Construction Ministry, Chemical Industry Ministry, General Association of Light Industry, Agriculture Ministry, and Development Bank. The leading group is responsible for coordinating water pollution prevention and control in the valley and exercising other powers authorized by the State Council.

2.2.2 New and existing sources control

The Regulations prohibited the construction of new small scale factories dealing with chemical paper pulp, paper making, currying, chemical products, printing and dyeing, electroplating and brewage in the valley. The construction of large and medium scale factories causing serious pollution was restricted. The regulations set a deadline requiring that sources with effluent discharges exceeding the standards, or causing serious pollution, were to suspend operation by 1 January 1998.

2.2.3 Pollution ceiling and effluent permit

The regulations required plans for pollutants discharge ceilings approved by the State Council. The contents of the plan include pollutants ceiling control areas, pollutants discharge ceiling, targets of pollutants discharge reduction, pollutants reduction deadlines, priority control areas, and listing of major polluting sources outside of major control areas. The local governments

make their control plans based upon the valley-wide pollutants discharge plan. Their pollutants discharge is then incorporated into their middle and long term social and economic development plans as well as their annual plans. The major polluting sources in and outside the major pollutants discharge control areas must apply for pollutant discharge permit and install measuring devices for wastewater discharge at sewage outlets.

2.2.4 Provincial standards for water quality and water quality control zones

The Regulations require the establishment of provincial boundary water quality standards and authorized the Water Resources Protection Bureau of Huai River Valley to monitor water quality at the four provinces boundaries. The Program and Plan further divided the whole valley into 7 control zones, 34 control units, 100 sub-control-units and 82 water quality control sections based upon the characteristics of watercourse system, administrative regions and the objectives of water quality protection. The Program and Plan also set forth water quality standards for each of the 82 sections, COD discharge ceilings for major cities and towns, COD discharge ceilings for major effluent outlets, the minimum requirements for effluent reduction and time tables for each provinces and cities at county level, and targets for phasing out backward industrial equipment.

2.2.5 Joint control of water pollution in dry season

The Regulations required water quality monitoring and mandated the timely exchange of monitoring information among the environmental protection, water resources, and other relevant departments. The environmental protection departments regulated sources for discharge compliance with the control plan. The water resources departments control the water gates according to water gate pollution control plans.

2.2.6 Construction of centralized waste water treatment plants

The Program and Plan lead to 303 water pollution control projects; a 16.6 billion yuan of investment. In addition, the Trans-Century Green Projects Plan of China has 77 projects related to water pollution control in Huai River Valley; a 2.8 billion yuan investment.

2.2.7 Other measures

In addition, the Regulations required the provincial governments to delegate some water pollution control tasks to counties and cities. The city and county government made a commitment to undertake these tasks. The regulations provided economic incentives for the water pollution control projects. The Regulations provided sever punishments for those who did not accomplish comply with the Program and Plan.

3 IMPLEMENTATION

The first stage of the campaign can be divided into three phases.

3.1 Phase one: Slow start (May, 1994 - September, 1995)

As mentioned before, the inspection group of the State Environmental Protection Committee held an On-site Meeting on Environmental Law Enforcement of Huai River Valley in Bangfu City, Shandoung Province in May, 1995. They decided that 197 factories in the valley that would either close down, be suspended, merge with other factories, change products and production processes, or reallocated to other places.(7) However, water pollution was still serious in the valley, because the pollution load reduced in 1994

was only 4% of the total effluent discharged. The water quality of the river's mainstreams was still poor. Most of the mainstream water quality was in the fifth class or worse. (8) In addition, two large scale water pollution accidents occurred that year. A significant reason for the slow start was a lack of willingness to control pollution at the local level. Enterprises and even some local government officials believed a principle called "pollution first, control pollution second". They thought the most important thing is to break away from poverty. Environmental protection is secondary to the poverty problem. Local governments and enterprises accused each other on one hand, but also wanted to get pollution compensation from neighbor governments and enterprises on the other hand. None of them were really serious about their own responsibility for pollution problems.

3.2 Phase two: Effluents compliance (September, 1995 – December, 1997)

The State Environmental Protection Committee held a second On-site Meeting on Environmental Law Enforcement of Huai River Valley in Lianyungang City, Shandong Province in September 1995. They decided to take firm action against pollution and ordered that all chemical paper pulp production equipment with production capacity lower than 5,000 tons per year be closed by June 30, 1996. 1,111 such paper pulp equipments closed by the deadline. (9) The State Council made a Decision on Several Issues of Environmental Protection on August 15, 1996 that required closing 15 categories of small-scale enterprises by September 30, 1996 all over China. The four provinces of Huai River Valley closed down 3,876 such small enterprises by the deadline, which resulted in a 25% reduction of pollution load to the Huai River Valley and accomplished the target set forth by Program and Plan for the period of 1994-1996. (10)

However, closing down the 15 categories of small-scale enterprises that were causing serious pollution is comparatively an easy job, because it basically deals with the interests of a small number of the population. Less easy getting all industrial sources in the valley to meet the effluent standards. According to the Regulations, all enterprises that discharge waste water shall meet the objective by the end of 1997, otherwise they will be ordered to close down, no matter who owns the enterprises, making profit or not, large scale or small scale, and important to the local financial income or not. For achieving this objective, the State Environmental Protection Administration issued a notice to the four provinces of the Huai River Valley in August 1996 that required all enterprises that discharge wastewater to submit an attainment plan. The notice required the provinces to prepare an attainment plan for all enterprises which discharge wastewater over 100 tons per day. The State Environmental Protection Administration left it to the provinces' discretion how to deal with enterprises that discharge wastewater less than 100 tons per day.

The progress in water pollution control was slow even by the middle of 1997. There were still 689 enterprises that discharge wastewater over 100 tons per day that had not started to construct pollution control facilities by June 1997. The construction of urban sewage treatment plants also made little progress. (11) There are two reasons for such a slow this. The first one is that local governments and enterprises did not fully understand the firm determination of the Central Government in eliminating water pollution problem of Huai River Valley. They were still in the mindset of "wait and see". Enterprises were worrying about the problem of unemployment, while local governments were worrying

about the reduction of local governmental revenue. (12) The second reason is the lack of investment and reliable, practical, and economically feasible pollution control technology.

In order to eliminate the fluke mind of local governments and enterprises, Mr. Song Jian, a State Councilor, emphasized in the Eleventh Meeting of the Environmental Protection Committee that there will be no policy change for water pollution control in Huai River Valley. He emphasized that the deadline will not be changed and the standards for checking and accepting the pollution control work of polluting sources will not be lowered. To those enterprises that did not reach the pollution control objectives within the deadline, firm measures, such as closing, will be applied. (13) In early December 1997, the State Environmental Protection Administration emphasized again that there will be no change in the objective and deadline as well as the standards for checking and acceptance. (14) The governors of the provinces in the valley also emphasized the "not change" statement.

The Central Government address the lack of funding by arranging a 300 million yuan state loan aimed at supporting enterprises in state designated "poverty" counties as well as those established by the state to alleviate poverty. (15) The provincial governments also created a fund for pollution control. For example, Jiang Su Province arranged 150 million yuan loan for pollution control. The State Planning Commission, Construction Ministry, State Environmental Protection Administration and Financial Ministry decided to levy a wastewater treatment fee for urban wastewater treatment to make provide supplemental funding for construction, operation and maintenance of wastewater treatment plants. (16)

In order to implement the pollutant discharge ceiling and discharge permit requirements, the Meeting on Huai River Valley Pollutant Discharge Ceiling and Effluent Permit held on November 11, 1996 decided that:

- the four provinces of the Valley would prepare their own pollutant discharge ceiling plans and implementing plans;
- the four provinces would complete pollutant discharge registration before 30 June, 1997;
- enterprises that discharge waste water over 100 tons per day would be the fist to apply the pollutant discharge permit requirements; and
- that permits shall not be issued to those enterprises that the State ordered to close down or suspend operation and those enterprises that do not meet the effluent standards after 1997. (17)

Great progress was made in the second half of 1997 when the objectives for that year were meet. In his television speech on January 1, 1998, Mr. Xie Zhenghua, the Administrator of the State Environmental Protection Administration, declared that among the 1,562 enterprises with waste water discharge over 100 tons per day, there were 1,139 enterprises that had completed pollution control projects, 215 enterprises were suspended and undertook construction of pollution control facilities, 18 enterprises were ordered to close down because there was no hope to solve their pollution problems. As the 1,844 enterprises that discharge wastewater less than 100 tons per day, there were 1,504 that completed pollution control projects. There was a total reduction of 40% of the pollution load in the Valley. (18)

There are 14 urban wastewater treatment plants under construction. When they are completed there will be a total treatment capacity of 1.51 million tons per day. A large amount of household wastewater and industrial wastewater will be treated before discharged into Huai River.

3.3 Phase three: Follow-up monitoring and other activities (1 January, 1998 –)

From January 1, 1998, the priority of Huai River water pollution control shifted to strengthening daily on-site inspection and supervision of pollutant discharge activities of enterprises and accelerating construction of urban wastewater treatment plants. (19)

The Construction Ministry has decided a timetable for the construction of urban wastewater treatment plants in Huai River Valley. The 52 urban wastewater treatment plant projects in the four valley provinces were put into operation in June 2000. An addition to the projects were finished in 1998. (20)

4 IMPLICATIONS

The Water Pollution Campaign of Huai River Valley has significant impacts on the environment, society, and economy of the valley.

4.1 Environmental implications

The 1997 Report on the State of Environment reported that water quality of mainstream of Huai River has improved, especially in the high pollution sections of the river. The water quality of the mainstream is mainly in third or fourth class. (21) But pollution in its tributaries is still serious. 52% of the main tributaries have water quality beyond the fifth class, while 71% of the secondary and tertiary tributaries were beyond the fifth class. (22)

The 1998 Report on the State of Environment reported that organic pollution of the main stream decreased some. But the overall quality of the main stream was still not good. Among the monitored river sections, there was 11% reaching the second national surface water quality standard. There was 17% reaching the third class national surface water quality standard. There was 24% meeting the fourth and fifth national surface water quality standard. There was 48% worse than the fifth national surface water quality standard. (23)

After nearly 5 years, the campaign has succeeded in stopping water quality deterioration in the valley. A monthly report on the water quality of Huai River Valley issued in October 1998 showed that water quality was, in general, better than before. (24) With the improvement of water environment, river ecological system started to recover. In some rivers, fish and other water species come back. The drinking water problem in the valley has been alleviated to some degree. However, it is still too early to tell the substantial environmental improvement brought about by the first stage of the campaign.

4.2 Social implications

The water pollution control campaign of Huai River Valley has broad social impacts. The first social impact is the enhanced position and influence of environmental protection departments. Through the campaign, the organization and personnel of environmental protection departments have been strengthened. Many environmental protection departments become independent. Environmental protection departments have been given more enforcement power than before. For example, Huainan City, Anhui Province, authorized environmental protection departments the power to veto new construction projects and the power of closing down or suspending operation of small enterprises that caused serious pollution problem. (25) The campaign resulted in less illegal interference with the work of environmental protection departments from leaders of local governments. Environmental law enforcement for has improved. There is more cooperation between the environmental protection departments, leaders of local govern-

ments and other departments of government. People respect the authority of environmental protection departments more than before. They realized that environmental protection departments are powerful. (26) They also are more supportive of the work of environmental protection departments. The social basis of environmental regulation is enhanced.

The second social impact is that the authority of environmental law and policy has been strengthened. In the past, people and enterprises treated environmental law and policy as something soft and were not serious about them. Even at the beginning when the Central Government decided to close down small paper pulp mills, there were many people and enterprises that did not believe the government was really serious about it. But when many such factories were really closed down by the government, people and enterprises started to realize that environmental law and policy are something that can be real hard. (27) The campaign gave local governmental leaders, local enterprises and local people a lesson about environmental law and policy. Local governmental leaders had a much better understanding of environmental law and the strategy of sustainable development. They realized that there must be coordination between development and environment in their future work. Local business managers were also educated by the campaign. They said that if they realized the importance of environmental protection earlier, there might be less economic and environmental losses caused by the water pollution. (28)

The social impacts of the campaign went beyond the Huai River Valley. Other major river and lake valleys have learned from the experience of water pollution control of Huai River Valley. Local governmental leaders and enterprises no longer dismiss the water pollution control campaign as a fluke. They are better prepared for the water pollution campaign in their valleys. Based upon the experience of Huai River Valley, the Central Government had declared that the water pollution control campaign in Tai Lake Valley will have objectives higher than that of Huai River and requirements are stricter than that of Huai River Valley. (29) Moreover, the experience of water pollution control in Huai River Valley contributed to the amendment of Water Pollution Prevention and Control Law of China. The revised Water Pollution Prevention and Control Law aborted many experience of Huai River Valley.

4.3 Economic implications

The closings of thousands small enterprises in Huai River Valley had important economic impacts on local economy. At the present, the negative impacts are remarkable. Firstly, costs of production for local enterprises increased. Local enterprises had to invest more of their fund to control pollution and update their production technology. That resulted in the decrease of competitiveness. Secondly, the large scale closing down campaign resulted in the decrease of local revenue. Thirdly, the risk of bank loan increased because many enterprises had been closed down and lost their ability to pay back the loan. (30) Lastly, the increased investment for pollution control and helping small enterprises increased the financial burden of local governments. The development of local economy was restricted.

But from the long-term view, the water pollution control campaign in Huai River Valley is positive to the economic development of the valley. As a local official said, "Water pollution control in Huai River Valley provided an opportunity to the development of the valley. If we combine water pollution control with the transformation of economic growth mode and economic system, and combine it with the reform of state owned enterprises as well as promotion of

technology upgrading, the economy of the valley will eventually be benefited." (31)

5 LOOKING FORWARD TO FUTURE

Although the water pollution control campaign of Huai River Valley had made remarkable achievements, there is still a long way to go to realize the objective of clean water of the Huai River Valley. The priorities for the future work of the campaign would be the following.

5.1 Strengthening law enforcement and keeping the achievements

Because the water pollution control campaign in Huai River affected local economy and economic income of some local people and is a campaign pressed from Central Government, there is a possibility that local governments and local enterprises reassume the polluting production processes when attentions of Central Government is absent. In fact, there have been many cases that factories discharge wastewater or illegally operate the prohibited pollution facilities secretly. (32) The Environmental Protection Department of Jiangsu Province discovered that there were 12 enterprises among 35 major enterprises that had been approved as reaching the discharge standards had conducted illegal discharge or discharge pollutant in exceeding required limits in 1998. (33) Therefore, keeping the achievements of the campaign is a long-term and difficult task. The environmental protection departments should keep alert and strictly enforce Water Pollution Prevention and Control Law of China and the Regulations. They should continuously supervise the operation of enterprises and punish and prosecute illegal discharging enterprises and their managers.

5.2 Helping The People and Enterprises Effected Disposal and Phased Out Equipment Safely

To those closed enterprises and their workers, government will continue to provide help. The help included money, training opportunities for new careers, and technological assistance for clean production. Government will encourage and assist those enterprises to develop environmentally sound agricultural processing industries and service industries.

The campaign phased out many backward production machines and equipments. The environmental protection departments should supervise the destruction of those machines and equipment and prevent them to be transferred to other places and used there.

5.3 Continue To Eliminate Heavy Pollution Sources And Promote Clean Production

At the present, the total capacity of wastewater treatment by the proposed 52 treatment plants is 370,000 tons of COD per year. This capacity is not enough. There are still 230,000 tons of COD from household wastewater and 600,000 tons of COD from legal discharge of enterprises annually need to be treated. (34) Therefore, there is still a need to further adjust the industrial structure and eliminate heavy polluting enterprises. There is a need of promoting clean production also.

5.4 Construction of wastewater treatment plants

In order to meet the need of treating wastewater by 2000, the total capacity of treatment should be 10 million tons per day. Therefore, the Central and local government as well as banks shall provide more financial support for construction of treatment plants.

6 CONCLUSION

Huai River Valley water pollution Campaign is basically an environmental law enforcement program. The closing of small-sized but serious polluting sources has been one of the major regulatory measures since the first Environmental Protection Law of PRC promulgated in 1979. But the government has never been serious enough about the spread of such pollution sources in Huai River Valley until 1995 when the State Council promulgated the Interim Regulations on Water Pollution Control in Huai River Valley. The Regulations organized a trans-provinces governmental institution for enforcing the related requirements of environmental law. The campaign is a valley-wide law enforcement program combined with other measures, such as funding for construction of wastewater treatment plants. The campaign has positive impacts on the long-term development of the valley. The water quality of the valley has begun to improve. The people, enterprises and local governmental officials have received a vivid environmental law education. The environmental infrastructure of valley has been improved and continuously to be improved. The campaign resulted in an environmental, social and economical basis for sustainable development of the valley. The campaign only completed its first stage. Many difficulties still exist. There is a long way to go for realizing the final objectives of clean environmental and sustainable development of the valley.

The experience of Huai River Valley in water pollution shows that the political will of the government, especially the political at the national level, is critical to the success of water pollution control. In a country like China, with weak economical, technological, social and knowledge capacity to deal with environmental problems, political will to protect environment in the high level of government is the most important force for pushing forward the progress of pollution control. Financial and even technological solutions to pollution problems will be resolved as soon as the government is politically determined to eliminate pollution.

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SUMMARY OF PLENARY SESSION #4: RAISING AWARENESS AND MEASURING RESULTS

Moderator: Lambert Verheijen
Rapporteur: Paul Hagen

1 INTRODUCTION

This Panel explored the difficulties involved with defining the success or failure of environmental enforcement initiatives and discussed environmental enforcement indicators.

2 PRESENTATION

Mr. Stahl provided an overview of EPA's Enforcement and Compliance Assurance program. He noted that EPA has a workforce of over 3,311 employees who are engaged in inspections, bringing enforcement cases, providing compliance assistance and managing data. He explained that State regulators also play a significant role in the enforcement of U.S. federal environmental laws. In the U.S., traditional indicators focused on outputs such as the number of inspections conducted. EPA, in connection with a new law requiring that agencies report to Congress on results and performance, has now developed better performance indicators. These include pounds of pollutants reduced by enforcement actions, number of entities seeking EPA assistance and the development of statistically valid compliance rates for industry. This has required EPA to develop and support new internal teams and, in the area of statistical analysis, retain outside consultants. The benefits of the new performance measures used by EPA include better communication with Congress improved effectiveness of the enforcement and compliance program and demonstrating the value of EPA activities and results to the public.

Mr. May noted that Canada relies on several external indicators in evaluating its effectiveness and measuring results. North America has several important reporting schemes, including the State of the Great Lakes Basin reporting, Commission on Environmental Cooperation (CEC) reports, Auditor General of Canada reports and periodic environmental NGO reports. All of these provide an opportunity to measure the results of Canada's compliance and enforcement efforts. Many Canadian laws provide a wide-range of sentencing and sanctions, allowing for creative sentencing and court orders. These often allow authorities to impose penalties that go beyond the payment of fines to include community and local capacity building projects. Canada also looks to anecdotal intelligence on the reaction of the regulated community to measure its impact. Communicating enforcement and compliance results to stakeholders and other agencies, for example, through press releases have also proven to be an important element of education and awareness raising. Practical recommendations for governments include:

- measuring enforcement, promotion and partnering accomplishments;
- using key environmental indicators to target future activities; and
- using external assessments to continuously improve operations

3 DISCUSSION

By recognizing the integral role that enforcement plays in upholding the rule of law, and therefore in maintaining good governance, INECE is uniquely positioned to establish a standard set of enforcement indicators that meet universal minimum criteria. For over a decade, INECE has led

efforts to increase awareness of enforcement issues and build capacity through regional and international conferences, training, and published reports highlighting best practices. Over the past eight months, INECE has researched other indicator projects in order to learn from their experiences. With this knowledge base, INECE has drafted a proposed methodology for developing enforcement indicators that has received significant review and comments from its partners and representatives of national, regional, and international organizations.

4 CONCLUSION

There is a clear and urgent need for an internationally agreed upon mechanism to measure progress toward achieving sustainable development goals in a manner that responds to discrepancies in implementing and enforcing environmental laws. In response to this need, INECE will develop a set of indicators dedicated to environmental.

PERFORMANCE INDICATORS FOR ENVIRONMENTAL COMPLIANCE AND ENFORCEMENT PROGRAMS: THE U.S. EPA EXPERIENCE

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SUMMARY

The purpose of this paper is to describe the efforts of the United States Environmental Protection Agency (EPA) to develop and use results-based indicators in its national enforcement and compliance assurance program. The paper provides background about EPA and its compliance and enforcement program and discusses the need for better indicators. It then describes a three-phase process – identification of better indicators, implementation of better indicators, and use of indicators as a management tool — which can help other environmental compliance and enforcement programs seeking to manage in a more results-based manner.

1 BACKGROUND ON EPA'S ENFORCEMENT AND COMPLIANCE ASSURANCE PROGRAM

In the face of growing public concern over environmental issues the Environmental Protection Agency (EPA) was formed in 1970 with the mission of protecting human health and the environment. The Agency brought together existing federal environmental programs and became the focal point for federal environmental activity, with broad authority to deal with environmental problems that affect the air, land, and water. For example, the Clean Air Act regulates the emission of pollutants to the air from stationary and mobile sources, the Clean Water Act regulates emissions to water, the Safe Drinking Water Act sets standards for drinking water, and the Resource Conservation and Recovery Act established a cradle-to-grave system for handling hazardous waste. There are numerous other environmental laws implemented by EPA dealing with particular pollutants or hazardous substances such as lead, asbestos, and oil; with environmental clean-ups; endangered species protection; and food safety.

EPA develops regulations and sets national standards for environmental laws. Implementation and enforcement of these environmental programs is done in cooperation with states and Indian tribes. States have the primary authority for implementing most environmental programs through delegated authority from the EPA. The EPA's federal role in ensuring compliance is to implement and enforce programs that cannot be delegated to states and Indian tribes, to handle more complex cases involving multiple states or corporations with multiple facilities, to deal with issues that require expertise or resources which only EPA can provide, and to enforce when states are unable or unwilling to.

EPA's Office of Enforcement and Compliance Assurance (OECA) is responsible for ensuring compliance with the nation's environmental laws. OECA employs an integrated approach to increase compliance, using compliance monitoring, compliance assistance, incentives to encourage self-audits by facilities, and enforcement. OECA identifies environmental problems by analyzing risks and

patterns of noncompliance and developing strategies to address those problems by using assistance, monitoring, inspections, and enforcement in combinations appropriate to the problem.

EPA's fiscal year 2002 budget is over seven billion dollars. The Agency employs approximately 18,000 people at the Agency's headquarters, ten regional offices, and several laboratories and research facilities. OECA has approximately 3,400 employees who provide assistance, conduct inspections and investigations, develop and execute enforcement cases, and manage national compliance data systems.

2 THE NEED FOR BETTER INDICATORS

EPA was set up to achieve its mission of protecting human health and the environment through a command-and-control regulatory compliance system. The system has traditionally relied upon compliance monitoring (e.g. inspections and investigations) and enforcement actions (e.g. administrative, civil, or criminal cases) as the primary tools to ensure compliance with environmental regulations. Likewise, indicators of program performance have been organized around those same tools.

2.1 Limitations of Output Indicators

Traditional indicators of program performance consist of activity counts, "outputs" such as the number of inspections conducted, enforcement cases initiated, penalties assessed. Though these indicators give some sense of enforcement presence, they do not provide all the types of feedback needed to effectively manage program performance, and they have several limitations.

The first limitation is that these indicators fail to include many of the new assistance and incentive approaches being used by EPA and other environmental agencies. Compliance assistance programs provide information on regulatory requirements for specific sectors and regulated populations, pollution prevention ideas, and techniques that can help an organization come into compliance. The goal of compliance assistance programs is to increase compliance by helping organizations better understand regulations, thus preventing non-compliance, and by helping those out of compliance come back into compliance. EPA's incentive policies encourage organizations to identify, disclose, and correct violations through voluntary self-audits in exchange for reduced or waived penalties. The activity counts employed as traditional indicators do not capture the results of new assistance and incentive approaches (e.g., they do not measure the changes in behavior as a result of compliance assistance).

Activity counts as indicators of program performance have several other limitations as well. They fail to measure the environmental results achieved by program activities. Where traditional indicators tell us the number of cases initiated, or penalty dollars collected, they do not tell us the pounds of pollutants reduced as a result of injunctive relief associated with a case, or the improvements in company or facility environmental management practices resulting from assistance, or the return to compliance achieved by a company using one of EPA's self-audit incentive policies.

Activity counts reveal very little about the state of compliance; they don't tell us what percentage of the regulated universe as a whole is in compliance with the applicable regulations nor what the level of compliance is in key segments or populations of that universe. And, finally, activity counts say little about progress towards achieving environmental goals or addressing particular environmental problems. Knowing the number of inspections or investigations does not

indicate whether the Agency's mission is being achieved, or whether a strategy to address a particular environmental problem has been successful.

2.2 Challenges, Needs, Opportunities

EPA and other agencies have relied on activity counts for so long because measuring results of enforcement and compliance activities — like many government activities — is very difficult. Unlike the private sector, government agencies have no clear indicator of performance such as revenue, profits, market share, or customer satisfaction. Enforcement programs do not deliver a product or service, instead they impose obligations on their "customers" on behalf of society. In most cases the person or entity that the regulator encounters is an involuntary recipient of these obligations, and so cannot be expected to be an objective source of feedback on the performance of the regulatory program.

The primary and most visible output of EPA's regulatory compliance system – enforcement actions — are indicative of regulated entities failure to comply with regulations and laws. Is an increase in enforcement outputs good news (i.e., the Agency was able to identify and correct a higher percentage of noncompliance problems), or bad news (i.e., the level of noncompliance is increasing)? The ambiguity in interpretation means these activities are not a reliable indicator of whether the enforcement and compliance program is achieving its mission of increasing compliance, or whether the Agency is achieving its goal of protecting human health and the environment.

The limitations of solely using output measures as indicators of program performance, and the move to a more diverse mix of tools to carry out the Agency's mission, argue for development of better enforcement and compliance indicators. Most importantly, better indicators are needed to create as clear a link as possible between enforcement and compliance activities and strategies, and the results achieved. Better indicators must also document the level of compliance in the regulated community.

The Government Performance and Results Act (GPRA) of 1993 have also provided motivation and a conceptual framework for the development of performance indicators and measures. GPRA shifts the focus of government decision-making and accountability from activities conducted to the results of those activities. GPRA requires federal agencies to develop strategic plans, and annual performance plans with goals and performance measures associated with them. More recently, President Bush's Management Agenda has emphasized performance reviews, performance-based budgets, and the development of high quality outcome measures to monitor program performance.

Better indicators will enable EPA to conduct performance analyses, evaluating the effectiveness of tools and strategies in terms of achieving desired goals. This type of performance analysis will enable EPA to more effectively employ its resources, investing in activities that achieve results and modifying or disinvesting from those areas that are not producing results.

3 PHASE 1 — IDENTIFYING BETTER INDICATORS

In 1997, EPA's Office of Enforcement and Compliance Assurance (OECA) initiated the National Performance Measures Strategy (NPMS) to develop and implement an enhanced set of performance measures. As part of this effort OECA conducted over twenty public meetings with a wide array of stakeholders, consulted with experts and practitioners, and reviewed dozens of studies and articles.

This outreach effort was extremely beneficial to EPA's strategy for identifying better performance indicators.

3.1 Guiding Principles

Based on the ideas and suggestions offered by the stakeholders, and the concepts identified through the research conducted, OECA developed the following set of principles to guide the effort to develop better indicators.

3.1.1 There are Diverse and Multiple Audiences for Enforcement and Compliance Assurance Performance Measures

Information about the performance of EPA's enforcement and compliance assurance program is used by many parties in a wide variety of ways. The most important audience is the public. Other significant audiences include EPA managers and staff, Congressional members and staff, oversight agencies, state environmental agencies, state attorneys general, environmental organizations, communities, regulated entities, and the media. All of them want and would use results-oriented performance measures presented in clear and understandable ways.

3.1.2 A Combination of Measures — Outputs And Outcomes, Quantitative and Qualitative, Statistical and Narrative, Aggregated and Disaggregated, National and Local – is Necessary to Measure Performance, Inform Management, and Serve the Full Range of Audience and Purposes.

No single number, fact, or category of measure (e.g., output or outcome) can convey all the information necessary to comprehensively measure performance. The mission of EPA's enforcement and compliance assurance program is complex. Its responsibilities are multiple and the tools used to achieve them are multifaceted. Therefore, a variety of performance measures are needed to ensure accountability, improve management, and increase program effectiveness.

3.1.3 Performance Measures are Most Effective When They Reflect Management Priorities and Are Linked to a Limited Number of Program Goals and Objectives.

Successful performance measures demonstrate the degree to which organizations or programs are achieving their goals and desired results. The number of measures should be limited to key performance elements essential for producing data that aids program evaluation and decision-making. Performance measures should reflect those operational aspects (e.g., quality, fairness, timeliness, cost, etc.) considered to be management priorities.

3.1.4 Increased Use of Outcome Measures Presents Many Challenges, Because Agencies or Programs May Influence – But Not Necessarily Control – Outcomes.

Outcomes cannot generally be attributed or causally linked to individual functions of an agency or program. Prevention or deterrence of undesired outcomes is difficult to measure. Outcome measures are most concrete and useful when they are specific to a particular problem, and therefore may not lend themselves to broad aggregation.

3.1.5 Problem-Specific, Tailor-Made Performance Measures are Effective for Evaluating Performance in Solving Specific Environmental and Noncompliance Problems.

When agencies or programs identify and target high-risk, high-priority environmental or noncompliance problems,

their performance in mitigating or solving such problems can best be evaluated using tailor-made measures, indicators, or metrics which specifically relate to each problem. Generally, a performance record that is specific to each problem needs to be developed, since problem-specific measures often cannot generally be aggregated in a useful way.

3.1.6 Performance Measures Should Be Used Principally to Evaluate Effectiveness and Manage More Strategically, Rather Than Simply Reporting Accomplishments to the Public in a More Interesting Way.

If developed and used correctly, performance measures should permit more sophisticated analysis of results and activities that produced them, allow comparisons of the relative effectiveness of specific tools and strategies, and lead to informed resource allocation that is more likely to achieved the desired results. A well-designated and wisely utilized set of performance measures can put strategy and vision, goals and objectives at the center of management attention.

3.2 Criteria for Evaluating Potential Indicators

The discussions with stakeholders provided also many suggestions about potential indicators that OECA could use to measure the performance of its programs. Those same discussions also produced a set of criteria that OECA used to examine the value of each potential indicator and decide which to implement. Indicators should be:

- relevant to goals, objectives, and priorities of the agency and to the needs of external stakeholders.
- transparent so they promote understanding and enlighten users about program performance.
- credible and based on data that is complete and accurate.
- functional in that they encourage programs and personnel to engage in effective and constructive behavior and activities.
- feasible, that is, the cost of implementing and maintaining a measure should not outweigh its value to the program.
- as comprehensive as possible with respect to the important operational aspects of program performance.

As a result of the discussions with stakeholders, consultations with experts, and meetings with internal staff, OECA selected a set of new indicators to develop and implement in stages over a period of three years. The new indicators are:

- pounds of pollutants reduced through enforcement actions,
- percentage of enforcement cases requiring improvements in facility environmental management.
- dollar value of injunctive relief and supplemental environmental projects.
- number of audits and self-corrections by companies/facilities using EPA policies.
- number of entities seeking compliance assistance form EPA assistance centers.
- rate of recidivism among significant violators and average time to return to compliance.
- statistically valid compliance rates for key regulated populations.

These indicators focus on the outcomes of program activities – i.e., improvements in environmental conditions or behavior of the regulated universe – rather than on the number of activities. The indicators also do not measure the ultimate outcomes of environmental protection such as improved quality of air or water, but focus instead on intermediate outcomes such as behavior changes and other actions that contribute to the ultimate outcomes.

Also as a result of the stakeholder discussions, OECA identified several key output indicators – some new and some used for many years – which would be used in combination with the new outcome measures. The key output indicators are:

- number of inspections and investigations conducted.
- number of civil and criminal enforcement actions.
- number of facilities/entities reached through compliance assistance efforts.
- number of training course and other capacity building efforts provided to state, tribal , or local programs.

4 PHASE 2 — DESIGNING AND IMPLEMENTING BETTER INDICATORS

After identifying the new indicators, EPA began a multi-year process of designing and implementing the indicators. This design and implementation phase is a necessary step for developing accurate and reliable performance indicators, but it is a step which can be overlooked or de-emphasized in the rush to begin using better indicators sooner rather than later.

EPA used several strategies to organize and complete the design and implementation of the new indicators:

- Internal Work Teams. For each of the new indicators, a team of EPA staff and managers was assembled to develop plans to implement each measure. These groups defined the indicators in more precise detail, reviewed relevant data in existing EPA systems, developed new information collection and reporting processes as needed, and established a schedule for testing and implementing the indicators. These work groups were very useful in identifying and overcoming barriers to effective implementation and they had the added benefit of involving staff and increasing their sense of ownership of the new indicators.
- Pilot Projects. Some of the indicators were implemented as pilot projects so that a testing phase could be used to solve implementation problems. For example, there were unanticipated difficulties in the collection and reporting of new information, and the pilot phase was used to correct the problems and evaluate the continued use of specific indicators.
- Consultants. Expertise from outside EPA was used to address difficult technical issues. In developing statistically valid noncompliance rates, a consultant helped design a sampling methodology that resulted in a rigorous plan for conducting inspections at randomly selected facilities. These inspections were used to produce a representative sample to measure noncompliance in specific industry sectors.
- Phased Implementation. The new indicators were implemented gradually over a three-year period. Some of the indicators were implemented and available for use in Fiscal Year (FY) 1998, while others were not completed until FY 2001. Although this meant that the full set of indicators was not available for use for three years, the time spent developing them produced more accurate information and spread the implementation burden over a more manageable period.

5 PHASE 3 — USING BETTER PERFORMANCE INDICATORS

Now that EPA has implemented a better set of indicators for its enforcement and compliance assurance program, the indicators are being used for two purposes. First, the indicators are being used to report to the public, the U.S. Congress, and the U.S. Office of Management and Budget

(OMB) about the results being achieved by the national enforcement and compliance assurance program. Second, the indicators will be used to analyze and improve the performance of the program.

5.1 Reporting to External Audiences

Under GPRA, EPA and all Federal agencies are required to produce an Annual Performance Report (APR) that describes the results and outcomes achieved through the activities of major programs. This requirement has been in place since FY 1999, and each year the APR for OECA has focused increasingly on results and outcomes while de-emphasizing the more traditional counting of inspections and enforcement activities. In addition, budget requests presented to OMB officials and Congressional appropriations committees have been greatly aided by the new indicators. OECA can now describe its enforcement and compliance program accomplishments in terms that resonate with its multiple audiences – pounds of pollutants reduced through enforcement, improved management practices at facilities from compliance assistance, violations corrected and disclosed through EPA audit policies.

5.2 Analyzing and Improving Performance

The real value of having better performance indicators — even more important than the ability to report meaningful results to external audiences – is to use the indicators to analyze and improve program performance. OECA is now beginning to use the indicators for this purpose.

OECA has developed a process for analyzing the performance of the various elements of the national enforcement and compliance assurance program. This process is described in a guidebook developed by OECA entitled, "Using Performance Measurement Data as a Management Tool." The process described in the guidebook is organized around a framework of five questions that provide a structure for the analysis. The five questions are:

- Are we contributing to the goal of protecting human health and the environment through our actions and strategies?
- Are we changing the behavior of the regulated community in ways that lead to improved environmental performance?
- Are we achieving appropriate levels of compliance in key populations?
- Are we achieving the appropriate levels of enforcement activity in the regulated community?
- Are we providing appropriate assistance to our state and tribal partners to support them in contributing to improving environmental performance?

Under each question, the relevant performance indicators are arrayed to attempt to answer the question or at least address the question in the best manner possible. The framework allows data about results and the activities that produced them to be analyzed. These data can be examined for patterns and more can be learned about the combinations, types, and amounts of activities that produce the most desirable results.

The framework will be tested first to analyze EPA's compliance and enforcement program under the Clean Water Act. OECA senior management will review the results of that analysis, and then a different program component (e.g., the Clean Air Act compliance and enforcement program) will be analyzed. Ultimately, the framework will be used to analyze the entire national program after the close of FY 2002.

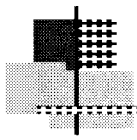
6 SUMMARY AND CONCLUSIONS

Government programs of all types

are under growing pressure to produce results, measure outcomes, and continuously assess and improve program performance. Developing better indicators of performance is an indispensable step that enables programs to move into the era of results-based management. Environmental compliance and enforcement programs face special circumstance and obstacles, which make development and use of better indicators a very formidable challenge.

The EPA indicators described in this article are not offered as a universal set that will suit all environmental compliance and enforcement programs. Rather, the three-phase process used by EPA is suggested as an approach that other programs can use to develop and use better indicators. Programs and agencies willing to invest the time and resources to: (1) identify potential indicators through broad stakeholder involvement; (2) design and implement indicators in a careful and deliberate manner; and (3) use indicators to analyze and improve programs, will enhance their accountability to the public, improve their effectiveness, and increase their contribution to protecting the environment.

PERFORMANCE INDICATORS FOR ENVIRONMENTAL COMPLIANCE AND ENFORCEMENT PROGRAMS: THE U.S. EPA EXPERIENCE



INECE 6th International Conference
April 15, 2002

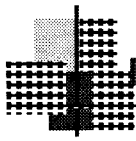
Michael M. Stahl
Director, Office of Compliance
U.S. EPA

Presentation Outline

- Background on EPA Enforcement and Compliance Assurance Program
- The Need for Better Indicators
- Identifying Better Indicators
- Designing and Implementing Indicators
- Using Performance Indicators
- Benefits of Performance Indicators

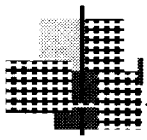
I. Background on EPA Enforcement and Compliance Assurance Program

- Enforce most major U.S. environmental laws, e.g., Clean Air Act, Clean Water Act
- Workforce: 3,311 employees to conduct inspections, bring enforcement cases, provide assistance, manage data
- Use combination of compliance assistance, incentives for facility self-audits, inspections and investigations, civil and criminal enforcement.
- States play major enforcement role through delegated authority



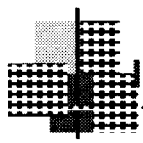
II. The Need for Better Indicators

- Traditional indicators of performance counted activities ("outputs") such as the number of inspections conducted, and enforcement actions taken through the year
- These indicators fail to:
  - Include new assistance and incentive approaches
  - Measure environmental results ("outcomes") from activities
  - Characterize the state of compliance in key populations
  - Measure progress in addressing environmental goals and problems
- Special challenges associated with enforcement and compliance indicators:
  - Customer service indicators are of limited value
  - Compliance failures of facilities are not government "successes"
- Importance of Developing Better Indicators:
  - Increased demand to demonstrate results of government activities
  - Indicators provide a management tool for analyzing program performance



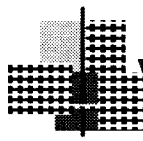
III. Identifying Better Indicators

- Principles guiding EPA efforts
  - Consult a broad array of stakeholders and address their needs
  - Combination of outputs and outcomes need to be measured
  - Indicators should be linked to goals and objectives
  - Recognize outcomes are influenced by external factors
  - Indicators should help evaluate progress in addressing environmental problems
  - Indicators should be used to both report results to the public and manage programs
- Criteria for evaluating potential indicators:
  - Relevant to program goals, objectives, and priorities
  - Transparent to multiple users
  - Credible and based on accurate data
  - Functional in encouraging the right behavior
  - Feasible to implement and maintain
  - Comprehensive about operational aspects of the program
- New indicators selected by EPA
  - Pounds of pollutants reduced by enforcement actions
  - Number of companies/facilities self-disclosing violations under EPA policies
  - Number of entities seeking assistance from EPA centers
  - Percentage of enforcement cases requiring improvements in facility management of pollution
  - Dollar value of injunctive relief and supplemental environmental projects
  - Statistically valid compliance rates



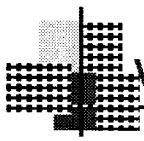
IV. Designing & Implementing Indicators

- Important strategies for design and implementation of indicators:
  - Use internal teams to define indicators and develop new information collection and reporting processes
  - Pilot projects should be used to test and refine indicators
  - Consultants can assist with difficult technical issues (e.g., sampling methodologies)
  - Implementation should be done in phases over two to three years



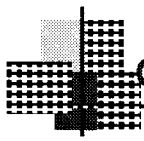
V. Using Performance Indicators

- Reporting and documenting progress for the public and Congress
  - Annual Performance Report required by statute
- Using indicators to analyze and improve program performance
  - Beginning performance reviews of components of the national program
  - Adjusting program strategies and resources based on performance reviews
- Performance review organized around five questions:
  - Are we contributing to the goal of protecting human health and the environment through our actions and strategies?
  - Are we improving the environmental performance of the regulated community?
  - Are we achieving appropriate levels of compliance in key populations?
  - Are we achieving the appropriate levels of enforcement and compliance assurance activity in the regulated community?
  - Are we providing appropriate assistance to our state and tribal partners to support them in contributing to improving environmental performance?



VI. Benefits of Better

- Improving the effectiveness of the enforcement and compliance assurance program
- Demonstrating the value of activities and results to the public



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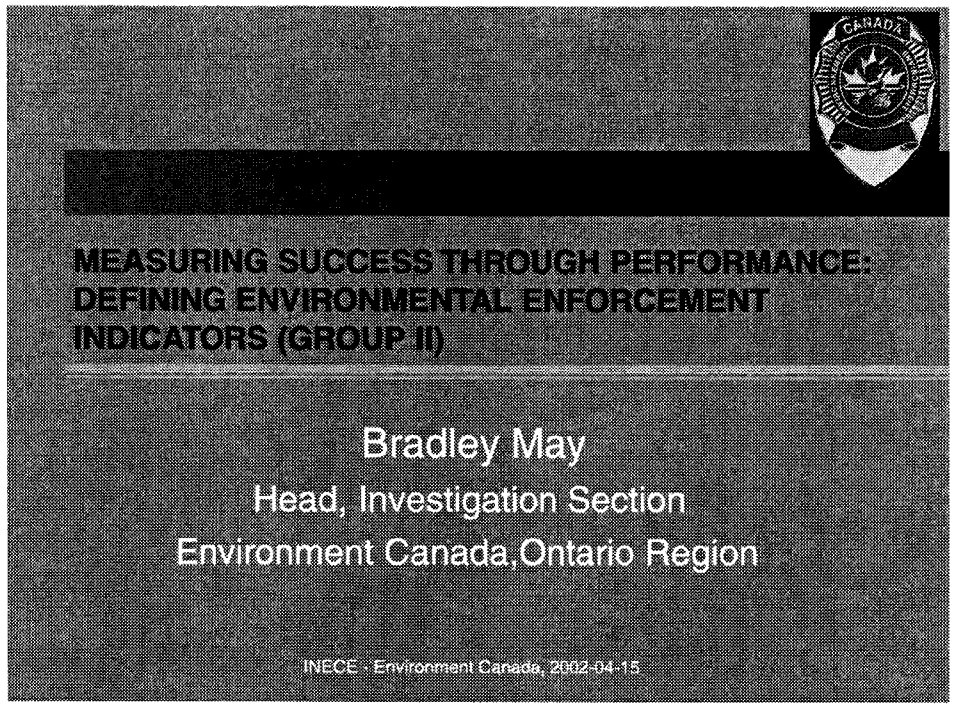
MEASURING SUCCESS THROUGH PERFORMANCE: DEFINING ENVIRONMENTAL ENFORCEMENT INDICATORS (GROUP II)
Bradley May
Head, Investigation Section
Environment Canada,Ontario Region
INECE - Environment Canada, 2002-04-15


Points to be Raised
Introduction - Defining Success
Environment Canada's Approach
External Indicators of Performance
Sentencing as a Guidepost
The Role of Creative Sentencing
Specific & General Deterrence
Practical Guidelines for Measuring Success
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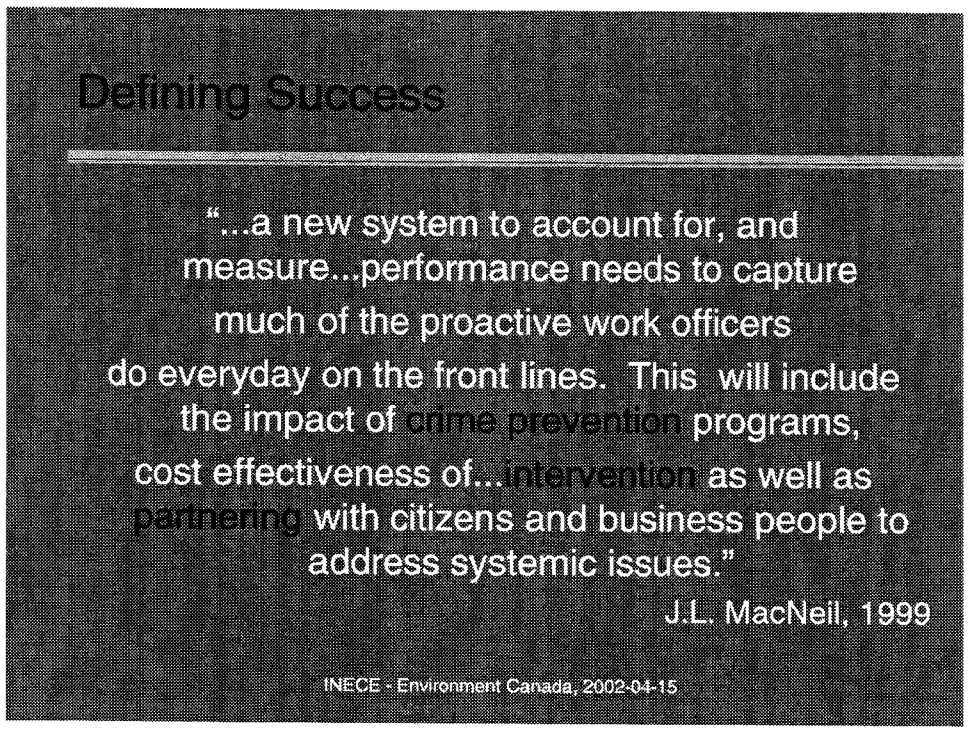
Defining Success
"...a new system to account for, and measure...performance needs to capture much of the proactive work officers do everyday on the front lines. This will include the impact of crime prevention programs, cost effectiveness of...intervention as well as partnering with citizens and business people to address systemic issues."
J.L. MacNeil, 1999
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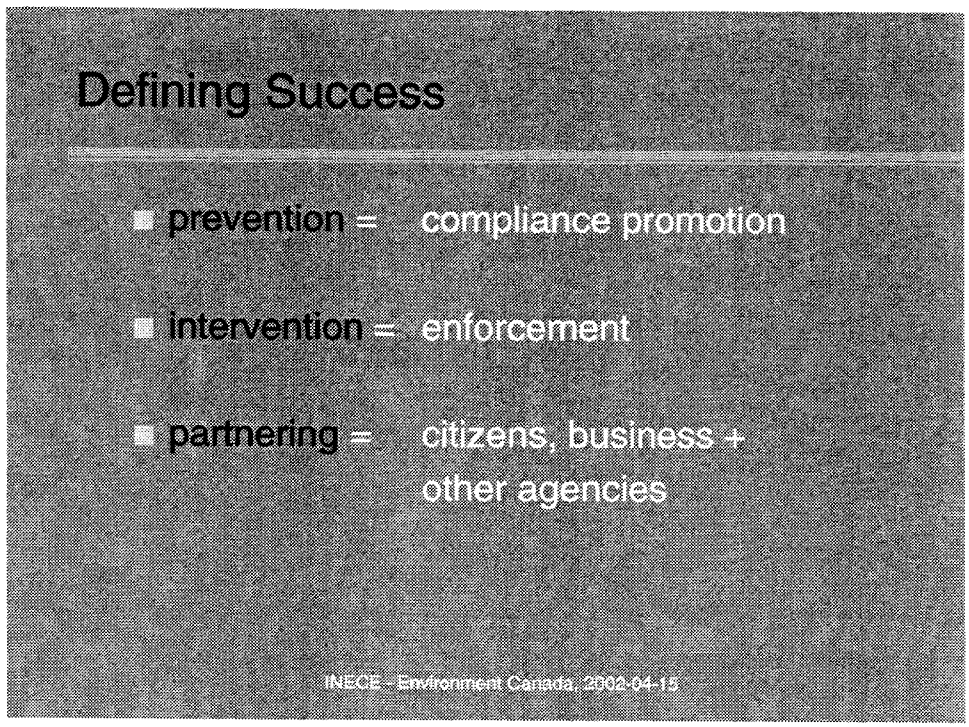
Defining Success
prevention = compliance promotion
intervention = enforcement
partnering = citizens, business + other agencies
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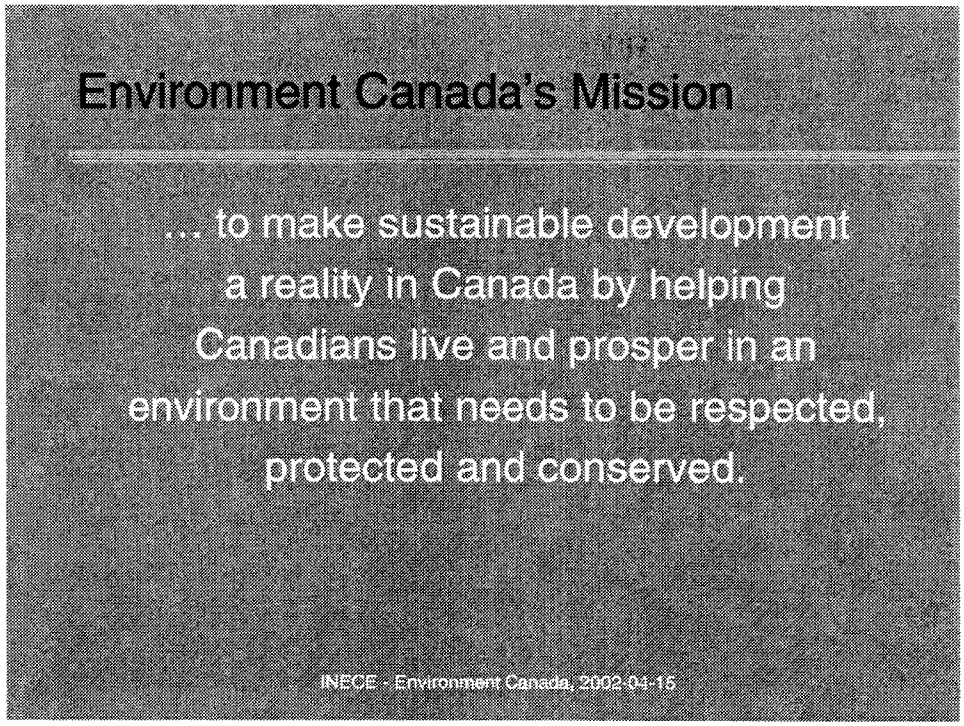
Environment Canada's Mission
... to make sustainable development a reality in Canada by helping Canadians live and prosper in an environment that needs to be respected, protected and conserved.
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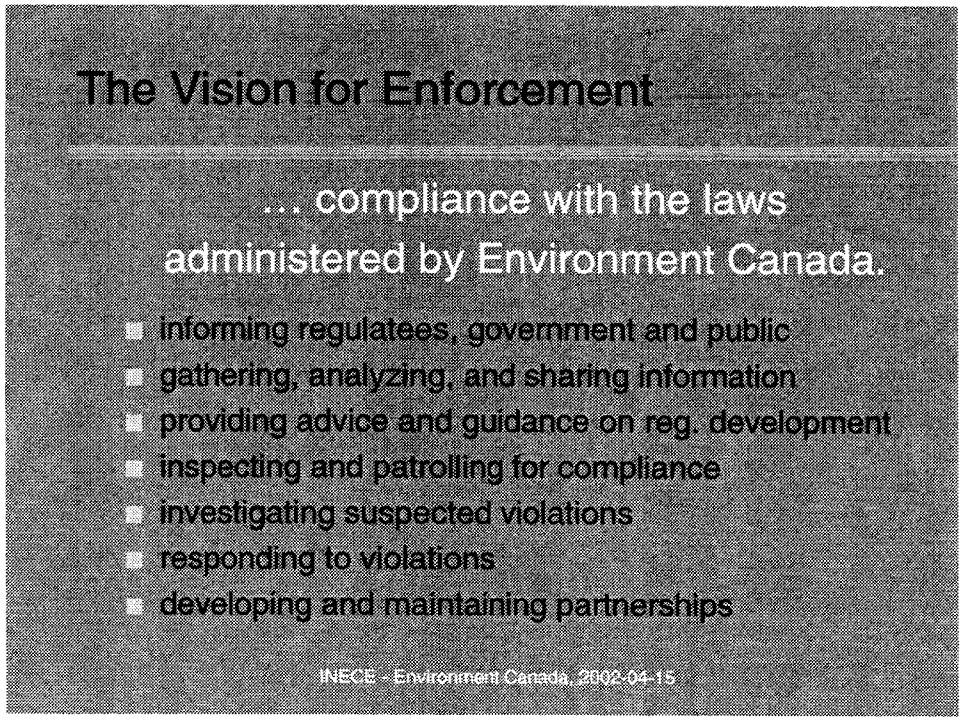
The Vision for Enforcement
... compliance with the laws administered by Environment Canada.
informing regulatees, government and public
gathering, analyzing, and sharing information
providing advice and guidance on reg. development
inspecting and patrolling for compliance
investigating suspected violations
responding to violations
developing and maintaining partnerships
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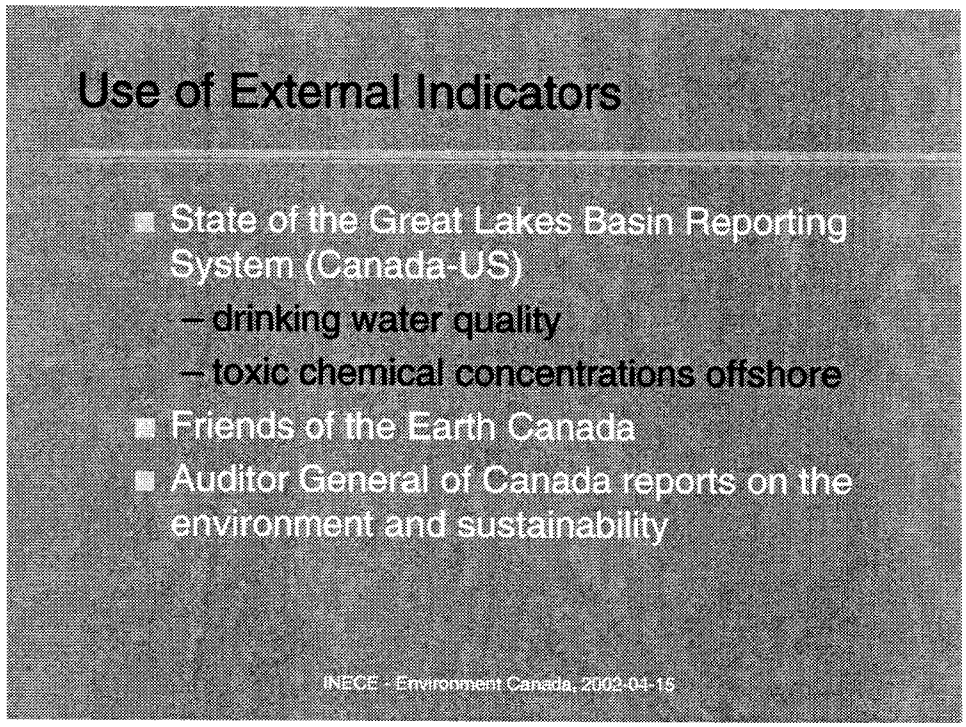
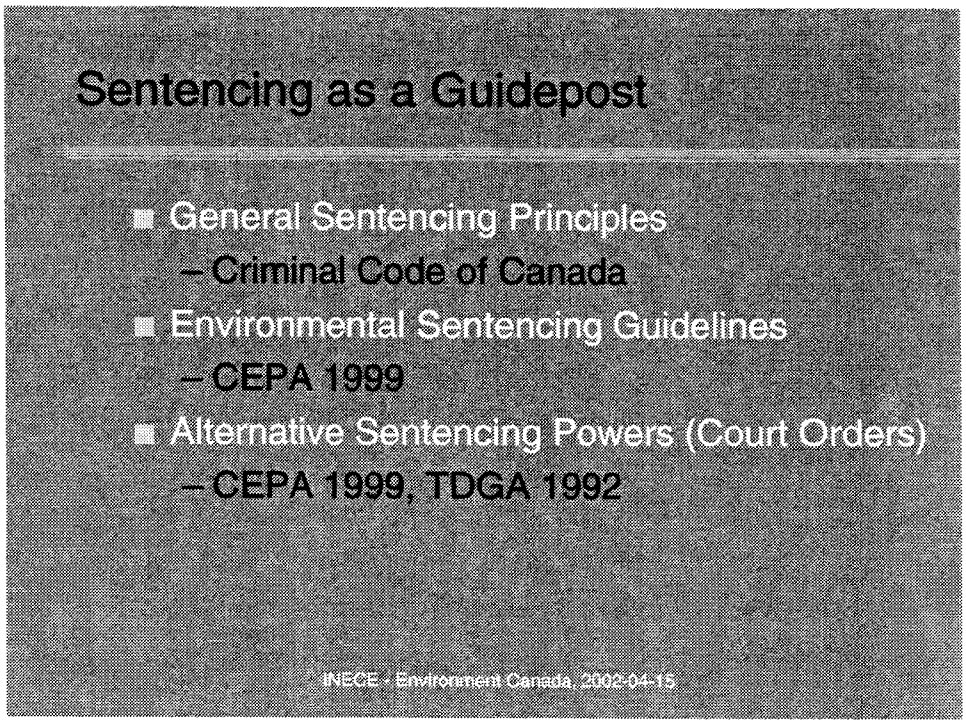

Use of External Indicators
State of the Great Lakes Basin Reporting System (Canada-US)
– drinking water quality
– toxic chemical concentrations offshore
Friends of the Earth Canada
Auditor General of Canada reports on the environment and sustainability
INECE - Environment Canada, 2002-04-15


Sentencing as a Guidepost
General Sentencing Principles
– Criminal Code of Canada
Environmental Sentencing Guidelines
– CEPA 1999
Alternative Sentencing Powers (Court Orders)
– CEPA 1999, TDGA 1992
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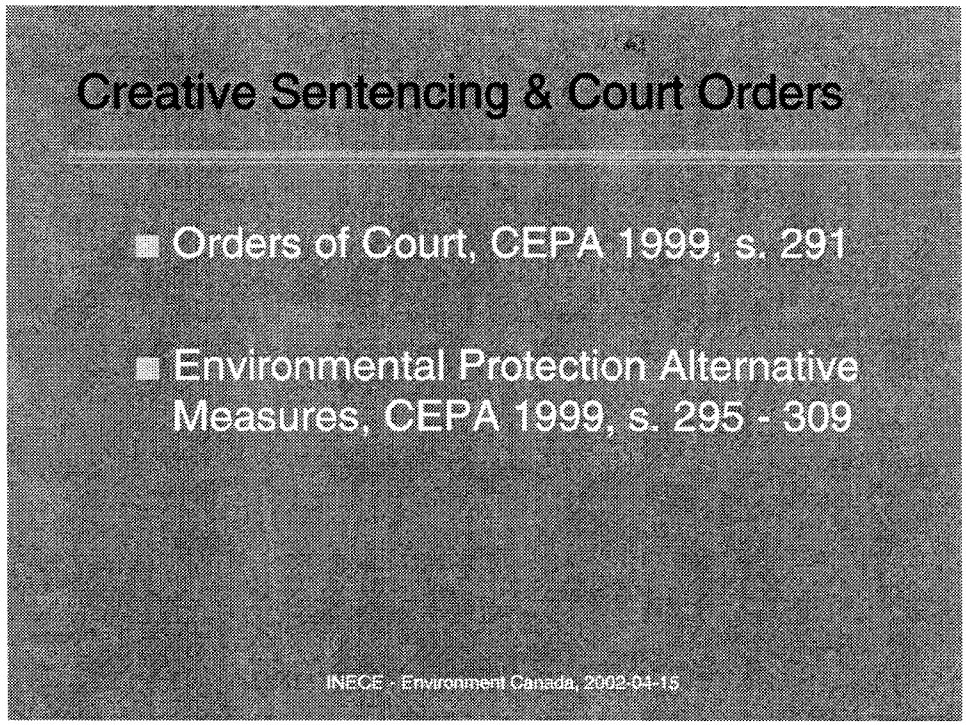
Creative Sentencing & Court Orders
Orders of Court, CEPA 1999, s. 291
Environmental Protection Alternative Measures, CEPA 1999, s. 295 - 309
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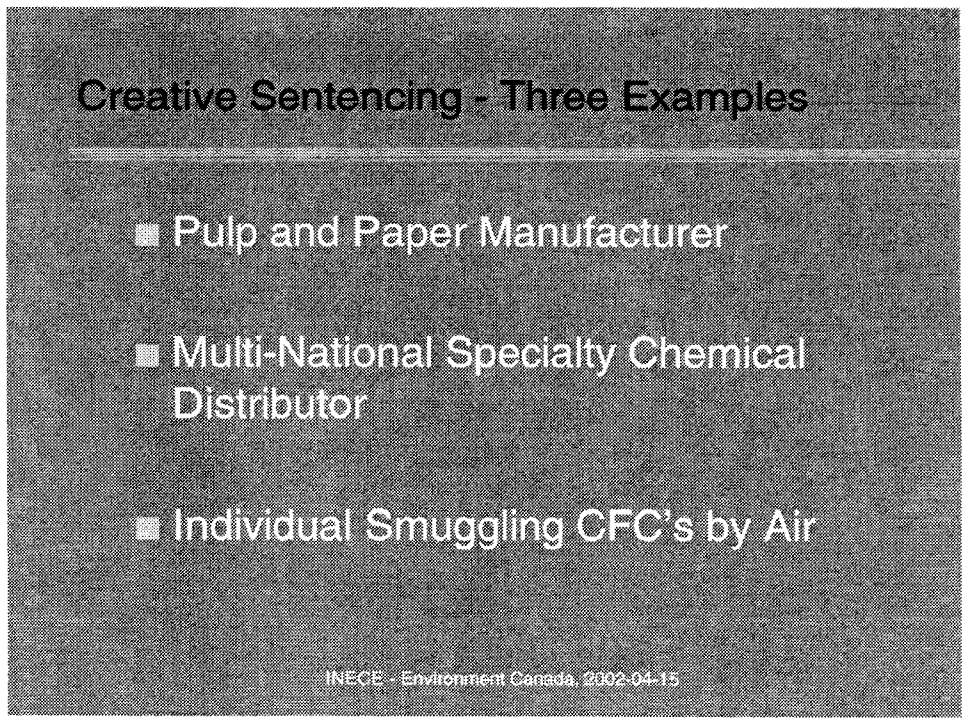
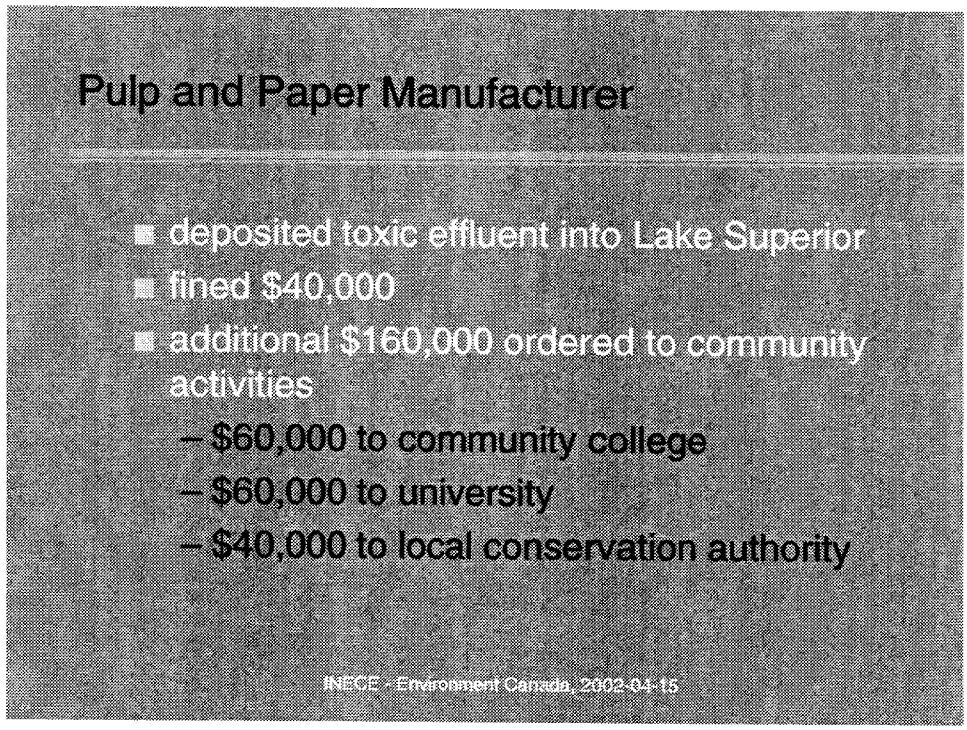

Creative Sentencing - Three Examples
Pulp and Paper Manufacturer
Multi-National Specialty Chemical Distributor
Individual Smuggling CFC's by Air
INECE - Environment Canada, 2002-04-15


Pulp and Paper Manufacturer
deposited toxic effluent into Lake Superior
fined $40,000
additional $160,000 ordered to community activities
– $60,000 to community college
– $60,000 to university
– $40,000 to local conservation authority
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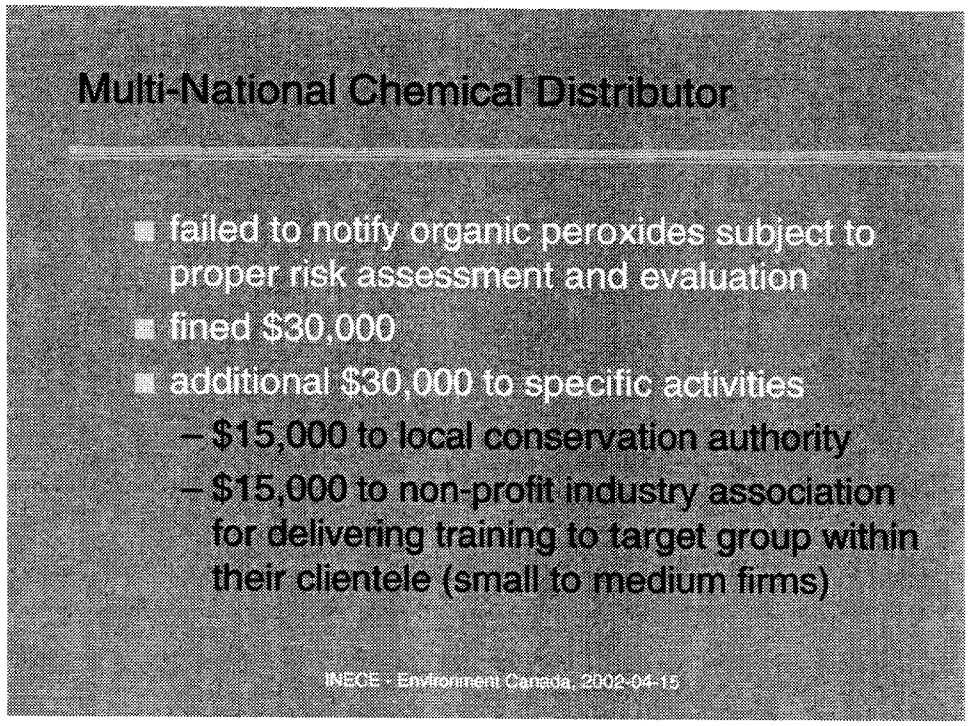
Multi-National Chemical Distributor
failed to notify organic peroxides subject to proper risk assessment and evaluation
fined $30,000
additional $30,000 to specific activities
– $15,000 to local conservation authority
– $15,000 to non-profit industry association for delivering training to target group within their clientele (small to medium firms)
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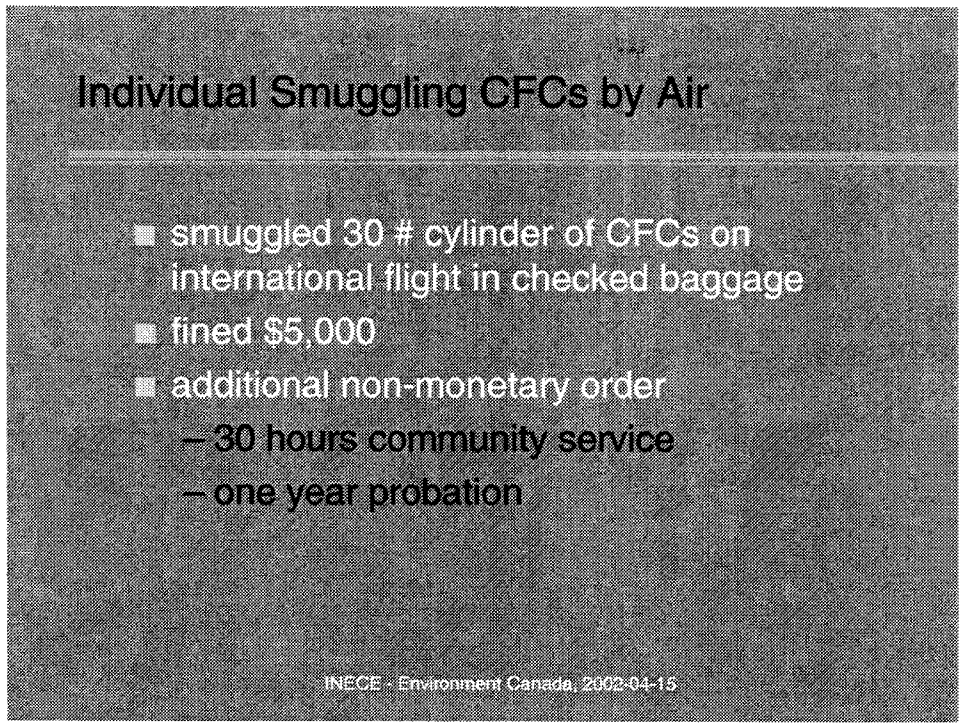
Individual Smuggling CFCs by Air
smuggled 30 # cylinder of CFCs on international flight in checked baggage
fined $5,000
additional non-monetary order
– 30 hours community service
– one year probation
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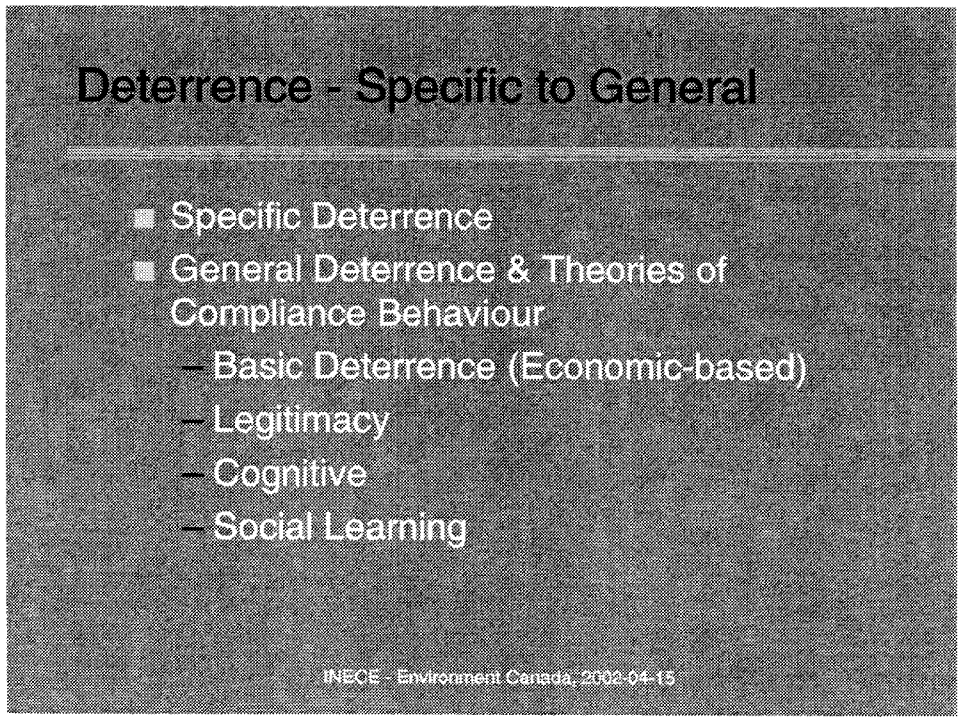
Deterrence - Specific to General
Specific Deterrence
General Deterrence & Theories of Compliance Behaviour
– Basic Deterrence (Economic-based)
– Legitimacy
– Cognitive
– Social Learning
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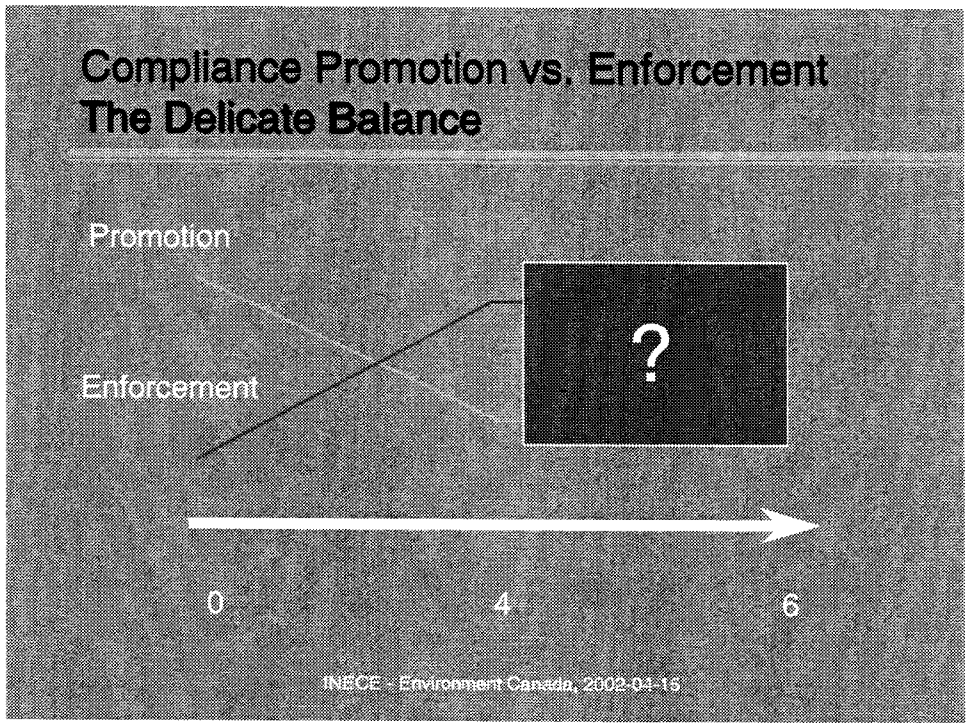
Compliance Promotion vs. Enforcement
The Delicate Balance
Promotion
Enforcement
?
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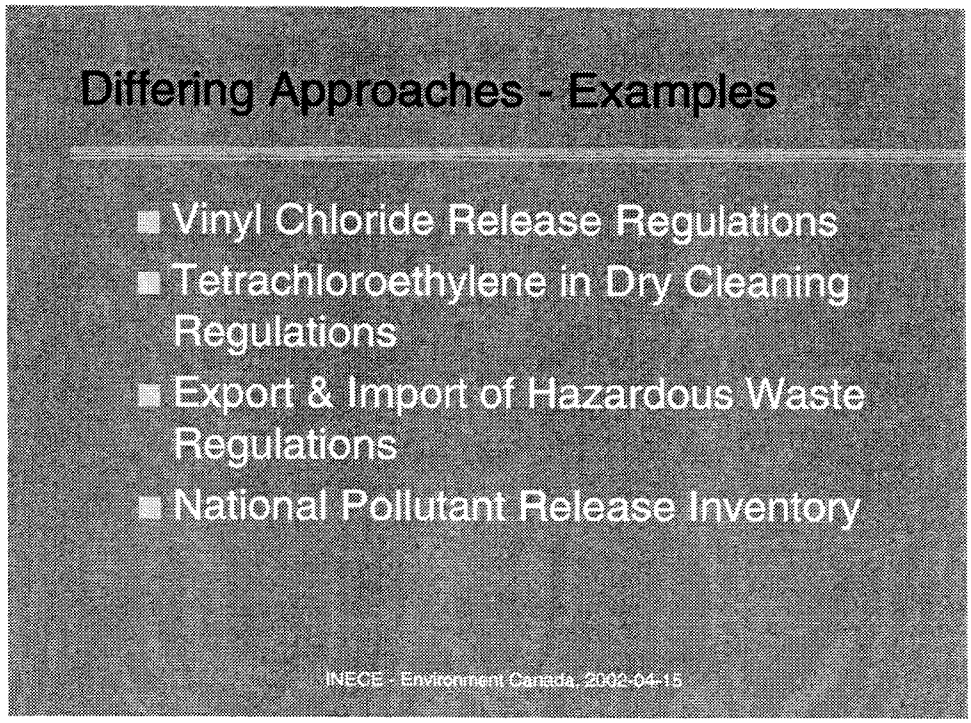
INECE - Environment Canada, 2002-04-15

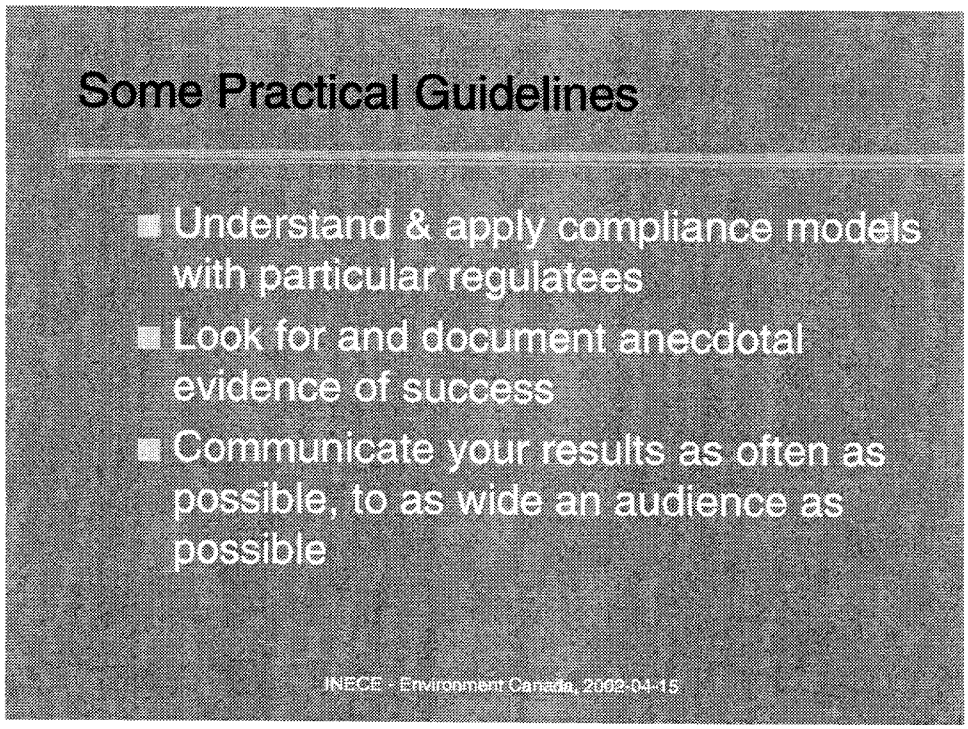

Differing Approaches - Examples
Vinyl Chloride Release Regulations
Tetrachloroethylene in Dry Cleaning Regulations
Export & Import of Hazardous Waste Regulations
National Pollutant Release Inventory
INECE - Environment Canada, 2002-04-15

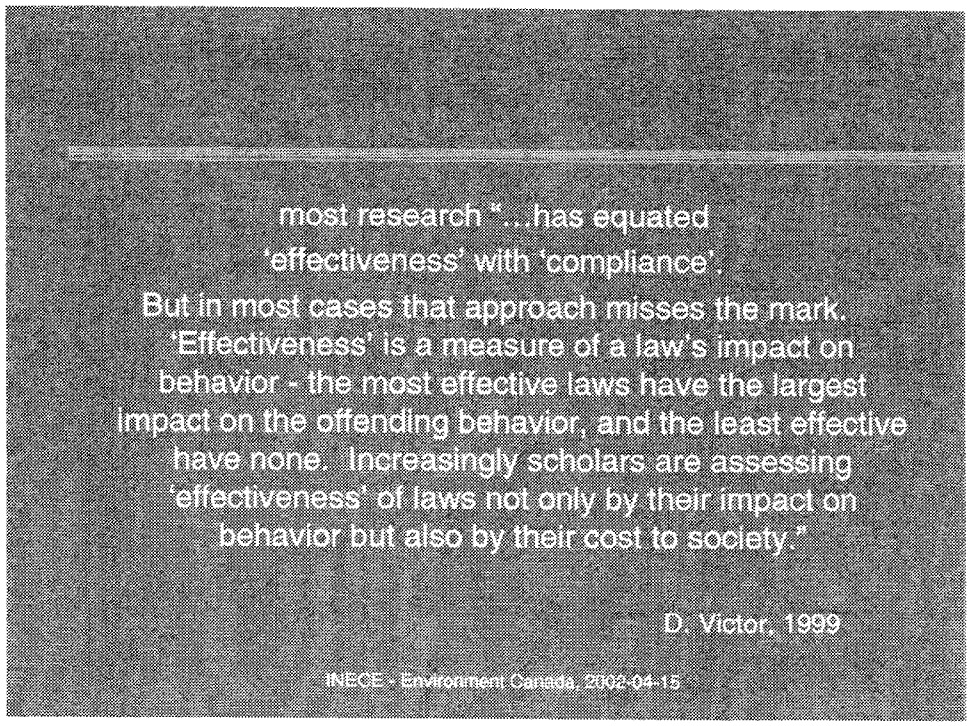
Other Ingredients for Success

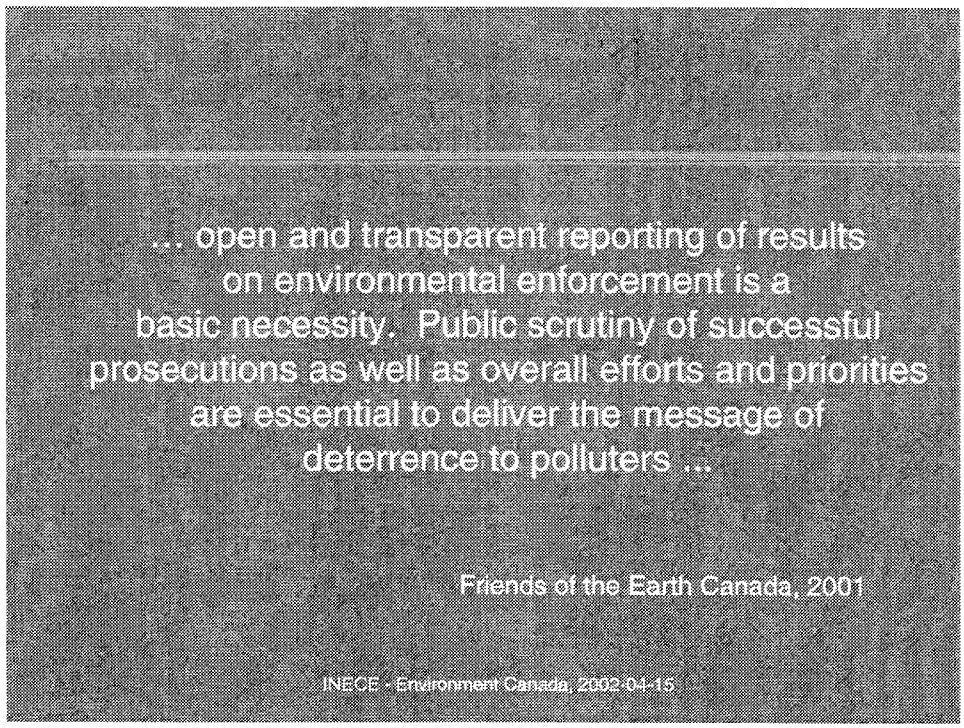
- Anecdotal Intelligence
- Communicating Results
  - various interested parties
  - information at key stages of enforcement
  - sharing success with other agencies

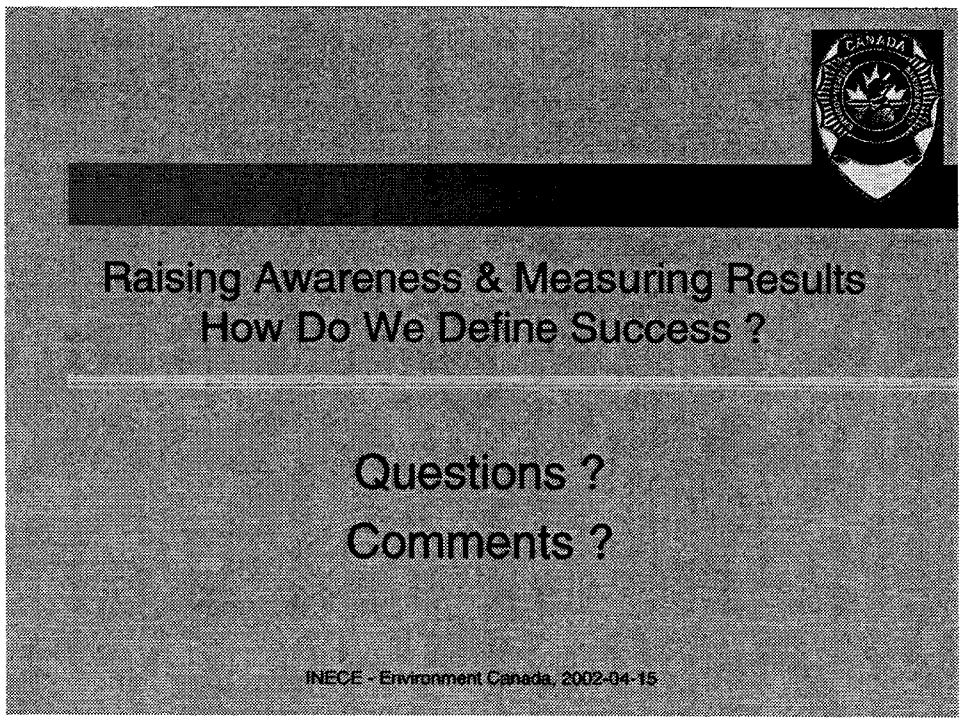
Some Practical Guidelines

- Measure your accomplishments (enforcement, promotion, partnering)
- Look for key environmental indicators & target your activities
- Learn from external assessments to continuously improve operations


Some Practical Guidelines
Understand & apply compliance models with particular regulatees
Look for and document anecdotal evidence of success
Communicate your results as often as possible, to as wide an audience as possible
INECE - Environment Canada, 2002-04-15


most research "...has equated 'effectiveness' with 'compliance'. But in most cases that approach misses the mark. 'Effectiveness' is a measure of a law's impact on behavior - the most effective laws have the largest impact on the offending behavior, and the least effective have none. Increasingly scholars are assessing 'effectiveness' of laws not only by their impact on behavior but also by their cost to society."
D. Victor, 1999
INECE - Environment Canada, 2002-04-15


... open and transparent reporting of results on environmental enforcement is a basic necessity. Public scrutiny of successful prosecutions as well as overall efforts and priorities are essential to deliver the message of deterrence to polluters ...
Friends of the Earth Canada, 2001
INECE - Environment Canada, 2002-04-15


Raising Awareness & Measuring Results
How Do We Define Success ?
Questions ?
Comments ?
INECE - Environment Canada, 2002-04-15

ENVIRONMENTAL RISKS ASSOCIATED WITH ACTIVITIES INVOLVING AMMONIUM NITRATE IN THE NETHERLANDS

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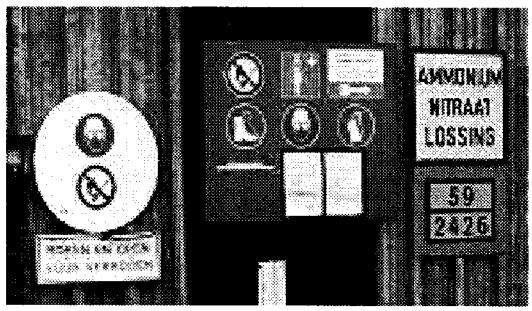


Safety indicator system at discharge site for ammonium nitrate solution

SUMMARY

Since the early 1990s the Inspectorate of the Ministry of Housing, Spatial Planning and the Environment (the VROM Inspectorate) has implemented enforcement campaigns with a central focus on risks for human safety. The most recent campaign involved a study of the risks associated with the storage and use of ammonium nitrate in the Netherlands, and the extent to which the statutory regulations are being complied with. The study was carried out at the four big ammonium nitrate producers in the Netherlands and at a limited number of storage companies where ammonium nitrate or products containing that substance are being stored. This particular study was initiated in response to the explosion of an ammonium nitrate storage centre in Toulouse on 21 September 2002, in which 30 people died.

The enforcement campaign revealed that the risk control procedures at the big ammonium nitrate producers are adequate and, hence, that incidents like the one in Toulouse are not likely to happen. However, at the storage companies the risks associated with ammonium nitrate were shown to be more substantial. In addition, there appeared to be room for improvement in the labelling of products containing ammonium nitrate and in the directive regulating the storage of such products.

1 RISK POLICY AS PART OF ENVIRONMENTAL POLICY IN THE NETHERLANDS

In the Netherlands, risk policy has been a major component of environmental policy for over two decades. Before the oil crisis in the 1970s it was common practice to flare the gaseous fraction if it could not be used on site, but in the wake of the crisis the market value of fossil hydrocarbons increased to such an extent that the large-scale utilisation of the gaseous fraction became commercially interesting. Since that time the application of LPG (Liquefied Petroleum Gas) as a fuel for motor vehicles and as a raw material for the chemical industry has increased exponentially in the Netherlands. The authorities realised, however, that certain risks were associated with the storage, application and transport of LPG and commissioned a study into those risks in the 1980s. That study made use of the "Quantitative Risk Analysis" as an instrument for risk assessment. This risk assessment strategy was then implemented as a policy instrument in the Netherlands by virtue of the government's "Integrated LPG Memorandum".

2 RISK POLICY ENFORCEMENT

The government complemented the new policy with a number of statutory regulations to ensure that the policy could be effectively enforced. Examples include the LPG Filling Stations (Road Traffic) Decree and the Serious Accident Risks Decree. The latter decree also served as the instrument under which the EU Post-Seveso Directive was implemented in the Netherlands.

In the early 1990s the Inspectorate for the Environment at the time launched a risk-oriented enforcement campaign, the purpose of which was to implement the LPG Filling Stations Decree. In subsequent enforcement campaigns conducted by the Inspectorate, risk policy enforcement was repeatedly shown not to attract the attention it deserves.

The fact that risk policy in the Netherlands was not properly enforced and that the safety of citizens was being jeopardised was brought home with a vengeance by major incidents involving many fatal casualties in the towns of Enschede (May 2000, explosion of fireworks factory) and Volendam (New Year's Day 2001, fire in a café/dance club). Since then new statutory regulations in the area of risk policy (fireworks, fire safety of buildings etc.) have been introduced, and all public authorities involved (municipalities, provinces and central government) have reinforced systematic risk policy enforcement procedures. The Inspectorate for the Environment (which later merged into the VROM Inspectorate) was also strengthened as part of that overall effort.

3 ENFORCEMENT STUDY INTO THE RISKS ASSOCIATED WITH THE PRODUCTION AND STORAGE OF AMMONIUM NITRATE

In the morning of Friday 21 September 2001, an explosion took place in a chemical factory in the French city of Toulouse. The Grande Paroisse company (part of the Total/Fina/Elf group) is situated in the southern part of the city, in the middle of a residential district. The explosion had disastrous effects, and the newspapers reported 30 deaths, 2,442 injured (34 of whom seriously) and 600 homes that would be uninhabitable for a long time to come.

Even though the precise cause of the accident has not yet been fully established, the first signs were that the explosion took place in a storage space for materials containing ammonium nitrate. The Dutch authorities were obviously eager to know whether accidents of this nature could also take place at similar companies in the Netherlands.

This is why the Minister of VROM commissioned the VROM Inspectorate to explore the manner in which ammonium nitrate and products containing ammonium nitrate are being manufactured, processed and traded in the Netherlands. The purpose was to find out whether

- the storage of and activities with ammonium nitrate in the Netherlands are sufficiently safe;
- the rules and regulations issued to guarantee safety are properly enforced;
- existing rules and regulations are sufficient to ensure safety.

The study was performed at the four biggest fertiliser producers in the Netherlands: Hydro Agri Sluiskil and Zuid Chemie Sas van Gent (Zeeland province), DSM Agro Geleen (Limburg province) and DSM Agro IJmuiden (North-Holland province), but also involved a number of fertiliser storage companies.

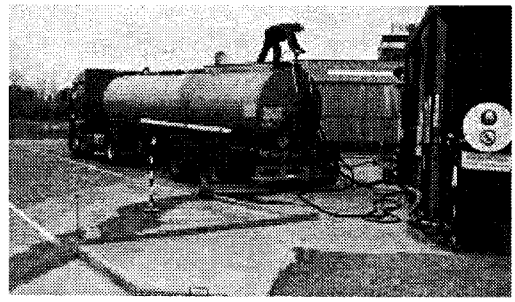
4 PROPERTIES OF AMMONIUM NITRATE

The accident in Toulouse occurred when the substance called ammonium nitrate exploded (detonated)[1]. Ammonium nitrate is a substance with a special risk profile.

It is a solid which, under specific conditions (high concentrations, high temperatures, confinement and the presence of catalysts such as oil and chloride), can explode or decompose releasing noxious fumes.

In the past this substance caused a number of very serious accidents, some of which involved hundreds of fatalities. Not surprisingly the production, storage and use of the substance are subject to strict precautionary measures. In the Netherlands, products that contain ammonium nitrate (fertilizer) are classified in hazard categories A1 and A2, B and C[2].

The Dutch production companies



Bulk storage of fertilizer containing ammonium nitrate

exclusively make fertilizer in the A2, B and C categories. Import, storage and transhipment activities with fertilizer in category A1 take place on a modest scale.

5 FERTILISER PRODUCERS

The study of the four companies that produce and process huge volumes of ammonium nitrate has shown that under the present circumstances the chance of an accident in the Netherlands comparable to the one in Toulouse is negligible. This is mainly because the ammonium nitrate at those companies is different in composition from the substance that exploded at the storage company in Toulouse.

The four companies in the study

Discharge site for ammonium nitrate

did, however, show differences in terms of product range, working methods, safety policy and safety record.

Nevertheless, the researchers conclude that at the moment of the study all

four companies operated under sufficiently safe conditions as regards the production, processing and storage of ammonium nitrate and fertilizers containing that substance. The safety procedures for materials containing ammonium nitrate and checks on their composition were found to be adequate and properly complied with in practice.

All company sections involved in the study could produce up-to-date permits under the Environmental Protection Act. The permits had relevant coverage and were consistent with the applicable quality requirements. The companies were found to operate largely in conformity with the guidelines stated in their permits. However, the implementation of the 1999 Serious Accidents Risks Decree was found to be lacking in some respects.

The VROM Inspectorate took steps against one of the four companies, ordering it to halt the supply and upgrading of a material containing a particular type of ammonium nitrate. The company could not resume this operation until the VROM Inspectorate was satisfied that the quality of the material could be sufficiently guaranteed.

6 FACILITIES FOR THE STORAGE AND UTILISATION OF, AND THE TRADE IN AMMONIUM NITRATE

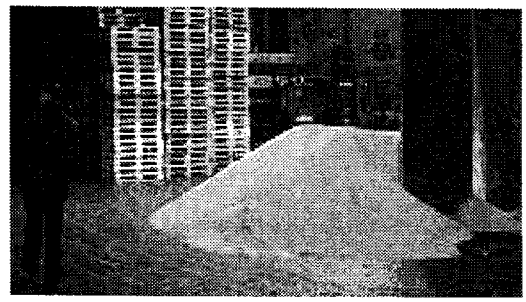
Firms that stock ammonium nitrate for trading or processing purposes form a second category of relevant companies. Given the large number of companies in this category and the enormous differences in terms of company type, size and nature of operations it proved impossible to produce a complete picture of all facilities where ammonium nitrate is or might be present.

The exploratory study, however, suggests that in the Netherlands an estimated 170 companies process, store or use this product in some form or another.

The situation at companies that operate in the distribution chain for C- fertilizer, such as wholesalers, was generally found to be satisfactory.

Fertilizer refiners (blenders and coaters) proved to merit some closer attention, as blending and coating activities at those companies sometimes generated types in the risk category of B- fertilizer. At some companies storage conditions and fire fighting procedures were found to fall short of relevant category requirements.

Industrial ammonium nitrate is traded at wholesalers and chemical storage



Combustible materials (pallets) in the storage of fertilizer containing ammonium nitrate

and transhipment companies. In many cases reliable information about the risk profile (read: detonation aspects) of the material is lacking. The study highlighted various companies of this type where conditions were so dangerous as to call for an intervention. A few companies use ammonium nitrate as a raw material or auxiliary substance in production processes, but no significant irregularities were encountered there.

7 PRODUCT QUALITY, LABELLING AND STORAGE CONDITIONS

In many cases ammonium nitrate and products containing the substance that are traded on the market come from outside the Netherlands. The labels suggest that these products qualify as "oxidising agents" and should be treated accordingly,

rather than as "explosives". However, there are reasons to assume that some of those products are certainly "prone to detonation" and wrongly exempted from a strict treatment regime.

Many of these products are traded with little or no accompanying risk information. The statutory product information leaflets were found to be incomplete and misleading on a number of crucial aspects.

The detonation properties of ammonium nitrate and products containing that substance are assessed under various types of regulations, each associated with its own test system. This generates confusion and may cause the actual risks to be underestimated.

The CPR-1 directive, used in the Netherlands in the storage of fertilizers containing nitrates, needs to be updated. In a number of respects the directive appears to have become obsolete and its provisions are too vague. It should also be made consistent with (new) international provisions concerning the classification of substances, packaging and safety policy.

The 1999 Serious Accidents Risks Decree contains a relatively high threshold value for ammonium nitrate. The Decree only becomes applicable in the case of considerable storage volumes, in contrast to the threshold values for other substances with similar risk profiles. Harmonisation is called for, preferably within an EU context.

8 RECOMMENDATIONS

Given the findings of the study, the VROM Inspectorate makes the following recommendations:

- The knowledge about the risk profile of ammonium nitrate and products containing ammonium nitrate, and the translation of that knowledge into policy, must be improved. For example, the description and labelling of products available on the market must be refined and standardised. It is also necessary to update the CPR-1 safety directive.
- Information about the risk profile of activities involving the use of ammonium nitrate and products containing ammonium nitrate must also be improved. This is clearly a joint task for the public authorities and the business community.
- The public authorities should more effectively structure and intensify their supervision of safety procedures for the treatment of ammonium nitrate and products containing ammonium nitrate. This applies in particular to the import of these products, but production and storage methods used in companies within the Netherlands also call for continuous attention.

9 AFTERWORD

Time and again, large-scale calamities of the type that have also occurred in the Netherlands in recent years emphasise the need for constant vigilance at companies and public supervisory authorities alike. Risk-oriented enforcement campaigns like the one dealt with in this paper will continue to be necessary, as each successive campaign reveals the existence of companies where risks are still not being properly attended to, as well as low levels of compliance and poor-quality rules.

10 NOTES

[1] The term 'detonation' refers to the process in which a local shock in a substance brings about a reaction zone that moves through the substance on a shock wave at supersonic speed. Explosions have a highly destructive effect. 'Deflagration' refers to the process in which local heating of a substance brings about a reaction zone that moves through

the substance by transferring heat, without the need for oxygen. The decomposition process will continue even after the heat source has been removed. Deflagration causes large volumes of nitrous vapours to be released, and cannot be extinguished by cutting off the oxygen supply. Under certain conditions (confinement) the deflagration process may lead to detonation, also knows as 'explosion combustion'.

[2]Danger categories for products containing ammonium nitrate / fertilizers

A1: risk of detonation

A2: will only detonate under exceptional conditions and releases noxious fumes (nitrous vapours) in the case of a fire

B: may deflagrate under certain conditions and releases noxious fumes (nitrous vapours) in the case of a fire

C: will release noxious fumes (nitrous vapours) in the case of a fire

MEASURING SUCCESS THROUGH PERFORMANCE: DEFINING ENVIRONMENTAL ENFORCEMENT INDICATORS (GROUP I)

Facilitators: Michael Stahl
Krzysztof Michalak
Rapporteur: Evan Wolff

GOALS

- Conduct a general discussion of experiences and efforts with indicators.
- Review of the proposed INECE project on indicators.

1 INTRODUCTION

The workshop considered: activity measures that document enforcement outputs; levels of compliance and behavioral change achieved in key target populations; outcome measures for improved environmental and public-health results and related national priorities; and levels of support provided both to the regulated community in the form of compliance assistance and to government enforcement practitioners.

2 PAPERS

INECE Secretariat, *The INECE Enforcement Indicators: Executive Summary and Annotated Outline for a Multiyear Project* (6th Conference, Volume 2),

Mike Stahl, *Performance Indicators for Environmental Compliance and Enforcement Programs: The U.S. EPA Experience* (Powerpoint) (6th Conference, Volume 2),

3 DISCUSSION SUMMARY

The workshop conducted a general discussion of experiences and efforts with indicators and provided an introduction of the proposed INECE Enforcement Indicator Project. The International Network for Environmental Compliance and Enforcement (INECE) Enforcement Indicator Project (hereinafter also referred to as the "Project") aims to develop a system for evaluating capabilities of environmental implementation, compliance and enforcement programs at the national, regional and/or international level. The objective of the Project is "action and accountability through better policy evaluation" in order to create a safer and healthier environment, and to promote sustainable development. Specifically, the Project will develop a process for creating and evaluating enforcement indicators at the national, regional and international level. The Project will then use this process to create model indicators based on a uniform minimum criteria. Finally, the Project will test both the process and the model indicators in a sample of nations around the world.

The development of the Project will follow a standard methodology that will include: 1) Preparation and Case Studies; 2) Identification of Partners and Consultation; 3) Selection of Framework; 4) Identification of Principles; 5) Indicator Development; 6) Field Testing; and 7) Promotion.

The Enforcement Indicator Project will continually reassess its approach – including users, partners, principles, models and practices – in order to expand the reach and improve the quality of the indicators. New partners will be sought to explore techniques that insure the indicators

remain responsive to evolving environmental policy making.

The participants noted that it is important to separate reporting on the status of environmental indicators from other types of indicators. The need for indicators is to quantify the performance of enforcement and compliance bodies. However, it is important to keep indicators practical by developing them with the end user in mind. The INECE Indicators Project Proposal needs to involve regional networks and specific countries early on in the development process. This should involve consideration of existing projects with specific attention to funding and sustainability issues. Consistency of data will likely be one of the major challenges when implementing the indicator project.

4 CONCLUSION

- Particular attention must be paid to challenges of developing indicators.
- Identify the driving pressures and real needs that the indicators are working to address.
- Consultation must occur early in the development stage and include regional and national input.
- Indicators should not be accessible to a variety of users while focusing on core environmental issues.
- Look for practical outcomes of indicators development and use.
- Link the indicators project with auditing bodies.
- Ensure that the indicators project is sustainable and that funding is strongly considered in the development.

SUMMARY OF WORKSHOP: MEASURING SUCCESS THROUGH PERFORMANCE (Group II)

Facilitators: Durwood Zaelke
Doug Wright
Rapporteur: Peyton Sturges

GOALS

Consider the role of enforcement indicators in environmental compliance and enforcement initiatives generally and the INECE Enforcement Indicators Proposal for a multiyear INECE project

1 INTRODUCTION

Questions presented by facilitators:

- How do we ensure relevance to all nations internationally?
- Who are the stakeholders and how do we secure or assure their involvement?
- Are the principles set forth in the project proposal appropriate or do we need to include additional principles?
- Does the model set forth in the proposal need modification or enhancement?
- Is the methodology set forth in the proposal satisfactory?
- What additional case studies are needed?

2 PAPERS

INECE Secretariat, *The INECE Enforcement Indicators: Executive Summary and Annotated Outline for a Multiyear Project* (6th Conference, Volume 2).

3 DISCUSSION SUMMARY

At the facilitators' suggestion, the participants first discussed the preceding panel presentations by Mike Stahl and Brad May, and then reviewed the INECE Enforcement Indicator Project using a series of questions that were written on the flip chart. The questions included how best to address the different needs of developing and developed countries, who the stakeholders were, what principles should guide the development of indicators, what model should be used, what methodology, and what case studies would be most useful.

The participants then proceeded to discuss the panel presentations, including the developing/developed country differences. The participants discussed the critical role of performance indicators for a wide range of enforcement applications including measuring progress toward attaining empirical environmental quality goals, engendering support, both public and financial, for investments in enforcement resources, and generally to demonstrate to the public, government officials, and the regulated community that enforcement initiatives and resources are properly directed. The participants agreed that enforcement measures designed for one country or region may not be viable for other larger, smaller, or less developed countries or regions. There was also agreement that the process for developing enforcement was relevant for all countries, and that output measures and outcome measures were both useful.

The ability of enforcement indicators to provide a feedback loop was discussed, and it was noted that such feedback would be useful for enforcement

managers to determine how effective their efforts were, and to legislators, policy makers, and the public. The need to link enforcement indicators to improvements in environmental quality was stressed, as was the difficulties of attributing any particular enforcement action or program to specific improvements in environmental quality. It was suggested that there was a spectrum of enforcement indicators that would be useful, ranging from output measures of activities, to intermediate measures—such as the additional funding invested by companies in the wake of an enforcement effort or the rate of recidivism—to measures of environmental quality, with much of the most useful work initially focused on the outputs and intermediate measures.

Participants also stressed the need to describe indicators in terms that were easily communicated to the public, such as the number of days public beaches are closed due to pollution. The participants concluded that the utilization of a range or variety of performance measures is not an either/or proposition; that enforcement entities are best advised to adopt that combination of performance measures that suit the specific needs and considerations of the entity adopting them.

With respect to the INECE Enforcement Indicators Project, the participants responded strongly that the project was important and should move forward, in response to the question whether the project was appropriate for INECE. It was noted that it would be very useful to identify a sort of "best practices" for enforcement, as the IMPEL network has done for minimum criteria for inspectors. The value of having an international, non-governmental body prepare enforcement indicators was stressed, and it was noted that such international indicators could assist enforcement agencies advocates in improving their programs.

The principles presented in the Secretariat's background paper were discussed next. One participant noted that the principle that the indicators should be "comparable" should not be used as an excuse not to move forward immediately, although there is of course value in ensuring that at least some indicators are comparable. The suggestion was offered for a new principle of "feedback." Another participant noted that in addition to "policy relevance," the indicators should have "political relevance," which could, for example, include the approach noted by Mr. Stahl who explained that much of the motivation for US EPA indicators came from the Government Performance and Results Act. Another principle suggested was "synergy" among environment, economic, social, and sustainability. "Environmental quality" was suggested as another principle, and it was noted that "technological sophistication" was appropriate in some instances, although other indicators must be more basic—perhaps a core set. The participants also suggested that the indicators should stress the positive benefits from enforcement and compliance, which, it was noted, can often exceed costs.

4 CONCLUSION

The participants felt that the INECE Enforcement Indicator Project was important and should move forward.

SUMMARY OF WORKSHOP: ADMINISTRATIVE ENFORCEMENT MECHANISMS: GETTING AUTHORITY AND MAKING IT WORK

Facilitators: Chris Currie
Wout Klein
Rapporteur: John Rothman

GOALS

To explore the use of administrative enforcement mechanisms among the participants and to formulate recommendations for INECE actions.

1 INTRODUCTION

Questions presented by facilitators:

- How might "administrative enforcement mechanisms" be defined
- What differences exist among the different administrative regimes
- Taking into account the differences among the different administrative regimes, what are the strengths and weaknesses of various administrative tools
- What recommendations might we make for further INECE study?

2 PAPERS

INECE Secretariat, *Administrative Enforcement Mechanisms* (Workshop Summary)(5th Conference, page 283, Volume 2).

3 DISCUSSION SUMMARY

Administrative enforcement can be defined, initially, by what it is not. It is not criminal enforcement or civil judicial enforcement, both of which involve a court system that is independent of the environmental enforcement agency. The distinguishing feature of administrative enforcement is that it does not involve such an independent court system, although all administrative enforcement systems within the experience of the participants provide access to the judicial system at some point in the process.

Whether or not an administrative enforcement system yields findings of fact and law that are recognized by the independent judicial system is a characteristic that separated the various systems discussed by the participants. For example, in the United States, administrative judges make findings of fact and law that are recognized by the judicial system as absent of procedural errors. In other countries, such as Indonesia, Australia, Holland, Argentina and Jordan, administrative orders or complaints trigger a process that at the discretion of the respondent, and if not settled, move to the judicial system for resolution. In Holland, administrative enforcement is conducted in a special administrative judicial branch, apart from the civil and criminal court system.

The variety of tools available in the administrative enforcement systems that were discussed included virtually all of the enforcement tools available to judicial systems, except for incarceration, which in each case was available only to the criminal judicial system. (It was noted, incidentally, that criminal systems also appear to have available most of the tools available to the administrative and civil judicial systems.)

Given that many of the same tools are available among the administrative systems, in each country the tools provided to that particular administrative system varied

enormously. At extremes, some countries provide their administrative system with punitive monetary sanctions but limited, or indirect, injunctive sanctions. (eg. U.S.). Other administrative systems are provided strong injunctive sanctions, such as the ability to shut down facilities for violations, but limited ability to apply monetary sanctions, (eg. Jordan and Mexico).

Most administrative enforcement systems provide, through procedural characteristics or policy decision of the environmental agency, the opportunity to reach negotiated settlements with responding parties. In fact, most agencies presume, and in fact find, that the majority of actions they take do settle before there is any recourse made to the judicial system.

The choice of making recourse to the administrative system typically lies with the agency. The reasons by each agency to decide which path to take vary radically depending on the system. One set of characteristics that recommend choice of the administrative route is speed, cost and efficiency. Most agencies reported that their administrative processes were faster, cheaper and, therefore, more efficient than judicial options. Several participants noted, however, that in cases of emergency, for example in a circumstance in which continued operation of a facility exposed neighbors to an unacceptable health risk, recourse to the judicial system might be faster and more certain because in their systems only a judicial order can ensure compliance.

There was a split of experience regarding the advantages of administrative systems where the agency's goal is remediation or restoration. The arguments over this point were too nuanced to have done justice in this report.

4 CONCLUSION

There is surprising convergence regarding a minimal definition of "administrative enforcement." However, there is a truly remarkable variety in the powers and procedures used by various administrative regimes. A critical assessment of the strengths and weaknesses of various combinations of these powers and procedures will need a more careful analysis than can be accomplished merely from the sharing of anecdotal evidence.

The ideas expressed as recommendations are noted in the order discussed, without regard to priority.

Explore opportunities to enforce administrative/civil judgments across national borders.

Consider conducting an inventory and analysis of existing administrative "tools" to the end of creating a more useable categorization and analyzing their effectiveness. It was noted unanimously that such a project would: 1) have to consider tools that were more usually reserved for civil judicial systems as well as those typically offered to administrative systems: and 2) have to recognize that the effectiveness of "tools" is dependant upon specific procedural contexts and, therefore, can only be analyzed in relation to those specific contexts.

Recognizing the usefulness of an international inventory of civil environmental violators (Is it fair to assume that there already exists an actual, or inchoate, inventory of criminal violators?), we might want to consider somehow making the various national inventories more easily available and searchable.

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SUMMARY OF WORKSHOP: BUILDING EFFECTIVE IN-COUNTRY NETWORKS FOR ENVIRONMENTAL COMPLIANCE AND ENFORCEMENT

Facilitators: Greg Linsin
Neil Emmott
Rapporteur: Neil Emmott

GOALS

To explore networks among complementary organizations within a country, and how they work together to more efficiently carry out compliance and enforcement objectives. In particular, to identify a set of elements that leads to successful in-country networks, as well as some of the difficulties that may be anticipated.

1 INTRODUCTION

Questions presented by facilitators:

- What have participants found to be, or think might be, effective in respect of in country networking for environmental compliance and enforcement and as sub-questions:
  - networking between who?
  - built how?
  - to achieve what?
  - formal versus informal?

2 DISCUSSION SUMMARY

Compliance and enforcement can mean different things to different people. For example, compliance can be: by a state with an international obligation (e.g. EU Member States are obliged to transpose EU Directives into their national legal systems), by a national body carrying out its duties (e.g. a regulating authority may be obliged to carry out certain tasks such as permitting or inspection), or by a regulated entity with whatever the law requires (e.g. an industrial operator must comply with obligations imposed in an environmental permit). Similarly, enforcement can be to promote compliance even where non-compliance has not occurred (e.g. a regulating authority may take steps beyond what the law requires to help the regulated parties comply – this might be called "soft enforcement"), or to correct or punish non-compliance (e.g. criminal prosecutions, administrative penalties, etc. - "hard enforcement").

Discussion in the workshop tended to focus on the issues of compliance by regulated entities, and enforcement actions, whether "soft" or "hard", to promote or secure such compliance. Nevertheless, some general factors were identified as supporting the success of networks, whatever their purpose or level:

- networks need a champion – someone to spark action and give the network its drive;
- human interaction and trust between participants is essential – it may be important to build up these basic elements before embarking on more ambitious network activities that depend on them;
- networks tend to rely on good information exchange, whether through formally organized mechanisms or well-established but informal contacts.

A clear common purpose or interest is an obvious need. A geographic focus,

such as a common boundary around which different authorities operate, can also help, and may additionally mean that networking takes place at a more operational level, with more scope for direct follow-up action. In the USA, local-level task forces have been successful in agreeing upon enforcement strategies and actions between different environmental bodies charged with wildlife protection responsibilities. Such cooperation requires careful management of the dynamics in order to maintain consensus between the parties involved.

Some potential barriers to the success of networks were also noted. In addition to the absence of the success factors discussed above, these were thought to include:

- The bodies that employ people who can best participate in networks are not always willing to allow these people to invest the time to make a significant contribution. This creates a vicious circle whereby the network cannot realize its potential until more time is available from participants, yet employers are reluctant to allow staff to participate until results have been demonstrated.
- Particularly where networks are based on very individual contacts, a network can be badly affected if a core individual moves on to other responsibilities.

On the different types and purposes of networks, clearly there is no universal "right" answer. Different countries will have different needs and networking contexts. For example, in some countries where administrative arrangements are well established, there has been fruitful cooperation between established authorities. Examples of good practice were given concerning networking among Austrian provincial regulators who exchange information on how they discharge common legal requirements, and Italy's twinning of more developed regulatory authorities with less developed ones. In contrast, elsewhere there is a more pressing need to establish new administrative arrangements. In Croatia, for example, forming a new central environment agency is being considered to provide a coordinating function for lower level authorities.

On the question of whether networks best operate formally or informally, again there is no "right" answer. Formal groups can spin-off from informal networks, while conversely successful informal networks can sometimes become formalized. Similarly, there can be close links between international and in-country networks. For example, some EU Member States have internal networks to coordinate their input to the EU's IMPEL network.

Finally, it was noted that networking in the realm of environmental compliance and enforcement does not always support direct compliance and enforcement activities. Useful networking can also be done on the broader compliance and enforcement context, for example, by lobbying efforts to ensure that regulatory authorities are adequately resourced.

3 CONCLUSION

Compliance and enforcement can mean different things to different people. Discussion in the workshop tended to focus on the issues of compliance with regulatory requirements by regulated entities, and enforcement actions to promote or secure such compliance. Some general factors were identified as supporting the success of networks, whatever their purpose or level:

- a champion – someone to spark action and give the network its drive;
- human interaction and trust between participants;
- good information exchange;
- clear common purpose or interest.

In addition to the absence of the above success factors, a further barrier to

effective in-country networking is that the bodies that employ people who can best participate in networks are not always willing to allow these people to invest the time to make a significant contribution.

In some countries there will also need to be greater emphasis placed on building up administrative structures in the first place, in order to allow for effective networking on compliance and enforcement to subsequently occur. Nevertheless, networking could also usefully be undertaken in respect of such institution building, for example to support lobbying aimed at ensuring that institutions are effectively structured and resourced.

An off-the-shelf approach to producing networks is unlikely to be successful. In-country networks need to take account of local and national needs and priorities, and the networking context dictated by the level of development, administrative arrangements, etc. Common success factors can however be identified, such as a champion to give the network drive or focus, trust between participants, good information exchange, and a common purpose or interest.

SUMMARY OF WORKSHOP: THE NEGOTIATION PROCESS LEADING TO COMPLIANCE

Facilitators: Tom Maslany
Antonio Oposa
Rapporteur: Ana Maria Kleymeyer

GOALS

- Consider settlement negotiation process and compliance agreements, schedules and action plans that result.
- Determine the social good behind a law that supports the use of alternative modes and techniques of environmental compliance.
- Are there themes that can support achievement of positive compliance results through the negotiation process?

1 INTRODUCTION

Questions presented by facilitators:

- How is negotiation used around the world to achieve compliance?
- What are the barriers to the use of environmental compliance negotiations?
- What can INECE, as a world network of environmental compliance professionals, do to help address these barriers?

2 PAPERS

Susan Bromm and James Lofton, *Negotiation in Superfund Cases: The Role of Communities in Site Redevelopment* (6th Conference Proceedings, Volume 1).

3 DISCUSSION SUMMARY

The workshop began with a discussion of the questions posed by facilitators. These included:

- How is negotiation used around the world to achieve compliance?
- What are the barriers to the use of environmental compliance negotiations?
- What can INECE, as a world network of environmental compliance professionals, do to help address these barriers?

Comments from participants led to broadening the scope of the discussion to include negotiations for determining environmental standards. The facilitators further specified that the discussion should focus on sharing experiences of national negotiation, as opposed to international. Participants shared experiences from Europe, South Asia, Africa, South America, Central America, and the United States. The discussion highlighted differences in government resources necessary throughout the negotiation process. Specifically, technical expertise on environmental topics, human resources necessary for enforcement, the judicial culture in dealing with civil and criminal cases, and the general acceptance of negotiation as a means to resolve environmental compliance issues.

The next portion of the workshop focused on how negotiation applies in different contexts, focusing on what elements are necessary for effective negotiation and how to overcome common barriers. Participants highlighted the flexibility of negotiation in terms of concurrently addressing multiple issues and including public participation at the negotiation table.

The discussion emphasized the necessity of effective deterrents to strengthen the negotiation process. In many countries, companies readily violate environmental laws despite judicial sanctions – an alternative that is not threatening due to minimal fines or the availability of corruption. Participants recommended numerous creative solutions for governments that could accompany substantive and procedural reforms to remedy this problem.

3 CONCLUSION

In conclusion, the group offered a number of recommendations for INECE both to address the above-mentioned difficulties and to strengthen the application of negotiation as a method for addressing environmental compliance and enforcement issues. Emphasis was placed on the art and science of selling the 'social good' behind the law, and how it may be used to trigger alternative modes and techniques of environmental compliance and enforcement. The Workshop resulted in a set of themes that are designed to achieve positive compliance results through the negotiation process. Specifically, INECE should further develop their website to include more information in order to help practitioners prepare for negotiations. The website could include a chat room or listserv for discussion or a list of professionals within the INECE network to answer questions on negotiation. INECE can facilitate negotiation training through web-based courses, compiling information on where training is available, strengthening training programs, and providing guidance for members on what kinds of training they need.

SUMMARY OF WORKSHOP: TRAINING PROGRAMS FOR COMPLIANCE INSPECTORS

Facilitators: Markku Hietamaki
Erin Heskett
Rapporteur: Davis Jones

GOALS

- Determine the role of INECE in developing and implementing compliance programs for inspectors
- Immediate Actions.
- Future Actions.
- Discuss whether INECE can develop a product that will serve inspectors better in the future.

1 INTRODUCTION

Questions presented by facilitators:

- Are the circumstances so similar that general requirements can be set?
  a. Environmental Laws
  b. Practices (May be deeply rooted in people or organizations)
- Should we (INECE) have a general framework under which some countries could identify their training needs and other countries could identify their possibilities to give training?
- Should INECE help determine the needs by regions or country, and how can INECE help?
- INECE doesn't have many resources, but does have networks, contacts in Regions. INECE needs to see how that feature can be used. How can we start the work?

2 PAPERS

Terry Shears, *IMPEL's Training and Qualification of Environmental Inspectors*, available at http://europa.eu.int/comm/environment/impel/index.htm

3 DISCUSSION SUMMARY

Are the circumstances so similar that general requirements can be set for training courses? One possible way to develop a model inspector training methodology would be to use particular countries to help define a framework for inspector training, either directly or through regional networks, and then INECE or the Regional Network should ask the individual countries to identify their training needs. This survey should not attempt to catalogue all needs, but seek the two to three priority areas in that country. INECE should then look at the results and concentrate their activities where there are the greatest regional or topical similarities.

Similarly, this survey should also ask countries with developed programs what type of training they provide to their own inspectors and what they could provide to other countries, either directly or indirectly by supplying course material. INECE is in a unique position to bring together needs and possibilities.

IMPEL is a key regional organization which promotes and offers training in member countries of the European Commission and ascension countries

seeking to join the EC. Inga Larsson stated that IMPEL only works with specific industries that fall under the European Commission's environmental permitting program. Their training efforts do not include conservation or endangered species inspections or enforcement, but some of the basic skills are the same.

Many developing countries do have common needs for training and a common set of qualifications for their inspectors, but have not yet developed a training program to implement these conclusions. In Europe, there are many different countries doing the same thing to achieve the same ends but conducting things in very different ways.

George Wamukoya responded that INECE could use different regional network approaches as examples for cooperation on inspector training. In different parts of the world, regional blocs exist to harmonize laws and approaches across borders. We are able to learn from the successes in other countries in the same region, and transfer that information into your own program. Need to relate training to meet minimum criteria, and need to list that has received training and met qualifications. These qualifications may include many factors including the educational or professional background of the inspector, their personality, and their sense of professionalism. Training can bring someone up to a minimum level, but individual inspectors may need more than a minimum level of training to truly succeed.

Terry Shears stated that in the EC, member countries guard certain responsibilities, such as training their own inspections. IMPEL can suggest key elements or a common framework for a training program, but countries would not be so receptive to IMPEL actually providing the training as an outside provider. Inga Larsson added that you cannot always use the same model across countries. Different countries may have different administrative structures, legal requirements, cultures, etc. For this reason, you cannot always have the same content in training courses for different countries. A framework must establish a core of common elements, but retain flexibility so actual training courses can be customized to suit the audience's specific needs. Each course will need to be modified for specific issues in each country.

Erin Heskett used the example of training for endangered species trafficking as an example. CITES has a common framework worldwide due to the common treaty obligations. However, learning techniques vary worldwide, so any global training efforts they have done must be modified for each country or culture to accommodate different ways people learn.

Santos Carrasco asked how to address the complexity of multimedia inspections? How does anyone have all the necessary competencies to conduct multimedia inspections? How do you establish a training program to address these complexities? Will you implement training in phases depending on needs? Or try to develop and implement everything at once?

Terry Shears responded that IMPEL serves more as a carrot than a stick – they can't demand countries do specific things, or even prioritize between states, but the EC could. They have recognized that one course can't provide for all the needs for diverse issues. You must look at minimum qualifications to bring the inspection program up to a satisfactory standard. Member states need to decide individually how they will meet those standards. David Geisbacher agreed that specific issues might need specialized training. General issues may be common across borders, but specific legal or regulatory issues don't always cross boundaries. The focus of regional or global training should be on specific parts of the activities that are com-

mon.

How can INECE help with inspector training? David Yitzhak suggested that as one country develops a course, INECE could ask that country to share the material and open up attendance at the course to other countries in needs. INECE could also sponsor Train-the-trainer courses for facilitators from various countries or regions. Once we have a general framework for the course, INECE should then ask other participating countries if that framework meets their needs, and possibly adapt framework. An example of this type of effort in the Middle East occurred when Cyprus offered a course on marine protection and opened it up to other countries to meet regional needs.

George Wamukoya suggested that INECE could be instrumental in developing a framework with key elements and key components of inspections. This could serve as an "IDEAL" or "Principles" for inspections. Then move into particular region and address unique aspects of that region that go beyond the common principles. INECE's role should be to set general principles that can then be reduced to a regional or country approach. It goes from national policy level to implementation.

In Europe there is a training course offered in the Netherlands only once a year with representation from all over the Region. Now, they have created a regional advisory council to tailor the course, and each country has further tailored the material to the national level.

Erin Heskett asked if INECE should convene a working group to develop a general framework? Markku Hietamaki responded with questions about funding; INECE has very limited resources, so we must think about who would fund this activity.

David Yitzhak suggested that INECE begin by taking what is already done and ask others for comments. However, someone has to be coordinator for the review. Davis Jones responded that INECE could begin with an existing country's framework and distribute it as a straw man for international applicability. Development of various framework laws has been similar.

Markku Hietamaki suggested that a group be formed to develop a large-scale list of competencies and skills required by inspectors.

- Prepare questionnaire to identify needs and offerings
- Framework of competencies and skills
- Test the questionnaire in some countries
- Sell the idea to donors and sponsors
- Carry out the questionnaire and assess the results
- Look for donors, sponsors and those to do the training
- Organize training, assess the results and report to donors/EPC/Networks

Markku suggested that to do this, we would need to ask for more responsibility from recipients of the training courses. INECE can collect ideas and make assessment but the recipients must form the process and outline their needs and specific concerns.

George Wamukoya offered a compromise based on work under CITES. First, don't assume the audience doesn't know what inspections are all about. Everyone is doing something, so we don't have to begin with a zero knowledge base. Second, IFAW has done similar work with CITES – they've already conducted training in different Regions – INECE should look at those efforts and the principles that inform those trainings to help with this effort. Finally, INECE should focus on the common threads and investigate how to expand those trainings (CITES) to bring in holistic/multi-sectoral approach.

For the IFAW training, they were able to use one model and one needs

assessment for other regions. However, CITES is a specific agreement based on border activities. By design, 2 or more parties must agree on common activities. Conventional industrial inspections are free to vary according to country's ideas and objectives, so it is harder to find a common framework.

Markku discussed the Dutch model for offering training assistance – they finance the travel costs for inspectors to go to training. In addition, some countries buy training courses from different vendors who customize the course to suit their needs. INECE could develop a list of providers for countries that need training to adapt to their situation, this will help ensure that the training is not driven by the donor's model. Regional training is valuable, but how many donors are ready to finance that type of training? Can INECE help combine resources?

Santos Carrasco suggested that as a conceptual point of view, we should not assume financing is always outside the abilities of the country of need. In-country help may be available and, in some way, should be expected. If the recipients won't help themselves, how effective will the efforts be? If a country can pay, they will have fewer doubts about service paid for and provided, and will give the effort more importance. Countries may want to learn from the experience of developed countries, but financing is not always an option.

Markku asked, in those situations, what is the role of INECE? Bilateral exchanges don't need an international network – one country provides a service and the receiving country funds the effort and gets what they pay for. Santos and Erin both replied that INECE can provide the connections between countries, and can also help spread the course elsewhere. They can post the proceedings or training material on the Web, help share the material elsewhere, or otherwise make it available for those that are developing their programs so they don't have to reinvent the course.

George Wamukoya emphasized that we should try to identify a niche for INECE. INECE is in a unique position to bring different expertise from all over the world to add value. Bilateral arrangements are by nature more restrictive, since the expertise is only from the donor and recipient. Don't assume that any general principles provided by INECE will not be edited by local needs within their framework. There is room to blend local needs with general principles. Markku Hietamaki agreed that there should be enough local thinking about how to formulate training. In too many cases, providers who have a long history in how to adopt training to local needs still tend to push the same course despite saying they will adapt.

4 CONCLUSION

We recognize two different types of countries that want to use INECE as an umbrella to get training:

- Countries that can identify their own needs and finance training (at least in some way), but need INECE for identifying sources/contacts.
- Countries that cannot identify training needs due to lack of knowledge of the minimum standards for inspectors, nor sources of financing for training. INECE should provide a mechanism for them to express their needs, and INECE should seek sponsors/donors and providers. INECE can find linkages and support as it can.

INECE should try to create a model for training and identifying two different levels of needs, as well as the situations that fall between. INECE should primarily use Networks that already exist, rather than individual countries going directly to INECE. However, we need to look at the suitability

of each network and see whether it can provide that service for this audience. Some networks are not currently able to handle new roles, so INECE needs to evaluate its networks to see if they can accomplish this function before setting the expectation.

SUMMARY OF WORKSHOP: ENVIRONMENTAL OFFENSES: CRIMINAL AND CIVIL

Facilitators: Jose Gonzalez Montero
James Lofton
Rapporteur: John Boyd

GOALS

- Evaluate use of criminal sanctions to enforce environmental requirements;
- Ascertain if and when criminal sanctions are desirable to enforce environmental requirements.

1 INTRODUCTION

Questions presented by facilitators:

- Should nations rely exclusively on criminal enforcement mechanisms for all environmental offenses or use administrative, civil, constitutional and other mechanisms reserving criminal enforcement for the most serious offenses?
- What is the best mechanism to enforce environmental requirements?
- Which mechanisms are more important than others?

2 PAPERS

John C. Cruden and James W. Rubin, *Environmental Compliance and Enforcement at the United States Department of Justice and the Role of Enforcement in Good governance* (6th Conference Proceedings, Volume 2).

3 DISCUSSION SUMMARY

Mr. Hedayetul Chowdhury of Bangladesh stated that in his country there is concurrent jurisdiction so that both a criminal and a civil suit can be brought in one case. Mr. Antonio Benjamin from Brazil asked how do we define a civil offense or a criminal offense? Is it possible to have one action or omission considered as both criminal and administrative matters? Is it possible to have triple liability under criminal, administrative and civil headings? Mr. Cesar Luna of USA answered that there are significant differences between the civil and common law systems; each system separates cases differently.

Mr. Rolando Alfaro told that in Guatemala there was only one class taught annually in environmental law. Now there is a growing specialization on environmental law and a growing awareness of the differences between criminal and civil law processes. Mr. Peter Lehner of the United States informed the participants that the primary difference between civil and criminal liability is proof of a criminal intent that will result in a penalty different from the same set of facts without such criminal intent. Thus, in a criminal case, the prosecution usually attempts to prove that the accused planned a result. However, it is possible to have a crime arise from negligence on a specialized and hazardous job.

Dr. Robert Wabunoha of Uganda spoke of how the courts can decide on a remedy such as community service. The prosecutor has discretion in deciding whether to charge an individual, a corporation, or the agent of the corporation. Mr.

Sheik Enayet Ullah of Bangladesh voiced that there can be no universal answer to the questions because the law and customs of countries differ. Even criminal and civil law concepts differ significantly among countries. In response, Mr. Benjamin thought that perhaps we should redraft the first question. The real question deals with proportionality on two levels. (i) is there a bad actor or a negligent actor? (intent) (ii) what is the extent of the damages? (magnitude of the damages). We need a range of enforcement mechanisms so that the penalty fits the crime.

Mr. Lehner felt each country needs environmental enforcement mechanisms to achieve proportionality with respect to the scope and magnitude of the harm as with respect to intent. Mr. Benjamin inquired as to whether it is helpful to add to the criminal law environmental infractions? Protecting the environment deserves the ultimate legal response, but we should not overly rely on criminal law. Some wild cat miners will not listen and will not negotiate while seeking to avoid administrative and civil sanctions. For such wild cat miners, only the criminal law will work. Thus in the industrial area, criminal law sanctions to enforce environmental requirements seems appropriate.

Mr. Wabunoha brought up the issue that one significant problem arises from the fact that a great deal of environmental damage is poverty related. Mr. John Cruden of the US stated that there are three key issues:

- the need to deter;
- proportionality;
- and the need to protect human health.

Mr. Lofton voiced that social concerns grow about the environment, moral issues increase and come to the point of criminalizing actions not previously subject to criminal sanctions. There is a new recognition that environmental issues have a moral component. Mr. Lehner noted that in the US it is possible to attach a monetary penalty in a civil action, depending on the intent of the defendant. For example, there may be a sanction of a certain amount of money damages for each day of violation. Mr. James said that so long as proportionality is observed, then the full suite of sanctions, including civil and criminal, is appropriate. Mr. Benjamin noted that the US permits far more stringent penalties than in many other countries, so proportionality differs by country. Mr. Wabunoha cautioned that a native may not know that he is committing a crime.

3 CONCLUSION

The twenty participants plus facilitators and rapporteur from Latin America, Bangladesh, Uganda, United States and the United Kingdom agreed upon the following statement of conclusions and recommendations;

"We support promoting environmental compliance through the use of all enforcement mechanisms and options — administrative, civil, and criminal with the possibility of penalties, civil damages, and criminal fines and sentences — to deter effectively environmental offenses, promote environmental compliance, protect public health and the environment, and restore environmental and public damage. We also emphasize the importance of environmental education at all levels, especially in law schools and training for the judiciary."

The discussion points included analysis of the differences and similarities between criminal, administrative and civil law in common law and civil law jurisdictions, with a focus on the role of criminal law. It was pointed out that the concepts of proportionality and deterrence vary markedly between the United States and other jurisdictions but that protection of human health and the environment is more nearly an absolute. It was also pointed out that

there is full agreement as to the use of all enforcement mechanisms with respect to industrial activity, while damage to the environment which is poverty related and arises from a lack of education requires a different approach from criminal prosecutors.

THEME #3

Raising Awareness: The Importance of Environmental Compliance and Enforcement

Theme #3 includes three panels. Panel 5, Economic Instruments and Voluntary Measures, explored voluntary compliance mechanisms, including building public support and partnerships and encouraging voluntary compliance by industry. Panelists offered a public interest perspective and considered cost-effective ways to achieve adherence with environmental requirements through agreement and partnership. Panelists explored governmental response to private sector environmental management systems, considering the views of the regulated community toward traditional enforcement approaches. Panel 6, Information Collection, Standards, Sharing, Access, Credibility and Use, discussed information management needs and present ideas on data systems that assist enforcement persons. The panel addressed the management and accessibility of data and information as well as the issues of public access. Under Panel 7, Evolving Role of the Judiciary in Environmental Compliance and Enforcement , members of the judiciary presented their views on the role of the judiciary in deciding environmental disputes. Consideration was given to existing and innovative methods used to quantify environmental damages.

Included under this theme are the panel presentations and the following papers:

- PROFEPA: The New Vision of the Environmental Audit, *Thomas-Torres, Lorenzo*
- Citizen Suits in International Environmental Law: The North American Experience, *Knox, John*
- The Recognition to Right of Information, *Santosa, Mas Achmad*
- Performance Rating & Disclosure: An Effective Environmental Policy Tool, *Wang, Hua*
- Self-Monitoring (of Air Emissions, Discharges to Water and Waste) in Finland, *Hietamaki, Markku*
- The Deep Judicial Control of Public Policy, Condition Sine Qua Non for Environmental Order and Sustainable Development, *Decleris, Michael*
- Preparing Judges for the Evolving Role of the Judiciary, *Karamanof, Maria*
- The Inseparable Link Between the Cultural and Natural Environment: The Greek Experience, *Kapelouzos, Ioannes*
- Environmental Law Enforcement: The Role of the Judiciary, *Anderson, Winston*
- UNEP's Judicial Symposia on the Role of the Judiciary in Promoting Environmental Law and Sustainable Development, *Kurukulasuriya, Lal*

Also included are the following workshop summaries:

- Summary of Workshop 2A: Encouraging Public Role in Compliance Monitoring and Impact of Public Access to Environmental Information
- Summary of Workshop 2B: Government Programs to Encourage and Respond to Public Involvement in Enforcement
- Summary of Workshop 2C: Promoting Voluntary Compliance: Environmental Auditing and Outreach and Incentives for Private Sector Compliance, Communicating Enforcement Success to Encourage Voluntary Action

- Summary of Workshop 2D: Self-Monitoring Data: How to Ensure Accuracy and Integrity
- Summary of Workshop 2E: Environmental Information Systems: Institutional Requirements for Collection, Management and Access
- Summary of Workshop 2F: Information Management and Enforcement: Ensuring Effective Application at the Working Level

GERARD WOLTERS (DAY CHAIR)—OPENING COMMENTS

Good morning, a beautiful day today outside and a perfect program in this meeting room

We started yesterday with a very good plenary session about the role of institutions and networks in environmental enforcement. These networks have a critical role to play in any effort to restrain the environmental violations across the globe.

The plenary on regional network experience stressed the public participation as well the important role governments and parliaments can play. Good governance and clearly defined environmental requirements are essential for the success of enforcement. Effective indicators of enforcement can make enforcer's lives easier by providing better communication with policy makers about the results of enforcement but also for a better planning of future activities.

We had the first round of workshop for which I already saw the results and I am very interested in the total reports. For today we again have a very good program and very good moderators and speakers and Susan Bromm is leading the first panel and she will provide a statement.

SUMMARY OF PLENARY SESSION #5: ECONOMIC INSTRUMENTS AND VOLUNTARY MEASURES

Moderator: Susan Bromm
Rapporteur: Waltraud Petek

1 INTRODUCTION

This panel explored alternative enforcement mechanisms, including building public support and partnerships and encouraging voluntary compliance by industry. Panelist offered a public interest perspective and considered cost-effective ways to achieve adherence with environmental requirements through agreement and partnerships. Panelists explored governmental responses to private sector environmental management systems and considered the views of the regulated community towards traditional enforcement approaches.

2 PRESENTATIONS

Susan Bromm introduced the Panel and the topic of alternative ways for enforcement to achieve results in environmental protection.

Lorenzo Thomas presented Mexico's National Program of Environmental Audits, a voluntary program to support enterprises to comply with environmental laws and to recognize environmental performance. It is a three-stage approach starting with a self-evaluation to identify deficiencies and to find opportunities for improvement. For this self-evaluation, guidelines were developed by PROFEPA in a participatory process with industry and the public. The second stage is an Environmental Compliance and Clean Industry Certificate awarded for compliance with environmental requirements and the third stage the Environment Excellence Certificate recognizing companies that go beyond law requirements. There is a Committee for ethical, technical, as well as risk analyses issues and an Advisory Council for the elaboration of the audit schemes. The auditors are certified with the Mexican Crediting Entity; there are now about 170 auditors. So far, mainly the big industries participated (oil company, electricity companies) but they were the main polluters. The aim is to get all companies involved. The program is being extended to also cover industrial parks, productive chains, municipalities, tourist destinations and others like hospitals or airports. The purposes of the Environmental Audits Program are to create greater conscience and responsibility for environmental protection, to encourage an environmental prevention culture and thus to contribute to a daily observation of these principles in society.

Lawrence Pratt dealt with frameworks for considering voluntary agreements in developing countries whereby firms or industry agree to meet certain goals and objectives to improve environmental performance and compliance. In his view, there is a general lack of understanding of the expectations of industry and companies. He pointed at the issues that motivate companies (efficiency, costs, market position, image, fears) and the ones that impede companies (lack of information, existing policy structures). Voluntary agreements can serve to achieve environmental goals, reduce costs to the State, harness other forces to advance environmental protection (market, societal concerns, knowledge) and serve as more efficient means. He showed areas and conditions where voluntary agreements can be fruitful instruments to enlarge the toolbox for environmental measures, especially in the "macro"

area. Forward looking issues, opportunities for collective action or certain alignments of interests can be viable areas for voluntary agreements as well as areas where action by one company alone would be self destructive, but action by all of a sector would benefit all. Also, areas where a "prize" or recognition from the State is given, like a label for sustainable tourism or in the field of energy efficiency, or where fear is credible and solutions visible are fruitful for voluntary agreements. He appealed for a better understanding of what motivates companies and to make more use of the instrument of voluntary agreements.

Beatrice Olivastri spoke about her ten years experience in participating in voluntary non-regulatory initiative from the side of an environmental NGO. As regulation making is very expensive and takes a lot of time, there were searches for alternatives. She stressed that voluntary initiatives need the platform of regulations and cannot replace regulations. She presented the criteria and principles developed by NGOs, industry and government for voluntary initiatives in Canada. The criteria comprise the positioning of voluntary non-regulatory initiatives within a supportive policy framework of laws and regulations, the agreement of interested and effected parties on voluntary non-regulatory initiatives as an effective method to achieve environmental protection objectives, sufficient participation in the voluntary non-regulatory initiative over the long term, clearly defined roles and responsibilities plus mechanisms to be able to fulfill these roles. The principles governing the design of voluntary non-regulatory initiatives comprise equitable participation of interested and affected parties, transparency, rewards for good performance and consequences of not meeting performance objectives, milestones, timetables and monitoring mechanisms as important parts of the agreement. She gave three examples and reported on the experiences gained with them:

- Accelerated reduction and elimination of toxics with chemical industry on 117 specific substances which had questionable results, but also some success for broad acceptance by government and industry;
- Recycling management corporation to collect CFCs used in commercial refrigeration which had a regulatory backdrop in case of non-performance and
- The Province of Ontario's cooperative agreements' pilot project on voluntary reduction of pollutants as a complementary tool to inspections with offers of technical assistance. She concluded that voluntary initiatives can accelerate the pace of environmental protection, but need built in indicators to measure results.

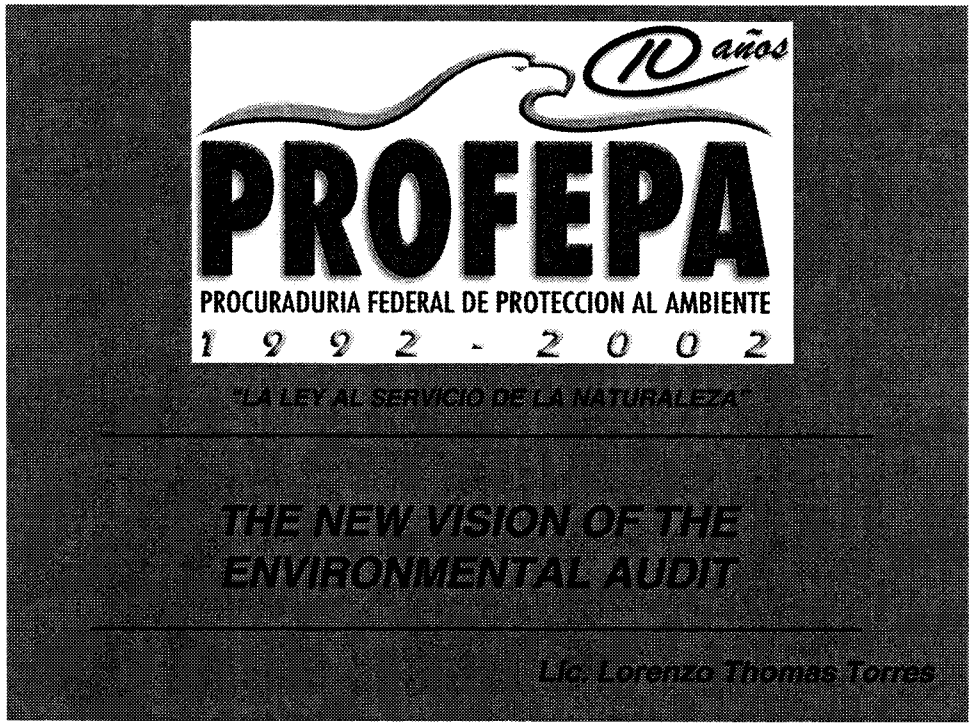
3 DISCUSSION

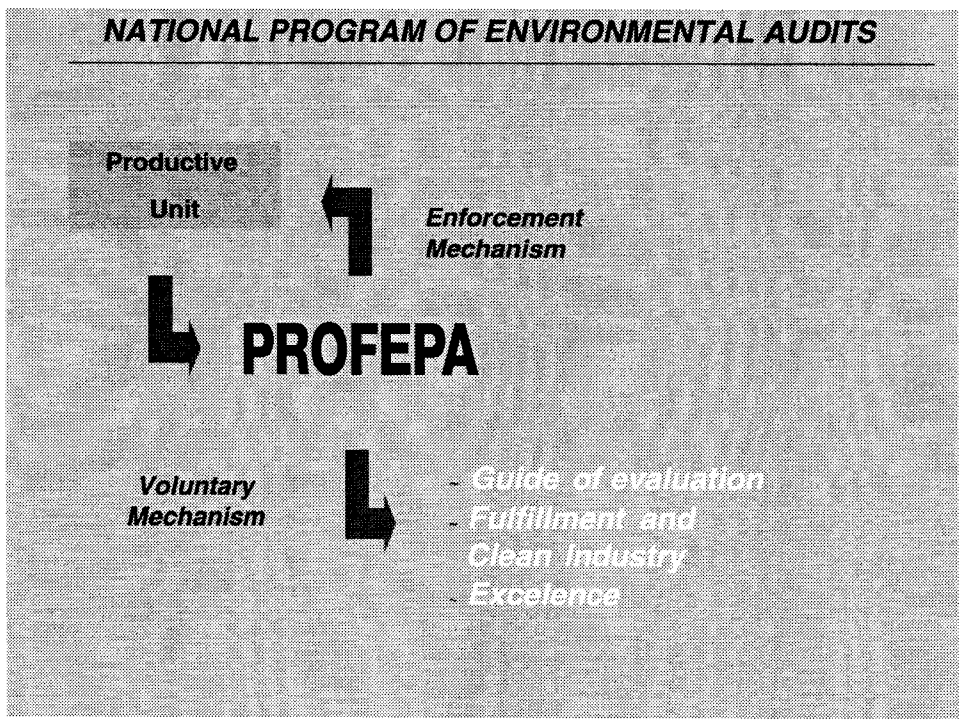
In the discussion, the question of the cost effectiveness of voluntary measures was raised. Pratt and Thomas responded that the objective is to achieve efficient results and that voluntary measures can be up to 70% cheaper or not cheaper for industry, for the state they can also be more expensive. The second topic of the discussion was the area of application for economic instruments, whether they are only applied to the "brown" environmental agenda (air pollution, waste, soil) or also to the "green" agenda (national parks, forestry, biolife). In Costa Rica, Mexico and Canada they are also used in the green agenda, especially in forestry, in Africa for wild life management.

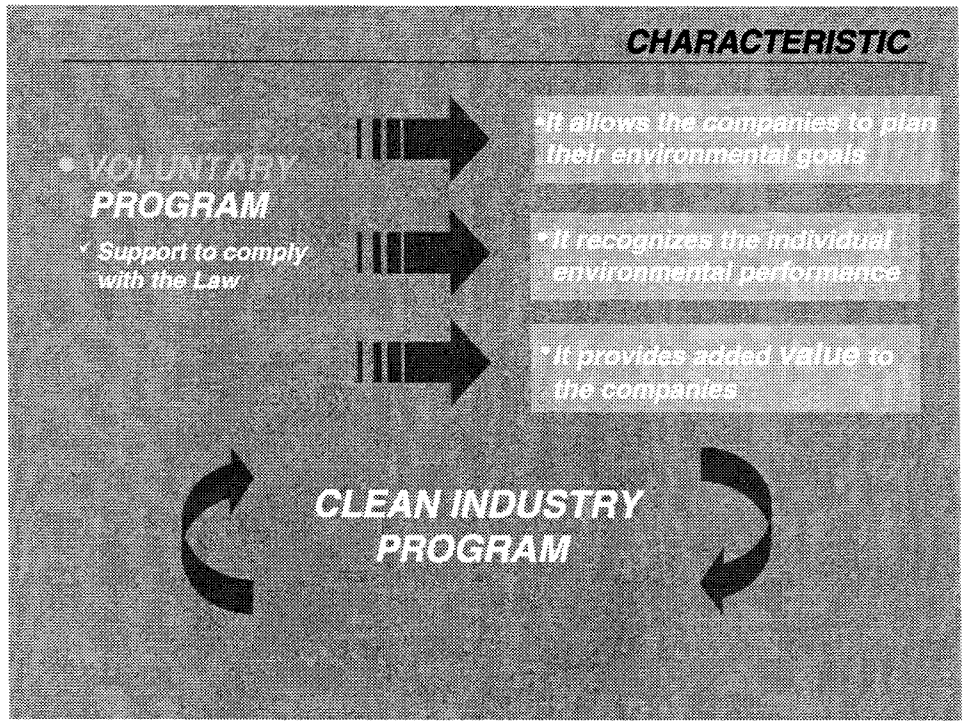
4 CONCLUSION

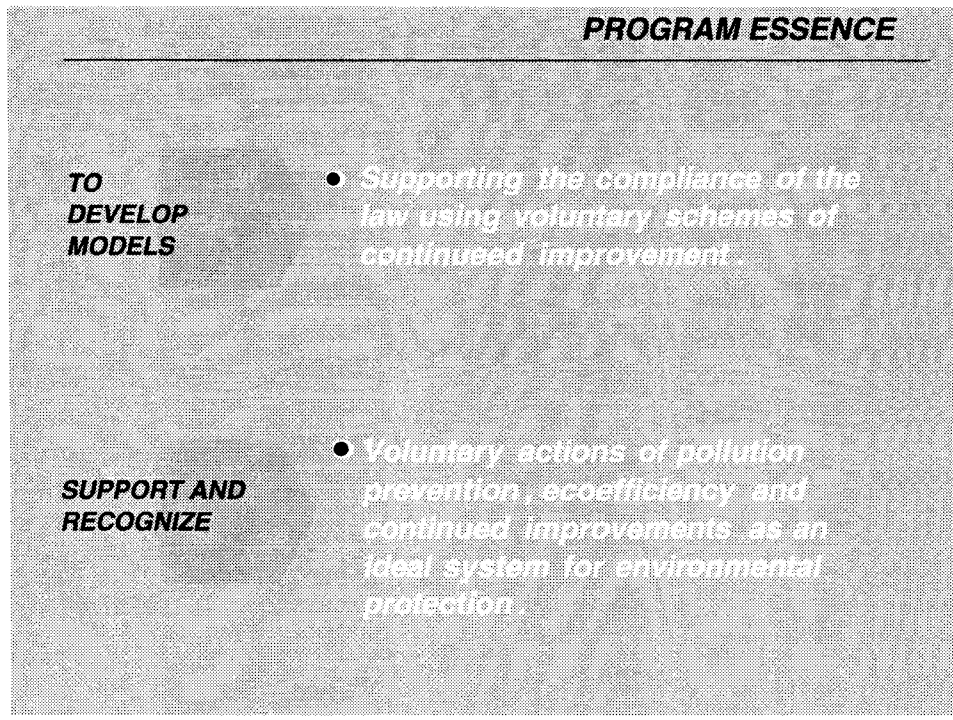
The presentations and discussions of the Panel showed that voluntary initiatives could serve as a valuable tool to supplement existing regulatory schemes. They

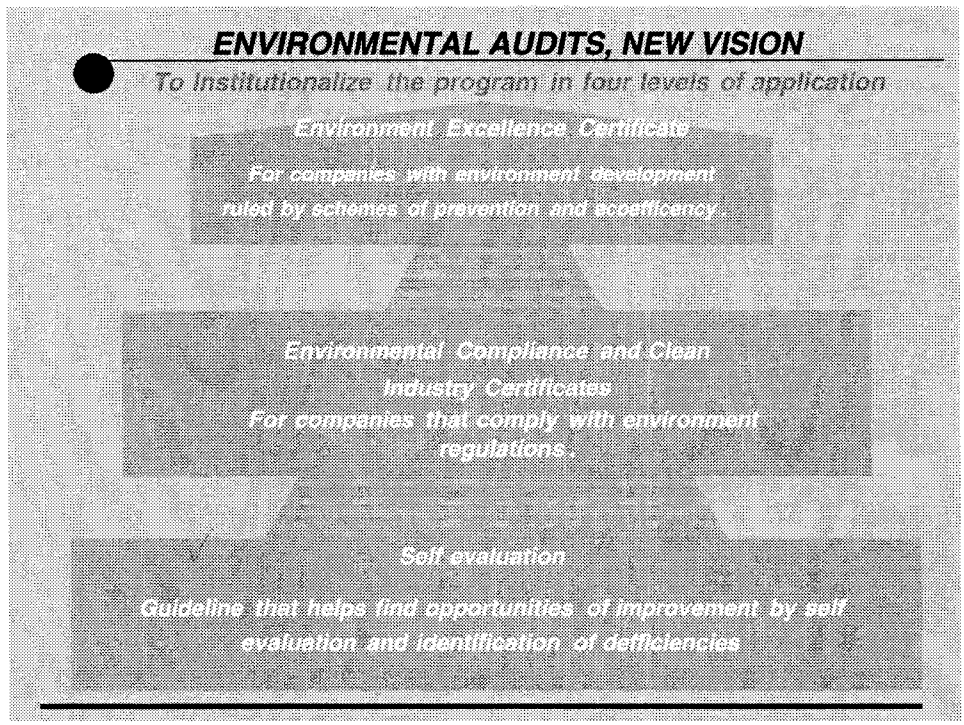
may help to achieve faster results in areas that are difficult to regulate. Finally, they can increase the flow of information, trust and credibility between authorities, industry, the public and NGOs.

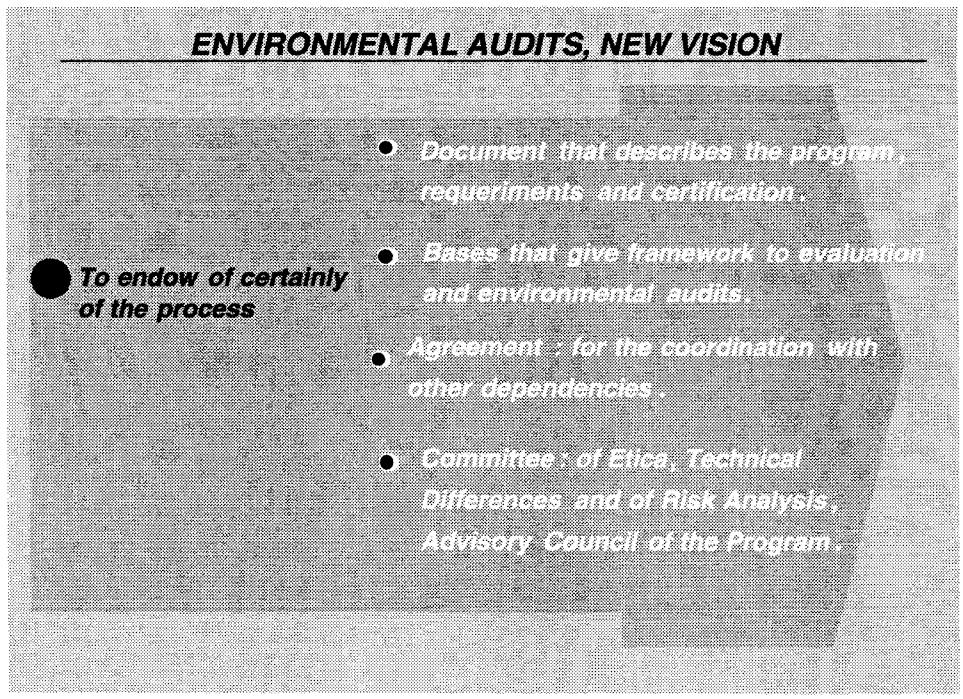

10 años
PROFEPA
PROCURADURIA FEDERAL DE PROTECCION AL AMBIENTE
1992 - 2002
"LA LEY AL SERVICIO DE LA NATURALEZA"
THE NEW VISION OF THE ENVIRONMENTAL AUDIT
Lic. Lorenzo Thomas Torres

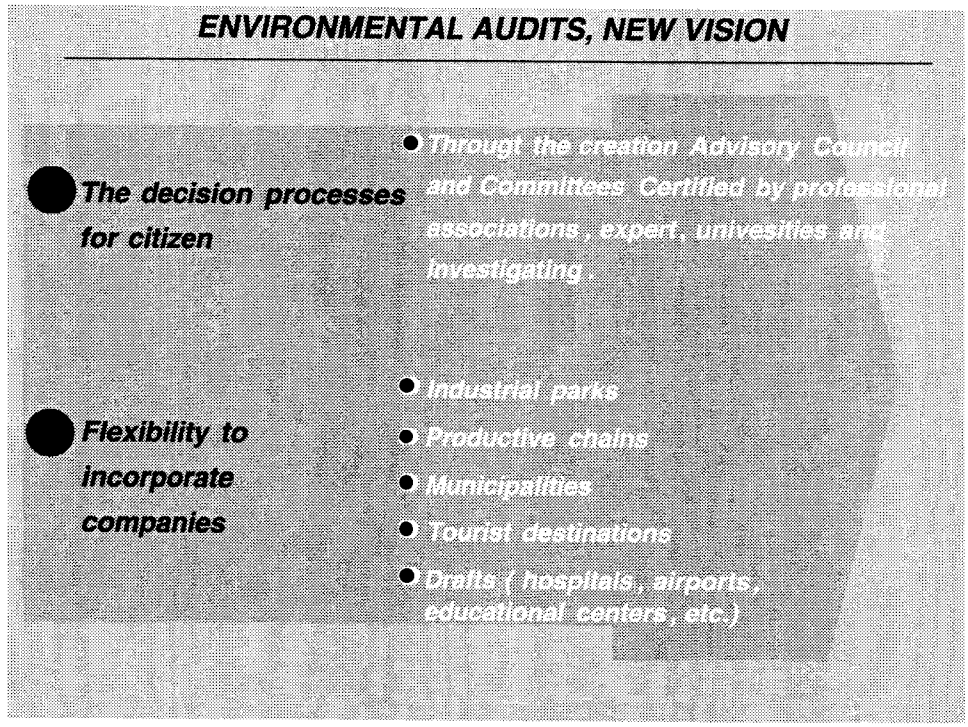

NATIONAL PROGRAM OF ENVIRONMENTAL AUDITS
Productive Unit
Enforcement Mechanism
PROFEPA
Voluntary Mechanism
- Guide of evaluation
- Fulfillment and Clean Industry
- Excelence

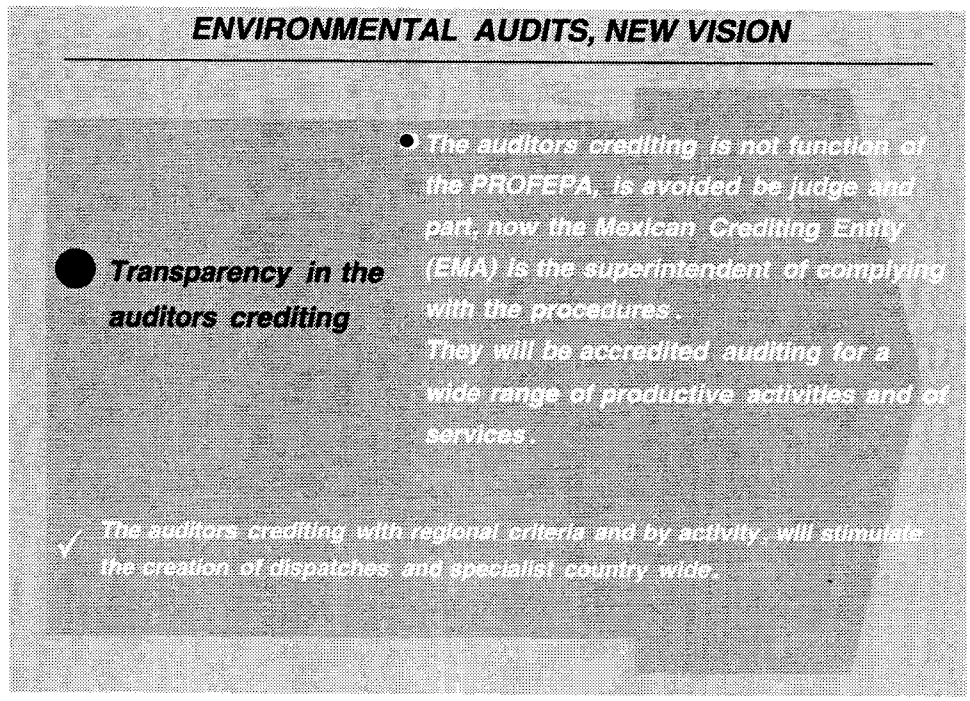

CHARACTERISTIC
• VOLUNTARY PROGRAM
• Support to comply with the Law
*It allows the companies to plan their environmental goals
*It recognizes the individual environmental performance
*It provides added value to the companies
CLEAN INDUSTRY PROGRAM

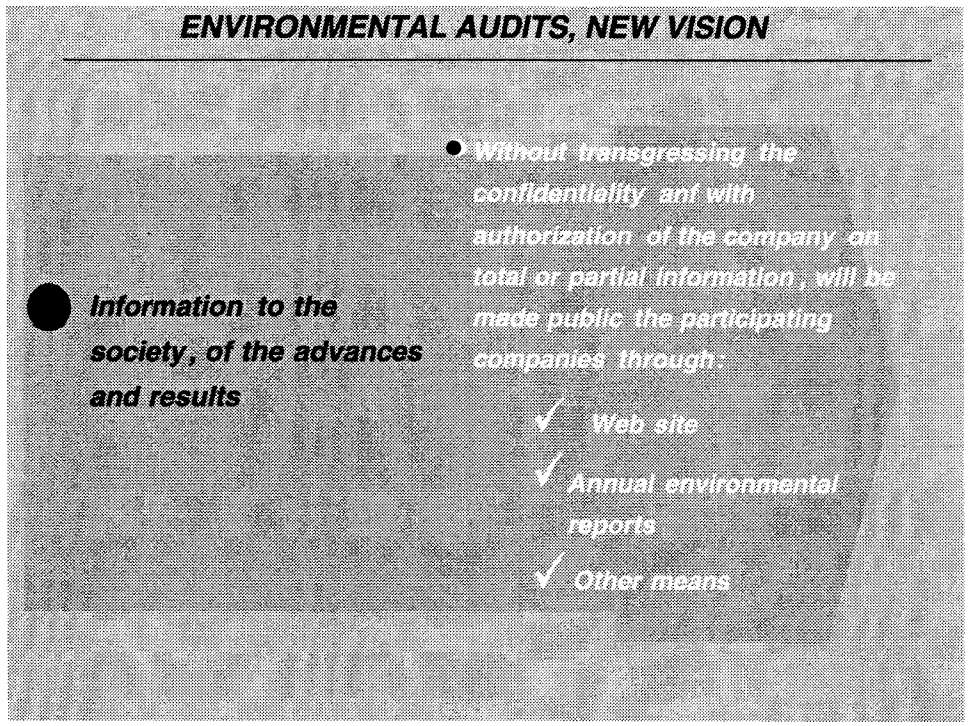

PROGRAM ESSENCE
TO DEVELOP MODELS
• Supporting the compliance of the law using voluntary schemes of continueed improvement.
SUPPORT AND RECOGNIZE
• Voluntary actions of pollution prevention, ecoefficiency and continued improvements as an ideal system for environmental protection.

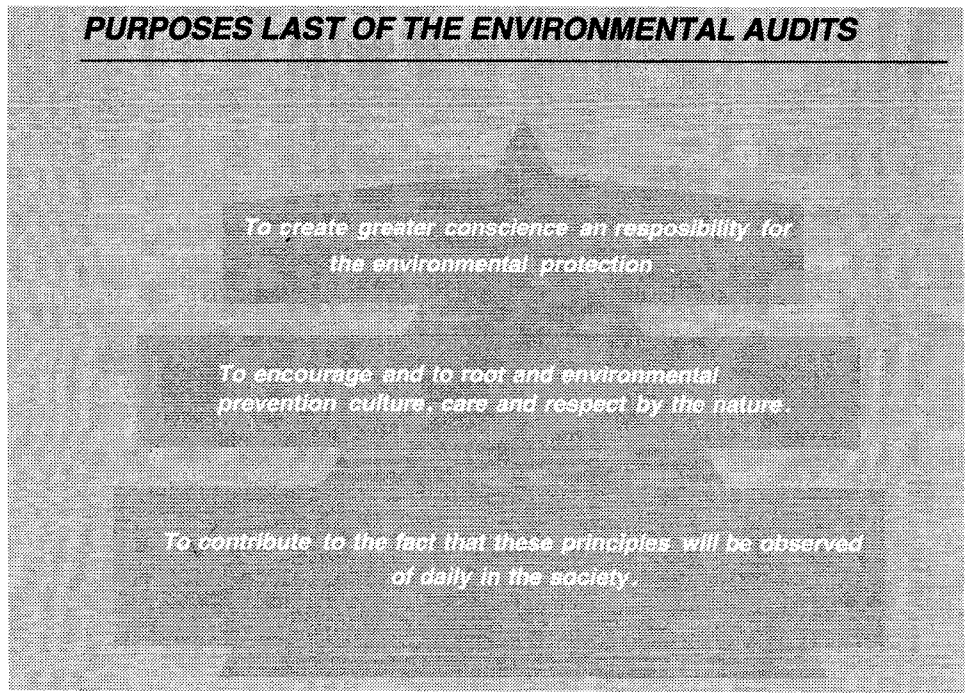

ENVIRONMENTAL AUDITS, NEW VISION
To Institutionalize the program in four levels of application
Environment Excellence Certificate
For companies with environment development ruled by schemes of prevention and ecoefficancy.
Environmental Compliance and Clean Industry Certificates
For companies that comply with environment regulations.
Self evaluation
Guideline that helps find opportunities of improvement by self evaluation and identification of deficiencies


ENVIRONMENTAL AUDITS, NEW VISION
To endow of certainly of the process
Document that describes the program, requeriments and certification.
Bases that give framework to evaluation and environmental audits.
Agreement : for the coordination with other dependencies.
Committee : of Etica, Technical Differences and of Risk Analysis, Advisory Council of the Program.


ENVIRONMENTAL AUDITS, NEW VISION
The decision processes for citizen
Through the creation Advisory Council and Committees Certified by professional associations, expert, universities and investigating.
Flexibility to incorporate companies
Industrial parks
Productive chains
Municipalities
Tourist destinations
Drafts (hospitals, airports, educational centers, etc.)


ENVIRONMENTAL AUDITS, NEW VISION
Transparency in the auditors crediting
The auditors crediting is not function of the PROFEPA, is avoided be judge and part, now the Mexican Crediting Entity (EMA) is the superintendant of complying with the procedures.
They will be accredited auditing for a wide range of productive activities and of services.
The auditors crediting with regional criteria and by activity will stimulate the creation of dispatches and specialist country wide.


ENVIRONMENTAL AUDITS, NEW VISION
Information to the society, of the advances and results
Without transgressing the confidentiality ant with authorization of the company on total or partial information, will be made public the participating companies through:
✓ Web site
✓ Annual environmental reports
✓ Other means


PURPOSES LAST OF THE ENVIRONMENTAL AUDITS
To create greater conscience an responsibility for the environmental protection.
To encourage and to root and environmental prevention culture, care and respect by the nature.
To contribute to the fact that these principles will be observed of daily in the society.

NATIONAL PROGRAM OF ENVIRONMENTAL AUDITS IN NUMBERS

		%
• Total income	1923	100
• Total drop outs	278	14
• Audits in process	818	43
• Certificates in effect	827	43
• Audits initiates by 2001	165	8
• Audits initiates by 2002	9	0.5

NATIONAL PROGRAM OF ENVIRONMENTAL AUDITS

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CITIZEN SUITS IN INTERNATIONAL ENVIRONMENTAL LAW: THE NORTH AMERICAN EXPERIENCE [1]

KNOX, JOHN

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SUMMARY

This paper evaluates the effectiveness of alternative measures to promote compliance with international environmental law. A citizen directed submissions procedure that allows the public to trigger international review of states' behavior is favored over traditional methods of adjudication of claims by one state over another. The submission procedure is evaluated for performance on two separate models of compliance. The paper concludes that the submissions procedure has yet to be tested thoroughly to make substantive deductions about its efficacy. However, its record to date indicates that it has the potential to be effective both as a quasi-supranational tribunal and as a part of a managerial regime.

1 INTRODUCTION

The traditional way to promote compliance with international law is through adjudication of claims by one state that another state is violating its legal obligations. But state-to-state adjudication has played almost no role in promoting compliance with international environmental law. Environmental treaties usually do not provide for compulsory, binding adjudication, and states almost never invoke the voluntary procedures they do include. The question is, therefore, how should the international community best promote compliance with international environmental law? The North American Agreement on Environmental Cooperation creates an innovative submissions procedure, which allows citizen complaints to trigger international review of states' behavior. This paper first situates the procedure in the context of two models of compliance, and then evaluates the procedure's potential effectiveness.

2 SUPRANATIONAL ADJUDICATION, THE MANAGERIAL MODEL, AND COMPLAINT-BASED MONITORING

Some scholars argue that states do not bring environmental claims against one another because they are vulnerable to such claims themselves, and do not want to trigger retaliatory actions or establish undesirable precedents. One way to avoid this roadblock would be to allow private parties, such as environmental groups, to sue states before international tribunals (Wirth, 1994). International adjudication of private claims against states, or *supranational adjudication*, is rare, but it has been established in areas such as human rights and international investment law, and it has made inroads even in the World Trade Organization, whose arbitral panels can receive *amicus* briefs from private parties. And, of course, domestic environmental law such as that of the United States often provides private parties the ability to bring "citizen suits" as an integral means of enforcing compliance. Like traditional

state-to-state adjudication, supranational adjudication promotes compliance, by allowing impartial review of a state's behavior by a tribunal able to provide authoritative interpretations of the law. Moreover, supranational adjudication is arguably fairer than intergovernmental adjudication, because it allows private parties to pursue a claim directly, rather than waiting for their national governments to espouse – or, more likely, not espouse – their claim.

But not everyone is enamored with supranational adjudication, or adjudication at all, as a way to promote compliance with international law. In an influential book entitled *The New Sovereignty*, Abram Chayes and Antonia Handler Chayes argue that adjudication is costly, controversial, backward looking, and generally unsuitable for promoting compliance with complex environmental agreements. They urge greater use of nonbinding mechanisms that *manage* compliance rather than *enforce* it. They base their "managerial model" on two premises: (1) "as a practical matter, coercive economic — let alone military — measures to sanction violations cannot be utilized for the routine enforcement of treaties in today's international system, or in any that is likely to emerge in the foreseeable future"; and (2) states' failures to comply with their treaty obligations are usually due to limited capacity or ambiguous treaty language than to deliberate violations (Chayes, et al, 1995).

The managerial model seeks to address the underlying causes of these problems through cooperative means, such as nonbinding references to expert bodies to interpret ambiguities, conciliation to settle disputes informally, and technical or financial assistance to build states' capacity to comply. Monitoring states' behavior – systematically reviewing, assessing, and reporting on states' compliance with their obligations – may be the most important managerial tool, since it identifies obstacles to compliance so that the proper tools may be brought to bear on them. Moreover, drawing attention to the state's behavior may itself induce the state to comply, to avoid the opprobrium that attaches to a violator of international law.

The managerial model has been criticized, but there is no doubt that states usually prefer persuasion to enforcement. International environmental agreements rely heavily on managerial mechanisms, and monitoring in particular, to promote compliance (Oran, et al, 1999). By far the most popular monitoring mechanism in international environmental law is self-reporting, which is now included in most multilateral environmental agreements. As a compliance mechanism, self-reporting has problems, however: reports are often untimely and inaccurate, and there is usually no institutional means to review and respond to them.

Some environmental agreements have established more sophisticated systems of review. The Montreal Protocol has one of the most highly developed and influential of these procedures. Like other environmental agreements, the Montreal Protocol requires each party to report annually on its implementation of the agreement. But the Protocol goes further, by incorporating a noncompliance procedure administered by an Implementation Committee of ten state parties, which can receive information on compliance from other parties and the Secretariat. The Committee reports to the Meeting of the Parties, which may provide assistance, issue cautions, or suspend specific rights under the Protocol, in order to bring the parties into compliance. Compared to other procedures in international environmental law, the Montreal Protocol Noncompliance Procedure is innovative and powerful, and it has been a model for other agreements. But it has also been criticized for being too much under the control

of governments. States are unlikely to bring complaints against one another to the Implementation Committee for the same reasons that they avoid state-to-state adjudication, and the government representatives on the Implementation Committee may be unlikely to recommend tough sanctions.

Monitoring completely under state control is likely to be ineffective, since states are often reluctant to call attention to shortcomings in their own or others' performance. Monitoring in the field of human rights has responded to this problem by allowing independent experts to assess or prepare reports on state compliance, and private parties (such as non-governmental organizations) to trigger the monitoring process. Human rights procedures illustrate four combinations of state control, independent expert review, and private party input: (1) self-reporting by monitored states to independent experts (such as reports filed under the Covenant on Civil and Political Rights); (2) reporting by independent experts that is triggered solely by states (such as the rapporteurs appointed by the UN Commission on Human Rights, a body of government representatives); (3) reporting by experts that is triggered by states but that has a role for private complaints (such as the 1503 procedure of the Human Rights Commission); and (4) complaint-based monitoring – that, is reporting by independent experts that is triggered solely by private complaints.

The most important example of complaint-based monitoring in human rights law is the Optional Protocol to the Covenant on Civil and Political Rights, which allows any individual subject to the jurisdiction of a state party to the Protocol to file a "communication" with the Human Rights Committee claiming that the state has violated a right set forth in the Covenant.[2] State control over the monitoring mechanism is limited to deciding whether to be party to the Protocol. The independent experts who make up the Human Rights Committee screen the communications in accordance with set criteria, consider the admissible complaints and government replies, and publish their views on the merits. In comparison to the previous examples of monitoring, the complaint-based monitoring mechanisms created by the Optional Protocol look remarkably like supranational adjudication. In the words of Laurence Helfer and Anne-Marie Slaughter, the Committee not only acts as "a quasi-judicial monitoring body"; in many ways it "is behaving more and more like a judicial arbiter of human rights disputes" and employing "an increasingly court-like method of operation (Helfer, et al, 1997)." The similarities should not be overstated. Professors Helfer and Slaughter emphasize that the Human Rights Committee is not a supranational tribunal in the strict sense, since parties are under no legal obligation to comply with the views expressed by the Committee.

But the lack of binding decisions does not necessarily mean that the Committee is less *effective* than supranational tribunals in the strict sense. The effectiveness of a supranational tribunal cannot depend entirely on whether its decisions are legally binding, because no international court (and, for that matter, no domestic court) has the ability to *force* states to comply with legally binding decisions. That a decision is considered legally binding may increase its pull toward compliance, but no more than, and possibly less than, other factors. Professors Helfer and Slaughter compare the Human Rights Committee to the European Court of Justice (ECJ) and the European Court of Human Rights (ECHR), the two most effective supranational tribunals, and conclude that "[a]lthough the Committee's effectiveness is nowhere near that of the ECJ and the ECHR, it is the similarities to, rather

than the differences from, its effective European neighbors that we find most striking (Helfer, et al, 1997)." They emphasize the Committee's attempts to take steps to improve its effectiveness in many ways characteristic of supranational tribunals - ways that do not depend on whether its decisions are legally binding.

Complaint-based monitoring thus offers one of the chief benefits of supranational adjudication: the possibility that its decisions against states will be made effective even in the absence of a coercive way of enforcing them. It offers other advantages as well. It prevents states from exercising undue control over the procedure, since states cannot prevent or control either the private parties' decisions to file complaints or the independent experts' review of the complaints once filed. It allows claims from a great variety of sources and thereby provides the experts reviewing the claims more opportunities to identify and review instances of noncompliance. And allowing private parties to bring their complaints of violations of international law — complaints that otherwise would not be heard — to an impartial international body may better comport with the same ideas of fairness served by supranational adjudication.

Supranational adjudication and managerial monitoring are usually seen as completely different approaches to compliance. But there is no bright line between adjudication and monitoring. Both review states' behavior in light of their obligations. The greater the degree to which a monitoring mechanism allows private parties to trigger independent expert review of allegations that states have violated international legal obligations, the more it incorporates elements of supranational adjudication. At the same time, however, the monitoring mechanism may continue to operate in a managerial context, relying on techniques of persuasion rather than enforcement. Both the managerial model and supranational adjudication could be strengthened if their proponents recognized the way in which complaint-based monitoring can embed a form of incipient or quasi-supranational adjudication in a managerial approach to compliance.

Many commentators have suggested that the Montreal Noncompliance Protocol would be more effective if nongovernmental organizations could play a role in triggering the monitoring mechanism, and if reports were reviewed or prepared by independent experts (Barrett-Brown, 1993). More generally, greater private participation in international environmental supervisory mechanisms seems necessary to make those mechanisms more effective and fair. To date, however, states have been reluctant to introduce the elements of private-party input and independent expert review into international environmental law. This is not particularly surprising. Compliance mechanisms develop slowly over time, and most environmental agreements are still in their first or second decade. States are often slow to accept private participation in any kind of compliance procedure. Nevertheless, individuals' participation in compliance procedures is likely to increase, as part of the trend throughout international law for individuals to join states on the international plane.

3 COMPLAINT-BASED MONITORING IN NORTH AMERICA

Outside the European Union, the only current example of complaint-based monitoring in international environmental law is the submissions procedure of the Commission for Environmental Cooperation. The Commission for Environmental Cooperation is an international organization created by the United States, Mexico, and Canada in the 1993

North American Agreement on Environmental Cooperation, the environmental side agreement to the North American Free Trade Agreement (NAFTA). The North American Agreement on Environmental Cooperation and the Commission for Environmental Cooperation provide a forum for regional cooperation to address many different types of environmental problems.[3] But they are particularly designed to address the concern, expressed loudly during the NAFTA debate, that by removing barriers to foreign investment in Mexico, NAFTA would lure companies to move there in search of a "pollution haven," thereby contributing to the degradation of the Mexican environment and putting pressure on all three North American countries to lower their environmental standards in a "race to the bottom." A key premise underlying this concern was that *as written,* Mexico's environmental laws were essentially equivalent to those of the United States, and that the problem was inadequate compliance with those laws. The challenge was not to require Mexico to write stricter standards into its law, but to assist or induce it to improve its implementation and enforcement of its standards.

To that end, Article 5 of the North American Agreement on Environmental Cooperation requires each party to "effectively enforce its environmental laws." Other provisions in the North American Agreement on Environmental Cooperation support that obligation. In particular, Articles 14 and 15 establish a complaint-based monitoring procedure very similar to those created by human rights agreements such as the Optional Protocol to the Covenant on Civil and Political Rights. Under Articles 14 and 15, the Secretariat may receive and review complaints, or "submissions," from private parties, and prepare reports, or "factual records." To lead to a factual record, a submission must successfully negotiate a four-hurdle obstacle course.

First, it must meet admissibility requirements set forth in Article 14(1). The most important requirement is that the submission asserts a state party "is failing to effectively enforce its environmental law." In addition, the submission must be in a designated language of the state against which it is directed; it must identify the submitter; it must provide enough background information to allow the Secretariat to review it; it must appear to be aimed at promoting enforcement rather than harassing industry; it must indicate that the matter has been communicated in writing to the state; and it must be from a person.

If the Secretariat decides that a submission merits requesting a response from a state party, the submission then faces the third hurdle: whether, based on the submission and the response, the Secretariat believes that a factual record is warranted. Article 14(3) identifies one circumstance under which the Secretariat may not proceed further: if the state concerned advises the Secretariat that the matter is the subject of a domestic legal proceeding being pursued by the state, or the subject of an international dispute resolution to which the state is a party. Otherwise, the North American Agreement on Environmental Cooperation gives the Secretariat no explicit guidance on how to decide whether a factual record is warranted. Presumably, however, the Secretariat should continue to take into account the factors listed in Article 14(2). In particular, whether the submission raises matters whose further study would advance the goals of the Agreement would seem of key importance in deciding whether a factual record is warranted.

If the Secretariat decides that a factual record is warranted, the submission faces a fourth hurdle. Under Articles 15(1) and 15(2), the Secretariat must inform the

Commission for Environmental Cooperation Council – the governing body of the Commission for Environmental Cooperation, composed of the parties' environmental ministers – of the reasons why it believes a factual record is warranted, and it may proceed only if the Council instructs it to do so. The Council decision is taken by a two-thirds vote, so the state concerned may not block a factual record. Nevertheless, any two of the parties, acting through their representatives on the Council, may stop the procedure at this point. The Agreement provides no constraints on the factors the Council may take into account in making their decision. Although the spirit of the Agreement suggests that the Council may deny the Secretariat's request only if it disagrees with the request on the merits, nothing prevents the Council from acting through lower motives, to protect their states from embarrassing reports.

If the Council approves the request, the Secretariat proceeds to prepare the factual record. The Agreement does not address the contents of a factual record. In practice, the Secretariat has broad discretion to decide what facts are relevant and should be included. The state parties have a final point of control over the procedure, however. When complete, factual records are submitted first in draft to the Council, so that the states may "provide comments on the accuracy of the draft." The Council then decides by a two-thirds vote whether to make the factual record public. (Unsurprisingly, the Council has approved the publication of the only factual records prepared to date. Public outcry would result from a Council attempt to suppress a final report relevant to compliance by one of the state parties with its obligation to effectively enforce.)

Although it is too early for definitive assessments of the submission procedure's effectiveness (as of January 1, 2001, seven years after the North American Agreement on Environmental Cooperation's entry into force, 28 submissions had been filed, which had resulted in two factual records[4]), the way that the Commission for Environmental Cooperation has handled its first cases provide a basis for a preliminary assessment of the procedure's potential effectiveness. The following sections first examine it as a type of emerging or potential supranational tribunal, relying primarily on a checklist developed by Professors Helfer and Slaughter to assess the effectiveness of supranational tribunals. The paper then examines the ability of the Commission for Environmental Cooperation submissions procedure to take advantage of its managerial context.

4 THE COMMISSION FOR ENVIRONMENTAL COOPERATION SUBMISSIONS PROCEDURE AS A SUPRANATIONAL TRIBUNAL

The thirteen factors on the Helfer/Slaughter checklist fall into three categories: factors within the control of the states that establish the tribunal; factors within the control of the tribunal itself; and factors often beyond the control of either states or tribunals. Within each category, the checklist ranks the factors in tentative order of importance. Where the checklist overlooks or misjudges characteristics of the Commission for Environmental Cooperation procedure relevant to its potential effectiveness as a supranational tribunal, this paper modifies the checklist, adding three new factors to it.

4.1 Factors Within the Control of States

The first group of factors on the checklist is those within the control of the states that establish the tribunal: (a) its composition; (b) its functional capacity; (c)

its independent fact-finding capacity; and (d) whether its decisions are legally binding. I add three factors to this list: (e) the transparency of the tribunal's procedures and decisions; (f) the ability of states to control key points in the adjudicative process; and (g) links to possible coercive enforcement mechanisms.

4.1.1 Composition

Professors Helfer and Slaughter suggest that a tribunal will have greater authority if its members are chosen from respected jurists, and if its members have particular expertise in the subject matter of the tribunal. The Commission for Environmental Cooperation procedure is administered by two members of the Secretariat, who consult a Committee of Legal Experts composed of three law professors from each country, and who may hire independent experts if necessary. As a result, the Secretariat seems to have, or have access to, sufficient legal expertise. The Helfer/Slaughter model might suggest formalizing and heightening the role of the distinguished members of the Committee, however, to increase the respect accorded to the Commission for Environmental Cooperation's decisions.

4.1.2 Functional Capacity

Functional capacity asks whether the tribunal can attract and resolve a steady stream of cases. Its ability to do so depends on whether its rules of procedure allow it to process its caseload effectively, and on whether it has sufficient financial resources. The Commission for Environmental Cooperation procedures seem efficient and open: they allow any resident of North America to file a claim, regarding enforcement of virtually all domestic environmental laws. But it will need additional resources. Two staff members probably cannot promptly dispose of the submissions that will be filed in the next few years if the procedure remains fairly popular, much less the number that will be filed if its popularity grows. As the procedure starts to produce reports on state compliance, it is likely to attract additional complaints, which require more resources to resolve promptly and effectively. But at the same time, the procedure's success at reporting on state compliance may make states more uncomfortable with it. One of the challenges facing the Commission for Environmental Cooperation is whether it will continue to receive the financial support it needs.

4.1.3 Independent Fact-finding Capacity

To be effective, a tribunal must be able to elicit credible information on which to base its decisions. The Secretariat does have this ability. In preparing a factual record, the Secretariat is required to consider any information provided by a state party, but it may also consider any relevant information that is submitted by interested persons or developed by the Secretariat or independent experts. Moreover, Article 21 of the North American Agreement on Environmental Cooperation requires state parties to provide the Secretariat "such information as [it] may require, including promptly making available any information in its possession required for the preparation of a report or factual record, including compliance and enforcement data."

4.1.4 Legally Binding Decisions

Procedural decisions of the Commission for Environmental Cooperation Secretariat – that is, decisions that determine whether a submission meets the requirements for moving to the next stage of the procedure – are binding on submitters, since they have no choice but to respect an adverse decision. A Secretariat decision that a submission justifies requesting a response under Article 14(2) is binding on the concerned state, in

the sense that the North American Agreement on Environmental Cooperation requires the state to respond to the submission, if at all, within a set number of days after a request from the Secretariat. But the Secretariat's decision that preparation of a factual record is warranted is not binding unless the Council approves it by a two-thirds vote. Moreover, factual records are never binding. Even if a factual record establishes that a state party is failing to effectively enforce its environmental law, nothing in the Agreement suggests that the Secretariat or the Council may *order* the state to comply by effectively enforcing its law. Nor does it appear that the Secretariat can "decide" whether the state has failed to effectively enforce its environmental law.

The Helfer/Slaughter model might suggest that factual records should decide whether a state has effectively enforced its environmental law, and perhaps even explicitly decide whether a state has violated Article 5 of the Agreement. But such decisions would probably exceed the states' expectation of the scope of a factual record. Nor is it clear that such decisions would make the procedure more effective. As long as a factual record identifies the facts relevant to whether a party has effectively enforced its environmental law, it does not seem enormously important whether the Secretariat concludes the factual record by stating its view on whether the facts indicate that the law was effectively enforced. If the factual record is well prepared, its readers will be able to draw their own conclusions as to that ultimate question. If, on that basis, readers conclude for themselves that the law was not effectively enforced, they will be able to use the factual record to try to induce the state to enforce the law more effectively in the future.

4.1.5 Transparency

If a procedure is not transparent to the public – that is, if its procedures, documents, and decisions are not publicly available – then the public may not be able to obtain the knowledge necessary to oversee and support the procedure. On the whole, the Commission for Environmental Cooperation procedure receives high marks for transparency. Submissions, responses, procedural decisions, Council decisions, and factual records have generally been made available to the public promptly in accordance with the North American Agreement on Environmental Cooperation and the Guidelines.

4.1.6 State Control

States may establish procedures that allow them to oversee and second-guess decisions in individual cases. Professors Helfer and Slaughter do not include this factor, perhaps because it is not present in the tribunals they examine. But where it is present the factor is particularly important, since the greater the ability of states to control key points in the adjudicative process, the less effective a tribunal is likely to be. States do not control most of the decision points in the Commission for Environmental Cooperation submissions procedure. They have no control over which submissions are filed, and they cannot prevent the Secretariat from deciding that a submission is admissible, merits a response from a state party, and warrants preparation of a factual record. Nor can the states control the content of the factual record itself. But their control of two key points in the procedure – the decision to authorize the Secretariat to prepare a factual record and to make a factual record public – has the potential to undermine the effectiveness of the procedure. States could give up this control by amending the agreement or, in a less binding step, declare that they will always vote to affirm a Secretariat recommendation for a factual record and to make

all factual records public. To date, however, far from giving up this control, states have been tempted to extend it, both by refusing to authorize factual records recommended by the Secretariat and by exercising ongoing oversight of factual record preparation. Although states have generally resisted this temptation, if the Council does begin to micromanage the Secretariat and bring the procedure under *de facto* state control, that would clearly destroy the effectiveness of the procedure as any type of supranational tribunal.

4.1.7 Links to Coercive Mechanisms

Even if enforcement mechanisms are unlikely to be used, as long as they have any value as a deterrent they may increase the effectiveness of the tribunal. Part Five of the North American Agreement on Environmental Cooperation allows one state party, with the approval of two-thirds of the Council, to take a claim that another state party is engaging in a persistent pattern of failure to effectively enforce its environmental law to a panel of independent experts. Part Five also provides for sanctions to induce compliance with a panel decision. It is conceivable that a factual record indicating a failure to effectively enforce environmental law might contribute to pressure on a state party to bring a complaint under Part Five. Although the possibility is remote, it may nevertheless contribute to the effectiveness of the submissions procedure.

4.2 Factors Within the Control of the Tribunal

The second category on the Helfer/Slaughter checklist includes factors within the control of the tribunal itself: (a) its awareness of its "audience" — i.e., the constituency that supports its work; (b) its neutrality and autonomy from political interests — that is, whether it makes decisions on legal principles rather than seeking merely to reconcile the parties' competing interests; (c) whether it proceeds incrementally, aware of its political limits; (d) the quality of its legal reasoning; (e) dialogue and cross-fertilization with other tribunals; and (f) the form of its opinions.

4.2.1 Awareness of Audience

The main audience for the Commission for Environmental Cooperation submissions procedure is the audience of potential submitters. In principle, this constituency is enormous, since the procedure is open to any person or nongovernmental organization in any of the three countries. In practice, the most important potential submitters are environmental groups, which have filed the great majority of submissions. A key consideration for them is whether the Secretariat is interpreting the procedural requirements broadly, to allow as many submissions as possible to be considered, or narrowly, to exclude most submissions at an early stage. The Secretariat has taken the first approach whenever possible. In the longer run, a more important test may be whether the Secretariat continues to show independence from the Council in deciding whether to recommend the preparation of factual records and in preparing the factual records once approved. This factor thus depends at least partly on the Secretariat's neutrality, the next factor on the checklist.

Environmental groups and other potential submitters are not the only constituents of the submissions procedure. Members of the public who would never consider filing a submission may nevertheless support the procedure as a way to help improve environmental protection in North America. The Commission for Environmental Cooperation is almost unique among international organizations in incorporating a Joint Public Advisory Committee designed to give the public a forum within the organization, and each of

the state parties has a National Advisory Committee to provide interested members of the public an additional way to influence their states' policy towards the Commission for Environmental Cooperation. The Secretariat has shown a strong awareness of this public constituency. It recognizes the need for public support and has used a variety of means, including its website, to provide information about the Commission for Environmental Cooperation and to publicize Commission for Environmental Cooperation actions.

4.2.2 Neutrality

The Commission for Environmental Cooperation Secretariat has been willing, even in the earliest submissions, to make decisions in politically difficult cases. It has not shown any particular deference to states' suggested interpretations of the Agreement. Conversely, it has dismissed submissions — even by major environmental groups — that did not meet the requirements for admissibility. In short, the Secretariat's decisions appear to be grounded on legal interpretations of the Agreement rather than on fear of adverse reactions by, or the desire to curry favor with, states or submitters.

4.2.3 Incrementalism

Tribunals, especially infant tribunals, must not forget their limits. As tribunals neutrally interpret and apply legal rules, they should look for ways to make the rules more acceptable to states and respond to political signals that they have gone too far. The Secretariat has been careful not to cross such political boundaries. In particular, it has resisted calls to push the legal limits set by the North American Agreement on Environmental Cooperation. Those calls began in the first two submissions, which alleged that the United States was failing to effectively enforce environmental laws as the result of Congressional action. These two submissions raised a basic question of interpretation: can a legislative decision to suspend enforcement of environmental laws through withdrawal of funding be failure to effectively enforce those laws? A positive answer would have sent a strong signal to the environmental community that the Secretariat would interpret the scope of the procedure very broadly, and that it would press the governments not to relax their environmental protections. On the other hand, the states would have seen such a decision as an unreasonable interpretation of the Agreement. In the end, the Secretariat rejected the submitters' arguments. Although this response disappointed the environmental community, it avoided a potentially disastrous confrontation with states at the outset of the Secretariat's implementation of the submissions procedure.

4.2.4 Quality of legal reasoning

The Helfer/Slaughter model considers whether decisions are *reasoned*, i.e., whether they systematically describe the opposing legal arguments and explain why they are approved or rejected. The Commission for Environmental Cooperation Secretariat's procedural decisions present the positions of the submitter and the responding state and carefully evaluate them in accordance with the terms of the North American Agreement on Environmental Cooperation, in a manner that resembles judicial review. Although the Secretariat's early policy was to issue reasoned procedural decisions only when dismissing a submission or recommending preparation of a factual record, the trend appears to be towards more detailed legal analysis. By emphasizing the importance of issuing reasoned decisions, Professors Helfer and Slaughter may overlook a more substantive measure of legal quality: Are the decisions consistent with the agree-

ment they are construing? To be considered well-reasoned,, a legal decision must reach a *principled* resolution of the issues before it — i.e., a resolution that informed observers agree is consistent with the best (or at least a permissible) reading of the applicable law. By this standard, the Secretariat has received generally high marks from outside reviewers.

4.2.5 Cross-fertilization

Professors Helfer and Slaughter believe that supranational tribunals can enhance their mutual authority by referring to one another's work. To date, no decision by the Commission for Environmental Cooperation Secretariat has cited another complaint-based monitoring mechanism or supranational tribunal, perhaps because no such institution has a mandate that overlaps substantively with that of the Commission for Environmental Cooperation submissions procedure. But other bodies do face similar *procedural* issues, such as the role of pursuit and exhaustion of local remedies, and in addressing those issues the Secretariat might usefully draw on their decisions.

4.2.6 Form of opinions

This factor concerns whether opinions are presented with concurring and dissenting opinions, or as if the decision were unanimous. Opinions differ on which approach better promotes compliance. To date, this factor is not relevant to the Commission for Environmental Cooperation submissions procedure, since Secretariat decisions are not made by multiple decision-makers who may formally disagree with one another.

4.3 Factors Often Beyond the Control of States or Tribunals

The final group of factors on the Helfer/Slaughter checklist are those often beyond the control of states or tribunals: (a) the nature of the violations brought to the tribunal; (b) whether the states subject to the tribunal have domestic institutions committed to the rule of law and responsive to citizens; and (c) the degree to which those states are culturally and politically homogeneous.

4.3.1 Nature of Violations

Professors Helfer and Slaughter point out that tribunals are more effective at "policing modest deviations from a generally settled norm" than responding to systemic problems requiring large-scale policy changes (Helfer, et al, 1997) . They suggest that an important reason for the success of the two European tribunals is the limited nature of the complaints brought to them. In contrast, the Human Rights Committee has had much less success in responding to the gross human rights abuses brought to it. It is too early to decide whether the complaints to the Commission for Environmental Cooperation are more similar to the relatively limited complaints received by the European courts or the complaints of systemic abuses received by the Human Rights Committee. Complaints of failures to effectively enforce laws might be thought to be relatively minor deviations from norms that the states themselves have written into their domestic law. Conversely, such failures might implicate problems endemic to the legal system as a whole, in which case it would be much more difficult for the submissions procedure to help to cause the systemic changes necessary.

The alleged violations brought to the submissions procedure may affect its potential effectiveness in another way. If the violations are primarily directed against only one or two of the state parties, those states will be less likely to support steps to make the procedure more effective. As of January 1, 2001, the first 28 submissions were divided almost equally, with Mexico

the subject of eleven, Canada the subject of nine, and the United States the subject of eight. But the United States has been the subject of a disproportionately small number of submissions in light of the relative size of the states' populations. And submissions against Mexico and Canada have generally proceeded farther than those against the United States. The causes of this disparity are unclear. It may be that U.S. environmental groups are waiting to see whether the procedure gives them effective remedies beyond those they already have under domestic law. The disparity may prove to be only temporary, of course. But if the procedure comes to be seen as primarily directed against Canada and Mexico, they may resist supporting the procedure and instead look for ways to increase their control over it or otherwise weaken it.

4.3.2 Domestic Institutions Committed to Rule of Law

Professors Helfer and Slaughter emphasize the importance of "domestic government institutions committed to the rule of law, responsive to the claims of individual citizens, and able to formulate and pursue their interests independently from other government institutions." Such institutions are a necessary condition for "maximally effective supranational adjudication," since supranational adjudication depends on the ability of domestic government institutions to use their power on behalf of the tribunal, either on their own initiative or as a result of pressure by private parties (Helfer, et al, 1997). Each of the North American Agreement on Environmental Cooperation parties has a system of law that provides legal rights to individuals and that is interpreted by a judiciary nominally independent of control by other government institutions. But despite recent attempts at reform, the Mexican judicial system has been criticized for being ineffective and under the control of the executive branch. To the extent these criticisms are valid, they may cast doubt on the potential effectiveness of the Commission for Environmental Cooperation submissions procedure, but they may also increase the importance of the procedure to Mexican submitters. While potential submitters may see environmental remedies under U.S. law (and, to a lesser degree, Canadian law) as so effective that the Commission for Environmental Cooperation can add little to them, it may offer avenues for relief otherwise unavailable to those concerned with Mexican issues. In addition, the procedure may demonstrate the benefits of objective examination of environmental issues at the request of private parties in ways that help would-be reformers argue for increased access by private parties to domestic courts.

4.3.3 Homogeneity

Professors Helfer and Slaughter say that many observers of the European supranational tribunals conclude that their success is due in part to the relative homogeneity of the states subject to those regimes, as opposed to the wide range of states that participate in global agreements like the Covenant on Civil and Political Rights. To the extent that homogeneity is a factor, it probably cuts against the potential effectiveness of the Commission for Environmental Cooperation submissions procedure. The three North American states have many environmental concerns in common, but they also have many differences in language, culture, and history. One result of these disparities is that superficially equal burdens weigh on the parties differently. For example, the parties pay an equal share of the expenses of the Commission for Environmental Cooperation, but Mexico's share is a far higher percentage of its budget for environmental protection than is that of the United States or Canada.

5 THE COMMISSION FOR ENVIRONMENTAL COOPERATION SUBMISSIONS PROCEDURE AS A MANAGERIAL COMPLIANCE MECHANISM

At the same time the submissions procedure is a type of quasi-supranational tribunal, it remains an integral part of a managerial approach to compliance. Like other monitoring mechanisms, it produces reports on state behavior that rely on the effect of "sunshine" to induce compliance. Like other complaint-based monitoring mechanisms, it avoids many of the problems associated with excessive state control by giving key roles to private parties and independent experts. Most of the factors discussed above with respect to supranational adjudication are also relevant to the sunshine effect on which monitoring mechanisms rely for their effectiveness. In particular, the procedure's ability to obtain facts, to take into account the complaints of private actors against states, to act in a transparent way, and to issue neutral, well-reasoned reports all make it more effective in managerial as well as supranational terms.

A complaint-based monitoring mechanism may also increase its effectiveness through its connections with other managerial mechanisms. The following sections examine the potential connections between the submissions procedure and two other mechanisms: Secretariat reports under Article 13 of the North American Agreement on Environmental Cooperation, and Commission for Environmental Cooperation cooperative programs.

5.1 Article 13 Reports

Article 13 of the North American Agreement on Environmental Cooperation authorizes the Secretariat to prepare a report "on any matter within the scope of the annual program" without Council approval, and a report on "any other matter related to the cooperative functions of the Agreement" unless the Council objects by a two-thirds vote. Since the cooperative functions of the North American Agreement on Environmental Cooperation include virtually every aspect of environmental law and policy, the potential scope of Article 13 is enormous. The only issues excepted from that scope are "issues related to whether a Party has failed to enforce its environmental laws and regulations" — in other words, issues subject to consideration under the Article 14/15 submissions procedure.

Article 13 is strong in some areas where Articles 14 and 15 are weak. Article 13 allows the Secretariat to examine environmental problems arising from inadequate domestic laws, problems that the submissions procedure has been criticized for ignoring. Moreover, Article 13 is almost entirely within the discretion of the Secretariat. And Article 13 is less inherently adversarial, since it does not require the Secretariat to decide between a submitter and a state with respect to a series of procedural questions, or issue reports that (at least conceivably) could help to trigger dispute resolution and trade sanctions under Part Five of the Agreement.

Article 13 reports will not be superior to Article 15 factual records in every case, of course. When the key issue is whether a law has been effectively enforced, it may be examined only through the Article 14/15 procedure. Submitters may also choose that procedure because it guarantees that the Secretariat will consider their submissions if they meet the requirements for admissibility. Article 13 reports and the citizen submissions procedure should therefore be seen as alternatives, which complement one another as part of an integrated approach to compliance with the North American Agreement on Environmental Cooperation. Which is

better suited for examining a particular problem depends on the nature of the issues to be studied.

Should the procedures be more closely integrated? At present, their connection primarily depends on the decision by a submitter to invoke one or the other, or both. The parties could amend the North American Agreement on Environmental Cooperation to give the Secretariat, the Council, or some combination thereof the authority to transfer submissions from one procedure to another. The dangers of such a course are obvious, however. Increasing the power of the Council would increase the ability of the state parties to micromanage the procedures to avoid embarrassing reports. Increasing the power of the Secretariat would decrease the power of the submitters to decide which procedure they prefer and would provide an avenue for state parties to pressure the Secretariat to transfer undesirable Article 14 submissions to the possibly less confrontational Article 13 procedure. On the whole, allowing the submitters to decide which procedure to invoke seems preferable.

Nevertheless, the Secretariat could take several steps to make the Article 13 procedure more accessible to submitters and to others interested in Article 13 reports. The Secretariat could institute on its website an Article 13 counterpart to the Article 14-15 Registry of Submissions, which might include: (1) Article 13 submissions, including any requests for Article 13 reports from state parties or the Joint Public Advisory Committee; (2) responses from the Secretariat to the submitters, including any explanations of why the submission did or did not contribute to a decision to prepare an Article 13 report; (3) decisions by the Secretariat to prepare an Article 13 report, including decisions not based on any outside request; (4) Article 13 reports and documents accompanying them; and (5) any general guidelines prepared by the Secretariat explaining the factors it takes into account in deciding whether to prepare an Article 13 report. An Article 13 Registry would disseminate information about the Article 13 procedure and as a result facilitate more useful suggestions to the Secretariat about how it might be used. More generally, it would contribute to the effective use of Article 13 and its interaction with the Article 14-15 submissions procedure.

5.2 Interaction with Cooperative Programs

Much of the work of the Commission for Environmental Cooperation takes place in cooperative programs, approved by the Council and carried out by the state parties, the Secretariat, and working groups. The programs fall within one of four general areas: Environment, Economy and Trade; Conservation of Biodiversity; Pollutants and Health; and Law and Policy. Since 1995, the Law and Policy area has included an ongoing program on "Enforcement Cooperation," whose purpose is to promote more effective enforcement in the North American countries. In 1996, the Council established a North American Working Group on Environmental Enforcement and Compliance Cooperation, composed of "senior level environmental enforcement officials designated by the Parties," which assists in the development and fulfillment of the Enforcement Cooperation Program.

Currently, the Enforcement Cooperation Program has no connection with the submissions procedure. But the Council could expand the program to provide closer ties with the submissions procedure. In particular, the program could address possible enforcement problems identified through the submissions procedure. Not every factual record will necessarily benefit from follow-up. But factual records may identify two types of problems

that seem particularly well suited for further attention by the Commission for Environmental Cooperation. First, some factual records may concern more than one state party. Submissions may allege ineffective enforcement by more than one state, for example, or may concern a problem requiring the participation of more than one state to address. Indeed, one of the best uses of the submissions procedure may be to call attention to problems that require multilateral attention. And when such attention is needed, the obvious way to provide it is through the Enforcement Cooperation Program, which already provides a forum for addressing trinational enforcement issues. Second, while some failures to effectively enforce may be due to lack of will, it seems likely that many result in whole or part from lack of financial or technical capacity. The managerial model emphasizes that an effective system of promoting compliance includes ways to identify lack of capacity and to build capacity where necessary. By linking the submissions procedure with the Enforcement Cooperation Program, the Commission for Environmental Cooperation would be able to identify such cases and ways in which such capacity might be added.

6 CONCLUSIONS

The Commission for Environmental Cooperation submissions procedure is far too young for final conclusions about its effectiveness, but its record to date indicates that it has the potential to be effective both as a quasi-supranational tribunal and as part of a managerial regime. The most notable aspect of the procedure in practice may be the seriousness with which the Secretariat has taken its quasi-judicial role. By making well-reasoned, neutral decisions based on careful interpretations of the North American Agreement on Environmental Cooperation, the Secretariat has avoided alienating either states or submitters. The great challenge facing the Secretariat is to find a way for factual records to be useful evaluations of disputed issues (so that submitters find the procedure worthwhile), without making factual records legal judgments rather than factual reports (so that states do not withdraw their support). The states face challenges as well. For the submissions procedure to be successful, they must provide adequate resources, and must resist the temptation to micromanage the Secretariat. If the Secretariat continues to merit the trust of the state parties and its public audience, and if the states continue to let the Secretariat work independently, the submissions procedure should continue to develop as a valuable way to promote compliance. That the Commission for Environmental Cooperation procedure has the potential for success does not, of course, mean that it will be successful in practice. Whether it does prove to be successful is important in ways that extend beyond its contribution to the success or failure of the North American Agreement on Environmental Cooperation. By revitalizing international adjudication of environmental disputes in a managerial context, the Commission for Environmental Cooperation submissions procedure may provide an example for those seeking to promote compliance with other international environmental agreements.

NOTES & REFERENCES

1 A longer version of this paper was published as *A New Approach to Compliance with International Environmental Law: The Submissions Procedure of the NAFTA Environmental Commission,* 28 Ecology L.Q. 1 (2001).

2 Similar complaint procedures are attached to many other human rights agreements, including the Convention on the Elimination of All Forms of Racial Discrimination, the Convention Against Torture, and regional human agreements

in Europe, the Americas, and Africa. *See generally* Guide to International Human Rights Practice (Hurst Hannum ed., 1999).

3 Information about the Commission for Environmental Cooperation is available at its website, <www.cec.org>.

4 *See* Registry of Submissions on Enforcement Matters, <http://www.cec.org> (compiling the public documents in each case under the submissions procedure).

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SUMMARY OF WORKSHOP: ENCOURAGING PUBLIC ROLE IN COMPLIANCE MONITORING AND IMPACT OF PUBLIC ACCESS TO ENVIRONMENTAL INFORMATION (GROUP I)

Facilitators: Carl Bruch
Geoff Garver
Rapporteur: Joost Buntsma

GOALS

Share experiences in promoting public involvement in compliance monitoring and access to information, discuss some of the challenges in promoting public involvement and identify opportunities for INECE to support public involvement and access to information.

1 INTRODUCTION

Questions presented by facilitators:

- What specific experiences do the participants have with public involvement in compliance and public access to information?
- What kind of constraints did they face, and how were these resolved?
- How can INECE contribute?

2 PAPERS

Carl Bruch and Roman Czebiniak, *Regional mandates and national experiences promoting public involvement in environmental compliance and enforcement* (6th Conference Proceedings, Volume 1).

3 DISCUSSION SUMMARY

The public cannot only participate in official procedures but also, and maybe more effectively, through the media.

In all the participants' countries, the public has some form of access to information in particular judicial processes. But not all public organizations have access to governmental information. In some countries they need to be registered, for example, to be sure they support public purposes. Also, in some countries those accessing information must explain their reasons for seeking information.

NGOs can play an important role in making complex information transparent and accessible to a broader public. The Web and e-mail are effective instruments, to promote letter-writing campaigns.

There can be a conflict of interest between the public and the government in cases of confidential information. In some countries, the public can go to court to challenge a decision of the government to not give information. There can also be a conflict in the case of noncompliance by industry_ implicitly the public accuses the government of insufficient enforcement, so a negative reaction by government officials is natural and can create resistance to public participation. Another concern with allowing a public role and information is that it can impede the ability to reach final decisions in a reasonable amount of time. Too many layers of review can lead to abuse of process and undue delays.

Private–public partnerships can be a powerful instrument when there is a clear objective. It is easier to do with existing facilities than with new facilities (NIMBY). Private-public partnerships can connect governmental and private information even

from different countries. Openness from both sides is a necessity, as well as establishment of credibility and trust, which can take time.

Citizen advisory groups can demystify the activities of industries ('what's behind the fence'). It can stimulate industries to think beyond their normal practices.

4 CONCLUSION

The public role in the permitting phase generally is well established as well as access to justice, although comprehensiveness of the publicly available information in enforcement would benefit from more attention. Support capacity building, for example through training courses.

Participants from Ghana, the South Asian Cooperative Environmental Program, USA, Bulgaria, Italy, Indonesia and the Netherlands attended the workshop. After a short introduction by the facilitator, participants gave their own experiences with public participation and access to information. All participants underlined the importance of the public role in compliance monitoring and the public's access to environmental information. The public role in compliance and monitoring can be divided into the citizens' role towards the industry/companies and their role towards the government.

During the permitting phase, it is a common interest of the government to come as close as possible to the public. All the participants gave examples from their own country. Nevertheless, in the phase of enforcement there can be a conflict between public and government because of confidential information but also a natural conflict if the public is seen as challenging government action or inaction.

The following recommendations for the co-chairs of INECE could be made:

- Sponsor a side-event on the public role within environmental compliance and enforcement during the World Summit for Sustainable Development (WSSD).
- Keep promoting the role of the public within compliance and enforcement by:
  - –developing a methodological basis on the public role.
  - –publishing a compendium of case studies and experiences.
- Provide a platform for the exchange of regional experiences.
- Support capacity building, through training courses for example.

SUMMARY OF WORKSHOP: ENCOURAGING PUBLIC ROLE IN COMPLIANCE MONITORING AND IMPACT OF PUBLIC ACCESS TO ENVIRONMENTAL INFORMATION (GROUP II)

Facilitators: Cornelia Quennet–Thielen
J. William Futrel
Rapporteur: Peyton Sturges

GOALS

- Consider what mechanisms can promote public involvement in environmental compliance monitoring.
- Discuss difficulties of securing access to information, both governmental and corporate, and utilizing that information after it is obtained.
- Decide what initiatives or processes could help overcome identified difficulties.

1 INTRODUCTION

The session was designed to consider what mechanisms can be used to promote public involvement in environmental compliance, discuss those difficulties encountered by citizens and groups who attempt to obtain information, both from government agencies and companies with compliance or regulatory obligations. The attendees also considered difficulties in using information after it is obtained, whether from traditional sources or from internet sites, and possible initiatives that could be implemented, whether by INECE members or by INECE itself, to help overcome these difficulties.

2 PAPERS

Carl Bruch and Roman Czebiniak, *Regional mandates and national Experiences Promoting Public Involvement in Environmental Compliance and Enforcement* (6th Conference Proceedings, Volume 1)

3 DISCUSSION SUMMARY

The discussions began with a review of existing public information access mechanisms in various countries, their strengths and weaknesses, and their relevance to other regions. Examples from the United States, Canada, and Brazil showed that legislative solutions designed to encourage public access are all limited by exceptions and exclusions that frustrate actual document production. Ironically, the lion's share of the use made of these laws, at least in the United States, is by corporate entities. The laws, in these instances, can actually confuse, rather than clarify, issues for the public at large. For countries without any information to access laws, these mechanisms are of little value.

While the attendees agreed that access to information is essential for improvement of environmental conditions and a powerful agent for achieving compliance, they also agreed that there must be a mechanism to ensure access and controls on the quality, as opposed to quantity of information provided. In some cases, participants said, responses are of either such complexity or such length as to make them unusable by the parties that request them. The less developed and technically sophisticated the public body, the more significant is this issue. Mechanisms allowing "intermediary translation" or requiring a govern-

mental body to write simply could help address this problem. The group also observed the inherent conflict of interest that agencies have that prevent them from meeting the public's information access needs

All there was a sense that agencies, NGOs, and information seekers could use the Internet more effectively alike to insure that information accessed was usable. There was also a strong sentiment that the Internet is for many reasons not a panacea. From the provider standpoint, it was suggested that instead of posting excessive amounts of data on the web, resources could be better utilized by providing access "on demand" or only in response to specific request. From the user standpoint it was suggested that various initiatives by NGOs, or other organizations, perhaps even public, could help organize and prioritize the information sources so that access was more efficient. There was also a consensus that different approaches, perhaps including more grass roots oriented outreach, to educating the public was most effective in many countries and regions.

3 CONCLUSION

The session concluded with a discussion of whether INECE could play a role in solving some of the problems of improving access to valuable compliance information. It was agreed that increased emphasis on the matter, both technically or web-based, and more education and outreach oriented initiatives could be appropriate projects for INECE to pursue to fill the need for better information access, information access systems, and outreach training to better empower public participation in this important component of the environmental enforcement regime.

SUMMARY OF WORKSHOP: GOVERNMENT PROGRAMS TO ENCOURAGE AND RESPOND TO PUBLIC INVOLVEMENT IN ENFORCEMENT

Facilitators: Patricia Madrigal
Maria Comino
Rapporteur: Frederique van Zomeren

GOALS

- Identify Government programs and implementing methodology in regard to public participation.
- How do you make an effective progra?
- Identify ways for INECE to assist capacity building.

1 DISCUSSION SUMMARY

1.1 Experience In Programs On Public Participation In The Enforcement Process.

Participants from many different regions, organizations and expertise attended the workshop and shared their experiences on public participation programs. The America's, Africa, Europe, Middle East and South East Asia were represented. Participants stressed the importance of public participation in order to get better decisions, policies and legislation.

Costa Rica has no experience in government programs for public participation, but just recently developed environmental law. Israel developed a "clean law" in which about 5,000 citizens volunteer to enforce environmental law. These environmental guards, or clean law trustees, deal with minor offences (threatened with fines between 50 and 2,000 USD per case). The volunteers report to the Environmental Ministry, then the Ministry fines the violator. A staff of 15 deals with the complaints. In 1999, 5,000 complaints were issued. In 2001, 30,000 were issued, of which 20,000 were fined. Another 150,000 volunteers committed themselves not to pollute. Clean law is a big success. It changes behavior. Sometimes even violators become environmental guards. In addition to the environmental guards, there are official government inspectors. They deal with law enforcement and severe environmental violations.

Lithuania has the same sort of system in regards to disposal of waste and waste management. Successful policies will be rewarded with presents, to promote compliance in general. The critical point is that the public or citizen inspectors are not allowed to check industrial installations. Another critical factor is that experts in the environmental department are not environmental specialists but instead they are journalists.

The United States moved from just giving information. Many communities have citizen advisory groups and technical assistance groups. Technical assistance is in the form of grants to communities to help develop community opinions, which are charged to the polluting companies. It helps towards public confidence. Their own expertise is used and there is direct influence and result. Advisory group comments a) have to prepare public documents to respond to comments, and can amend decisions based on community comment e.g. some issues have no acceptance and

b) are not considered successful unless community is accepting.

There are at least 3 types of public participation:

- call in complaint;
- offer thoughts on government enforcement action;
- citizen suits – (Note: in Costa Rica, this includes criminal proceedings, unlike the States).

Zambia has two programs of delegation of enforcement to the public: 1) illegal hunting (public is invited to become game rangers, with a permit to arrest poachers), and 2) environmental law enforcement and compliance program under World Bank.

Argentina does not have citizen enforcement, but it does have injunctive powers under the 1994 constitutional amendment. NGOs have standing, if they are affected. There is an ombudsman: Eminent damage to the environment needs to be proved.

UK has regulating industrial plans. Prior to the issuing of a permit, there is a right to public participation: usually no reaction, apart from some contentious applications. If that is the case, then public hearings will be organized, instead of written comments.

There are judicial reviews to challenge the environmental agency. NGOs receive subsidies from the government. The public has prosecution rights, but it remains difficult for the public to obtain evidence. There is a pollution hotline and 'spotlight on the environment'.

EU developed the liability directive. A person who causes harm should recover the harm. Public authorities have a duty to assess harm, public rights to statement. The EU is also developing a directive on access to justice.

Asian Development Bank has information on its website. Grants build in workshops. Inspection function people can bring a complaint, and remedial action can be taken. There is also good experience with public hearings.

Bolivia has no public participation because of poverty in rural areas. When people become affected by the industry, then the public will be involved.

1.2 Critical Success Factors And Lessons Learned: How To Manage An Effective Program?

Despite the difference in legal, technical and development level of the countries participating in the workshop, it was possible to define some basic principles that are necessary for developing effective programs to involve the public. These principles are:

- environmental education;
- public awareness;
- (regulations on) access to information and public participation;
- varying information tools (according to tradition and national system);
- government's willingness to change and respond to submissions and comments by the public;
- standing rights for citizens and NGO's.

The government has an obligation to respond to public comments. If the community does not accept a plan, then the government should not proceed. Governments need to be responsive and not force on an obligatory rule the community does not like. Critical factor is that when nothing is done with public comments, people feel it is useless and never respond anymore.

Environmental impact assessment and public participation should be regulated in legislation. Improvement of the environment needs involvement of local municipalities. Self-government could be used as a sort of ´in between´ solution.

1.3 What Should Be The Public

Participation Components Of Projects Under The Draft INECE Strategic Plan?

The INECE network could be used, on a case study basis, to review the critical success factors and lessons learned. A report with the analyses of the results and recommendations on principles on involving the public in enforcement could be used to create new government programs. This would be specifically helpful for countries that do not have experience in public participation or do not have frameworks on public participation. Exchange of best practices can also be reached through the organization of regional meetings.

2 CONCLUSION

The Workshop dealt with government programs to encourage and respond to public involvement in enforcement. Participants from many different regions, organizations and expertise attended the workshop and shared their experiences on public participation programs. The America's, Africa, Europe, Middle East and South East Asia were represented. Participants stressed the importance of public participation in order to get better decisions, policies and legislation.

The goals of the workshop were:

- Identify Government programs and implementing methodology in regards to public participation.
- How do you make it an effective program?
- Identify ways for INECE to assist capacity building.

These goals were met through identifying the critical success factors and lessons learned.

One of the main difficulties in identifying the common grounds between the government programs on public participation appeared to be the difference in legal, technical and development level of the countries participating in the workshop. Despite these differences, the workshop was able to define some basic principles that are necessary to develop effective programs for involving the public. These principles are:

- environmental education;
- public awareness;
- regulations on access to information and public participation;
- varying information tools (according to tradition and national system);
- government's willingness to change and respond to submissions and comments by the public;
- standing rights for citizens and NGO's.

The INECE network could be used, on a case study basis, to review the critical success factors and lessons learned. A report with the analyses of the results and recommendations on principles on involving the public in enforcement could be used to create new government programs. This would be specifically helpful for countries that do not have experience in public participation or do not have frameworks on public participation. Exchange of best practices can also be reached through the organization of regional meetings.

SUMMARY OF WORKSHOP: PROMOTING VOLUNTARY COMPLIANCE

Facilitator: Steven Herman
Rapporteur: Paul van Erkelens

GOALS

The session addressed the following questions:

- Does voluntary compliance exist?
- What is the relation between voluntary compliance and the existing environmental laws?
- What different types of voluntary compliance can be distinguished?
- Are environmental management systems and ISO-certification helpful for voluntary compliance?

1 INTRODUCTION

There is much interest in voluntary compliance programs. The term "voluntary" is in most cases incorrect. During the session there was an interesting discussion about the definition of voluntary compliance and the different types in all the participated countries.

2 DISCUSSION SUMMARY

Voluntary compliance does not really exist. There is always a "stick" that brings the company to a way of compliance. You can define different types of sticks:

- the existing environmental laws, regulations and standards;
- the behavior of other companies in the same market;
- the risk of bad publicity;
- the need to enter in a new market;
- the possibility of reducing costs.

Some of these items may seem voluntary, but in reality it always more or less enforced voluntary. In most of the cases, it is better to speak of "motivated compliance".

Sometimes companies go beyond the limits of the environmental laws. That is a voluntary process. But mostly there are strong economic incentives (image, publicity).

A certain kind of voluntary process does exist in the case of agreements between the government and certain types of industries to reduce environmental pollution or to reduce the use of natural resources without existing environmental regulations. Such an agreement always contains an evaluation moment, which means that in case of lack of results the government will as yet come with new regulations.

The discussion made clear that there is no "voluntary" compliance without regulations requirements with which all must comply.

During the discussion, some participants made the point that in many (mostly developing) countries the environmental framework already does exist but still is very weak. There is not enough enforcement capacity. And many companies do not have the right information about the environmental regulations and what they have to do. In that case the government can stimulate "voluntary" compliance by information and assistance programs. Public-awareness and the public-pressure

also can be stimulated by such an information program. Public pressure is important for "voluntary" compliance and can be used in a case that lacks enforcement capacity.

Environmental management systems (EMS) and ISO-certification can help in compliance programs. Also, other types of certification (blue flag, eco-tourism, CST, etc.) can be helpful. They are mostly based on economic incentives. But all these systems cannot take the place of environmental regulation and enforcement by the government. Therefore, it is necessary that each type of certification needs its own transparent system of auditing, correction and enforcement.

Some participants made the point that there is a difference between large and small/medium companies. The last group does have more problems to comply with the regulations (costs, information, knowledge). Also the enforcement is sometimes very difficult (many small companies all over the country). Special programs to stimulate "voluntary" compliance can be more effective (e.g. in Austria the ECO-profit program)

3 CONCLUSION

- In most cases the term voluntary compliance is misleading. We can better use the term "motivated compliance".
- There are several forms of motivation. The most important are the existing environmental laws, regulations and standards and the bellowing governmental enforcement. Other forms are economic incentives such as good publicity, the behavior of concurrent-companies and the possibility of reducing costs.
- In many countries there is a lack on enforcement capacity. In that case the government can stimulate "voluntary" compliance programs (information, assistance, built up public awareness and public pressure).
- Environmental management systems, ISO-certification and other types of certification can be very helpful in compliance programs. But all these systems do not throw away the need of a good enforcement.

SUMMARY OF WORKSHOP: SELF-MONITORING DATA: HOW TO ENSURE ACCURACY AND INTEGRITY

Facilitators: Markku Hietamaki
Krzysztof Michalak
Rapporteur: Davis Jones

GOALS

Determine INECE's role in promoting the use of self-monitoring systems.

1 INTRODUCTION

Questions presented by facilitators:

- Why is self monitoring useful?
- How good must the data be, and how should cost of collecting the data be considered?
- Are there legal barriers or problems to collecting and/or using the data?
- What methods can be utilized to guarantee the quality of the data submitted?

2 PAPERS

- Markku Hietamaki, *Self-Monitoring of Air Emissions, Discharges to Water and Waste in Finland* (6th Conference Proceedings, Volume 2).
- IMPEL, *Report on Operator Self Monitoring*, available at http://europa.eu.int/comm/enironment/impel
- IMPEL, *Best Practices on Compliance monitoring,* available at http://europa.eu.int/comm/enironment/impel
- INECE, *Source Self-Monitoring, Reporting, and Recordkeeping Requirements: an International Comparison,* available at http://www.inece.org.

3 DISCUSSION SUMMARY

Markku Hietamaki began by describing the self-monitoring system in Finland. Monitoring parameters are set forth in the installation's permit which also prescribes the monitoring methods to be used, the frequency, etc. The information is collected by the installation and sent into the agency. New initiatives are in progress to facilitate electronic submittal of data, including data submittal directly and in real time from the installations internal computer systems directly into the agency's data bank.

Inga Larsson said that the Swedish system is very similar to the system Markku described. Why are installations willing to self-monitor instead of relying on the regulatory agency to monitor them? Through self-monitoring the facility can demonstrate compliance with their permit and can make decisions about production levels. With this in mind, industry should quickly get feedback from monitoring system so they can quickly resolve problems. If the state is doing all the monitoring, the information can't get back to industry quickly enough to stop releases. In Sweden, there are some limits on how much information the agency can collect. For example, they can't collect production data, so it is hard to do cross checks by comparing production to emissions.

Daniel Geisbacher asked about laboratories that test the samples? Are they approved or accredited by the government or can any laboratory conduct the analysis? In Sweden only accredited laboratories can be used.

This raised the question of how "good" the information needs to be and how different programs ensure the quality of the data. One means to achieve data quality is

to mandate that all monitoring use the same methods of collection. Another is to state the quality of data collected using statistical representations of uncertainty (confidence intervals). The EU has proposed defined standards that guarantee reproducibility but not necessarily accuracy. Therefore, some representation of uncertainty is necessary.

In Australia, pollution-loading fees are collected per unit of pollution, so the government needs accurate data to determine fees. When collecting the data to determine the loading, installations must use a laboratory accredited by the national government, or, if using non-certified labs, send some split samples to certified labs to demonstrate the accuracy of the results. Nonetheless, there are concerns with clarity in applying monitoring requirements.

Inga Larsson cited another reason for using self-monitoring for collecting compliance data instead of government monitoring. In many applications, self-monitoring gets continuous data, regulators cannot. In Sweden, the system has developed since the 1940's and has become very sophisticated. The regulator and the company can judge and assess uncertainties. All installations must use the same methodology, and the regulatory authority needs to follow the same procedures to verify the quality of their own data. Donna Cambell added that self- monitoring has advantages for long-term averages and showing relationships to production.

Erik Forberg said that the way data is collected depends on what we are going to do with the data. The accuracy of data does not only depend on the accredited laboratory, but the sampling itself is more critical than laboratory work, and guidance for the sampling procedures is limited. Inspections should focus on the procedures the facility uses to collect the data, not on sampling ourselves. Davis Jones agreed that the cost of taking confirmatory samples make it difficult or impossible for the government to regularly sample and analyze the data, so in the United States, compliance inspections also focus more on the company's procedures than independently collecting data.

Hans-Roland Lindgren suggested that self-monitoring requirements be designed to use mechanisms that industry is already utilizing for process controls. This allows them to collect the data the government needs in the most efficient way possible.

Markku Hietamaki raised the issue of the amount of detail and volume of data the government needs. The group agreed that while detailed data should be collected, the installation could submit a summary, as long as they keep details and make the base data available for review. There are additional things we can do to increase the compatibility of the data. European Union legislation is moving to deal with uncertainty, but industries are going toward collection methods.

Donna Campbell asked the group if their programs get all the data collected, or just information that shows noncompliance? In Sweden, both compliance and noncompliance is submitted to the agency. The United States also requires submittal of both types of information.

Daniel Geisbacher described the key elements in the Slovak system. Legislation requires self-monitoring through the operation permit. Facilities and the State must use approved laboratories. All laboratories use the same methods, but uncertainty still exists due to laboratory or operator error. Industry has natural incentives to hide upsets, etc. So what are the motivations for industry to report noncompliance and not hide problems? First, the state measurements provide cross check. In addition, the state can use information requests to gather additional information or require additional sampling.

Markku Hietamaki moved the conversation to verification of submitted data and the likelihood and consequences of falsifying data. In Finland, there is a long history with different relationships between the government, industry and the public. It is very unlikely that industry will falsify data. If they get caught, the government is forced to take very drastic actions which is much more costly than compliance. One big case in the pulp and paper industry in 1970's has led industries to publicize reports, improve methods, etc. The current system in Finland has strong monitoring requirements, frequent inspections, and, if there are still problems, the government will step in and conduct the monitoring themselves and bill the company.

The transparency of the data collection system is crucial in getting the public involved in compliance. Most companies are more frightened of headlines than penalties. Making the data public on the Internet so anyone can view it can be a crucial motivator toward compliance and pollution prevention. However, production data and sensitive information should be kept private. In Finland, the national system does contain production data and other industries can access each other's data. Sweden also has a very open system; all data is open to the public but competitors aren't that interested, since process data is not included.

In Slovak, there is free access to environmental data directly from industry to public. The owner of the data provides the data to the public; the agency does not serve that function and gets the data as the public gets it, without redistributing it as occurs in other countries. By contrast, in Finland, the agency receives the data, checks its validity, and then presents it to the public. Different data come from different sources, and there are concerns about quality and understanding of complex data. Many big companies agree that it is the authorities' role to collect and publish data, not the role of industry.

In Australia, data is available to the public, but is rarely requested. Companies submit an annual compliance report to the agency, which then gets posted on the Web. There are severe penalties for inaccurate reports.

What are the legal barriers, if any, to collecting self-monitoring data? Inga Larrson said that in Sweden there is no problem if collecting required data, but if inspectors ask for additional information or monitoring, that information cannot be used for prosecution. However, if a legal request is made the data can be used. Donna said that the Australian legal protection from self-incrimination doesn't apply to corporations, so their information can be used against them. Erik Forberg said that in Norway, inspectors can use self-monitoring data, and can ask for as much additional information as they need. Daniel said that in Slovak, they could use the data for certain penalties such as not meeting conditions of permits. The government generally uses basic self-monitoring information from inspections for smaller cases, but collect their own data to support prosecution.

In Australia, the cost of compliance monitoring is paid by the operator, which is part of the "polluter pays" principle. This does not mean we should ask for expensive monitoring. The government should be focused only on the needs for verifying compliance and monitoring, and they should be appropriate for those needs and not excessive. To help keep the costs down, they require limited monitoring during a long period coupled with a short period of special monitoring and analysis to support the quality of regular monitoring.

These are the same principles as in Sweden; any necessary monitoring needs to be relevant to the permit. Continual monitoring may be required for such things as acidity of effluent from pulp

and paper production, but only occasional monitoring is required for something like dioxin, which is very expensive to analyze. In Sweden, the cost to the government is not an issue since the company pays for government sampling, too.

Data quality is dependent on the ultimate use of the data and purpose of collection. If the data is merely an estimate of pollutant releases, e.g. Pollution Release and Transfer Registers systems, then emission factors that may not always produce quality data may be sufficient. Continuous emission monitoring requirements are not necessary, and administrative quality checking procedures may be sufficient.

4 CONCLUSION

Only northern countries were represented in the workshop so we were hesitant to come up with action items or decisions for INECE. However, we did agree that the use of self monitoring is increasing , but may vary based on needs. Common definitions must be developed so the international community can speak with similar understanding. We also recognized that data produced by self-monitoring can be used in different purposes like in Pollutant Release and Transfer Registry (PRTR) but also in the compliance monitoring arena. Self-monitoring should be a part of training courses organised under INECE's umbrella, and INECE should help distribute and publicise case studies and examples so that countries can share experience and expand existing work to global scale.

SUMMARY OF WORKSHOP: ENVIRONMENTAL INFORMATION SYSTEMS: INSTITUTIONAL REQUIREMENTS FOR COLLECTION, MANAGEMENT, AND ACCESS

Facilitators: Robert Chouinard
Piet Müskensl
Rapporteur: Michael Stahl

GOALS

- Consider different information systems currently in use, their role in environmental management, their strengths and weaknesses.
- Discuss implications of expanded public access to compliance and enforcement information.
- Identify roles INECE can play in sharing information about compliance and enforcement data systems.

1 INTRODUCTION

Questions presented by facilitators:

- Do you use or plan to use information management systems?
- What role can INECE play in information sharing about such systems?
- To what degree should public access be featured in such systems?

2 PAPERS

Greert Van Grootveld and Pieter Van Der Most, *Information to Facilitate Environment Compliance and Enforcement* (6th Conference Proceedings, Volume 1).

3 DISCUSSION SUMMARY

The workshop participants began by describing systems currently in use and the strengths and weakness of those systems. All participants agreed on the need for systems that were designed to achieve specific purposes (e.g., data for inspectors, information for policy makers, etc.); utilize data that is accurate and timely; and rely on appropriate and affordable technology.

At the same time, participants offered a litany of weaknesses in the systems they are using. Many cited resource issues as a significant impediment. These issues included lack of adequate funding to maintain or upgrade systems, and lack of trained staff to enter data in a timely and accurate manner. Another category of weaknesses focused on the fragmentation of systems, each serving a specific purpose but unable to link to other systems to produce more sophisticated data and enable more thoughtful analysis. This inability to integrate data is a serious obstacle to using data for managing enforcement and compliance programs. The participants felt that the best way to address and overcome this obstacle was not to design single comprehensive systems but to build links between current systems that would allow information to be organized in more useful ways.

In considering the role INECE could play in information sharing about such systems, participants made two specific suggestions. The first suggestion was for INECE to collect and disseminate best practices regarding enforcement and compliance information systems. In this best practices role, INECE was urged to tailor

information to meet both the needs of developing nations that are in the early stages of system design, and the needs of developed nations that may be attempting to upgrade, modernize, or integrate existing information systems. These best practices could be gathered from the actual experience of various nations and made available or actively distributed through the INECE web site or other specialized delivery mechanisms.

A second suggestion about the INECE role was to provide an enhanced "help desk" function to provide quick responses to requests for particular types of enforcement and compliance information. Agencies could use this function to post inquiries for which they were seeking advice from other nations. These inquiries could include technical advice about aspects of specific enforcement matters, issues about maintenance and management of information systems, or advice about improvements or enhancements to those systems.

The workshops also discussed the degree to which public access should be featured in enforcement and compliance information systems. There was general recognition that some types of enforcement and compliance information should not be made public. Specifically, information pertaining to ongoing investigations and enforcement cases should not be shared with the public. But there was also recognition of the many benefits possible through public access to other types of enforcement and compliance information. For example, public access to the compliance histories of facilities, companies, or industries could motivate those entities to improve their environmental management and their efforts to maintain compliance. Also, public access to data about agency activities and results can enhance accountability and build understanding and support among the public.

4 CONCLUSION

The workshop participants felt that there was a role for INECE to play in expanding public access to enforcement and compliance information. Participants recognized that INECE could not be prescriptive in designing specific aspects of public access efforts in individual nations. Instead, each nation would need to make its own choices about the nature and amount of information it could make available to the public. However, INECE could make a valuable contribution by endorsing the concept of public access to compliance and enforcement information, delineating the benefits of public access and making nations aware of those benefits, and organizing expertise that could be offered to assist nations with efforts to expand public access.

SUMMARY OF WORKSHOP: INFORMATION MANAGEMENT AND ENFORCEMENT: ENSURING EFFECTIVE APPLICATION AT THE WORKING LEVEL

Facilitator: Kenneth Markowitz
Chris Currie
Rapporteur: Ana Maria Kleymeyer

GOALS

Identify the needs of users of information and develop systems responsive to their specific tasks, functions, roles, decisions, and problems. Issue recommendations for applying technology at the working level to lead to more protective, sustainable, measurable, and cost-efficient decisions.

1 INTRODUCTION

Questions presented by facilitator:

- What is a good way to improve between management and field operation units?
- What methods can be used to ensure the accuracy of information?
- Is information useful and (accessible) for managers, inspectors, etc. in order to enable them to apply it effectively in their work?
- Are countries using geographic information systems (GIS) to make linkages between data or to assist in environmental decision-making/priority setting?
- How are attorneys in Central America managing access to information from the Ministry of the Environment?
- How can INECE assist information sharing and distribution? Can INECE provide needs assessment?

2 DISCUSSION SUMMARY

Question 1: What is a good way to bridge the communication gap between management and field operation units? Cesar Luna suggested that we should begin by defining local information systems. Mr. Luna asked if there are countries where companies are not required to turn over information on environmental performance? Ana Maria Magroe Silva noted that the European Union requires information and inspections. Portugal has been a member of the European Union since 1986. Self-monitoring is required of companies. Roy Watkinson noted that information/data extended beyond performance indicators to the actors in the equation (even those outside of the normally monitored sphere). Feedback is critical to the ground-workers (individuals either creating, responding to, preventing environmental problems).

Question 2: What methods can be used to ensure the accuracy of information? One commenter noted the value of the established quality assurance and qaulity control procedures. Other ideas included keeping a log for chain of custody.

Question 3: Is information useful and accessible for managers, inspectors, etc. in order to enable them to apply it effectively in their work? Greg Linsin gave the example that in relation to CFCs, comparing databases to see where differences and conflicts arise in relation to the same operators can reveal discrepancies, incon-

sistencies, and inaccuracy. Mr. Linsin questioned whether systems could be used to verify the information coming in. Wolff discussed the use of numerically integrated profiling system (NIPS) that can be used for tasks including comparing imports/exports for what was entering in the border and for data mining. Programs (platforms) are available from the US government (Customs Services). Ms. Magro e Silva noted that the same inspector would never visit a given site twice to allow for different perspectives. Coordinators read reports to evaluate both the information and the different stories. Mr. Watkinson noted that regarding the European Union, use of standardizing reporting, available through Brussels (centralized), may be inefficient.

Question 4: Are countries using geographic information systems (GIS) to make linkages between data or to assist in environmental decision-making/priority setting? Dave Pascoe noted that the US is using GIS as an emergency response tool in the Great Lakes area (oil spills). GIS tools can be used to project where the spill will hit the shore and what species will be impacted. Resource managers can then use this information to prevent impact. For example, they can quickly locate and prioritize sensitive habitat areas for protection. In the long term, GIS can assist in determining if the environment is improving, based on work the government and industry has undertaken. Mr. Watkinson raised the issue of data transparency versus sensitivity by questioning how to maintain sensitive information on a need-to-know basis.

Ms. Miocic noted that in Croatia, systems exist for military but are not used for environmental purposes. The Ministry of the Environment is trying to encourage information sharing between the ministries so as to not duplicate cost and work. However, if the military collects the data through consultants, should Ministry of the Environment do it again?

Ken Markowitz argued that data collection for environmental projects should be collected in a way that fulfills the intended purpose. Mr. Linsin noted the need to ensure that law enforcement officials do not direct the regulators specifically for criminal enforcement purposes.

Mr. Cruden noted that publicizing data informs people and also keeps companies in check (reputation). Tensions develop from concerns about security breaches (e.g. access to such information via terrorism). U.S. is drowning in data [although it, of course, should be noted that countries may be lacking data collection tools and infrastructure to maintain large databases] nevertheless, not every company is providing data. If every company does not, then the database may be incomplete or inaccurate. INECE should make recommendations about data-sharing efficiencies and about how data collection and database maintenance could be best managed. Wolff gave the example of a petroleum extractor in Niger Delta region. Corporations use monitoring systems effectively, because they recognize the benefits. However, it is not the same for governments (Again, this is big business, what about small/local businesses?). The majority of information is available - and examples include information layering for use by different users, RAMSAR (Wetland Convention) sites, using satellite imagery of sites to determine change over time (benefits of small cost). Lilliana Arrieta argued that this is not the reality for many user groups who could benefit from efficient data sharing. Developing countries have no data. The international environmental community requires that countries provide reports, but information is lacking. INECE could assess what countries could do to achieve this level.

Question 5: How are attorneys in Central America managing access to information from the Ministry of the

Environment? Corruption impacts the transfer of information. Mistrust by attorney generals exists as to what the lawyers will use the information for. These processes are not carried out in accordance to the law. Ministry of Environment is under criminal proceeding, as well as Forestry, etc. Change in government has led to increased coordination. In relation to NGOs, the Attorney General is interested in improving their relationship. NGOs have an easier time filing complaints than individuals (not international organizations). Many NGOs currently have filed complaints. Furthermore, there is a move to use the NGOs as witness, experts, and information providers. Ms. Magro e Silva warned that this is an area to be very careful with. As the system develops, NGOs play an increasingly less important role. Careful with the projects you give to NGOs because some projects can sidetrack them. If you give them a project, then they will shut up. Martinez noted that it is one thing to have a database on the state of environment, and another thing to have a database on a particular topic. Recommendation: in areas of limited resources, get someone who's a mover to convince someone with the money to invest. Or look for where the information already exists and try to get access to that.

In the US, programs have started out at critical sites (high sensitivity, such as the Chesapeake Bay), then developed from there. The disconnect between data handlers and data managers has developed over time (since the information became housed). Croatia has an obligation to create an environmental agency, and having been given the choice between a large or small agency chose to develop a small-scale one. The agency is using experts to focus on specific problems (e.g. getting assistance from the EU) and will then build from there.

Question 6: How can INECE assist information sharing and distribution? Determine what is the minimum "type" of information necessary to begin with. Start with international requirements (minimum standards). Information clearinghouse:

- Compile/consolidate location of data sources.
- Facilitate location of data-information (bases) for specific needs.
- Organize information
- Encourage/sponsor needs assessment for information (step before providing bases; educates/informs)
- Information training on environmental issues for judges
- Other considerations that arise are in some countries, inspectors are lawyers, and in others they are engineers, which creates information/communication divides. Not a question of which bases there are, but what people want to use databases for. Needs assessment. Clearly defining what an inspection is, what an inspector does leads to defining the parameters of data collection.
- Judges are under-informed of the gravity/impact of the environmental harms, providing minimal punishment, which results in no deterrence.
- Data is not enough. People working in compliance and enforcement need to translate the data into the harm.
- Train public prosecutors in environmental issues (Netherlands). Environmental workers can help train those within the judicial (penalties/deterrence) system.
- Returns the need to improve judicial familiarity with environmental infractions.
- Needs assessment for INECE should take into consideration the difference between the development of data/information collection systems AND information sharing (internal and trans-boundary).

- Latin America: frameworks exist on the regional level that provide a basis for coordinating work (Andean Pact, Mercosur, Caricom, Central American group)

3 CONCLUSION

- Devise a questionnaire for the Web site. What do people/groups need? What are the critical issues?
- Share information on experiences. Give examples from other countries. Organize simply, in a way that countries can access info & advice from similarly situated countries (experiences).

INECE could organize a mission for developed countries to assist with start up. For example, INECE could lend support by sending a team of experts to NIS countries to help organize and develop programs (note - Armenia receives a significant amount of help/resources, but does not know how to use them most effectively). INECE must consider that obstacles might be in the government system of the countries; they will need to develop/plan so that the "delegation" is well received and that the support is effective. INECE should further consider how to maintain momentum. If projects are to be effective, they must be sustainable beyond good ideas and base funds. For example, coordinating with the regional organizations (infrastructure) could assist in maintenance.

Discussion ends focused on assisting developing countries. Has the discussion sufficiently addressed the global issues? What are the recommendations for INECE in terms of industrialized country needs? Those interested in participating in an informal working group with INECE to advance these ideas were Roy Watkinson, Cesar Luna, Evan Wolff.

SUMMARY OF PLENARY SESSION #6: INFORMATION COLLECTION, STANDARDS, SHARING, ACCESS, CREDIBILITY AND USE

Moderator: Terrence Shears
Rapporteur: Paul Hagen

1 INTRODUCTION

This panel discussed information management needs and presented ideas on data systems that assist enforcement personnel. In addition, it addressed the management and accessibility of data and information.

2 PRESENTATIONS

Terrence Shears from the Environment Agency for England and Whales and Coordinator of the European Network for the Implementation and Enforcement of Environmental Law (IMPEL) made introductions. He observed that information is the "life blood" of regulatory systems. He also noted that the European Community is taking steps to implement the requirements of the Aarhus Convention.

Ms. Cardenas, who is a Special Assistant to EPA Regional Administrator Greg Cook for Region 6, described EPA's Performance Track Initiative and related Texas state initiatives aimed at promoting the use of environmental management systems. The Performance Track Initiative was described as a voluntary program that encourages companies to develop environmental management systems. The national program is only available to companies that have demonstrated compliance with environmental laws for a period of five years. The program began in 2000 and goes "above and beyond" compliance. EPA's criteria for the program is not rigid. For example, companies need not be ISO 14001 certified to participate.

Texas has also initiated a "Clean Texas Companies" program that also encourages the use of environmental management systems. Recent changes to the EPA and Texas programs now allow companies that qualify for one program to easily qualify for the other. EPA Region 6 was the first to conclude a Memorandum of Understanding with a State to streamline the application procedures for the Federal program. Texas has also recently adopted regulations that promote the use of environmental management systems.

EPA has also developed a pilot program called "E-Plans" that makes facility information available to emergency response officials over the Internet. Through a dedicated website, local emergency responders can access information on the hazards associated with certain facilities and can be better prepared to respond to emergencies. The program has been modified following the terrorist attacks on the U.S. last year and currently only emergency response teams and not the general public have access to the database of facility information.

Mr. Santosa founded the Indonesian Center for Environmental Law (ICEL) and is currently working on freedom of information initiatives in Indonesia. He noted that information access continues to be quite limited in Indonesia despite legal authorities that require the government to disclose information to the public. The Constitution, General Legislation and Environmental Legislation all provide some mechanisms for the public disclosure of environmental information. Specifically, provisions in the Environmental management Act No. 23/1997 and regulations related to environmental impact assessment establish the public's right to information.

However, there are several barriers to the public availability of environmental information. These include the absence of established information management systems within the government and the lack of information producing activities within government agencies. Indonesian agencies also operate under a culture of secrecy.

Recent efforts to improve the situation include the introduction of the "Freedom of Information Bill." The Bill emphasizes "maximum access with limited exemptions." The proposed legislation is a comprehensive package that emphasizes:

- Right to know;
- Right to inspect;
- Right to obtain;
- Right to be informed; and
- Right to disseminate.

The legislation also calls for penalties to be imposed on persons who intentionally block access to information. The prospect for final adoption of the legislation is unclear.

Other efforts related to expanding information access to include the promotion of information access in various regulatory, legislative and international initiatives. Work is ongoing within the Ministry of Environment on performance indicators. Information access has also figured prominently in NGO papers and advocacy in the run-up to the World Summit on Sustainable Development. Mr. Santosa noted that the challenge of expanding public access to information is made more difficult by the absence of strong public pressure for change.

Mr. Wang described several performance rating and disclosure initiatives undertaken in various countries with the assistance of the World Bank. He reported that the World Bank had determined that indigenous enforcement, incomplete enforcement, informal regulation (often driven by public expectations in the absence of government regulations) and market responses to environmental news all play a role in the development of successful public disclosure initiatives. External pressure for pollution control can be brought to bear on polluters by the government, the community and markets. All of these pressure points are related and are more effective with robust information disclosure programs.

Information disclosure often enhances the roles markets and the pubic play in pressuring industry to enhance its environmental performance. He cited the U.S. Toxics Release Inventory (TRI) and the "Scorecard" developed by Environmental Defense (a U.S.-based NGO) as successful performance reporting and disclosure models. These programs are generally viewed as "public-oriented environmental information systems." Together, these programs provide governments, the public and industry with important information on polluting facilities and pollutant releases. Historic data is also provided. The databases provide information on chemical releases but not necessarily risks to the community, but instead leave interpretation to the users of the data.

A second approach to a public disclosure strategy can be described as "performance rating and disclosure". The World Bank had recently assisted Indonesia in the development of such a program based on a color rating systems for the environmental performance of industrial facilities. Facilities with high ratings are selected for public praise and recognition for their superior environmental performance while facilities with low scores would be identified as large polluters as a means of building public pressure on the companies. Early results suggest that polluting facilities are sensitive to this kind of public pressure and have improved their environmental performance.

Mr. Wang also described the China "Green Watch" program which is supported

by the World Bank. The Green Watch program currently involves two pilot programs in two Chinese cities: Hohhot and Zhenjiang. Like the Indonesia program, this initiative seeks to categorize industrial facilities into an environmental performance ranking linked to five separate color categories (Green being the highest environmental performance). These rankings are made public through media releases. The results of the program have been positive and include better communication between the government and the public, commitments by polluters to enhance their environmental performance, and increased public awareness and participation. The Chinese government is considering ways to expand the pilot programs into a broader national initiative.

3 DISCUSSION

The first question posed for discussion: a representative of the U.S. EPA observed that the Agency had encountered problems accessing information available in other countries on environmental matters related to pesticides. She asked if the panelists had encountered similar problems.

Ms. Cardenas noted that until recently, the U.S. had encountered problems in its efforts to obtain data on emission sources in Mexico that were believed to be contributing to air pollution problems in national parks in the border region. Mr. Santosa noted that in his experience, it was often easier to obtain information from governments by going through international institutions that can often obtain a better response to requests for information.

A second question posed asked whether legislation is a pre-requisite to information access. Mr. Santosa noted that legislation requiring public disclosure was one of several important tools required to provide the public with information. In Indonesia, he views the proposed Freedom of Information Bill as an important "first step."

4 CONCLUSION

All speakers agreed that the collection and public dissemination of environmental data can raise public awareness of environmental problems and can serve as an important driver in raising the environmental performance of industries.

INECE can serve a vital role to access the information use and data collection needs of enforcement practitioners and develop knowledge sharing systems that are accessible and credible.

THE RECOGNITION OF RIGHT TO INFORMATION

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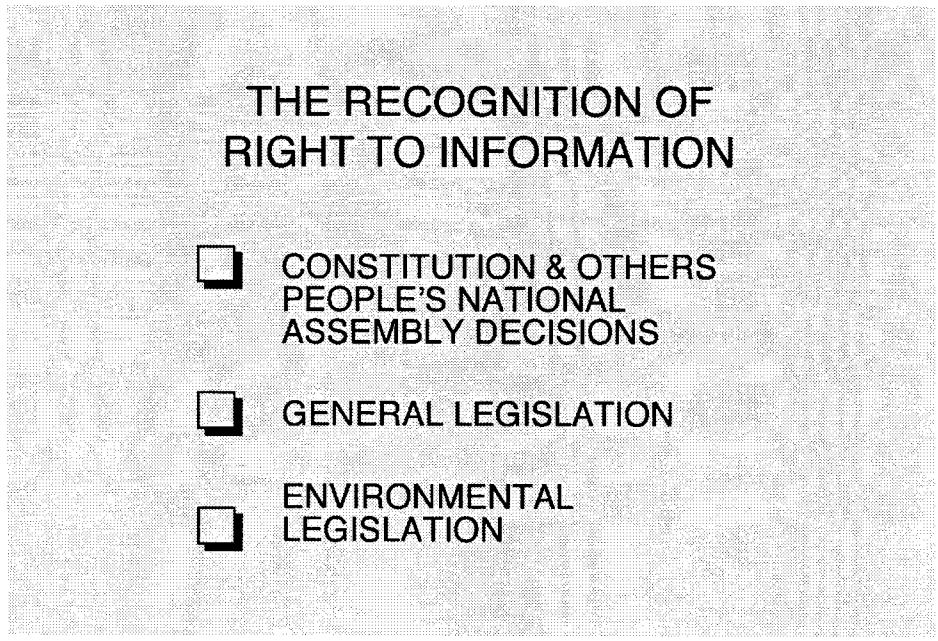


ENVIRONMENTAL MANAGEMENT ACT NO. 23/1997

"EVERY BODY'S RIGHT & ACCESS TO ENVIRONMENTAL INFORMATION WHICH INCUDES AMONG OTHERS DOCUMENT OF EIA, ENVIRONMENTAL REPORT, RESULT OF PERIODICAL COMPLIANCE MONITORING, THE MONITORING OF THE ENVIRONMENTAL QUALITY'S CHANGE, SPATIAL PLANNING, AND LICENCES FOR ACTIVITIES WITH SIGNIFICANT ENVIRONMENTAL IMPACT"

REGULATION NO. 27/1999 ON EIA

- The obligation of the proponent & government to notify/announce the public that the proponent is going to conduct EIA
- The right of the public to obtain all documents related to EIA process including suggestions, opinions, comments from the publc, the conclusion of the Review Commission, and decision of the Governor/MInister of Environment on the environmental feasibility (after EIA document is accepted)

MAJOR GAPS OR LACK OF PROGRESS IN ENSURING ACCESS TO ENVIRONMENTAL INFORMATION

- LACK OF ADEQUATE INFORMATION MANAGEMENT SYSTEM
- NO INFORMATION TO BE PROVIDED BECAUSE NO ACTIVITIES THAT PRODUCE INFORMATION
- BUREAUCRATIC CULTURE OF SECRECY

MAJOR GAPS OR LACK OF PROGRESS IN ENSURING ACCESS TO ENVIRONMENTAL INFORMATION

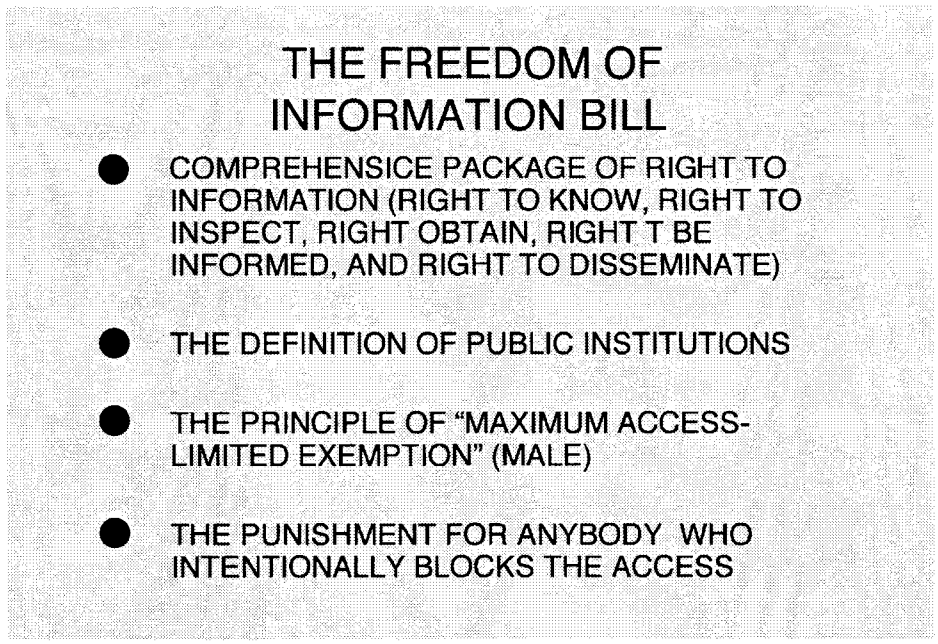
- LACK OF PROCEDURE & MECHANISM TO ENABLE PEOPLE TO EASILY ACCESS TO ENVIRONMENTAL INFORMATION
- ABSENCE OF STRONG PUBLIC PRESSURE & DEMAND

EFFORTS & INITIATIVES TO OVERCOME THE MAJOR GAPS

- THE INTRODUCTION OF THE FREEDOM OF INFORMATION BILL
- WORKING WITH MOE TO ADOPT THE PERFORMANCE INDICATORS (PI) THREE PILLARS PREPARED BY THE GLOBAL ACCESS INITIATIVE PROJECT
- THE COMMITMENTS OF THE COALITION MEMBERS TO EMPLOY INFORMATION ACCESS OFFICER TO EXEMPLIFY DEMANDS

EFFORTS & INITIATIVES TO OVERCOME THE MAJOR GAPS

- INTEGRATING THREE PILLARS INTO ON GOING LEGISLATION MAKING PROCESS
- INTEGRATING THREE PILLARS INTO VARIOUS PÓSSIBLE INTERNATIONAL INITIATIVES
- TO LOBBY KEY DECISION MAKERS TO POSTPONE THE PASSAGE OF STATE SECRET BILL BEFORE THE PASSAGE OF FOI BILL
- NATIONWIDE PUBLIC CONSULTATION TO GAIN PUBLIC SUPPORT FOR FOI BILL


THE FREEDOM OF INFORMATION BILL
COMPREHENSICE PACKAGE OF RIGHT TO INFORMATION (RIGHT TO KNOW, RIGHT TO INSPECT, RIGHT OBTAIN, RIGHT T BE INFORMED, AND RIGHT TO DISSEMINATE)
THE DEFINITION OF PUBLIC INSTITUTIONS
THE PRINCIPLE OF "MAXIMUM ACCESS-LIMITED EXEMPTION" (MALE)
THE PUNISHMENT FOR ANYBODY WHO INTENTIONALLY BLOCKS THE ACCESS

PUBLIC RATINGS OF INDUSTRY'S ENVIRONMENTAL PERFORMANCE: CHINA'S GREENWATCH PROGRAM[1]

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SUMMARY

This paper describes a new incentive-based pollution control program in China, in which the environmental performance of industrial firms is rated and reported to the public. Firms are rated from best to worst using five colors — green, blue, yellow, red and black – and the ratings are disseminated to the public through the media. The impact on rated firms has been substantial, suggesting that public disclosure provides a significant incentive for industrial firms to improve their environmental performance.

The first two pilot programs in Zhenjiang and Hohhot are presented in this paper. The evidence to date suggests that public disclosure of environmental performance will be an important new component of China's system for pollution management. Implementation should be feasible in most of China, because technical and design issues are not overly complex, and the costs of design and implementation are not high in China, since most of the necessary information already exists in the records of provincial and local Environmental Protection Bureaus. The Zhenjiang and Hohhot experiences have suggested that for a successful implementation of disclosure, government support and involvement at all levels of China are critical, and timing of disclosure is also very important in this context.

1 INTRODUCTION

Public disclosure of firms' environmental performance has been characterized as the "third wave" of environmental regulation, after command-and-control and market-based approaches (Tietenberg, 1998). Its growing popularity stems from initial evidence that disclosure has reduced emissions in North America and Southeast Asia,[2] as well as the perception that it is a low-cost regulatory option because it does not require formal enforcement procedures. The potential for cost saving has particular appeal for developing countries' environmental agencies, which have very limited resources for monitoring and enforcement of pollution regulations.

China's State Environmental Protection Agency (SEPA) has become interested in public disclosure because China's pollution problem remains severe, despite long-standing attempts to control it with traditional regulatory instruments. Chinese regulators have also been influenced by the rapid spread of pollution disclosure systems to other Asian countries after pilot programs were initiated by Indonesia and Philippines, in collaboration with the World Bank's Development

Research Group (DECRG) in 1995 (World Bank, 1999). At present, environmental agencies in Thailand, India and Vietnam are also working with the World Bank and other institutions to implement disclosure programs. From the Chinese perspective, rapid adoption of disclosure in North America, Western Europe and Australia has further enhanced its credibility.

As a result, China has begun pilot experiments with "third wave" regulation. Since late 1998, supported by the World Bank's Information Development Program, the authors have been working with China's State Environmental Protection Administration (SEPA) to establish Greenwatch, a public disclosure program for industrial polluters. Adapted from Indonesia's PROPER, the Greenwatch program rates industrial environmental performance from best to worst in five colors – green, blue, yellow, red and black. The ratings are disseminated to the public through the media. Two municipal-level pilot Greenwatch programs have been implemented, in Zhenjiang, Jiangsu Province, and Hohhot, Inner Mongolia. Reaction to the pilot programs has been positive, and Jiangsu has decided to promote province-wide implementation of Greenwatch. SEPA currently plans to launch pilot programs in other areas, in preparation for nationwide implementation of public disclosure.

This paper describes China's Greenwatch program and discusses the lessons learned to date, including the feasibility and desirability of national adoption. The remainder of the paper is organized as follows. Section 2 provides an introduction to public disclosure as a strategy for pollution control. In Section 3, we discuss the role of disclosure in China's approach to environmental management. Sections 4 and 5 discuss the Zhenjiang and Hohhot programs, respectively, while Section 6 discusses the implications of the Greenwatch experience.

2 PUBLIC DISCLOSURE: THE "THIRD WAVE" OF ENVIRONMENTAL REGULATION

The first phase of pollution control involved applying traditional legal remedies, such as emissions standards, to the regulated community. Over time, however, it became clear that these traditional regulatory approaches were excessively costly in some circumstances (Tietenberg 1985) and incapable of achieving the stipulated goals in others (Tietenberg 1995). Failures have been especially common in developing countries, where legal and regulatory institutions are often weak (Afsah, et al., 1996).

In response to these deficiencies, the second phase of pollution control focused on market-based approaches such as tradable permits, emission charges, deposit-refunds and performance bonds (Hahn 1989; OECD 1989; Tietenberg 1990; OECD 1994; OECD 1995). In some instances they have substituted for traditional remedies, but in most cases they have complimented them. In the OECD and Eastern Europe, these approaches have added both flexibility and improved cost-effectiveness to pollution control policy. Pollution charges have also contributed to improved environmental performance in developing Asia and Latin America, with particularly noteworthy examples in China (Wang and Wheeler, 2000), Philippines (World Bank, 1999), Malaysia (Vincent, 1993; Khalid and Braden, 1993; Jha et al., 1999), and Colombia (Arbeláez, 1998).

Even the addition of market-based approaches, however, has not fully solved the problem of pollution regulation. Regulatory systems remain overburdened by the sheer number of substances to be controlled. Neither staffs nor budgets are adequate for the task of regulating all of the potentially harmful substances that are emitted by firms and households. In many developing countries, these difficulties are compounded by the problems associated

with designing, implementing, monitoring and enforcing market-based regulations.

To counter these problems, the "third wave" of pollution control policy involves investment in the provision of information as a vehicle for making the community an active participant in the regulatory process. The timing of this increasing role for disclosure strategies seems to emanate from the perceived need for more regulatory tools (as described above); the falling cost of information collection, aggregation and dissemination; and the rising demand for environmental information from communities and markets. Rising benefits and falling costs have enhanced the appeal of public disclosure as a regulatory tool.

From a conceptual perspective, the starting point for thinking about information approaches to pollution control is the Coase Theorem (Coase 1960). In his landmark essay, Coase pointed out that pollution control situations have a certain symmetry. Inefficient pollution imposes costs on victims, which exceed the costs of controlling that pollution, so that the marginal social benefits of pollution control exceed its marginal costs. The existence of inefficient pollution damage therefore provides a motivation for the victims to take corrective action, even in the absence of any such incentives by the polluters.

Recently, economists have learned that the list of victims can be very large indeed, much larger than originally thought. The list of potential victims includes not only those harmed directly by the pollution, but also those who may be disturbed by it even if they are not directly affected. The fact that this "nonuse" value of pollution control can be quite large has become a familiar result to those conducting contingent value surveys. The pressure to control pollution therefore can arise from victims experiencing both use and nonuse damages.

One standard precondition for decentralized processes to work efficiently is for the decision-makers to have full information. In the case of victims taking action to control pollution, this precondition is not likely to be met. Information about environmental risks is asymmetrically distributed. In a typical case the polluters and/or regulators, not the victims, hold the best knowledge about emission profiles. Furthermore, the polluters are unlikely to share the information with victims in the absence of outside pressure to do so. In addition, bureaucratic inertia and/or legal constraints have frequently prevented information sharing by regulators.

In this context, public disclosure provides a promising compliment to conventional regulation through several channels. The first is "informal regulation," or community pressure on polluters. Even low-income communities have proven willing and able to penalize polluters when information about their emissions is available. Abundant evidence from Asia and Latin America shows that neighboring communities can strongly influence factories' environmental performance (Pargal and Wheeler, 1996; Hettige, Huq et al., 1996; Huq and Wheeler, 1992; Hartman, Huq et al., 1997). Where formal regulators are present, communities use the political process to influence the strictness of enforcement. Where regulators are absent or ineffective, nongovernmental organizations and community groups apply pressure through a variety of channels, including religious institutions, social organizations, citizens' movements, and politicians. Although the channels vary from region to region, the pattern everywhere is similar: Factories negotiate directly with local actors in response to threats of social, political or physical sanctions if they fail to compensate the community or to reduce emissions.

Well-informed market agents can also play an important role in creating pressures for environmental protection. Bankers may refuse to extend credit because they

are worried about environmental liability; consumers may avoid the products of firms that are known to be heavy polluters. The evidence suggests that multinational firms are important players in this context. These firms operate under close scrutiny from consumers and environmental organizations in the high-income economies. Investors also appear to play an important role in encouraging clean production. Heavy emissions may signal that a firm's production techniques are inefficient. Investors also weigh potential financial losses from regulatory penalties and liability settlements. Numerous studies suggest that stock markets in both developed and developing countries react significantly to environmental news (Muoghalu et al., 1990; Lanoie and Laplante, 1994; Klassen and McLaughlin, 1996; Hamilton, 1995; Lanoie et al., 1997; Konar and Cohen, 1997; Dasgupta, et al., 1997).

To summarize, recent research suggests that public information about polluters can operate effectively through community and market channels that compliment the effect of formal regulation. During the past decade, a number of regulatory initiatives have attempted to exploit this potential to reduce pollution. In many cases, such programs have focused on toxic pollutants that are not covered by conventional regulation. Examples include the US Toxic Release Inventory; Canada's National Pollutant Release Inventory; the UK's Pollutant Inventory; Australia's National Pollutant Inventory (Tietenberg and Wheeler, 2001); and UN-sponsored Pollutant Release and Transfer Registers in Mexico, Egypt and the Czech Republic. Recently, the public disclosure approach has also been applied to water pollutants in Canada, Indonesia and Philippines, with similar programs planned in India, Thailand and Vietnam. China's pilot disclosure programs are unique in breadth, since they cover all major air, water and toxic pollutants.

3 INDUSTRIAL POLLUTION CONTROL IN CHINA

3.1 China's Industrial Pollution Problem

China's industrial growth has been extremely rapid during the period of economic reform. In the 1990's, the output of the country's millions of industrial enterprises has increased by more than 15% annually. Industry, China's largest productive sector, accounted for 47% of its gross domestic product and employed 17% of the country's total labor force in 1995. While industry has helped lift tens of millions of people out of poverty, its polluting emissions have also produced serious environmental damage. Recent research (Bolt, et al., 2001) suggests that China's air pollution problem is the worst in the world (Table 3.1). With over 300,000 premature deaths per year, China accounts for over 40% of the total for the developing world, more than twice the number for South Asia, which has a comparable population. Similar percentages characterize other measures of health damage. In Table 3.2, a translation of these results to economic costs suggests a GDP loss of 4% annually, over twice the estimate for India and much higher than losses for other major industrial economies in the developing world.

Chinese industry is a primary source of this problem. China's State Environmental Protection Administration (SEPA) estimates that in 1995, industrial pollution accounted for over 70% of the national total, including 70% for organic water pollution (COD, or chemical oxygen demand); 72% for sulfur dioxide emissions; and 75% for flue dust (a major component of suspended particulates).[3] For this reason, SEPA has declared control of industrial pollution to be a top priority for Chinese regulators. During the past decade, conventional regulation has probably saved millions of lives by holding the growth rate of total emissions well below the growth

rate of industry (Dasgupta, Wang and Wheeler, 1997). However, the continuing severity of pollution has led the Chinese government to experiment with public pollution disclosure as a possible compliment to existing measures.

3.2 The Role of Public Disclosure in Chinese Environmental Management

Public disclosure has two potentially important roles to play in China's system of regulating industrial pollution: strengthening of regulatory institutions and encouragement of public participation in regulation. In many cases, Chinese regulators already have the information needed for public rating of environmental performance. Many agencies receive regular, facility-level reports on EIA status, emissions, pollution control investments, field inspections and accidents. Some measures are explicitly tied to public participation. For example, EIA reports must include strong evidence of participation in project assessment by affected local communities. However, public disclosure also significantly raises the ante by pressuring regulators toward more accurate and timely record keeping. With its credibility on the line in a disclosure program, a regulatory agency has a strong incentive to maintain high internal standards. This is particularly true for emissions monitoring, which provides the foundation for an environmental performance rating system. Performance-based ratings also provide a valuable environmental management tool for enterprises, which in many cases have never undertaken a comprehensive assessment of their environmental performance.

The experiences of Hohhot Municipality and Zhenjiang City suggest that disclosure also changes the balance of environmental initiative between the private and public sectors. Prior to disclosure, enterprises in both areas generally resisted regulators' attempts to monitor them more closely. After disclosure attracted widespread publicity through the news media, however, companies perceived an impact on their public image and the market image of their products. Enterprises that improved their performance immediately requested new monitoring reports so that their public ratings could be improved as well. Enterprises with poor ratings shifted from passive resistance to active solicitation of inspections, as a means of improving their performance ratings. At the same time, enterprises with good ratings felt continued pressure to maintain their environmental performance to avoid complaints from the public about backsliding.

3.3 The Feasibility of disclosure in China

3.3.1 Legal support

Chinese law provides ample precedent for the use of public disclosure to control pollution. For example, the Constitution of the PRC states that, "all rights in the PRC belong to the people. The people manage state affairs, economic and cultural affairs, and social affairs by various means in accordance with the law." For regulation, this principle accords the people the right to supervise the environmental work of state authorities, as well as discipline them for illegal behavior. In the Environmental Protection Law of the PRC, Article 6 prescribes that, "all units and individuals have the obligation to protect the environment, and have the right to impeach and accuse units and individuals that pollute and damage the environment;" Article 11 prescribes that "the competent administrative department of environmental protection under the State Council establishes monitoring systems, constitutes monitoring criteria, organizes monitoring networks with related departments, and strengthens management of environmental monitoring. The

competent administrative departments of environmental protection under the State Council, provincial and municipal governments shall regularly publicize environmental status reports." Similar provisions appear in China's Air Pollution Prevention and Control Law, Water Pollution Prevention and Control Law, Marine Environment Protection Law, and Environmental Noise Prevention and Control Law.

Information disclosure and pubic participation also feature prominently in government declarations, as well as international conventions signed by China. For example, in the Rio Declaration, signed during the United Nations Conference on Environment and Development in 1992, the 10th Principle prescribes that individuals should have access to government information about environmental hazards in their communities, and should be able to participate in decisions about regulation of these hazards. Another example is provided by the Chinese State Council's Decision on Several Issues Related to Environmental Protection, which encourages public participation in environmental regulation and defines an important role for the news media in publicizing actions that damage the environment.

3.3.2 Social support

In the information age, public opinion has proven to be a powerful force in every society. This force is best mobilized by the major print and broadcast media, since their content is easily understood by the public. Often, in fact, large enterprises seem more concerned about media pressure than about the authority of government regulators. In 1997, for example, the Chinese Central Television Program disclosed non-compliance by some polluters in the Huai River Basin. As a result, both the polluters and the local authorities came under great pressure to improve their performance. Public disclosure of polluters is a natural compliment to continuing reform of political and economic institutions in China and the new emphasis on transparency in political life and economic management. Currently, environmental protection seems to rank high among the concerns of urban residents. In 1999, the Social Survey Institute of China (SSIC) surveyed the public-agenda priorities of households in Beijing, Shanghai, Tianjin, Guangzhou, Chongqing, Wuhan and other cities. The survey covered issues related to corruption, law enforcement, inflation, equity and environmental protection. Corruption was the primary concern, followed by environmental protection, with 66% of households rating the latter as very important. In light of such findings, it seems clear why public disclosure of environmental performance can be a potent force for change.

3.3.3 Technical support

Accurate information provides the essential foundation for public ratings of environmental performance. Accuracy, in turn, depends on the quality of information-gathering technology, and on the reliability of record-keeping by the authorities. After establishment of the national task force on environmental monitoring 20 years ago, China has been making significant progress on this front. At present, there are over 4,800 environmental monitoring units in China, employing over 60,000 people. The current system uses standardized monitoring equipment, deployed to cover both the ambient environment and polluting emissions. Over 3,600 environmental supervision units, with a working staff of over 26,000 people, oversee it.

3.3.4 Institutional precedents

Although comprehensive public disclosure is new in China, the government has previously recognized truly superior environmental performance. Since 1989,

SEPA and its predecessor (NEPA) have maintained a list of enterprises with excellent environmental performance. Enterprises are listed on the recommendation of provincial environmental protection bureaus, after vetting by a national Panel of Evaluation and Assessment whose representatives come from the national agency, the General Environmental Monitoring Station of China and other ministries. By 1997 this assessment had been conducted 6 times, and 500 enterprises had been awarded the title, 'Nationwide Advanced Enterprise on Environmental Protection.' Over time, numerous enterprises have been removed from the list for failure to maintain standards consistent with the award. However, over 180 enterprises have retained their excellent ratings.

4 PUBLIC DISCLOSURE IN ZHENJIANG

4.1 Program Design

Zhenjiang is a city located in Jiangsu Province, a southeast province and one of the richest areas in China. Zhenjiang's disclosure program reflects design principles that have proven successful in previous disclosure programs in Indonesia and the Philippines. First, the performance rating system should be simple and its implications easily understand and accepted by the public. Second, it should provide information on both superior and inferior performance. Finally, the ratings should be published in a form that is easily communicated by the broadcast and print media. All three principles are respected by the 5-color rating system (Table 4.1) of the Zhenjiang Environmental Information Disclosure Program. The system divides industrial firms' environmental performance into five symmetric categorical ratings, with two (black, red) denoting inferior performance; one (yellow) denoting compliance with national regulations but failure to comply with stricter local requirements; and two ratings (blue, green) denoting superior performance. Because it recognizes three performance levels for firms that comply with national regulations, the system provides incentives for continuous improvement. Even for non-compliant firms, the system rewards efforts to improve by recognizing two levels of performance. The Zhenjiang program uses these incentives to promote the environmental objectives summarized in Table 4.2

4.2 Ratings Dimensions

The program's color-coded ratings are generated by a detailed accounting of environmental performance, whose major elements are summarized in Table 4.3. The ratings system draws on four principle sources of information: reports on industrial firms' polluting emissions; inspection reports on their environmental management; records of public complaints, regulatory actions and penalties; and surveys that record characteristics of the firms that are relevant for rating environmental performance.

4.2.1 Compliance with Regulations

The rating system incorporates six dimensions of environmental pollution: water, air, noise, solid waste, electromagnetic radiation, and radioactive contamination. It includes emissions information for 13 regulated air and water pollutants: chemical oxygen demand, suspended solids, oil, volatile hydroxybenzene, chromium, cyanide, lead, arsenic, mercury, cadmium, flue dust, industrial dust and sulfur dioxide. Pollutant discharges are rated by total quantity and concentration. Solid wastes are rated in three dimensions: production, disposal, and recycling.

4.2.2 Management behavior

This element involves a detailed accounting of behavior in several dimensions. Environmental management effort is

graded with respect to: timely payment of pollution discharge fees; implementation of the national Pollutant Discharge Reporting and Registering Program, the Standardized Waste Management Measure, and the Three Synchronizations Program[4]; and variables related to internal environmental monitoring, staff training, and internal document preparation. In addition, the rating system considers the firm's efficiency of resource use; its technological level (e.g., implementation of the national Cleaner Production Audit Program"); and the quality of its environmental management system.

4.2.3 Social impact

Indicators in this category include the firm's record with respect to public complaints, pollution accidents, illegal pollution, and administrative penalties.

4.3 Ratings Construction

The Zhenjiang rating system uses a series of yes/no questions to translate its multidimensional performance indicators into 5 color codes. Figure 4.1 shows how this is done, while Table 4.4 provides a detailed accounting by category. The first stage of the process involves selection of industrial firms for rating. Plants that volunteer are automatically included, while the rest are firms classified as large on the basis of plant size, production value and reported pollution discharge load. In the second stage, the Zhenjiang Environmental Protection Bureau uses its own records to develop information on the firms' polluting emissions. The Environmental Protection Bureau also surveys the firms to gather information for the indicators of management behavior and social impacts.

A distinctive feature of the ratings process is its "Inform-Respond-Check-Disclose" reciprocal mechanism, in which industrial firms can exchange comments about their ratings with the Environmental Protection Bureau prior to disclosure. By reconsidering and rechecking at the firms' request, the Environmental Protection Bureau encourages (but is not required to gain) their acceptance of the final ratings, as well as promoting a more detailed environmental accounting by the firms themselves. After setting the ratings, the Environmental Protection Bureau sends them to the program's Steering Board for final checking and ratification prior to public disclosure. The deputy mayor in charge of environmental protection leads the Steering Board, and its members come from the Environmental Protection Bureau and other relevant administrative departments and institutions. Its main responsibility is to ratify the ratings and transmit them to the firms and the news media. To ensure accurate press reports, the Environmental Protection Bureau invites reporters to a detailed presentation of the program, including an explanation of the rating system and a demonstration of the computer program that is used for ratings development.

4.4 The Experience of Public Disclosure in Zhenjiang

4.4.1 Pilot Disclosure

The pilot program began in June, 1999, with selection and rating of 101 firms drawn from several industry sectors (Figure 4.2). During the pilot phase, the Zhenjiang Environmental Protection Bureau regularly reported its progress to the municipal government and the media. The firms were informed of their pilot ratings in 1998. Ten firms were de-listed during this initial period because of data quality, leaving 91 firms for disclosure. The latter accounted for 95% of polluting emissions in Zhenjiang, as well as 65% of the city's economic output.

Their pilot ratings, displayed in Table 4.3a, indicated widespread deficiencies, with 69% of the firms rated as Yellow, Red or Black. However, 31% demonstrated superior performance even in the pilot dis-

closure period, and a few even earned the highest (Green) rating.

4.4.2 Public Disclosure

In May, 2000, the Zhenjiang municipal government officially recognized the program and issued a formal "Notice of Implementation of the Environmental Information Program in Zhenjiang City." The municipal government also presided over the first disclosure at a press conference on July 26th, 2000. Other participants included representatives of all 91 rated firms, the Program Steering Board, and deputies from the Jiangsu Province Environmental Protection Bureau and the Environmental Protection Bureaus of other cities in Jiangsu. The Steering Board publicly released the ratings, and the firms' representatives accepted and commented on them. For several days after the press conference, local newspapers and TV stations continually reported the event, the results of the first disclosure, and promises by poorly-rated firms to improve their environmental performance.

The results show that many firms chose to improve their environmental performance during the one-year grace period between pilot disclosure and public disclosure. The number of superior performers doubled, from 31% of the rated firms to 62% (Figure 4.3b). The pressure from public disclosure clearly reinforced another program, "One Control and Double Attainments (OCDA)", that was implemented in Zhenjiang during the period 1998-2000. The objectives of the latter program were total emissions within permitted limits and full compliance with local and national standards by enterprises in Zhenjiang City.

Industrial environmental performance in Zhenjiang improved significantly after combined implementation of OCDA and public disclosure. As a result, the disclosure program Steering Board announced its support for annual disclosures.

5 PUBLIC DISCLOSURE IN HOHHOT

5.1 Program Design

Hohhot is a city located in Inner Mongolia Autonomous District, a northern and poor area of China. The Hohhot public disclosure program focused on firms that met three criteria: major contributions to local pollution; management with some independence of action; and possible susceptibility to public pressure for improvement. To maximize the incentive effects of disclosure, the ratings standards were set to reveal a broad distribution of relative environmental performance in Hohhot.

5.2 Ratings Dimensions

Hohhot chose the same color rating categories as Zhenjiang, ranging from green (best performance) through blue, yellow and red, to black (worst performance). Specific grading criteria are summarized in Table 5.1.

5.3 Ratings Construction

In Hohhot, development of the ratings system proceeded in parallel with a series of meetings to build support for the concept from government agencies, the general public and the affected industry sectors. The assessment work utilized the data collected by the Environmental Supervision Station of Hohhot City for the year 1999. Ratings were developed during the period December, 1998 to December, 1999, and several review meetings were conducted prior to official disclosure in March, 2000. As in Zhenjiang, a pilot ratings exercise was undertaken in consultation with affected enterprises before the ratings were disclosed to the public.

5.4 The Experience of Public Disclosure in Hohhot

On March 24, 2000, the Hohhot City government convened a news conference to disclose the environmental performance ratings to the public.

Participants included the program development team, other government agencies, representatives from China's State Environmental Protection Administration (SEPA), and representatives from the 56 industrial enterprises and 51 other institutions that were rated. Media participants included Inner Mongolia TV, Hohhot City Economic TV, The Hohhot Daily, The Inner Mongolia Daily, The Hohhot Evening News, Hohhot People's Radio, and the Hohhot Journalist Station for China's Environmental Daily. Broadcast news programs featured stories about the disclosure for several days after the event.

As in the case of Zhenjiang, the evidence suggests that many polluters responded to the combined effect of pilot and public disclosure. After public disclosure, large, persistent polluters such as the Hohhot Power Plant and the Hohhot Cement Mill repeatedly sent deputies to the Hohhot Environmental Protection Bureaus to promise that they would increase pollution control to improve their ratings. As Figure 5.1 shows, the 56 industrial enterprises rated in Hohhot greatly improved their environmental performance during the period 1999 - 2000. Enterprises rated Good or better increased from 24% to 62%, and enterprises in the worst (Black) category decreased from 11% to 5%. As in Zhenjiang, this improvement undoubtedly reflects pressure from both the OCDA and public disclosure programs.

6 LESSONS LEARNED

Experiments with public pollution disclosure continue to expand in China. After observing the results in Hohhot and Zhenjiang, the Environmental Protection Bureau of Jiangsu Province has decided to implement disclosure in its 13 municipalities in the next a couple of years. The evidence to date suggests that public disclosure of environmental performance will be an important new component of China's system for regulating pollution. Implementation should be feasible in most of China, because technical and design issues are not overly complex. The knowledge and expertise needed for a disclosure program are available in almost every city of China. With support from a national coordination center, there should be no technical barriers to implementation of disclosure in the entire country. The case studies suggest that the costs of design and implementation are not high in China, since most of the necessary information already exists in the records of provincial and local Environmental Protection Bureaus. However, it might well be appropriate for China's highly-varied regions to institute ratings criteria and procedures that reflect their special circumstances.

The Zhenjiang and Hohhot experiences have suggested a number of important lessons for successful implementation of disclosure. The first is that government support and involvement at all levels are critical. The case studies suggest that involvement of local government leaders is particularly important. Since most urban enterprises in China are still state-owned, successful disclosure depends on strong administrative and legal support. In the two case studies, city mayors supported the program after lobbying from the local Environmental Protection Bureau and expressions of support from the central government. Support from the local media was critical, as well as public pressure for a better environment.

Timing is also very important in this context. In both cities, the experience of pilot disclosure suggests that many enterprises will improve their performance prior to public disclosure if they are informed of their ratings and given sufficient time to invest in pollution control. For public disclosure itself, intervals of one year between public ratings may a reasonable balance between the loss of public pressure over longer intervals and

the higher cost of developing new ratings over shorter intervals.

Public disclosure clearly places unprecedented demands on environmental agencies' management information systems. Although there are substantial start-up costs, the agencies realize large long-run gains from much more flexible, current and well-documented information systems. In this dimension, the pressure for improved information management under public disclosure also yields substantial benefits for the information requirements of conventional regulation.

REFERENCES & NOTES

1. While the authors helped design the Greenwatch program in China, those environmental officers in China's State Environmental Protection Administration (SEPA), the Zhenjiang Municipal Environmental Protection Bureau, and the Hohhot Municipal Environmental Protection Bureau played the key roles. Particular thanks are due to SEPA administrator Mr. Xie Zhenghua and to colleagues in China including Zhang Liwei, Yu Fei, Zou Shoumin, Zhang Qingfeng, Zhou Guomei, Cao Dong, Yang Jintian, Wang Yuan, Chu Guimin, Qu Xinhua, Yang Yingfeng and Fan Yongying for their support and collaboration. The World Bank's InfoDev Program provided partial financial support for this work. The usual disclaimers apply.

2. For evidence on toxic emissions reduction in the US, see Konar and Cohen (1996) and Tietenberg and Wheeler (2001). The impact of disclosure on two water pollutants (biochemical oxygen demand and suspended solids) has been analyzed for Canada (Foulon, Lanoie and Laplante, 2000), Indonesia (Afsah and Vincent, 1997) and Philippines (World Bank, 1999).
3. Source: Environmental Yearbooks, China's State Environmental Protection Administration.
4. This program's purpose is to ensure that new construction projects include pollution abatement facilities that meet state emission and effluent standards. Under the program, a new industrial enterprise or one that wishes to expand or change its production process must register its plans with the local environmental protection bureau and design (first synchronization), construct (second synchronization), and begin to operate (third synchronization) pollution control facilities simultaneously with the principal part of the enterprise's production activities.

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	Europe & Central Asia	South Asia	Sub-Saharan Africa	Latin America & Caribbean	Middle East & North Africa	East Asia & Pacific	Developing Regions (DR)	World	DR/ World	China	China/ DR
Premature Death	80	160	60	60	30	360	750	820	91%	320	42%
Chronic Bronchitis	200	400	80	230	90	1,370	2,370	2,620	91%	1,190	50%
Lower Respiratory Infection	3,100	12,200	3,500	6,100	2,900	27,200	55,100	58,300	95%	22,500	41%
Hospital Admissions	100	240	60	130	60	730	1,320	1,440	92%	630	47%
Emergency Room Visits	1,900	4,800	1,100	2,600	1,100	14,400	25,900	28,200	92%	12,300	47%
Restricted Activity Days	369,400	752,600	153,000	431,200	174,600	2,579,900	4,460,700	4,915,600	91%	2,233,100	50%

Source: Bolt, et al. (2001)

Table 3.1: Comparative Health Damage from Particulate Air Pollution [No. People (in Thousands)]

Country	% of GDP
China	4.0
Mexico	2.6
Philippines	2.2
Pakistan	1.8
Turkey	1.8
India	1.7
Brazil	1.6
Egypt	1.6
Indonesia	1.3

Source: Bolt, et al. (2001)

Table 3.2: Economic Damage from Particulate Air Pollution

Compliance Status	Performance Level	Performance Criteria
Not in compliance	Black	Greatly exceeds pollutant emissions standards set by SEPA and causes serious damage.
	Red	Efforts don't meet pollutant emissions standards set by SEPA, or have a record of serious pollution incidents.
Warning	Yellow	Meets pollutant emissions standards set by SEPA, but fails to meet local Environmental Protection Bureau standards.
Compliance	Blue	Exceeds all emissions standards set by SEPA and the local Environmental Protection Bureau; demonstrates superior environmental management.
	Green	Meets all requirements for Blue, plus satisfaction of ISO 14000 environmental standards; extensive use of clean technology.

Table 4.1: Zhenjiang's 5-Color Rating Scheme for Polluters

Green Blue	Promote adoption of clean technology and advanced environmental management systems
Yellow Red Black	Create pressure for compliance with environmental regulations set by SEPA and local Environmental Protection Bureaus

Table 4.2: Policy Objectives

Category	Variables
Emissions of Regulated Pollutants	Concentration and total load
Management Variables	Management Effort
	Efficiency of Resource Use; Technology Level
	Environmental Management System
Social Impact Variables	Public Complaints
	Pollution Accident Record
	Record of Illegal Actions
	Administrative Penalty Record

Table 4.3: Elements of the Rating System

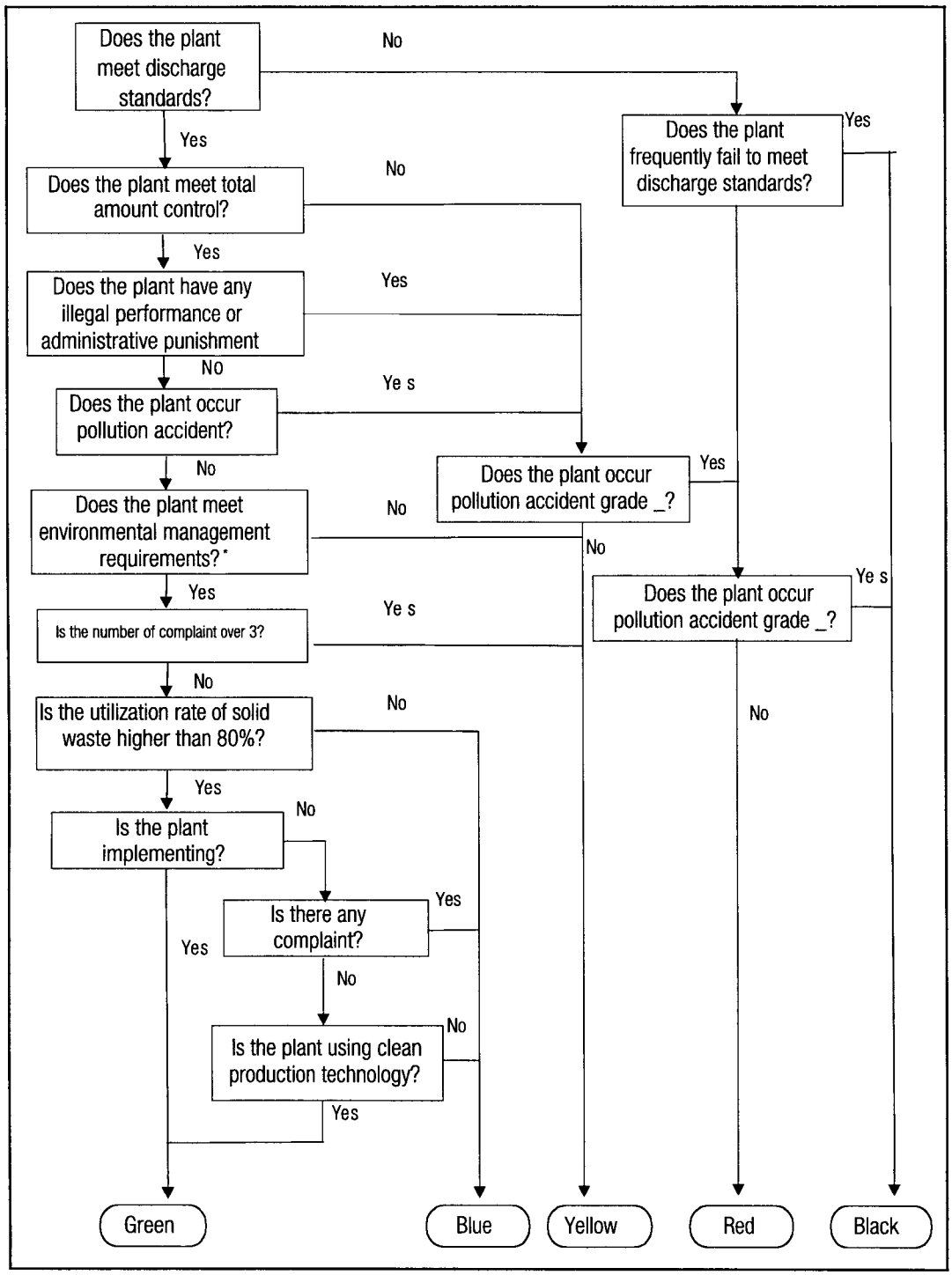


Figure 4.1: Ratings Determination in Zhenjiang

Indicator	Explanation
1 Discharge meeting the standard	For each outlet, either (a) more than 80% of the pollutants meet discharge standards or (b) on average, the concentrations of the main pollutants meet the discharge standards. The disposal rate for hazardous solid waste is 100%.
2 Frequently failing to meet the standard	More than 50% of the pollutants fail to meet standards.
3 Control of total pollutant discharge	(1) For firms holding a discharge permit, pollution discharge within the allowed limit; (2) For other firms, conformity with requirement 1 above ("discharge meeting the standard").
4 Illegal pollution	One or more instances of illegal pollution.
5 Pollution accident	Level 1: One or more pollution accidents, each of which imposes economic losses between RMB 1,000 yuan and RMB 10,000 yuan each occurrence. Level 2 (any of the following): (1) One pollution accident that imposes an economic loss between RMB 10,000 yuan and RMB 50,000 yuan; (2) Poisoning of employees ; (3) Pollution-induced conflict between the factory and the neighboring community; (4) Some environmental damage. Level 3 (any of the following): (1) One pollution accident that imposes an economic loss between RMB 50,000 yuan and RMB 100,000 yuan; (2) Radiation damage to employees; crippling of employees; (3) Poisoning of neighboring residents (4) Serious impact on social stability (5) Serious damage to the environment Level 4: One pollution accident that imposes an economic loss of RMB 100,000 yuan or more.
6 Timely payment of discharge fee	For eight months of the year, the discharge fee is paid within the stipulated twenty-day period. For the rest of the year, the fee is paid within two months.
7 Discharge reporting and registering	Regular reporting and registering for all firms; monthly emissions reports by firms holding pollutant discharge permits.
8 Outlet control standardization	Designated emissions outlets should be visible, reasonably configured, and convenient for monitoring.
9 Implementation of the Three Synchronizations and the stipulated procedures for construction projects	(1) Timely completion of the environmental protection pre-audit; (2) Ratification of the plant's EIA within the stipulated period; (3) Full Implementation of the "Management Measures for Environmental Protection of Construction Projects."
10 Enviromental management	(1) Management structure; (2) Number of environmental protection personnel; (3) Implementation of systems and regulations such as the Post Responsibility System for Environmental Protection; System for the Operation and Management of Environmental Protection Facilities; System of Reporting Environmental Performance; and System for Management of Environmental Protection Documents.
11 Proper disposition of solid wastes	100% residual solid waste disposal and a solid-waste comprehensive utilization factor over 80%.
12 Public complaints	Validated complaints about pollution that has significant environmental impact.
13 Clean production	Completion of a clean production audit that meets advanced international and domestic standards.
15 ISO14000	ISO 14000 certificate awarded after passage of the qualification test.

Table 4.4: Explanation of Indicators

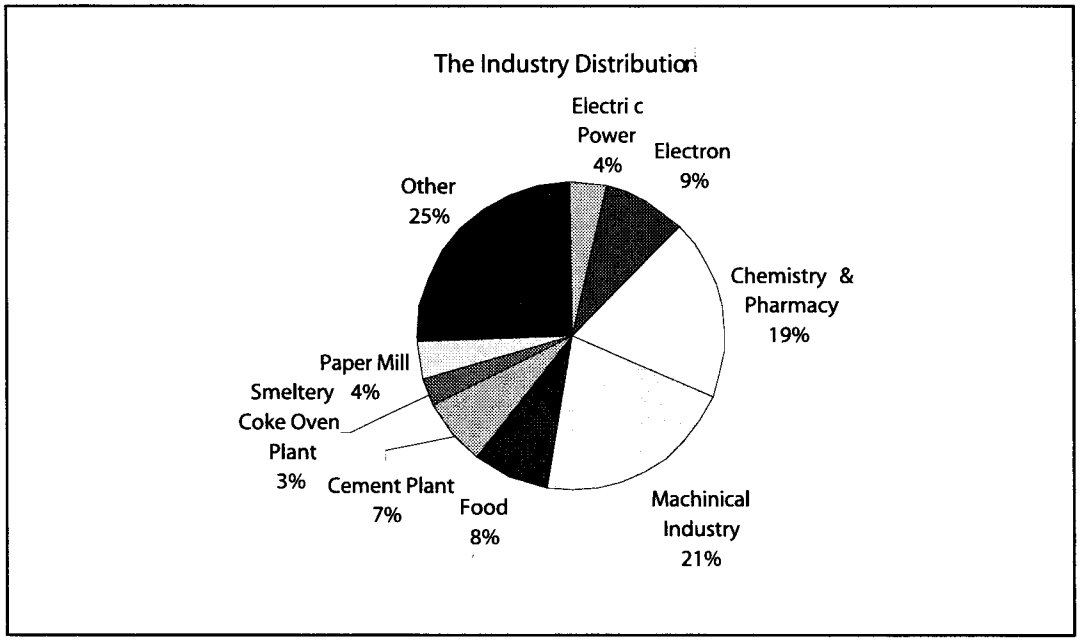


Figure 4.2: Sectoral Distribution of Pilot Firms in Zhenjiang

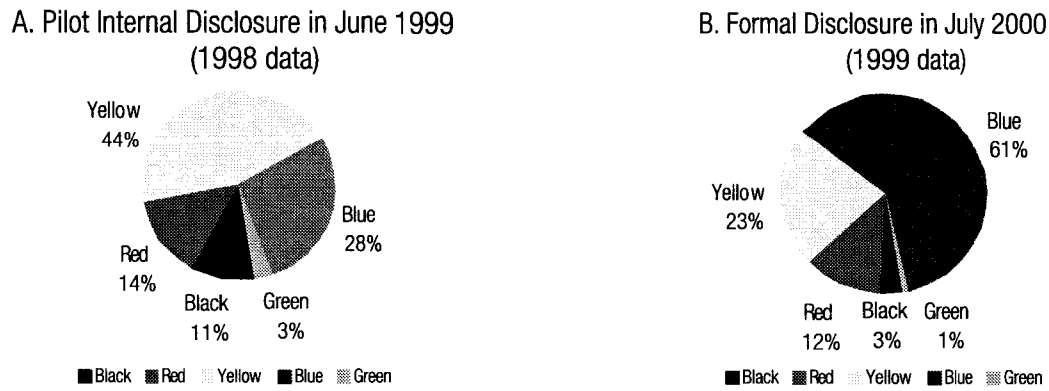
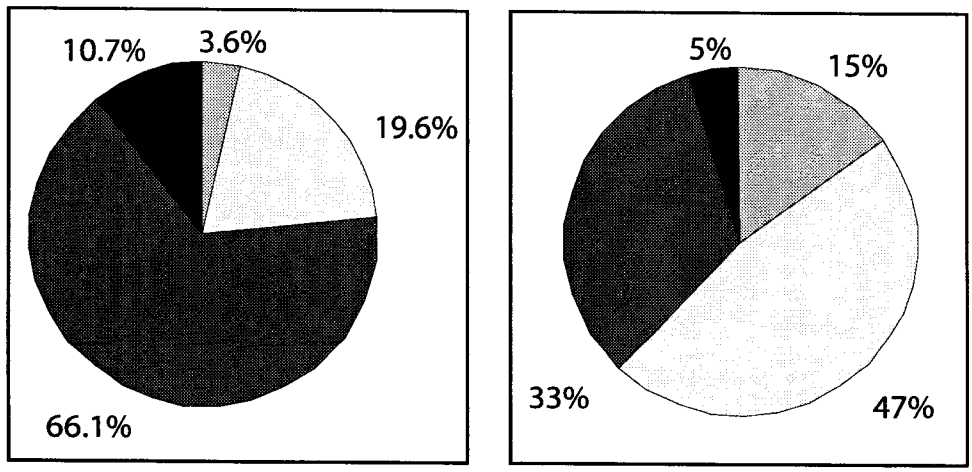


Figure 4.3: Environmental Performance Ratings in Zhenjiang

Table 5.1: Hohhot's Five-Color Rating Scheme for Polluters

Color Rating	Formal Criteria:
Black	Very Poor Discharges of ashes, SO2 and COD all exceed legal requirements
Red	Poor for the three pollutants — ashes, SO2 and COD — discharges of one or two do not satisfy legal control requirements.
Yellow	Good Discharges of ashes, SO2 and COD all satisfy legal control requirements.
Blue	Superior Discharges of ashes, sulfur dioxide (SO2) and chemical oxygen demand (COD) are all less than 60% of the permitted limit.
Green	Excellent Certification by ISO14000.



Ratings in 1999 Ratings in 2000

Figure 5.1: Environmental Performance Ratings in Hohhot

SELF-MONITORING (OF AIR EMISSIONS, DISCHARGES TO WATER AND WASTE) IN FINLAND

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SUMMARY

The paper discusses compliance monitoring based on self-monitoring. Self-monitoring is understood in quite different ways by the environmental protection community. The paper explains how this procedure is implemented in Finland. Some ideas are provided on how compliance monitoring based on self-monitoring will be developed in Finland.

Compliance based on self-monitoring can be implemented in different ways and on different levels. Self-monitoring can be an effective tool only if it is taken into consideration from permitting to the enforcement of the permits. There should be cooperation between authorities and operators, but equally important is that the public be given sufficient access to information collected under self-monitoring procedures. The public must be able to see that the authorities and the operators have not made any hidden agreements that might jeopardize environmental protection.

1 INTRODUCTION

Self-monitoring can partly replace emission measurements made by authorities, and as an extra bonus get operators to contribute to the development of environmental protection. The legal system must allow the use of self-monitoring data against the operator, if the operator reports that limit values have been exceeded. To be able to use self-monitoring as a part of compliance monitoring, there should be clearly defined limit values, a detailed emission-monitoring program (including provisions for reporting), and authorities must periodically check the self-monitoring system or use third-party auditors. Furthermore, authorities must have a system where they can compare reports from one installation with the results from others. It is also essential that authorities have the legal right to take actions against those operators who have exceeded limit values. To earn the public trust, much of the self-monitoring procedures, reports and results must be open to the public.

Finland has implemented European Community (EC) legislation such as the Integrated Pollution Prevention and Control Directive (IPPC Directive) and other directives. However, environmental legislation in Finland covers more installations and, in some cases, limit values are lower than those in the corresponding directives. Also, public participation is broader than the Community legislation requires. In order to develop administrative practices, permit writers and inspectors meet regularly. To implement self-monitoring effectively, it is necessary that limit values be clearly written. Detailed monitoring programs are a second condition for implementing self-monitoring. Monitoring programs must include which pollutants are measured, how they are measured, and how the operator can show that the required quality of the measurements has been reached. The required quality of the

continuous emission measurements (CEM) should be expressed as an uncertainty. The operator must report according to an agreed plan. There are periodical reports (monthly, yearly) and reports due to the exceeding of limit values. It is necessary that the authorities check the monitoring system, or a third party, such as the auditor of the quality management system (ISO 9000) or the environmental management system (like ISO 14000 or EMAS), checks the system during the periodical audit. The authorities must have systems that make it possible to compare information from one installation with the information coming from other installations. "Self-monitoring must be seen only as one, hopefully potential, means to achieve good environmental results."

2 GENERAL ASPECTS

If self-monitoring is to work properly, then all the environmental protection procedures have to comply with the following requirements:

- The emission limit values in the permit are clear and technically and economically achievable.
- The permit contains specific requirements for emission monitoring.
- The authorities understand the self-monitoring system in the plants in question.
- Reporting from the operator to the authorities is specified.
- The authorities periodically check the self-monitoring system.
- The authorities have systems that allow them to crosscheck with other similar plants.
- The public has access to the relevant parts of the system and the right to give an opinion.

National practices may or may not have an effect on whether the above-mentioned conditions are understood differently in different parts of the world. For instance, there is no "universal" agreement on the meaning of technically and economically achievable permit conditions. When assessing the usefulness of self-monitoring, one has to look for the results and not to stick to all small bureaucratic details. However, this means that there have to be results on which most of the stakeholders can agree.

3 PERMITS/LIMIT VALUES

Environmental requirements concerning Finland can be set either on the European Community level or on the national level. However, not all requirements can be set on these levels, so some must be determined on the plant level. This gives a certain freedom to the permit-writing authorities, but requires much more skill. On the other hand, the higher the level that the requirements are set, the less the local circumstances can be taken into account.

In Finland, permitting is carried out on three levels: there are three environmental permit authorities, thirteen regional environment centers and about 450 municipalities with local authority. The three permit authorities are responsible for permits to major installations and the regional centers to the medium-sized ones. Local authorities are responsible for the small installations, for example, power plants under 50 MW and small operations for agricultural animals.

The European Community legislation covers the main parts of environmental protection. However, the Finnish legislation covers more installations under the permitting procedures than does the Integrated Pollution Prevention and Control Directive (IPPC Directive). Some limit values are also lower than those in the EC directives.

In the permitting procedure, appli-

cations are open to the public and the authorities can also arrange public hearings. The public and the operator can appeal to regional Administrative Courts if they are not satisfied with the permit and its conditions.

The clear limit values are the first basic building block of self- monitoring, because the operator must know exactly what limit values to monitor. The permit may also order the operator to measure, calculate or estimate the emissions of other pollutants that do not have limit values. In Finland, for instance, we require that the operators of large plants must know the emissions of those pollutants that must be assessed and reported under the requirements of the European Pollutant Emission Register.

4 EMISSION-MONITORING PROGRAM

The second basic building block of self-monitoring is the monitoring program. The program must provide answers to the following questions:

- Which pollutants are measured?
- How are measurements carried out?
- Which procedures are used to show that the required quality expressed as uncertainty is reached?

The environmental permit, or a separate decision (given by a compliance-monitoring authority) concerning emission monitoring, must contain a description of the emission-monitoring system and detailed monitoring requirements. An operator must include a proposal for a monitoring program already in the permit application. However, in many cases concerning large installations, such as pulp and paper mills, the monitoring program is developed during the permitting procedure or the permit contains requirements, which order the operator to present in a given time a detailed monitoring program for the approval of the competent compliance-monitoring authority.

5 AUTHORITIES MUST UNDERSTAND HOW THE SELF-MONITORING RESULTS ARE PRODUCED

In power plants, the processes and emissions are straightforward when it comes to emission monitoring. Low concentrations may, however, bring additional technical problems. However, it is more difficult to understand process industries, such as the pulp industry, where there are several parallel or connected processes. In these installations, self-monitoring systems (including measurements and calculation of results) are rather difficult to understand. The environmental administration organizes seminars where inspectors can discuss and exchange information on measurements and procedures to calculate emissions. In the future, we will encourage operators to include emission monitoring as a part of their quality control and environmental management systems (e.g. ISO 9000, ISO 14000 and EMAS). This way we will get independent third party auditing. If measurements are not included in those systems, then independent auditing by a consultant approved by the authorities may be required.

6 REPORTING FROM THE OPERATOR TO THE AUTHORITIES IS SPECIFIED

The monitoring program includes the following reports:

- Immediate reports if limit values are exceeded.
- Monthly reporting (only for large installations).
- Annual reporting.

Reporting can be done in several ways. Some operators must report by phone if limit values are seriously exceeded. Monthly and annual reports can be done either in a written or electronic format.

An installation must report its production data, fuels, emissions to air, wastewater discharges and wastes. The environmental administration has also started to collect information on the overall energy usage of an installation. Written reporting forms are available on the environmental administration's website or the authorities send them to the operator. Small and some medium-sized installations use this option. This results in a lot of 'paper' work both in the installations and in the environmental administration. That is why electronic reporting has been developed.

The first level of electronic reporting utilizes electronic forms. An operator has a user name and password. Electronic forms are available on the environmental administration's website. The operator must feed in his/her data and send it (via email) to the environmental authorities. Once the authorities receive a report, an inspector or inspectors (if more than one monitors the same installation) are informed that a new report has arrived. An inspector checks the report, takes the necessary actions (like asking for more information or making a site inspection), and after approval sends the data to the database.

The newest procedure in Finland is that the authorities define the interface between the operator and the authorities, and state which kind of data transfer is allowed. In this way, data production and transfer can be made more effective. In other words, the operator must rationalize his/her data production in the installation so that, as much as is possible, data production is automated and the authorities must adapt their compliance monitoring so that the procedures are effective and not tied any more to the 'paper age'. More and more emphasis must be put on the first building blocks of self-monitoring: there must be clearly defined limit values and parameters to be monitored and a specific monitoring program. Otherwise the operator's systems are only 'black boxes' that produce data but nobody knows what the data means.

The Finnish environmental administration has developed such a system with one Finnish internationally operating pulp and Paper Company. The test operation started in spring 2002. Three different types of installations are involved and from the authorities side, one regional environment center. The system makes it possible to transfer large amounts of data, including real compliance-monitoring data, for instance, not only emission data but also information on how long a period a single emission-monitoring device has been out of operation. In the installation this calls for a rigid quality system for all data collection and management.

This system makes it possible to transfer a lot of data. It is thus very easy to overload the authorities with data, resulting in a great danger that the data systems of the authorities turn into 'data graveyards' and the inspectors do not concentrate on the real compliance-monitoring data.

7 THE AUTHORITIES MUST PERIODICALLY CHECK THE SELF-MONITORING SYSTEM

The authorities have the main responsibility for supervising compliance with the permit conditions. In large and complex installations monitoring programs are quite complicated. Although a monitoring program may or may not contain self-diagnostic components, it is important that the authorities periodically inspect the monitoring system or a part of it. It could be of great help if the operator has included the monitoring program as a part of the quality management system or the environmental management system, including, for instance, the uncertainty assessment (with requirements set by the authority), in those systems. In this way the environmental

authorities get an independent third-party audit. We recommend this kind of procedure in Finland. In Finland the authorities' inspection reports must be stored in the VAHTI system. It is also a good practice that the authorities are present when an operator carries out parallel measurements of continuous measurements systems.

8 THE AUTHORITIES HAVE SYSTEMS THAT ALLOW THEM TO CROSS-CHECK WITH OTHER SIMILAR PLANTS

However carefully the authorities have set emission limit values and approved the monitoring program, it is important that they can compare data from one installation with data from others. In Finland, all permit-writing authorities and compliance-monitoring authorities are connected to a single nation wide system called VAHTI, which enables them to access relevant data such as environmental permits and reported emissions, waste and inspection reports. The inspectors who monitor a specific installation have a greater right to access files such as letters sent to the operator and those parts of the inspection reports that deal with business secrets. In 2002 about 350 inspectors will use the system and there are about 400 additional users who can access the reporting part of the system (excluding the input part).

During 2002-2003 a new version of VAHTI will be in use and then also the municipalities (about 450) will be able to use it.

9 PEOPLE HAVE ACCESS TO RELEVANT PARTS OF THE SYSTEM AND THE RIGHT TO EXPRESS AN OPINION

The trust of the public for these kinds of procedures must be earned. Emission data and information on the relevant parts of site inspections must be publicly available. The Finnish environmental legislation has, since the beginning, allowed broad public participation and also access to justice. Lately, these have even been expanded.

10 CONCLUSIONS

Compliance monitoring based on self-monitoring can be implemented in different ways or on different levels. Self-monitoring can be an effective tool only if it is taken into consideration from permitting to the enforcement of the permits. There should be good cooperation between authorities and operators, but equally important is that the public is given sufficient access to information collected under self-monitoring procedures. The public must be able to see that the authorities and the operators have not made any hidden agreements that might jeopardize environmental protection.

SUMMARY OF PLENARY SESSION #7: THE EVOLVING ROLE OF THE JUDICIARY IN ENVIRONMENTAL COMPLIANCE AND ENFORCEMENT

Moderator: Manuel Rodriguez Becerra
Rapporteur:James Lofton

1 INTRODUCTION

Members of the judiciary present their views on the role of the judiciary in deciding environmental disputes. Consideration was given to existing and innovative methods used to quantify environmental damages.

2 PRESENTATIONS

Mr. Rodriguez opened the panel by noting the increasing role of the judiciary in Latin America and South America. He noted that in Columbia, judges are now playing a major role in environmental enforcement and compliance as a result of Columbia's new constitution in 1991 and new environmental law in 1993. Also, in Brazil, Chile, Mexico, and Argentina, the judiciary is playing an increasingly important role in environmental enforcement and compliance. Mr. Rodriquez posed the questions: Why are some countries doing better in promoting environmental compliance and enforcement through judiciaries than others? What are the enabling conditions for the judiciary to play a major role in environmental enforcement?

Mr. Anderson posed the following questions: Are there any special roles for judges, and if so, what is the nature of that role in environmental enforcement? And how do we define the judiciary? In the common law system, there is an independent judiciary protected by the state's constitution. In the exercise of judicial discretion, there is the perception that judges lack enthusiasm for environmental laws for several reasons. For example, judges believe that environmental crimes are morally ambiguous and they are reticent to stigmatize environmental violators as criminals. This traditional conservatism of common law judges must be overcome in order to realize more success in environmental cases with the judiciary. Regarding the participation by civil society, access to courts has traditionally been a limiting factor. However, there have been significant legislative developments in expanding the role of courts. The second major development is the effort to sensitize judges to the significance of environmental cases. This has been accomplished through mechanisms such as the UNEP judicial symposia. Finally, there has been innovative legislation in creating non-traditional environmental tribunals that seem to have great potential.

Judge Decleris asked us whether we shall continue on the road to a sustainable society or whether we will revert to "the good old days" before the Rio Summit. Is a sustainable society an attainable vision? If it is, guidance and creativity is needed to attain a sustainable society. The judiciary will be essential to providing this guidance and creativity for three reasons:

- governments which are supposed to protect the environment actually are the source of conflicting policies;
- the judiciary succeeds better than government in reconciling conflicting policies; and
- common law was created by judges, so it is reasonable to expect that judges can create common law principles of sustainable development.

Judge Decleris listed the 12 fundamentals of sustainable development, and closed by stating that, if properly trained,

can succeed in achieving the principles of sustainable development.

Mr. Kurukulasuriya began by explaining that the UNEP program of environmental law is structured on a ten-year basis. Now, in its third ten-year program, the UNEP focus in environmental law has shifted in focus at the global, regional and national levels. The two major activities are in promoting the development of guidelines on environmental compliance and enforcement and second in strengthening the judiciary. Mr. Kurukulasuriya emphasized that the role of the judiciary includes promoting the rule of law including national environmental governance and promoting compliance and enforcement of environmental regulations. The UNEP has focused its efforts in strengthening the judiciary through six regional judicial symposia since 1996. These regional symposia have been successful in fostering judicial dialogue and exchange of experiences in the field of environmental law, establishing the basis for networking among the judiciary, the legal professional and academics, and promoting more vigorous and effective application of environmental law as an instrument for translating sustainable development policies into action.

3 DISCUSSION

George Kremlis from the European Commission stated that the EC will support the concept of judicial symposia and will support a judicial network to improve cooperation and exchange of experiences in the environmental arena. He said the European Court of Justice has become more environmentally aware. Training sessions for judges have been piloted at the European Court of Justice and there is discussion of creating an environmental chamber in the European Court of Justice by treaty amendment.

Questions: What are the enabling conditions for promoting sustainable development through the role of the judiciary? What role can INECE play in this area? There has been progressive development in the rule of law. However, there has been little development in procedure. Are we addressing procedural problems in environmental law?

Responses: INECE can play a role in helping to formulate a more systematic approach in addressing the role of the judiciary in promoting environmental compliance and enforcement. INECE can also promote an expanded basis for standing for civil society groups and assist in promoting judicial awareness of the need for strong enforcement of environmental cases.

Judges have often used procedural issues to avoid making decisions in cases, including environmental matters. As with the concept of standing, procedural limitations should be addressed so courts are more accessible and more decisions on the merits are rendered in environmental cases.

4 CONCLUSION

The Assumption of a more proactive stance towards environmental protection can be accommodated within existing legislative and judicial frameworks. The judiciary can, and must, play a leading role in promoting compliance and enforcement of environmental regulations. INECE should cooperate with UNEP to build judicial capacity in this regard.

THE DEEP JUDICIAL CONTROL OF PUBLIC POLICY, CONDITION SINE QUA NON FOR ENVIRONMENTAL ORDER AND SUSTAINABLE DEVELOPMENT

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SUMMARY

The legislative and administrative branches are held hostage to special interests and therefore unreliable advocates for sustainable development. In fact, over the last decade we have witnessed a kind of schizophrenia: Positions talk of protecting the environment while they contribute to its destruction. The judicial control of public policies by professional judges is the best means for formulating and enforcing general principles of sustainable development. The jurisprudence of the 5th Chamber of the Hellenic Council of State (the Supreme Administrative Court) provides a characteristic example of the evolving role of judges in promoting the idea of sustainability even when the Legislator or the Administration fall behind. The author summarizes general principles of sustainable development developed by the Chamber as well as sustainable public policies it has implemented and their social impact.

1 WHY THE JUDGES

Ten years after Rio, it is a common conclusion that, while the concept of sustainability has gained widespread acceptance; the actual state of environment has been constantly deteriorating. We already have a wealth of literature on sustainability, but at the same time we witness a flagrant failure of public environmental policy. Hence, the question arises, whether it would be more realistic to content ourselves with the limited environmental law of the Stockholm era and forgo the unattainable vision of sustainable development.

The position of this Report is that no matter how popular the Stockholm environmental law is, it is impossible to maintain a stable environmental order without the judicial control of the sustainability of all public policies. In other words, the pursuance of a self-contained environmental law is a self-defeating policy. Such a law is foredoomed to remain a paper law. On the contrary, an effective judicial control can both ensure environmental order and accelerate sustainable development by shaping its principles and thereby improving public policy. The role of the Judiciary can be decisive not so much due to its coercive potential but rather because judicial decisions are made in a long institutional perspective, there-by having a deep and permanent influence on public opinion. Politics is a hostage of vested interests, incapacitated by bargaining and compromise. Only, judicial decision-making takes the requirements of the future seriously.

There are three reasons for the increased role of the Judiciary today. Despite the fact that after Rio, the State has assumed the role of the great protector of

the environment, it is the political system, which continues to be its main enemy. It is the political system that constantly destroys the environment either through positive harmful actions or through equally dangerous omissions. In terms of positive actions, one can think of many examples of conflicting policies, i.e., transport policy conflicting with energy policy, economic policy conflicting with spatial planning, policy on tourism conflicting with cultural policy etc. Even when environmental damages are attributed to private actions, there is always a public policy failure in the background. For example, the notorious air pollution in Athens is in fact the post-effect of combined policy failures, including bad industrial policy responsible for the concentration of the 60% of the industrial installations in Athens area, poor town-planning due to clientelistic land use policy, as well as incompetent transport policy neglecting the clean means of mass transportation. As far as omissions are concerned, one cannot help thinking that, ten years after the unanimous voting of Agenda 21, its instructions for the necessary aid to the poor countries have not been implemented. Neither the poor have received their aid, nor did the rich countries change their consumption patterns. Therefore, we are justified in ascertaining a sort of schizophrenia in current politics: on the one hand, it continues its sentimental appeals for the salvation of the environment; while on the other it keeps destroying it.

The second reason is that the judicial control of public policies, when entrusted to a Supreme Administrative Court, can indeed succeed in coordinating public policies better than the government itself. The failure of politics to deal effectively with the problems of sustainable development is due to the notorious reluctance of politicians to shoulder the so-called 'political cost' resulting from the resistance of interests vested in the status quo. Such considerations are unacceptable to judges who hold the view that problems of environment and sustainable development should be handled only by the professionals of public administration using the appropriate policy analysis methods.

Finally, there is a third reason favoring judicial control, and this is that sustainable development cannot emerge automatically from commands, prohibitions and sanctions imposed by legal norms. In fact, it is a dynamic regime, which will be formed gradually by instructions of the Agenda '21 type. This has always been the case: Historically, the best instructions have derived from the general principles of law created by judicial case law of the roman praetors (roman law), or the royal judges (common law) or the conseil d'etat (droit administratif), while the law made by legislatures is practically a codification of judicial rulings. Therefore, the role recognized by this Report for the judiciary is not actually an institutional innovation. In the last two centuries, judges shaped the principles for the protection of human rights; in the present century, judges are now needed for creating the general principles of sustainable development.

2 THE GREEK EXPERIENCE

The Hellenic experience of the decade 1990-2000, which I have the honor to present to you, supports the above position. Greece, a country with a great cultural and natural capital, entered the club of the privileged countries last among its partners who pursue systematically so-called 'economic growth'. Her zeal to reach the level of her European partners has driven her so far as to adopt policies causing significant harm to the Greek environment in a very short time. As soon as this became evident in the late '80s by the abrupt increase of disputes concerning environment and spatial planning, judges felt the need to take

the initiative. Following our proposal, a new Chamber was set up at the Council of State entrusted with the exclusive jurisdiction on matters of environment and Sustainable Development. According to the approved organizational scheme, the new Chamber has been equipped with enhanced powers. The idea permeating the mission of the Court was to ensure the deep and effective control of all public policies related to environment and sustainable development. To this effect, the Court assumed and exercised the review of constitutionality of statutes, the preliminary control of all regulatory decrees, plus the power of annulling illegal governmental decisions and suspending their implementation. In this way, public policy concerning environment and sustainable development was brought under the scrutiny of the Court at all levels.

Without such extensive powers, the Court would have never been effective against a Government reluctant to follow a consistent environmental policy and prone to clientelistic practices. Owing to these powers, however, challenged decisions could be suspended, if necessary, within hours in order to prevent the tactics of accomplished facts. In addition to this, when exercising judicial review of governmental decisions, the Court did not confine itself to formalities, but proceeded to the structuring of the actual environmental problems and ensured their right solutions. Moreover, through the preliminary control of the regulatory decrees, the Court was able to dictate the general principles of sustainable development, and thereby to adjust public policies to the requirements of these principles. These general principles of sustainable development were formulated in the course of the constitutional control of statutes performed on the basis of the relevant rules of International and European environmental law, both hard and soft. In fact, the Greek Constitution and specifically its clause (article 24) Protecting the Environment, was interpreted in the light of the Stockholm and Rio principles.

Beyond such creative legal thinking, all sixteen judges of the Court felt themselves responsible for the maintenance of environmental order and were highly inspired by the idea of sustainable development. The decade 1990-2000 will be remembered in Greece as a period of rare stability and consistency both in the decisions of the Vth Chamber of the Council of State and in the expectations of public opinion. From some quarters, frustrated politicians in particular, a complaint against 'judicial activism' was voiced. It was unfounded, because sustainability in Greece is guaranteed by the Constitution itself. This means that the government has no political choice to pursue or not sustainable development. Sustainability is a fundamental legal norm whose guardians are the courts.

In this Report I shall confine myself to a general evaluation of the work performed by the Court, as a good example of what can be accomplished by the deep judicial control of public policy. Matters concerning the psychology and dynamics of the Court as a human group will be discussed in the paper of Justice Karamanof, a member of the Court from its beginnings, who handled important cases. Also, matters concerning the protection of culture environment will be dealt with in the paper of former Justice Kapelouzos, who has particular experience in the field.

First of all, it is important to note that the Court has acquired its experience on environmental matters from an ideal observational standpoint. In fact, the Court acted as the general headquarters of sustainable development in Greece, having an overall view of both the actual environmental process and the public policy making related to it. More specifically, from the continuous flow of statutes, decrees and decisions brought before it for review, the Court

accumulated a commanding knowledge of the entire environmental problematique and of the relevant policy failures. The problems handled by the Court actually belonged to two distinct generations; the Stockholm generation of classical environmental problems, related to pollution, waste, environmental standards etc, and the Rio generation of problems concerning the incorporation of sustainability criteria into public policy making. It is the latter which gave the Court the unique opportunity to develop a system of general principles of sustainable development. In terms of numbers, the Court handled more than 15.000 cases in the decade of 1990-2000, which provides a solid statistical base for an objective evaluation of the validity of these principles.

3 THE GENERAL PRINCIPLES OF SUSTAINABLE DEVELOPMENT

All twelve general principles of sustainable development have been formulated by the Court in the context of a system of interrelated and inter-dependent elements. These principles can be enumerated here in the following order:

- Principle of public environmental order, meaning that the state bears the primary responsibility for sustainable development while all other so called 'partners' (market, NGO's etc) have complementary roles.
- Principle of sustainability, meaning that all policies, decisions and actions, no matter whether public or private, should be designed and implemented in a way which does not reduce or damage natural, cultural and social capital. When there is a doubt about the impact of human action, the actor should abstain from it.
- Principle of carrying capacity, meaning that human intervention must not violate the carrying capacity of both anthropogenic systems and ecosystems.
- Principle of obligatory restoration of disturbed ecosystems, meaning that environment reclamation is an enforceable obligation.
- Principle of biodiversity, meaning that no policy benefit can justify the loss of species.
- Principle of common natural heritage, requiring the absolute protection of an inviolable part of wild nature.
- Principle of mild development of fragile ecosystems, prescribing an increased protection of such sensitive ecosystems as forests, coasts, small islands, mountains etc.
- Principle of spatial planning, making it a fundamental prerequisite for any public intervention.
- Principle of cultural heritage, giving it the same protection with natural environment
- Principle of the sustainable urban environment, ensuring the best possible conditions of life for human settlements
- Principle of the aesthetic value of nature, protecting landscape and the morphology of geosystems
- Principle of environmental awareness, ensuring the citizens' rights of information, participation in the public decision-making and easy access to Justice.

From the above general principles, more principles of lesser scope could be logically drawn, when necessary.

4 THE SUSTAINABLE PUBLIC POLICIES

Through the systematic application of the above principles on all matters brought before it, the Court has consistently sought to convert all public policies into sustainable ones. More specifically, the Court has ruled that:

- Natural environment with all its ecosys-

tems is the basic measure of sustainability. It constitutes the natural capital, which should be registered and monitored. No reduction or degrading of natural capital can be tolerated. On the contrary, environment reclamation, where necessary, is obligatory. Biodiversity is strictly protected because of the inherent value of all wild flora and fauna species. This principle has been repeatedly applied by the Court either to preserve rare species of fauna in Greece threatened by extinction, such as the sea turtle Caretta-caretta, the Monachus seal, the golden eagle, the gray bear etc. (but more common species, as well, such as wolves and foxes) or more generally to protect the exceptional diversity of flora and fauna in Greece, as i.e. when the Court banned air-crops spraying with phytochemicals.

- Agriculture should be sustainable and such should be the relevant public policy as well. Farmland should be delimited and cannot be converted to building plots.
- Forests are strictly protected and must be registered.
- Fishing should be sustainable and techniques that harm marine ecosystems are prohibited.
- Water Management should be systemic and include recycling.
- Mining and Quarrying should be sustainable, i.e., based on a long-term sustainable management of the countries' mineral wealth. Irreplaceable natural recourses (i.e. bauxite) should be protected. Mining should be harmonized with forestry and mountain protection policies.
- Industry should be sustainable. Industrial installations exceeding the carrying capacity of an area are prohibited. Polluting industries are closed down.
- Public works should be sustainable, i.e. compatible with the local ecosystems, and subject to systemic impact analysis.
- Energy policy should be sustainable, i.e. harmonized with other public policies protecting public health, or cultural capital, or fragile ecosystems like the small islands. Energy supply in the latter should be based on local sources and renewable recourses, especially wind and solar energy.
- Urban environment must be sustainable: Town plans must be rational so that they combine the functionality of the settlement with the best possible living conditions for people. Building conditions must not be made worse. The urban environment is already severely degraded and can only tolerate measures that improve it. The further development of the cities must be checked. The enlargement of Athens has gone beyond every appropriate limit. Protection is extended to the natural life-supporting systems in the cities. Free public areas (squares etc) are strictly protected. Sustainable traffic in towns means the use of public transport and not private cars.
- Tourism should be sustainable, i.e. not exceeding the carrying capacity of the anthropogenic systems and ecosystems affected by it. New hotels are banned in saturated areas, i.e. the island of Myconos. Founding of new settlements for purposes of second residence is also banned, unless existing settlements have become saturated and their legal enlargement is also impossible. In no case is it permitted to create settlements within fragile ecosystems.
- Sustainable development of such fragile ecosystems as coasts and small islands that abound in Greece are of particular importance in terms of both natural and cultural capital of the country. These ecosystems are constantly subject to heavy pressures. The Courts' jurispru-

dence on their protection is created: A spatial plan for each island is required. Strict control of urban development encodes the total banning of new settlements on the islands. Development must be only mild: Intense energy systems are banned and so are industrial or storage and technical installations on coasts.

- A central place in the Courts' jurisprudence occupies the principle of Spatial Planning, which is considered as the fundamental prerequisite of sustainability. In the decisions of the Court, spatial planning is a logical imperative of the principle of sustainability, and is therefore the main expression of public environmental order, which constitutes the generally obligatory framework within which the development of private initiative can be permitted. The Courts' jurisprudence developing this principle has been fertile and effective. The Court ruled that it is obligatory to prepare a national spatial plan and regional spatial plans. As a result of the state's compliance to this ruling, a statute on spatial planning has finally been voted. The principle of spatial planning was applied to the construction of ports and to the execution of port projects, design of the road network, siting of waste disposal sites and even prisons.

5 THE SOCIAL IMPACT

The social impact of the above stated case law of the Court could be summarized as following:

- It put an end to the rapid deterioration of both the Greek cultural and natural environment, which had started in the preceding years of wild economic growth.
- Many harmful public policies had to be abandoned.

Subsequent statutes adopted many rulings of the Court.

- The case law of the Court was supported by mass media. This contributed to the development of environmental awareness of the citizens and to the strengthening of the environmentalist movement in Greece.
- The scientific structure of the Court's jurisprudence exposed and discredited the clientelistc practices of the political system. Thus, it made their repetition in the future difficult, at least in several sector of public policy.
- The interaction of the Court with the political system is worth of particular mentioning. Throughout the critical decade 1990-2000 the political system, devoted to the pursuance of further economic growth and always relying on the clientelistic practices of the past, was reluctant to comply with the Court decisions. In fact, at times, it became audacious and attacked the Court: Two years after the Vth Chamber of the Court had been instituted, the government tried to dismantle it but failed. The plenary of the Council of State declared the relevant statute unconstitutional and refused to apply it (1993). Having failed in using legislative powers against the Court, the political system didn't hesitate later (2000) to use the process of constitutional revision in order to reduce the protection of the environment and thereby, indirectly, the powers of the Court. This time it was the popular outcry that forced the political system to abandon its plans. Thus, eventually the Court has consolidated its constitutional role as the independent guardian of the environmental order.
- The Courts' jurisprudence contributed to the rising of social expectations for quality of life: Today, all political interventions to the environment are closely monitored by a significant number of non profit organizations which take active part on their evaluation and — if meaning — take the cases to the Court.

6 EPILOGUE

There are two basic reasons why the deep judicial control of public policy has been effective in Greece. The first is that the idea of sustainability is in fact a restoration of the classical Greek values of nature, order, justice, moderation ('measure') and grugality. Therefore, the jurisprudence of the Court was in line with the Greek cultural tradition, which dates thousands of years back in the Orphic Hymns (X, LXXX, LXII, LXIII, LXIV). It is the same tradition that has always placed Law and Justice above the political system in Greece, no matter whether monarchical or democratic, and assigned with the judges the responsibility of reviewing the political decisions in terms of their conformity with Law. That is why the 5th Chamber of the Council of State, applying the law of sustainability in a steadfast manner against a reluctant political system, felt comfortable in honoring the long cultural tradition of Greece.

PREPARING JUDGES FOR THE EVOLVING ROLE OF THE JUDICIARY

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SUMMARY

The author describes the success of the Chamber of Environment and Sustainable in the Hellenic Council of State. Creating a separate environmental chamber allowed for a comprehensive overview of sustainability and the development of a common set of principles. Beyond the structural requirements for the promotion of sustainability the quality, administrative background, and continuous training of the chambers judges helped insure its success. Finally, the author notes the vision and leadership of the President of the Chamber as a major factor contributing to its accomplishments.

1 INTRODUCTION

The innovative jurisprudence of the 5th Chamber of the Hellenic Council of State developed and matured under particular circumstances, which played an important role in its making. Looking back at the decade 1990-2000 as a member of this Court, who took an active part in the formulation of this jurisprudence, I cannot help feeling that these circumstances deserve special attention, particularly from those who seek a deeper understanding of the enforcement process, or those who might attempt to repeat a similar experiment in a different legal and cultural environment.

2 INSTITUTIONALIZING THE NEW ROLE OF THE JUDICIARY

New ideas are usually born in new settings. The setting up of the 5th Chamber of the Council of State in 1991 as a new institution having overall jurisdiction on matters of environmental protection and sustainability proved to be the sine qua non condition for the evolution of a creative jurisprudence on these matters. The idea was conceived and put into effect by its President, Justice M. Decleris, who envisaged the new Chamber as the appropriate institutional instrument that would allow for:

- comprehensive overview of sustainability problems arising in every field of public policy;
- development of a set of common principles for dealing with these problems;
- transformation of these general principles into objective and operational criteria permitting their uniform application on different cases.

While the 5th Chamber was indeed something novel in terms of competence, it remained at the same time an integral part of the Council of State (Conseil d' Etat), the prestigious Supreme Administrative Court of Greece, with a hundred years' history in the effective control of government policies and the protection of individual and social rights. So we can say that the 5th Chamber was endowed from birth with unique qualities: a modern organizational frame ensuring expertise and effectiveness on one hand, a long tradition of authority and independence on the other.

It is often the case with new institutions that, although designed with vision

and care, they fail to produce the expected outcome. Fortunately, this has not been the case with our Court. The secret lies in a happy combination of a number of factors, which we will briefly discuss below.

3 TRAINING FOR THE NEW ROLE

First comes the human factor, in other words the individual members appointed to the Chamber from the start. All of them were experienced judges, already serving at the Council of State from ten to twenty years, who were selected by its President, not so much because they were familiar with sustainability problems, but rather on the basis of their creativity, independence of spirit, steadfastness and environmental sensibility.

To the surprise of outsiders, these strong personalities with completely different backgrounds, political beliefs and legal philosophies, collaborated so well with each other and were so well integrated into the new Chamber that most, if not all, of its pioneer decisions were reached unanimously. As the problems brought before the Court became more complex, original and difficult, requiring a deeper and deeper understanding of the logic of sustainability, the members of the Court, far from being discouraged or overworked, developed an increasing sense of purpose and commitment.

The members of the new Chamber were equipped from the start with the appropriate methodological tools enabling them to exercise the deep control required for sustainability problems, namely they were introduced to systems methodology. To judges trained to apply the classical methods of administrative control (i.e. careful study of the case file, prepared by government officials, and identification of errors occurring in legal interpretation, procedure, reasoning etc.), introduction to systems methodology, though not an easy task, revealed a completely new dimension in the exercise of judicial review.

In order to understand the necessity of this new approach, one must bear in mind that sustainability is a substantive notion; therefore, the answer to the perennial question put before the courts, whether a particular policy or decision is sustainable or not, has to be a substantive one as well. Such an answer presupposes thorough knowledge not only of the file of each case but of the actual problem, which lies behind it. The judges entrusted with the task to solve such a problem, should know it in and out, better than the administrator who attempted to solve it in the first place and whose decision is challenged before the Court. To do that, a judge should:

- command the systemic techniques of problem structuring, formulation of optimal policy models and evaluation of alternative solutions. To that end those judges of the 5th Chamber who were unfamiliar with systems methodology became quickly acquainted with it through constant training by the President, himself an expert in the field since the 60's.
- have a full view not only of the facts of the case, but also of the scientific problematique behind them. That was achieved through close collaboration with government officials and experts charged with the design and implementation of the relevant public policy, as well as through the practice of seeking expert opinion on disputed scientific matters.

With the help of the above tools the judges of the 5th Chamber were in a position not only to point out to the government exactly where its policy under review failed (e.g. at the stage of design, implementation or enforcement), but also whether such a failure was curable or not, and what exactly should be done to correct it. Among the 15.000 decisions issued by the Court in the decade 1990-2000 many provoked a strong reaction from adversely affected pressure groups and interests. It is, howev-

er, noteworthy, that virtually none of these decisions has been seriously challenged on its merits by specialists in the respective fields. The most common criticism against them was that, though substantively correct, these decisions adopted solutions far too maximalistic for a world accustomed to bargain and compromise.

4 SOCIAL SUPPORT

An important factor, which greatly reinforced the morale of the members of the Court and increased their dedication to the value of sustainability, was the attitude of the general public. Both citizens and the mass media enthusiastically received decisions on environmental protection, no matter how strict. Their active support compensated for the often-severe attacks coming from the lobbies of affected interests. Environmentalists as well as common people, disappointed from government inertia and clientele politics, found in the Court an unexpected and reliable ally in their effort to save the Greek environment, both natural and cultural.

The 5th Chamber's case law was the first to introduce the language and ethics of sustainability into public vocabulary. Vested with the Court's authority, this language awakened the environmental conscience of the Greek public, who welcomed the return of its long-forgotten traditional values. This close interaction between Court and public proved to be a crucial factor, whose impact upon the morale of both should not be underestimated. The importance of this factor was proven during the constitutional revision of 2000. An attempt to revise the famous article 24 of the Greek Constitution, which guarantees environmental protection, and thereby to render practically inactive the jurisprudence of the Court, met with such an unexpected and strong public reaction that it proved to be abortive.

5 LEADERSHIP

Last but not least in the list of factors which determined the course of the 5th Chamber was the strong presidency of Justice Decleris. The mark of his personality has been so deep that it is generally acknowledged that without him the Court would not have been the same.

His commitment to the values of justice and sustainability was so intense that it made him completely impermeable to pressures from any direction. He effectively defended the Court's independence against political intervention and this made him very popular to the public, if not to the political system itself. This spirit of steadfastness was transferred to all members of the Chamber and maintained their high morale even throughout periods of grave conflict.

Besides being a judge, he was a scholar in a wide range of scientific fields and an expert in systems methodology, which allowed him to approach complex matters in a comprehensive manner. In that way, he was a live source of information and education for the members of the Court, who felt confident in making the jurisprudential breakthroughs necessary for sustainability problems.

6 CONCLUSION

The evaluation of the court's performance during the decade 1990-2000 permits us to draw the following conclusions:

- Judicial control of public environmental policies should be encouraged.
- In view of the nature of environmental disputes, involving grave conflicts over economic, social and political issues, judicial review should be entrusted to professional judges enjoying life tenure and a status of independence towards the government.
- It is also advisable that these judges

should be recruited from the body of administrative judges since the latter are familiar with the exercise of control of the administration and can easily handle conflicts with the government. In case such a body does not exist, special tribunals should be instituted.

- In order to achieve effective control with actual impact upon the environment, it is essential to empower judges with comprehensive jurisdiction, i.e. vertical and horizontal competence on sustainability matters. This means that governmental policies should be open to review at all stages, from their initial design (e.g. control of constitutionality of laws, preliminary review of regulatory instruments) down to the annulment of governmental decisions and suspension of their implementation.
- As recommended by Agenda 21, it is important to ease access to justice by broadening the concept of locus standi.
- The training of the above judges should include their initiation into systems thinking, which is the unique methodology for sustainability problems, as well as modern decision making methods including problem structuring, optimal modeling and evaluation.
- Finally, all actors involved in the judicial control of public sustainability policies should realize that in the 21st century the legal value of sustainability stands at the same level with the fundamental values of equality and human rights.

THE INSEPARABLE LINK BETWEEN THE CULTURAL AND NATURAL ENVIRONMENT: THE GREEK EXPERIENCE

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SUMMARY

The Hellenic Council of State, the Supreme Administrative Court in Greece), is leading the effort to protect Greece's "Cultural Environment. Traditional thinking on Sustainable Development focuses on economic and natural considerations, while ignoring the importance of culture (i.e. values, religion, ideologies, notions of justice, etc.). The author discusses the Hellenic Council of State's case law on environmental protection and finds that it emphasizes the dominant role of culture and its interconnection with nature and identifies a "Cultural Environment" that the state has a duty to protect. This protection is grounded in the Hellenic Constitution of 1975 as well as numerous other national and international instruments. In practice, the Council has lead efforts to effectively enforce this protection, often at odds with the political branches, thereby reinforcing Greek cultural values such as justice, moderation and respect for nature.

1 INTRODUCTION

Scholars and practitioners of environment and sustainability focus mainly on a man-to-nature relationship, i.e. on the impact of human intervention on ecosystems, thus neglecting important interactions among man-made systems themselves.

The vast majority of publications on the subject attest to this attitude. Even the definition of sustainable development provided by Agenda 21 and its related documents put an emphasis on what has been called "Natural Capital," which is being used as a technical term for ecosystems.

Such a tendency narrows the scope of sustainability and results in an under-conceptualization of the situation. Human-made systems predominate over the other components of the global system, namely the biological and the natural. Given the importance of values in determining the behavior of man-made systems, sustainable development has to do more with the value, educational and justice subsystems of society than with the economic and natural environment ones.

The three parameters of the notion of sustainability (natural, cultural, social) advanced by the Hellenic Council of State provide respective criteria for a more comprehensive, therefore more effective, management of issues of environmental protection. The concept also stresses the strong interdependence of these parameters especially between the natural and the cultural.

In this paper a brief account of the Hellenic Council of State's jurisprudence on the protection of cultural environment is given, first in regard to its legal grounds and reasoning and second in regard to applications. Reference is also made to a number of selected cases that demonstrate the Court's contribution to the protection of the Country's cultural inheritance.

2 THE NOTION OF CULTURAL ENVIRONMENT AND ITS PROTECTION

Nothing is more indicative of the value system of a social complex than the notion of culture. Being commonly defined as the set of values and norms proper to a social system, culture includes world views, religious, ethical, philosophical and aesthetic beliefs, basic concepts, political ideologies, law systems, technical practices, economic attitudes, etc. Culture is embedded in the minds of people. It is also embodied in various human artifacts and customs such as monuments, buildings, works of art, technology and social events. These constitute the so-called cultural environment.

According to a definition stemming from the rulings of the Greek Council of State, "Cultural Environment" includes the monuments and all other products of human activity that comprise the historical, aesthetic, technological and intellectual legacy of the country. Evidently, protection of cultural inheritance provides historical continuity and stability of the man-made environment, thus safeguarding a country's cultural identity from constant change.

In the Court's opinion, legal protection of Cultural Environment means mainly two things:

- That the State has a duty to perpetuate the existence of cultural elements.
- That the law may impose restrictions in order to avoid any damage, alteration or demolition of those elements.

Let us elaborate on the legal grounds and reasoning lying behind such an opinion.

3 CONSTITUTION PROVIDES GROUNDS FOR THE PROTECTION OF CULTURAL ENVIRONMENT — LEGAL REASONING

By acknowledging the inseparable link between the natural and cultural environments, the Constitutional of 1975 in Article 24 avowedly pronounced the need for the protection of each of them. This Article demands that the State should take either preventive and or repressive measures for their protection. It also provides also for spatial planning throughout the country. This provision was given a liberal construction by the Council of State, thus receiving a meaning responding to all criteria of sustainability and its underlying philosophy. As a result, Article 24 of the Hellenic Constitution became the most effective tool available to the Judges for environmental compliance and enforcement.

To be sure both Domestic (e.g. the Charter of Athens, 1931: the Law on ancient monuments, 1932) and International Law (e.g. the European Cultural Convention of Paris, 1954: NS the Granada Convention on the protection of architectural heritage of Europe, 1992, ratified by Greece) provide for the protection of certain elements of cultural heritage. But these documents do not allow for as comprehensive and interlocking a notion of sustainability as the Hellenic Constitution. Moreover, the Constitution – ranking at the highest level in the hierarchy of legal norms – allows for the invalidation of any other law or act not conforming to its provisions.

Legal reasoning of the Court included the following:

- Article 24 of the Constitution protects Environment in its broad sense, i.e. both the Natural and the Man-made Environment.
- Constitutional protection is complete in the sense that it embraces all the elements of Environment and the full extent of them.
- Environment serves the public interests not only of the present but also of future generations; it therefore prevails over other legal entities.
- Constitutional requirements for environmental protection cannot be fulfilled unless it is integrated in all public policies.
- Protection of Environment is inconceiv-

able without spatial planning and vice-versa.

- Constitutional provisions bind all three branches of Government.

In addition, the Court reached a number of specific rules pertaining particularly to the protection of Cultural Environment. These rules are:

- Protection of Cultural Environment should be a major target of spatial and city planning.
- Monuments should be protected from pollution.
- Not only monuments but also their surrounding environment should be given proper consideration.
- There is a duty of the state to restore damaged elements of cultural environment.
- The legal status of protection should be effective, i.e. it should embody all proper kinds of control.
- Along these lines the Hellenic Council of State provided protection to all conceivable elements of Cultural Environment both with respect to those of "High Culture" (creations of a global significance) and with respect to those of "Folk Culture" (products of the people). Judicial control had been carried out across the full range of the Court's Constitutional capacities.

4 MANAGING PROTECTION OF CULTURAL ENVIRONMENT BY THE COURT CASES

After hierarchically ordering the objectives of the Master Plan of Athens, the Court judged that the most basic objective of all was to preserve the city's cultural identity. In the same context, the Court rejected a law providing for such uses of land and building conditions that were incompatible with the cultural and historical significance of places, such as along the Sacred Road (the road connecting Athens with the sanctuary of Eleusis) and the ancient Public Cemetery (the graveyard of eminent Athenians).

In order to protect monuments from pollution and any other kind of offence, the Court opposed the installation of an air exhaust system (ventilation grid) of the underground railway next to the Athens Cathedral. It also denied a Tango Festival, which was to take place in the courtyard of Kesariani Monastery on the grounds of the erotic symbolism of this dance.

The range of protection was broadened extensively (e.g. summertime cinemas) as well as spatially. Instances of this latter category include a) a legal requirement for a construction-free zone around the archaeological site of Delphi, b) preventing the installation of a waste dump that was in view of the sacred precinct of Zeus on Mount Hellanium, and c) prohibiting the presence of quarries near the archaeological site of Ramnus.

With respect to Folk Culture, the Court considered traditional settlements a significant part of the Country's cultural inheritance, stating that their protection includes not only buildings but also streets and squares. In the case of the township of the holy island of Patmos, building was restricted on plots where previous buildings had stood.

A number of opinions and rulings of the Hellenic Council of State manifestly refer to the unity of the cultural and natural environment, while others point out the dual (natural and cultural) character of some protected elements of the environment themselves. For instance, in the Hymmetus regulatory decree, the Court mentioned "the inseparable link of the austere and delicate skyline of the mountain with the cultural capital of the area of Athens." The Court also referred to the "venerable Mount Pelion, a mount of imperative significance for Hellenism," in order to

protect its traditional settlements from construction of private swimming pools. In the case of Marathon, the Court stressed the unity of the archaeological site and the natural environment, including the shoreline, which was considered to be "a substantive feature of the location owing to the part it played in the conditions of the historic battle".

Perhaps the most holistic expression of the linkage between the cultural and natural environment can be found in the case of small islands, especially that of the Cyclades. The Court pointed out that these islands constitute fragile ecosystems, while at the same time they are respected centers of a national civilization that date back for millennia having unique features that need to be protected; therefore, any urban development on these islands should be mild and a result of comprehensive planning that incorporates criteria referring to all the aforementioned characteristics.

5 COMPLIANCE AND ENFORCEMENT

As striking as these cases may be, the respective assaults on environment by either the legislature or administration are deplorable. Of the three branches of government in Greece, only the judiciary, particularly the Fifth Section of the Council of State, demonstrated compliance to and enforcement of the needs of sustainability and environmental protection. In this, the Court had to battle against a prevailing attitude towards an idea of growth dominated by the spirit of market economy and its supportive values of accumulation of wealth, the acquisition of power and the creation of a society of masses seeking excessive consumption of commodities; a battle that led to an overt conflict between the Council of State and the political system which resulted in a revision of the Constitution in an effort to diminish environmental protection.

6 EPILOGUE

Sustainable Development rests on a set of values such as justice, moderation and respect of nature that are deeply embodied in the Greek cultural tradition. In this respect the Hellenic Council of State's jurisprudence, apart from its impact on the objects and structures of the country's cultural heritage, constitutes itself an active affirmation of the very essence of sustainability.

ENVIRONMENTAL LAW ENFORCEMENT: THE ROLE OF THE JUDICIARY

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SUMMARY

Under the modern scheme for environmental management, courts assume a subsidiary role in enforcement to administrative agencies. But, a number of new and innovative techniques are available to bolster the role of the courts in environmental protection including tort, administrative and criminal law along with conflict of law. In addition, courts play a role in determining the adequacy of quantification of environmental damage. The article concludes with a discussion of empirical applications including discussion of four cases.

1 INTRODUCTION

Commentary upon how judges view their role in deciding environmental cases presents acute problems for the young academic. There is the obvious caution to prudence against presenting a diagnosis of the judicial mind to an audience with real judges in attendance. More crucially, perhaps, there arises the need for to clarify the sense in which such an exposition could possibly be meaningful.

The judiciary is, of course, the guardian of the rule of law. Courts routinely exercise their constitutional prerogative to interpret and enforce all of the laws of the land. The role of the judiciary is to enforce the law. That is what courts do. In this sense, therefore, there can be no special role for the judiciary in ensuring enforcement and compliance with the law in environmental cases.

2 COMPARISON WITH ADMINISTRATIVE BODIES

A more teleological perspective could allow comment upon the role of the courts vis-à-vis that of other agencies, in ensuring environmental law enforcement and compliance. At first blush, this appears a more fruitful approach because the legislature is increasing allocating primary responsibility for environmental regulation to administrative agencies. In the Caribbean, for example, the modern era of environmental law began with the passage of the framework-type, National Conservation and Environmental Protection Act 1987, of St. Christopher and Nevis. This was followed in rapid succession by the Natural Resources Conservation Act 1991 of Jamaica, the Environmental Protection Act 1992 of Belize, the Environmental Management Act 1995 of Trinidad and Tobago, (as replaced by the Environmental Management Act 2000) and the Environmental Protection Act 1996 of Guyana.

An essential purpose of this legislation was to overcome the traditional fragmentation in environmental regulation by institutionalizing broad-based environmental management. The basic function of the new administrative body is, in the words of one statute, 'to take such steps as are nec-

essary for the effective management of the natural environment so as to ensure the conservation, protection, and sustainable use of its natural resources'. Discharge of this obligation requires the setting of rules on what can and cannot be done and the establishing of a coherent system of control in which the regulating body sets a framework for activities on an ongoing basis, with a view to conditioning and policing behavior. Typically, regulatory tools include permits, licenses, notices, and cessation orders.

Under the modern scheme for environmental management, then, the courts assume a subsidiary role in enforcement. Administrative bodies do still have recourse to use of the criminal law, but only as a last resort. The criminal law is, after all, a prime example of remedial control, with its emphasis on punishing the abuser of the environment. Administrative regulation aims to be preventive by, for example, stopping pollution before it occurs. Individuals do still petition the courts for review of the action of administrative bodies, but only when the advantages of the informality and the relative lack expense of addressing concerns to the environmental tribunals do not produce minimum satisfaction.

The complementary role of the courts has been recognized, perhaps welcomed, by the courts themselves. In the Canadian case of R. v. Consolidated Mayburn Mines Ltd. the court made clear that like court orders, administrative orders deserve to be respected and obeyed. It made the point that administrative bodies regulate countless activities in society; regulation that was essential for the protection of individuals and groups in the society and for the prevention of harm to societal interests. The orders and decisions issued by administrative bodies thus form an important part of the law. Unless these orders and decisions are respected the orderly functioning of regulatory justice would suffer. This meant that fidelity to the internal mechanisms and forums established by the legislature to enable the individual to assert their rights. As the Court went on to say:
"It is clear from a review of the Environmental Protection Act that its purpose is not simply to repair damage to the environment resulting from human activity, ... but primarily to prevent contamination of the ... environment. Such a purpose requires rapid and effective means in order to ensure that any necessary action is taken promptly... In the case at bar, the appellants elected to disregard not only the order, but also the appeal mechanism, preferring to wait until charges had been laid before asserting their position. ... to permit the appellants to collaterally attack the order at the stage of penal proceedings would encourage conduct contrary to the Act's objectives and would tend to undermine its effectiveness."
The House of Lords made statements to similar effect in R. v. Wicks in the context of dismissing a collateral challenge to a planning decision.

3 JUDICIAL PERSPECTIVE IN ENVIRONMENTAL LAW ENFORCEMENT

In the end, however, not even the judicial concession of exercising a subsidiary and complementary role to that of administrative agencies resolves our initial dilemma. If the court is consigned the status of the forum of last resort, its generic role in, for example, the interpretation of the criminal law or administrative law, does not change merely because the case before it relates to the environment.

At the same time, it would be difficult to argue, with a straight face, that the judicial process is an exercise in syllogistic reasoning where the clearly established statutes or precedents are applied to the facts with little or no discretion on the part of judges. Even without being a fully sub-

scribed member of the Realism School of American Jurisprudence, it is clear that where there are numerous precedents, many conflicting with each other, there is no automatic wrong or right answer to a legal dispute. There are simply a variety of answers from which the judge has to choose one. In addition to the numerous precedents, there are also numerous techniques for interpreting those precedents and indeed, statutory enactments. It may therefore be unrealistic to expect judges to be machine-like and totally neutral. The good faith exercise of best judgment, as assisted by counsel, is all that can reasonably be asked or expected of the judiciary.

It is in this sense, then, i.e., within the margin of discretion that the way in which judicial decision-making has been exercised that environmental organizations and environmentalists have sometimes expressed concern with the judiciary's role in ensuring environmental enforcement and compliance. A perception exists, whether real or imagined, that many of our judges place a higher value on economic development than environmental protection and that this influences their selection of the final decision from the variety of possibilities that exist. This perception has been strengthened by several environmental law decisions. The anecdotal reports of the undisguised anger of a Trinidad and Tobago Magistrate when asked to try a man for contravention of the Wild Birds Protection Act whose only crime was, in the words of the Magistrate, 'trying to feed his family.' The fact that the first three attempts by Caribbean nationals to have the courts review official decisions that, allegedly, caused unlawful harm to the environment, were dismissed on the ground that the applicants lacked standing. The fact that the first judicial comment upon the workings of an administrative body established under the modern umbrella-type legislation was widely cited in the Jamaican Press as evidence of the Court's preference for commerce over the environment.

Lest any Caribbean judge in attendance here should be tempted towards a citation for contempt, the present writer hastens to add that the perception of lack of judicial zeal towards environmental protection is not confined to the Caribbean judiciary. At the international level, persistent criticism on this score led to the establishment of an Environmental Chamber to the International Court of Justice, staffed by judges with particular expertise or interest in the field. It is therefore somewhat ironic that the first ruling of the Chamber in the Gabcikovo-Nygamaros Project case (Slovakia and Hungary), between was widely decried by the same critics as hugely disappointing for being anti-environment. In commenting upon the role of American Courts in the Search of Environmental Quality, Professor Joseph Sax of the University of Michigan Law School, wrote in 1970 that:

- Anyone who enters a courtroom with a conservation case can first expect resistance from the court itself. The Judge's principal thoughts are almost sure to be, "Why did you come to me? Why don't you take your troubles to the legislature? What do I know about all this? This is not a matter for judicial consideration. What reasons can you possibly give for suggesting that I – a judge – should substitute my judgment for the expertise of an agency whose business it is to make the kinds of decisions you are challenging? Aren't you asking me to serve as a super-planning agency? And, in any event, what law was broken by the defendants?
- I am not here to enforce the good, the true, and the beautiful, to be the fount of ultimate wisdom and social conscience. I am here to enforce the law. What rule is violated by this highway plan, this dam project, or this proposal to spray elm trees with DDT?
- Finally, the judge will ask, "What damage do you charge has been done to you?

Where is the broken arm or the broken contract? I am not a prophet who can speculate upon the ultimate fate of gulls and terns. I redress loss; I do not paint the future rosy.'

Much has changed in the intervening three decades since 1970, particularly as we have noticed, on the legislative front, but the impression of a tradition of judicial insensitivity to environmental concerns persists. At the same time, there has, even in the view of the most extreme of environmentalists, been a gradual movement, even if not always in a straight line, towards placing greater premium upon environmental security.

In looking at the changing attitude brought to the weighing process used to make final decisions on environmental law enforcement, it is convenient to consider the branch of law used to enforce the environmental standards in question. Thus, the environmental protection regime is enforced through the law of tort, through the operation of administrative law and through the criminal law.

4 TORT LAW: FROM COMMON LAW PRINCIPLES TO ENVIRONMENTAL ACTIONS

The law of tort, such as nuisance law and Rylands v. Fletcher, are essentially aimed at protecting individual rights or rights relating to property. The protection offered to landowners against unreasonable injury to their land by the action of another has obvious environmental implications, but was not designed to promote environmental preservation as we understand that notion today.

4.1 Using The Common Law As A Mechanism For Environmental Protection

An important debate, which is ongoing, concerns whether these judge-made rules ought to be developed so that they are directly concerned to secure environmental protection.

Many of the judges who have considered this issue have clearly been reluctant to develop tort law in this way. This reluctance was exemplified in Boomer v. Atlantic Cement Co., decided in 1970 by the Court of Appeals of New York. The Court expressly refused to allow private litigation in nuisance to be used as a tool to effect broad control of air pollution. A case in water pollution provided the opportunity for the House of Lords to made similar indications. In Cambridge Water Co. Ltd., v. Eastern Counties Leather plc the House refused to reform the tort of Rylands v. Fletcher into a more specific common law rule about the control of hazardous substances. Lord Goff rationalized this approach on the ground that :

- '... as a general rule, it is more appropriate for strict liability in respect of operations of high risk to be imposed by Parliament, than by the courts. If such liability is imposed by statute, the relevant activities can be identified, and those concerned can know where they stand. Furthermore, statute can where appropriate lay down precise criteria establishing the incidence and scope of such liability. '

4.2 Standing To Bring Environmental Suits

A similar reluctance is evident in the related question of standing to bring common law actions to vindicate environmental rights. The requirement in most common law actions, to demonstrate some sort of proprietary interest or show special damage, remains a judicially self-imposed obstacle to environmental actions. After some indications of willingness by the English Court of Appeal to relax the requirement, the fundamental cautiousness returned in the House of Lords decision in

Hunter v. Canary Wharf. The House returned the law of private nuisance to its original position of protecting only property rights holders. In the words of Lord Hoffman :

- "... the development of the common law should be rational and coherent. It should not distort its principles and create anomalies as an expedient to fill a gap."

The basic point, of course, is that any loosening of the strict requirement for standing is within the margin of judicial discretion. Reconfiguration of the way in which that discretion is exercised may be profitably undertaken, for instance, in relation to private suits for public nuisances. The well-known rule, derived from Boyce v. Paddington Borough Council is that an individual can only bring suit without the fiat of the Attorney General in two circumstances. First where the interference with the public right is such that some private right of that person is at the same time interfered with. Secondly, where no private right is interfered with, but the person, in respect of his pubic right, suffers special damage peculiar to himself from the interference with the public right.

This requirement to show special damage was interpreted in an interesting way in Chandat v. Reynolds Guyana Mines Ltd. where farmers claimed remedies in respect of damage to their crops caused by polluting emissions from the defendant's bauxite works. The court found that the pollution constituted a public nuisance because it affected a large number of persons and was widespread in its range and indiscriminate in its effects. However, these characteristics warranted action by the community at large rather than individuals, none of whom could claim to have suffered any damage, loss, or inconvenience greater in quality than the others. Happily, the more recent decision in Broderick v. Alcoa Minerals of Jamaica appears to have allowed a representative action in nuisance in respect of polluting emissions from a bauxite plant.

Admittedly, however, nothing in the tenure of the judgments in Broderick supports the hope that standing would have been allowed to individuals whose roof had not been corroded by the sulphates from the plant but who simply wished to halt the polluting emissions in order to protect the atmosphere.

4.3 Conflict Between Private And Public Law

Another context in which the exercise of judicial discretion has import for the environment is in the circumstance where there is a conflict between private law and public regulation, in the sense that an activity is lawful under one regime but not the other.

Private law rights can clash with many regulatory controls, as for example, in the case of the award of waste management licenses. Budden and Albery-Speyer v. BP Oil involved a claim in negligence for alleged injury to children by ingestion of petrol fumes. The claim was defended by the two oil companies sued on the basis that they had complied with the regulations prescribing the lead content in petrol. This defense was upheld since to decide for the children would be to replace the permissible standard established by Parliament, in favor of a lower, judicially determined standard, by way of litigation under the adversary procedure.

Selection of this consideration for deciding this case on atmospheric pollution may be compared with decisions on water pollution. With regard to pollution of watercourses, it has always been accepted that the grant of a license to discharge polluting matter, in no way alters the common law rights of a riparian owner to sue the discharger.

Similarly, the grant of planning permission may authorize activities that give

rise to claims in nuisance. In granting a planning application it must be assumed that the planning authority has balanced the impact of the development upon private interests (e.g. neighbors) with any competing public interests and concluded that the public interests in allowing the development to proceed should prevail.

After some hesitation, the courts appear to have decided, properly, it is submitted, that planning approval does not foreclose upon the separate question of the right to proceed in nuisance law. The controversial ruling of Buckley J. in Gillingham Borough Council v. Medway (Chatham) Dock Co. Ltd raised concerns that any activities engaged in under a planning permission could not lead to liability in nuisance. More recent decisions, however, seem to have narrowed the effect of the judgment considerably. In Wheeler v. JJ Saunders Ltd the view was taken that planning permission does not act as a defense to a claim in nuisance; rather Buckley J's decision went to the heart of the definition of a nuisance, and the locality doctrine in particular. The question was whether the development pursuant to the grant of planning permission had so changed the nature of the area that what would have been a nuisance before the development could not be considered so now.

5 ADMINISTRATIVE LAW: JUDICIAL REVIEW OF ENVIRONMENTAL REGULATION

The heavy reliance placed on 'framework' legislation, fleshed out by guidance, regulations and decisions of the enforcing authorities means that many of the everyday rules of environmental protection are made without the scrutiny of parliament. Similarly, statutory requirements, such as that the environmental agencies consult with other authorities or the public, publish documents, require the environmental impact assessments, are not supervised by the legislature. Scrutiny of administrative regulation must therefore be undertaken by the courts, which ensure, through the mechanism of judicial review, that the authorities perform their duties properly.

Recent developments in the law support the thesis that the way in which judicial discretion is exercised to interpret legal standards is directly proportional to the usefulness of judicial review as a mechanism for environmental protection. A particularly vexing issue concerns the judicial interpretation of the standard applicable to the question of standing to seek judicial review.

5.1 The Standing Requirement

In order to have standing to bring an action for review, the applicant must demonstrate that he or she possesses a "sufficient interest" in the matter to which the application relates. Until recently the courts over the common law world all adopted a restrictive interpretation to the standing requirement. They ruled in a number of cases that environmental pressure groups or public-spirited individuals did not satisfy the Boyce v. Paddington Borough Council test so as to obtain review. For example, in R. v. Secretary of State for the Environment ex p. Rose Theatre Trust, an interest group specifically formed to defend the remains of an Elizabethan theatre, was refused standing. It was held that, as individuals, none of the group had any special interest in the matter over and beyond the general interest of the public. The case resulted in a great deal of criticism and was a blow to the notion of environmental litigation in the public interest. Among other things, Rose Theatre Trust appeared unconcerned, or at least not overwhelmed by the probability that no one could sue in such a situation thereby leaving the decision of the Government agency beyond

possibility of rebuke.

5.2 Caribbean Trilogy

A similar criticism may be leveled against the first three Caribbean attempts to seek judicial review of environmental decision-making. The trilogy began in March 1993 with Spencer v. Canzone Del Mare and the Attorney General of Antigua and Barbuda (Spencer No. 1). The applicant was a Member of Parliament of Antigua and Barbuda and Leader of the Opposition. He alleged that the Acting Chief Town Planner, acting on behalf of the Land Development Control Authority, had ordered the defendants to halt all development activities at its Coconut Hall site because the work there was environmentally unfriendly and required an environmental impact assessment, which had not been done. It was further alleged that the Prime Minister had improperly written to the developer allowing the continuation of construction. The application for declaratory orders and an injunction was dismissed on the ground that the plaintiff lacked standing because he had not shown 'sufficient interest' in the matter to be litigated.
In June and August 1996, the High Court of Barbados considered the standing issue in Scotland District Association Inc. v. Attorney General et al. The applicant was a recently formed corporation whose objective was to foster and promote the preservation and improvement of the ecologically sensitive Scotland District. Its application for a declaration that the decision of government to site a sanitary landfill for the deposit of waste materials and refuse in the Scotland District was unlawful was rejected. Although there was not much discussion of the locus standi point, the Court appears to have agreed with the defendants' argument that members of the association had no individual interest in the matter and that joining themselves into a company created no better right than they enjoyed as individuals.

Finally, Spencer v. Attorney-General of Antigua and Barbuda et al (Spencer No. 2), decided in April 1998, rejected an application from Mr. Spencer for a declaration that the agreement between the Government and a private developer for a tourist development on Guiana Island was unconstitutional. One ground advanced by applicant was that the proposed development was harmful to the ecology and was contrary to common law principles that protect the environment. At first instance, Saunders, J. found that the applicant had standing but rejected his arguments on the merits. This decision on standing was overturned on appeal. In the view of the Appellate Court, the applicant had failed the constitutional requirement that he should have "a relevant interest" in order to be granted standing.

Admittedly, there are important differences between applications by genuine environmental organizations or pressure groups to seek judicial review and applications by professional politicians who may have other axes to grind. The Court clearly has an interest in not becoming a forum for political debate, particularly in circumstances where the applicant has access to Parliament.

However, the broader problem concerns interpretation of the 'sufficient interest' criterion. Parliament was not a possible venue to the applicants in the Scotland District case but they were nonetheless deemed not to have sufficient interest. This was despite the fact that Barbados has special legislation in the form of the Administration of Justice Act 1980, which specifically allows for litigation in the public interest. Indeed, even more recent decisions have continued the now ingrained tradition of a restrictive approach to standing, requiring, virtually, that the applicants possess a property interest in the subject matter of the litigation as a condition prece-

dent for standing. On the other hand, the Cayman Islands courts have very recently pronounced upon the standing requirement in the context of planning legislation in a way that should give hope to the green constituency.

5.3 Should the Boyce Test Apply?

Whether the Boyce v. Paddington Borough Council test, developed in the context of a private action for public nuisance, is appropriate to determine standing for judicial review of environmental decision-making, seems debatable. It appears entirely reasonable that in nuisance, where the plaintiff is attempting to recover compensation or to halt damage to an interest in land, that special loss should be the measure of compensation and of whether an injunction is appropriate. But in situations where the applicant sues to ensure sound environmental management, the paramount concern is the vindication of the public interest. This is reflected in the fact that the remedy sought tends to be one of the prerogative remedies rather than an award of damages. From this it would seem to follow that the criterion of standing based on special loss and injury might not necessarily be appropriate to review actions.

The latter considerations appear to have led to the relaxation of the standing requirement in some non-Caribbean jurisdictions, notably, United Kingdom (R. v. Pollution Inspectorate, ex p. Greenpeace (No. 2), ; R. v. Secretary of State for Foreign Affairs, ex p World Development Movement.) and the United States (Sierra Club v. Morton; United States v. Students Challenging Regulatory Agency Procedures (SCRAP)).

5.4 Relationship Between Judicial Review And Environmental Management

It is not being contended that judicial review will necessarily ensure sound environmental management and consequent elimination of risks to environmental security. Even if the recent more liberal approach to standing was adopted in the Caribbean, there would still remain clear limitations to what judicial review could achieve. As Thorton and Beckwith state, in judicial review actions, the role of the court is confined to ensuring that public authorities perform their functions properly. The court cannot substitute its own views on the merits of a decision for the views of a public authority.

The institutional constraints on the court means that it cannot hope to have access to the same information. The importance of the recent trend in liberalizing the standing requirement is that the courts themselves are enabled to perform their role of keeping administrative bodies within the limits of the powers assigned. Easier access also comports with international admonitions, found in Principle 10 of the 1992 Rio Declaration, that governments should provide 'effective access to judicial proceedings' for litigation of environmental issues.

6 THE CRIMINAL LAW

Far from being the epitome of 'black-letter law, the criminal law provides many opportunities for the exercise of judicial discretion in ensuring minimum conditions of environmental integrity.

6.1 Establishing Violation

For example, the exercise of discretionary judgment may be critical in relation to determination of violations. The weight that a judge places on environmental protection influences that judge's decision of such issues as interpretation of criminal statutes, the need to prove mens rea, as was so startling demonstrated in Federal Steam Navigation Co. Ltd. v. Department of Trade and Industry ('or'

meant 'and').

Determination of whether a defense has been made out could also involve direct judicial decision on the weight to be placed upon environmental preservation. Under the Clean Air Act 1964 of Jamaica, for example, it is a defense to prove the use of 'best practicable means' to prevent emissions from industrial works. 'Best practicable means' is expressly defined to require consideration of local conditions and circumstances, financial implications, and the current state of technical knowledge. The ultimate decision, then, will involve arbitration of the appropriate balance to be struck between economic and environmental factors. The judge is thereby legislatively drawn into deciding upon the economy vs. environment debate.

6.2 Penalties

Another obvious example of wiggle room for the exercise of judicial discretion arises in relation to the determination of appropriate penalties, given that there are no mandatory sentences for environmental offences. A recurrent criticism of Caribbean environmental law has been that the penalties for infractions are not severe enough to serve any deterrent effect. When fines were legislated in the early environmental statutes, no consideration appears to have been given to factors such as cost recovery, market value, or environmental rehabilitation. Nor were mechanisms included for upward revision in the context of increased scientific appreciation of environmental harm or (more dramatically in some countries) fluctuations in currency valuations.

These are matters that a judge can do little about. But there has been the further observation that first offences normally attract the most minimal fine possible, and although available under most environmental legislation, imposition of a custodial sentence is virtually unheard of. A recent Magisterial decision in Barbados made headline news as the first time that anyone had been convicted for illegal dumping. The sentence was a reprimand and discharge.

In accordance with increasing trend of placing greater judicial weight upon environmental protection, sentencing policy might benefit from review.

6.2.1 Fines

Where relevant evidence is available, from the administrative body or elsewhere, the size of the fine might be linked to the extent of environmental harm. Already, recent statutes have markedly increased the maximum fines that may be imposed; under the Coastal Zone Management Act 1998 of Barbados, the equivalent of US$200,000 might be inflicted.

6.2.2 Imprisonment

Traditionally, imprisonment was not imposed for environmental offences because such offences were thought not to be crimes in the strict sense of the word. Environmental offences were considered morally ambiguous because the activity causing the offence was often undertaken pursuant to socially productive activities that employ persons and contributed to the national economy. The social utility of the activity made courts reluctant to impose sentences of imprisonment.

This attitude remains and imprisonment is, rightly - many commentators would agree - reserved for the most egregious of environmental offences or where the accused acted willfully in contempt of court. So, in The Barbuda Council v. The Attorney-General (Antigua & Barbuda) et al, the court imposed a sentence of imprisonment on a Minister of Government who had authorized mining of sand in defiance of injunction imposed by the Court. The Minister escaped having to do the jail time compliments of a pardon by the Governor General at the instance of the Prime Minister.

6.2.3 Alternative Sentences

Increasingly, modern environmental legislation gives courts alternative sentencing options. In addition to fines and/or sentence of imprisonment, the court is expressly empowered under the Environmental Protection Act 1992 of Belize Act, for instance:

ß To direct the offender to publish the facts relating to the conviction.

ß To direct the offender to perform community service.

These kinds of sentencing alternatives have been used to good effect in other jurisdictions. For example, in Canada, environmental offenders have been ordered to issue verbal apologies, publish newspaper apologies, write books and dissertations relating to their bad environmental conduct, and (most importantly for my students) fund environmental scholarships. My students have consistently argued the point that that it is not apparent that these sentencing options could not be utilized even without express statutory authorization.

7 ADEQUACY OF QUANTIFICATION OF ENVIRONMENTAL DAMAGES

7.1 Introduction

For many decades the issue of adequate quantification of environmental damages was largely ignored in Caribbean jurisprudence. As late as 1983 the United Nations Environment Programme (UNEP) Study of Caribbean environmental practices noted that the interconnectivity of ecological assets were not always appreciated in economic calculations. UNEP gave the following example of an island endowed with extensive mangrove swamps and which, as a consequence has a shrimp fishery:

"Unaware that the shrimp fisheries depends on the existence of healthy mangroves, the islanders take a decision to destroy them in order to construct harbors, marinas, tourist resorts, or even to harvest the mangrove forest for fuel as has been proposed in some countries. The consequence may well be a ruined shrimp industry."

In November 1989 the Caribbean Conservation Association organized a Caribbean Conference on Ecology and Economics in Barbados. The Conference viewed the absence of environmental resources from economic calculations as a case of market failure. It endorsed the need for action at the policy-making level. It was agreed that the state should take steps to reflect environmental costs and benefits in its macro- and micro-economic interventions.

7.2 Jurisprudence of Ecological Valuation

7.2.1 Criminal Sanctions

Caribbean environmental regulation relies overwhelmingly on "command and control" strategies, and primarily the use of criminal sanctions. Statutorily prescribed deterrents are normally of a financial nature but these financial penalties are not generally quantified so as to reflect the actual loss to the environment. Most statutes merely stated the fines to be paid for offences without attempting to place a precise value on harm inflicted on the environment or the cost of environmental rehabilitation.

a. Levels of Fines

A recurrent criticism of Caribbean environmental law has been that the levels of fines that may be imposed for environmental infractions are much too low to serve any deterrent effect. When the early environmental statutes were drafted no serious consideration was given to factors such as cost recovery, market value, environmental rehabilitation. Nor were mechanisms included for upward revision in the context of inflation, fluctuations in currency valuations or increased scientific appreciation of environmental harm; circumstances that have attended Guyana, Jamaica, and

Trinidad and Tobago, among other jurisdictions. Additionally, first offences normally attract the minimum fine possible. These deficiencies continue to afflict modern management frameworks and there continues to be significant differences in the quantum of fines for the same environmental offences as among the different island states. Failure to impose penalties reflective of environmental damage has had negative implications for the rule of law with the emergence of "continuous offences" whereby fines imposed following successful prosecutions have been paid but the offence continues unabated. Environmental agencies are forced to resume the lengthy, expensive, and scientifically and psychologically challenging process of prosecution whilst environmental damage is prolonged in the interim, often to an irreparable degree.

b. Linking Fines To Environmental Damage

The most recent legislative response to the conundrum of sanctions for environmental offences has been significant upward revisions of the levels of fines . Prosecutors may offer recommendations with regard to appropriate financial penalties and it has been canvassed that such recommendations be based upon the nature and extent of injury caused to the environment. In specific instances legislation itself has sought to link the quantum of financial penalty to the magnitude of environmental harm, albeit in the crudest of terms. In order to further reduce the economic incentive of using the environment as a free good criminal Courts are increasingly empowered to hold the offender liable to the Crown for the value of "property removed or of damage done" to flora and fauna. This is additional to any other penalty for which the offender is liable. The valuation by the Court is legislated in terms of the "full market value" of the environmental damage. An alternative formulation empowers the Court to impose "additional fines" to reflect any monetary benefits accruing to the offender in consequence of the commission of the offence. Such fines are in addition to "the maximum amount of any fine that may otherwise be imposed". Yet another formula allows fine of "three times the assessed value of the damage caused."

7.2.2 Civil Liability

a. Common Law Actions

Nuisance is the common law tort most applicable to environmental harm but the torts of negligence, trespass, and Rylands v. Fletcher may also be applicable. Caribbean courts adhere to and faithfully apply common law principles that guarantee a plaintiff "full" redress from the defendant whose liability is established. The compensation should be "as nearly equivalent as money can be to the plaintiff's loss. However, although stated in these wide terms, the traditional interpretation has restricted the categories of recoverable loss to injuries to the plaintiff's person and his property, and have not included not ecological harm.

b. Statutory Cause Of Civil Action

Civil recovery for environmental damage may be grounded in statutory provisions and a statutory cause of civil action enjoys an important advantage over common law actions. The nature and quantum of recovery for environmental injuries are a function of the statutory provisions rather than interpretation of traditional common law principles and may therefore include non-traditional valuation of harm to ecological resources.

Myriad examples of statutory causes of action in environmental litigation abound. There are provisions for civil liability in respect of acts of pollution and abuse of natural resources in contravention of the provisions of general environmental legislation instituting comprehensive environmen-

tal management regimes. Legislation on extraction of petroleum from the continental shelf expressly provides that any resulting pollution causing loss, damage or injury gives rise to the "absolute liability" of the operator licensee or lessee. There are numerous opportunities for civil action against the state in respect of harm done to the environment within the boundaries of private property in consequence of state action, even if such action was intended to protect the environment. And statutory incorporation of the International Convention on Civil Liability For Oil Pollution Damage 1992 and the companion International Convention on the Establishment of An International Fund For Compensation for Oil Pollution Damage 1992 allow for recovery of "any damage" suffered as a result of an oil spillage. Whether Caribbean courts will take the statutory provisions at face value and import recovery for pure ecological harm is anybody's guess.

c. Civil Awards In Criminal Proceedings

Before leaving the possibilities of civil awards, note should be taken that many environmental statutes allow the judicial award of compensatory damages in criminal proceedings. Under the Environmental Protection Act 1992 of Belize, where an offender has been convicted of an offence under the Act, the Court may, at the time of passing sentence and application of the person aggrieved, order the offender to pay compensatory damages to that person. The amount awarded is by way of satisfaction or compensation for loss of or damage to property suffered by the applicant as a result of the commission of the environmental offence.

7.2.3 Administrative Assessment

The imposition of administrative assessment is often a preferable alternative to both the criminal process and the imposition of administrative penalties. As we have seen, environmental agencies in many jurisdictions have used powers of permitting and licensing to achieve broadly similar objectives. Only in Trinidad and Tobago, however, is there express statutory power to impose administrative assessment for conduct causing environmental harm. Here administrative civil assessments may be made directly by the Environmental Management Authority (EMA) or the Environmental Commission (EC) as part and parcel of the wider regime for compliance and enforcement. The assessments follow the service of an Administrative Order, which specifies the details of the environmental offence. The Order may direct remedial work, investigations and monitoring work to be undertaken by the person responsible for the violation. The assessment may take account of compensation for costs incurred by the Authority to respond to environmental conditions created by the violation of environmental rules, and compensation for damages to the environment associated with public lands. The assessment may also take account of any economic benefit or amount saved by a person through failure to comply with applicable environmental requirements. In determining this benefit account shall be taken of the nature, circumstances and gravity of the violation; any history of prior violations and any good faith efforts to co-operate with the Authority.

7.2.4 Economic Instruments

Economic instruments are increasingly being used to discourage bad environmental conduct and to reward environmentally friendly behavior by internalizing the environmental cost of environment-related practices. The theory is that consumer choices in the market place will then penalize bad environmental processes and reward more cost-efficient environmental processes. Although cogent criticisms have been made of the applicability of market

concepts in developing countries, Caribbean states have embraced them warmly. Environmental agencies have been specifically obligated to make use of current principles of environmental management, including the "polluter pays" principle; the polluter should bear the cost of the measures to reduce pollution to ensure that the environment is in an acceptable state . The principle also requires the polluter to compensate citizens for the harm they suffer from pollution. Agencies have been encouraged to seek to incorporate imposition of product charges where the product manufacturing process or usage is a significant source of pollution. Also to be encouraged are adjustments of direct government subsidies, or establishment of tax differentiation or tax incentives, to encourage beneficial environmental activities or to ensure that pricing reflects environmental costs more adequately.

The economic instruments used in the Caribbean contexts are many and varied. They include emission/effluent/pollution charges or taxes; user fees; product charges; deposit return schemes; administration charges; subsidies; tradable permits.

7.2.5 Emission/Effluent/Pollution Charges Or Taxes/Product Charges

These are essentially charges to use the environment and a direct application of the polluter pays principle. The charge is proportional to the level of pollution discharged that is likely to result in intolerable harm to the environment. The development of emission standard is therefore fundamental to the process; the charge may be formulated on a sliding scale to reflect an incentive to decrease polluting discharges within or below specified ranges. Environmental management legislation frequently specifies the obligation to develop emission standards and criteria. Standards have been established to deal with sewerage and trade wastes, as well as for ambient water and air pollution. Noise emission standards are also being developed. Product charges provide an incentive or disincentive for a better or worse environment product and their imposition is mandated where the product manufacturing process or usage is a significant source of pollution.

7.2.6 User Fees

User fees are normally imposed to recover the cost of providing a service. Typically fees are charged for collection of garbage , visit to parks, forests, and specially protected areas, harvesting of marine and other resources, or viewing wild animals and endangered species, such as whale watching; or on cruise ship tourists. No general attempt is made to link the use fee to any intrinsic value of the resource; more surprising is the failure even to charge what the market is willing to pay.

7.2.7 Deposit Return Schemes

These schemes provide, on the purchase of a product, for a charge for the packaging or product, which if returned, results in the refund of the charge. The region has a very good history of deposit return schemes for glass beverage bottles. Institution of legislative arrangement for the return of plastic "PET' have not worked as well. In some jurisdictions this measure was reflective of protection of local industries from foreign competition rather than any desire for waste management. A consequence was the lack of incentives to facilitate packaging and preparation of returned PET bottles for recycling. This resulted in the bottles being disposed of by retailers in landfills at a cost to society and the environment. An important objective of policy-makers is to expand this incentive framework to achieve broader waste management objective through recycling and reuse of such products as tires, plastic bags, batteries, and cars.

7.2.8 Refundable Bond System

This system provides for the collection of a financial sum as security against activity which could cause special environmental injury; the money being refundable on proof that the activity in question was carried out in an environmentally acceptable manner. The scheme has particular application to environmental conditions imposed for conducting developmental projects where the regulators have been determining bonds based on a percentage of the capital value of the project in the absence of any method of assessing the value of vegetation, reefs, and other environmental assets at risk. Bonds may also be used to induce satisfactory waste management practices.

7.2.9 Administrative Charges

This charge, often in the form of a non-refundable fee, effects cost recovery in respect of expenditure associated with management functions. Among existing charges are those intended to pay for the administration and enforcement of the permit and licensing system. Administrative charges are widely employed where costs are incurred in taking remedial action where offender fails to act – recovery allowed often as a civil debt. The notion also has application where individual benefits from environmental protection or improvement work and in the planning context.

7.2.10 Subsidies

A subsidy may take the form of a grant, loan, or tax incentive. Essentially it is some form of financial reward offered by regulators to encourage pollution control or mitigate the economic impact of environmental regulation. In the latter context, the individuals, and corporations to meet compliance costs. At various times subsidies have been given on installation of solar heaters and gasoline. Regulators are statutorily urged to incorporate use of subsidies to encourage beneficial environmental activities.

7.2.11 Tradable Permits/Market Creation

A suitable regulatory framework may cause creation of a market for ownership of environmental 'rights'. Tradable pollution permits is the classical example o such a market. Regulators issue certain number of permits which (based on agreed emission standards and criteria) contain pollution within acceptable limits. Producers who keep their emission below their allotted threshold may sell or lease their surplus permits to other producers. This can lead to the trading of these commodities on the stock market.

The integrity of the system is heavily dependent upon calculations of the net emission from each permit holder, a rather elaborate science and inspection and monitoring. Legislative initiatives have called for the establishment of the infrastructure that would allow creation of markets in tradable permits. Requirements for development of emission standards, award of permits and monitoring and compliance have been made and comprise the basic market requirements. As a rule these are not yet in place. Further, there is no legislative treatment with the question whether a permit or license is transferable. Nor is there any indication that the total quantities of emission over a stated period of time have been estimated to reflect acceptable ambient conditions. nor with the central question whether the permit or license is transferable.

The principle of prescription provides a common law notion with implications for market creation in tradable permits. Under the common law a polluter may, after a minimum period of prescription, provided other stringent conditions are satisfied, acquire a right to continue with a polluting activity. This right would appear to be transferable in similarity with kindred prop-

erty rights such as easements and profits.

8 EMPIRICAL APPLICATIONS

What emerges to this point is the picture of a region coming to terms with the new art of integrating ecological valuation into its legal and regulatory systems. However, theory is one thing and practice another. Although many and varied opportunities exist to use innovative techniques to compute environment al values, empirical applications are rather disappointing. There is still a predominance of the traditional notions of the ecosystem as public goods 'at large'. Not only are such goods 'free' in the economic sense that they are not perceived to have any market value; natural resources are also 'free' in the sense of being outside the traditional categories of property rights and interests. There is no known case of the Crown asserting common law rights for loss to the biosphere, as distinct from clean-up costs and related expenditure. For example, the authorities are curiously silent concerning whether, in an action for public nuisance, the Attorney General may recover damages for environmental degradation as distinct from an injunction to enforce discontinuance and recovery of associated administrative expenses.

At the same time the traditional perspective must now be juxtaposed with modern notions concerning with the total value of an ecosystem or environmental 'good'. The objective is not to place an estimate upon the intrinsic value, a rather nebulous concept that some consider objectionable on philosophical grounds, but to devise techniques and methods of arriving at the total use and non-use value of the natural ecosystem. Use values represent the value of outputs or services that the ecosystem provides and may be direct, for example where a coral reef directly provides for tourism, recreation, a fishing economy, tourist facilities, mariculture, pharmaceuticals, genetic material, aquarium and curio trade. Indirect use value may be provided as, for example, where a coral reef provides physical protection from storms, acts as a store of carbon and as a habitat for marine life. Non-use values relate to those values not usually market as goods, such as the value placed upon an environment free from air and noise pollution or the ecology of a swampland. The absence of a market in these services has led to the development of at least three innovative techniques for their valuation. Option value is the value placed on the environment in its present state, to keep it for use in the future. Existence or contingency value is the value an individual places on an environmental good to just know that it still exists, for example, the value placed on saving endangered leatherback turtles. Bequest value is the value placed by an individual on an environmental good for future generations.

These contradictory forces in Caribbean treatment of the valuation of environmental harm are evident in several recent incidents. For present purposes these incidents are described under the following titles — (a) the M/V Star II Limassol incident; (b) the Beef Island valuation; and (c) the Nariva swamp assessment; and (d) the Broderick case.

8.1 The M/V Star II Limassol Incident.

M/V Star II Limassol provides an example of the disjuncture between infliction of environmental damage and recovery of economic compensation. On 8th April, 1998 the Star II Limassol ran aground at Holland Bay in the parish of Saint Thomas, Jamaica. The ship owners and salvagers sought and obtained permission to drop cargo in order to raise the vessel, which was then anchored in the waters of the Kingston Harbor. Whilst in the Harbor, large quantities of sugar and other noxious sub-

stances containing a high concentration of amphetamine was discharged from the vessel. The pollutants caused a massive kill of aquatic animal life and a loud public outcry followed. Jamaica's NRCA exercised its statutory power to "investigate the effect of any activity that causes or might cause pollution or that involves or might involve waste management or disposal and take such action as it thinks appropriate." The investigation considered the facts of what had occurred, the quantities and nature of the pollutants that had been discharged, their effect upon the marine ecology and the number of fishers affected. However, the NRCA Statement of Claim merely detailed particulars of expenditure on the investigation and contained the standard incantation of claim for general damages, costs, and "any other relief deemed just by this Honorable Court." There was no attempt at valuation of ecological damage to the Saint Thomas coastline or in the Kingston Harbor. NRCA officials were deterred by the "sheer novelty" of the notion that Government could claim for damage to the marine and coastal ecosystem. They repeated assumed common law notions that fish in the sea were, res nullius until reduced into captivity by Government or fishers and therefore valueless at the time of their contamination .

8.2 The Beef Island Valuation

The rapid economic growth of the British Virgin Islands during the 1980s led to concern for the islands' environmental infrastructure given that proposed developmental projects bore major implications for potential terrestrial, coastal and marine intrusion. There were concerns that the developmental paradigm posed significant threats to the integrity of the fragile ecology of the BVI in general and Beef Island in particular. An additional complication arose from the fact that government policies and initiatives by the European Union and the Ramsar Secretariat were underway to consider Beef Islands wetlands for inclusion in the list of "Wetlands of International significance." The OECS/NRMU, acting in conjunction with the BVI and the EU, commissioned a valuation of the total economic value of Beef Islands' ecological services so that the economic value of environmental costs/benefits could be factored into the development equation. The study would thereby foster "sustainable development". The consultant reported in April 1998 and provided detailed economic ranking of a fixed set of components, functions and attributes of Beef Island wetlands in accordance with guidelines in the Ramsar Protocols. Separate Tables ranked these wetland characteristics in relation to Beef Island ponds, lagoons, mangroves, coral reefs, and sea grass. The ranking ranged among low (L), medium (M), high (H). The consultant wisely cautioned the need for adoption of a precautionary approach to consideration of development options since there remained considerable ignorance of the potential costs and benefits of wetland use or conversion, nor of their probabilities." Accordingly, adoption was urged of at worst a "Safe Minimum Standard" (SMS) decision when considering conversion of unique wetland resources "as long as the cost of doing so is not intolerably high." On the other hand, the lack of specificity in the rankings in, for example, monetary terms, and the failure to consider indigenous ecological characteristics other than those documented in the Ramsar Protocols were limitations to practical integration into the BVI planning process.

8.3 The Nariva Swamp Assessment

The 6000-hectare Nariva Swamp is the largest and most diverse freshwater wetland ecosystem in Trinidad and Tobago renowned for its unique flora, fauna, and species of animals. These special ecological features attract intense international

scientific research, eco-tourists and local visitors, and with the accession of Trinidad and Tobago to the Ramsar Convention in 1992, the Nariva Swamp was designated as a wetland of international significance. In Jabar v. The Minister of Agriculture, Land and Marine Resources the High Court dismissed constitutional motions filed by large rice cultivators that had sought to regularize their occupation and cultivation of crown lands in the swamp. The rice farmers were judicially described as "squatters" and "trespassers" and the right of Government to declare the swamp a prohibited area was recognized. This cleared the way for the Government to undertake an assessment of the interventions in the wetland for the purpose of mitigating any adverse impacts arising from those interventions and preparing a comprehensive management plan for the area.

The task of undertaking the EIA and preparing the management plan was assigned to the Institute of Marine Affairs (IMA) which sub-contracted assignments for which no in-house expertise could be identified, to outside consultants. The Final Report was presented to the Government in 1998 and its recommendations and implications are still being studied. Of current interest was the section of the Report dealing with the valuation of pollution damage done to the swamp by large-scale rice farming . The Report cited permanent damage done to the original system both in terms of user values ("for utilization of natural products") and non-user values ("the existing value that individuals may receive for just knowing that the swamp is there"). Injury to the bequest value was also identified (the diminished value of swamp being "there for future generations").

Computation of the use value followed fairly standard criteria but for non-user values, a much more difficult art, was based upon "non-market" resource use contingency valuation. This method involves setting up a hypothetical market for the "good" being valued. A representative sample of individuals was then asked to provide bids (similar to an auction) as to the appropriate value price of the good. Once the bids were secured a mean amount was obtained. The mean price was multiplied by the estimated population comprising the market (the households in Trinidad and Tobago in order to arrive at the full social value. In this way the social value of the swamp was estimated at TT$608m (US$96.51m). Large-scale rice farming had produced major negative impacts an estimated1200 hectares of the 6,000 hectares swamp. Using strict arithmetical calculations, the environmental damage of the rice farming was estimated at TT$110.5m.

The Nariva Swamp assessment clearly produced very speculative valuations. It may be significant that the valuation exercise was undertaken for government management processes rather than for civil liability purposes. It is inconceivable that the method of computation of the value of the environmental damage would not raise constitutional and other challenges in an action against, say, the rice farmers.

8.4 The Broderick Case

Broderick v. Alcoa Minerals of Jamaica Inc. represents a typical application of common law principles to claims for redress for environmental harm. The plaintiff lived in the parish of Clarendon within a 1.5-mile radius of the defendant's Alumina plant. The roof of his house was constructed of galvanized sheets and he had to effect repairs to the entire roof and ceiling because the zinc sheets had developed rust holes, through which the rain descended onto the plyboard ceiling and the latches to which the ceiling was attached. Mr. Broderick attributed this damage to emissions from the defendant's plant' smoke stacks and brought an action claiming damages for nuisance and a mandatory injunc-

tion. At first instance Theobalds J. overcame the defendant's arguments, which noted their efforts to reduce the pollution and their concern for the environment as manifested by the vast sums of money expended to improve it. The Judge awarded Mr. Broderick J$938, 400 with costs and granted the mandatory injunction allowing the defendant six months in which to "complete the necessary structural adjustments in order to eliminate the nuisance." The defendants appealed on grounds that are probably the best Caribbean advertisement for the limitations of the common law to provide genuine and comprehensive recovery for environmental damage and for this reason the grounds are worth setting out in full. The defendants argued that:

- they operated within worldwide acceptable limits for emission of air pollutants.
- they used the most modern and efficient control equipment.
- their powerhouse stacks of 250 feet high-emitted pollutants at a level higher than any existing plant in Jamaica.
- the production of alumina was vital to the economic survival of Jamaica and had been encouraged by successive governments for over thirty years.
- the matters complained of flowed naturally from activities authorized by special mining leases granted under the Mining Act.
- there was no scientific proof that the sulphuric acid emissions from their plant actually caused the corrosion of the plaintiff's roof.
- there was no scientific evidence that the plaintiff's loss had not been caused by the sulphuric emissions from other plants and factories in the vicinity or vehicles passing regularly on nearby roads.
- the estimate of damage should have been based had not taken account of (i) storm damage caused the year earlier by passage of hurricane Gilbert, (ii) the precise number of zinc sheets that required repair rather than the floor area, and (iii) the prices prevailing at the time of loss rather than at trial.

The Court of Appeal of Jamaica adopted the view that the care taken by the defendant and the legislative and economic arrangements under which the industry operated were not defenses to an action in nuisance. The Court was satisfied that respondent had adduced sufficient "technological" evidence of a causal link between emissions of sulphates from the appellants' operations and the sulphates which were the corrosive agents in his roof. In any event, causation was to be determined on a "commonsense" basis and there was no requirement to prove to scientific precision to what degree the emission from the appellants' plant as distinct from other sources contributed to the damage. It was for the appellants to join other tortfeasors through third party proceedings if that was thought appropriate. Moreover, the method of assessment of the cost of repairs was not unknown in the construction industry and as the environmental damage was of a continuing nature, the general rule of assessment of damage at the date of the breach was inapplicable. The Privy Council has refused to vary this judgment.

Although a victory for the plaintiff the relevance of the decision to wider recovery for environmental injury is rather doubtful. The mandatory injunction imposed by Theobalds J. was discharged on the grounds that the appellants had taken substantial steps to minimize the environmental impact of the nuisance , that an award of damages sufficient to replace the roof with a highly corrosive resistant material could suitably remedy the plaintiff. The cost to the respondent was reduced by a third to reflect the appellant's success in relation to the discharge of the injunction.

And most pertinently, the Court gave short shrift to the incipient claim for broader environmental harm. The Court dismissed the claim by the respondent of harm to his health and comfort by a malodorous stench from the appellant's mud lakes because "he did not suggest in what respect he suffered in health", and made no attempt to follow up on the wider issue of biospheric damage.

9 CONCLUSION

It seems clear that Caribbean jurisprudence is at the cross roads on the question of environmental management. A number of new and innovative techniques are available to bolster the role of the courts in environmental protection and valuation of environmental damage. Traditional approaches that omitted the environment from economics are now being challenged by the many legislative provisions and administrative opportunities that allow for the accounting of ecological damage. From this perspective it would appear that the integration of environment and economics is a done deal. The only remaining question concerns the speed with which this recognition will take hold in those responsible for statutory interpretation and administration, and the manner in which integration will be allowed to proceed. Infiltration/sharing of these approaches can take many forms:

- Persuasive value of judgments from other jurisdictions;
- Law journals - articles, etc.;
- Few extra-judicial speeches etc.;
- Judicial symposiums (organized by UNEP/ROLAC) "Enforcement and Compliance of Environmental Law in National Courts: the Role of the Judiciary" presented to and published in Caribbean Judicial Awareness symposium on Environmental Law and Sustainable Development, April 8-10, 2001, Glencastle Resort Hotel, Castries, St. Lucia. Symposium Proceedings.

Problem: Judges also restricted by the actual content of law (legislative provisions) within their jurisdictions). Tension between sharing these approaches and constitutional obligation to apply law of land.

UNEP'S JUDICIAL SYMPOSIA ON THE ROLE OF THE JUDICIARY IN PROMOTING ENVIRONMENTAL LAW AND SUSTAINABLE DEVELOPMENT

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SUMMARY

The Law is a powerful tool for addressing global, regional, and national environmental problems. A judiciary well informed of the rapidly expanding boundaries of environmental law and law in the field of sustainable development, and sensitive to their role and responsibilities in promoting the rule of law in regard to environmentally friendly development, would play a critical role in the vindication of the public interest in a healthy and secure environment through the interpretation, enhancement and enforcement of environmental law. UNEP is uniquily qualified to develop judicial capacity and to this end, hosted several regional judicial symposiums culminating in the Global Judicial Symposium to be held in Johannesburg, South Africa, in connection with the WSSD.

1 INTRODUCTION

Orderly responses to global, regional and national environmental problems are almost always founded in law. International environmental law is the principal means by which the community of nations builds and expresses international consensus on environment and development issues. At the national level, law remains the most effective means for translating sustainable development policies into action. A judiciary well informed of the rapidly expanding boundaries of environmental law and law in the field of sustainable development, and sensitive to their role and responsibilities in promoting the rule of law in regard to environmentally friendly development, would play a critical role in the vindication of the public interest in a healthy and secure environment through the interpretation, enhancement and enforcement of environmental law. UNEP's Judicial Symposia on Environmental Law and Sustainable Development had this as its primary goal.

Since the United Nations Conference on Environment and Development (UNCED) gave political legitimacy to the concept of sustainable development, there has been a pressing demand for the further development of international and national environmental law to meet the challenges it poses. While international environmental law moves in the direction of sustainable development, it has inspired a number of innovative ideas, concepts and principles, and facilitative and enabling mechanisms. The Stockholm Declaration on the Human Environment of 1972 and Rio Declaration on Environment and Development twenty years later are widely regarded as heralding and even consolidating these new principles and laying a strong foundation for their further reinforcement and wider application. Many of these principles have since found expression in major environmental conventions developed and adopted under the aegis of the United Nations Environment Programme (UNEP), and other International Organizations, in the run-up to

and following UNCED. At national level, new laws and regulations have been enacted, and enlightened judges have delivered several landmark judgments giving shape and content, and legal effect to these principles.

Compliance with and enforcement of international and national environmental law is widely recognized as one of the principal challenges facing nations in the pursuit of sustainable development in the Twenty-first Century. During the past two decades, almost all the countries in the world have enacted environmental legislation and become parties to a large number of global and regional environmental conventions, agreements and protocols. The Judiciary remains a crucial partner for promoting compliance with and enforcement of international and national environmental law.

Since its establishment following the Stockholm Conference on the Environment in 1972, UNEP has been the principal body within the United Nations system that has promoted the development and implementation of environmental conventions and other legal instruments and carried out a wide range of capacity building activities in environmental law, including the strengthening of environmental legislation, legal training and information dissemination. Its current mandate in the field of environmental law is embodied in what is popularly called the Montevideo Programme III, — The Programme for the Development and Periodic Review of Environmental Law, adopted by the Governing Council of UNEP by decision 21/23. This Mandate requires priority to be given to assist countries, especially developing countries and countries with economies in transition, giving priority to the least developed among them, with the development, adoption and implementation of international legal instruments; the provision of technical advice and assistance, at their request, to enact national environmental legislation and setting up environmental machinery; and collect and disseminate information and promote education and training in the field of environmental law. UNEP's role and responsibilities in the area of environmental law have been reaffirmed in Agenda 21, the Nairobi Declaration on the future role and mandate of UNEP adopted at the nineteenth session of its Governing Council and endorsed by the Special Session of the United Nations General Assembly held in New York in June 1997, the Malmo Ministerial Declaration adopted at the First Global Ministerial Environment Forum, and most recently, at the UNEP Governing Council's Seventh Special Session held in Cartagena in February 2002.

These developments demonstrate the critical importance of the interaction between international environmental law and sustainable development and the central role that UNEP has been called upon to play in supporting the efforts of the community of nations to develop international, regional and national legal regimes to promote the goals of sustainable development.

For most of the past three decades, UNEP has been in the vanguard of the progressive development of environmental law. This important contribution of UNEP has been widely appreciated by the international community and was applauded by the Secretary General of the United Nations, Mr. Kofi Annan, who in the UN Reform Proposals placed before the United Nations General Assembly in 1998, expressly recognized as one of the most notable achievements of UNEP, its "contribution to the initiation, negotiation and support of some of the most important treaties that have been agreed in the international field".

It is well known that most of the major global and several important regional environmental conventions and agreements have been negotiated under the aus-

pices of UNEP. These include the Vienna Convention and the Montreal Protocol on ozone depletion, the Basel Convention on transboundary movement of hazardous wastes, the Convention on Biological Diversity, the Stockholm Convention on Persistent Organic Pollutants, the Rotterdam Convention on the Prior Informed Consent Procedure in regard to trade in toxic chemicals the Convention on the control of illegal trade in endangered species (CITES), and at a regional level, the ASEAN Haze Pollution Agreement, the Lusaka Agreement on enforcement operations directed at illegal trade of wild fauna and flora and several Regional Seas Agreements. UNEP has also made a significant contribution to environmental conventions negotiated under United Nations auspices, such as those dealing with climate change and desertification. Following decisions of the respective Conferences of Parties, UNEP provides convention secretariat's for the Biodiversity, Ozone, and Basel Conventions, CITES, CMS, Lusaka Agreement, the Chemicals Conventions on PIC and POPs, and the Regional Seas Agreements.

An equally important aspect of UNEP's work in environmental law is capacity building, originally mandated by a Resolution of the United Nations General Assembly [3436 (XXX)] and reaffirmed by the UNEP Governing Council and by UNCED. These activities focus on assistance to developing countries and countries with economies in transition, to strengthen national legal and institutional regimes for environmental management and human resource development in the area of environmental law and policy. Under this programme over 80 countries have been assisted in a variety of ways in the further strengthening of national environmental legislation. Other capacity building activities include training programmes at global, regional and national levels, a computerized environmental law information service in partnership with IUCN accessible world wide through Internet, and several important environmental law publications with a distinct practical slant. Several of these are also now being translated into and published in national languages in order to reach a wider audience that would otherwise have hardly any access to books and materials on environmental law. The major UNEP publications include the Register of Environmental Agreements, two volumes of texts of International Environmental Agreements, UNEP's New Way Forward: Environmental Law and Sustainable Development, published to commemorate the Fiftieth Anniversary of the United Nations, an Environmental Law Training Manual, several global and regional Compendia of National Environmental Legislation and Environmental Case law, and a Handbook on Environmental Law.

Since UNCED, the technical advice programme on Environmental Law of UNEP has been refocused to respond to the challenges of strengthening the legal and institutional framework for sustainable development. To facilitate even more focused and effective technical assistance, the programme is being increasingly regionalized. Partnership with UN and other agencies with specialization in environmental law and capacity building are being vigorously pursued with a view to combining the comparative advantages and specialized experience of these institutions and avoiding duplication. Regional focus has been intensified through a Joint UNEP/ UNDP Programme on Environmental Law in Africa, the UNEP/SACEP/NORAD Joint Project in South Asia and the UNEP-Hanns Seidel Foundation Joint Project for the Mekong Countries, and expanding programmes carried out in partnership with UNEP's Regional Offices and in collaboration with regional partners in Asia and the

Pacific, Latin America and the Caribbean as well as in the Gulf region and in Central Asia.

2 UNEP SPONSORED SYMPOSIA ON THE ROLE OF THE JUDICIARY IN THE DEVELOPMENT AND IMPLEMENTATION OF ENVIRONMENTAL LAW

The Judiciary is a crucial partner in bringing about a judicious balance between environmental and developmental considerations and thereby promoting sustainable development. Courts of Law of many countries have demonstrated sensitivity to promoting the rule of law in the field of sustainable development through their judgments and pronouncements. The many advantages of securing the active support and cooperation of the judiciary, within the framework of its constitutional boundaries, for international and national efforts to promote the goals of sustainable development are self-evident and include:

- Promoting compliance and enforcement of environmental regulations.
- Balancing environmental and developmental considerations in judicial decision-making.
- Giving an impetus to the incorporation of contemporary developments in the field of environmental law for promoting sustainable development, including access to justice, right to information and public participation.
- Networking among judiciaries to exchange judgements and information on environmental law and policy, and international developments in the field.
- Through judicial pronouncements, promoting national policies and strategies for environmental management in the context of the respective socio-economic and cultural realities.
- Promoting the implementation of global and regional environmental conventions.
- Strengthening the hand of the executive in fearlessly enforcing environmental regulations, in the face of improper influences that could stifle executive action.

Recognizing this fact, and in pursuance of the mandate given it by the Governing Council through the Montevideo Programmes II (1992) & III (2002), UNEP provided an impetus to judicial capacity building in the area of environmental law by organizing and convening six Regional Symposia on the Judiciary's role in promoting sustainable development: The first, a Symposium for Judges from African Countries – divided into two modules for anglophone and francophone countries respectively - was held in Mombassa, Kenya, in September 1996 under the Joint UNEP/UNDP/IUCN Environmental Law Project for Africa. The second, for countries in South Asia, was organized in collaboration with the South Asia Co-operative Environment Programme (SACEP), under the Joint UNEP/SACEP/NORAD Environmental Law Project for South Asia and was held in Colombo Sri Lanka, in July 1997. The third Symposium for Judges from the ten South East Asian countries was held in Manila, Philippines in March 1999 and the fourth, the Judicial Symposium on Environmental Law and Sustainable Development: Access to Environmental Justice in Latin America was convened by UNEP's Regional Office for Latin America and the Caribbean (ROLAC) in January 2000 in Mexico City. A Caribbean Judges Symposium was convened by ROLAC and other partner agencies in St. Lucia, in April 2001. The Symposium for Judges from the Pacific Island States was held earlier this year in Brisbane, Australia, hosted by the Office of the Premier of Queensland the Hon. Peter Beattie. Altogether over sixty Chief Justices and other senior judges from around the world have participated in these judicial symposia.

During the Regional Judges symposia, several Chief Justices and other senior Judges expressed their deep appreciation for these efforts to sensitize the judiciaries around the world to developments in this relatively new area of law, and have called on UNEP and partner agencies to give priority to this area of work. It will be recalled that the International Court of Justice has also referred with appreciation to the UNEP Judges Symposia in its Judgment in the Hungary- Slovak Case relating to sharing of the waters of the Danube.

It will also be recalled that UNEP's Governing Council in its decision 21/23 on the Programme for the Development and Periodic Review of Environmental Law for the First Decade of the Twenty-first Century (Montevideo Programme III) called on UNEP to give priority to securing active judicial involvement in promoting the rule of law in the area of environmental law and sustainable development.

The Purpose, Objectives, and Outputs of the Regional Symposia may be summarized as follows:

- Provide a Forum for Judges from different regions to exchange views knowledge and experience in promoting the further development and implementation of environmental law in the region.
- Examine contemporary developments in the field of environmental law - both international and national- that have implications for promoting the goals of environment and development.
- Review the role of the Courts in promoting the rule of law in the area of sustainable development, including an examination of some of the important judgments.
- Set in train a scheme for regional co-operation among judiciaries in the South Pacific Countries, including the collation and dissemination of information and material on Environmental Law among judges from the region.

The following are among some of the important legal issues that were discussed at the six Regional Symposia:

- Incorporation of the principle of sustainable development, the polluter pays principle, the precautionary principle, and the principle of continuous mandamus in the corpus of international and national law.
- invocation of the extraordinary jurisdiction of the Supreme Court in environmental matters,
- public participation, including substantive and procedural matters relating to public interest litigation.
- the erga omnes character of environmental matters and the problem of applying inter partes procedures in environmental dispute resolution.
- limits of the concepts of "aggrieved person" and "locus stand" in regard to environmental damage.
- inter-generational and intro-generational equity.
- court commissions to ascertain facts and an authoritative assessment of the scientific and technical aspects of environment and development issues.
- interpretation of constitutional rights including right to life and right to a healthy environment.
- public's right to information.
- obligation for continuous environmental impact assessment.
- application of the public trust doctrine in regard to natural resources and the environment, corporate responsibility and liability.
- approaches to judicial reasoning in environment related matters including the importance of traditional values and ideas.
- the importance of promoting public awareness and environmental education

at secondary and tertiary levels.

Having regard to the limited time available at these symposia and the wide range of issues that could be usefully addressed, the agreed methodology provided for the participants to engage in a dialogue to share experiences, learn of contemporary approaches adopted by other regions and also lay the foundations for regional judicial co-operation in the field of environmental law. Accordingly, each delegation was requested to prepare a Country Report structured along the lines of a template provided by UNEP, which provided information on the status of national environmental legislation, participation in environmental conventions, the challenges faced in securing compliance with and enforcement of environmental law and the incorporation of contemporary approaches such as public participation, access to justice and information, and summaries of environment-related judgments of the Courts. These Country Reports were subsequently included in the Reports of the Symposia. The Country Presentations were followed by examination of other subjects of special relevance to countries in the respective regions through structured discussions, often led by Panels of external resource persons and Judges.

The fact that these Regional Symposia attracted the participation of over fifty Chief Justices and other senior judges from around the world and the enthusiastic support of a considerable number of international organization within and outside the United Nations, as well as several national governments, is itself the most eloquent testimony to the relevance and importance of this initiative. The Reports of the symposia are replete with repeated calls from Chief Justices and other senior Judges for UNEP and other interested organizations to redouble their efforts to strengthen the capacity of judiciaries in the respective regions to participate actively and on a well informed basis in carrying out their responsibilities as the final arbiter in balancing environmental and developmental considerations through the Courts of Law.

The immediate outcome of these Symposia may be summarized as follows:

- Initiation and fostering of a judicial dialogue and exchange of experiences in the field of environmental law in the region with sensitivity to the cultures and traditions of the region.
- Promoting discussion on possible conceptual and procedural advances, which will facilitate the development and application of environmental law jurisprudence by the courts and promote compliance with and enforcement of environmental law.
- Establishing the basis for networking among the judiciaries, the legal profession and Law Faculties in universities in the region to share information and material on environmental law.
- Establishing a basis for developing and disseminating widely in each region and beyond, through written and electronic means, environmental law publications of particular relevance and importance to the region, including environmental law reports.
- Through the above means, promote the more vigorous and effective application of environmental law as an instrument for translating sustainable development policies into action.

3 WAY FORWARD: A GLOBAL JUDGES SYMPOSIUM TO BE HELD IN JOHANNESBURG, SOUTH AFRICA IN CONNECTION WITH THE WORLD SUMMIT ON SUSTAINABLE DEVELOPMENT

Building on the achievements of the Regional Judges Symposia that have been held since 1996 in Africa, South Asia, Southeast Asia, Caribbean, Latin America

and the Pacific, UNEP will convene a Global Judges Symposium on Environmental Law and Sustainable Development in collaboration with several partners, including the International Network on Environmental Compliance and Enforcement (INECE) in Johannesburg, South Africa in the week before the World Summit on Sustainable Development (WSSD).

The positive outcome of the regional symposia has amply demonstrated the potential for the world's judges to provide vital input into the work of the WSSD. The Global Judges Symposium will therefore focus attention on the fundamental role that the judiciary can and does play in ensuring the implementation of sustainable development law at the national level. The judiciary's perspective in this area, given the unique role it plays in matters of good governance and in the functioning of the Rule of Law, could greatly enhance the work of the WSSD. Consequently, the Symposium will examine issues relating to the Rule of Law and governance in the context of sustainable development law, so as to take full advantage of the judiciary's vast and varied experience in this field and to seize the opportunity to allow this experience to inform and guide the work of the WSSD.

The Global Symposium aims to galvanize international cooperation and donor support for capacity building among the judiciaries especially in developing countries. The objective is to foster a better informed and more active judiciary in supporting and further advancing the rule of law in the area of sustainable development, and the incorporation of emerging environmental norms, principles and mechanisms into contemporary national jurisprudence, including the principles enshrined in the Rio Declaration on Environment and Development.

There has been widespread support for the idea of a Global Judges Symposium among Chief Justices and other senior Judges who participated in the above Regional Symposia, as well as in other international forums such as the Joint UNEP-OHCHR Seminar on Environmental Law and Human Rights held in Geneva in January 2002. Such a landmark event organized under the leadership of UNEP and INECE and attended by Chief Justices and other senior judges from around the world will provide a global perspective to the importance of the role that the judiciary plays in promoting sustainable development through the Rule of Law and also contribute to:

- Enhancing the profile and the level of understanding of the different approaches that are taken by the judiciary to implement the vital elements of governance delineated in Rio Principle 10 (on access to information, public participation and access to justice).
- Reviewing the emerging jurisprudence on environmental law and sustainable development, including the advances made in the ten years since UNCED, in regard to the application of principles contained in the Rio Declaration on Environment and Development.
- Laying a foundation for a well structured, coordinated and sustained programme of support for capacity strengthening of judiciaries around the world, especially in the developing countries and countries with economies in transition, in the area of environmental law and sustainable development.
- Developing an inter-agency cooperative mechanism to pool their comparative advantages and specializations for implementing a regionalized, country-driven judicial training programme that is result oriented and practical.
- Presenting the recommendations of the Global Judges Symposium on strengthening the capacity of the global Judiciary

for promoting the rule of law in the area of sustainable development, to the United Nations World Summit on Sustainable Development.

Convening the Symposium in Johannesburg, immediately before the World Summit on Sustainable Development is likely to draw maximum international attention to this important initiative and enhance prospects for enlisting the interest and support of the donor community for implementing the outcome of the Symposium, especially in regard to capacity building.

The overriding objective of the Global Symposium would be to foster a better-informed and more active judiciary advancing the rule of law in the area of sustainable development. This will be achieved in two ways: through information sharing and awareness enrichment at the Symposium especially among judges from different regions of the world and also through the triggering of follow up activities under a plan of action flowing from the Symposium.

The specific objectives of the Global Judges Symposium may be the following:

- To examine pronouncements that give legal validity in contemporary national jurisprudence to emerging international principles of environmental law, including those enshrined in the Rio Declaration of 1992, such as access to justice, the right to information and public participation in relevant decision-making and environmental justice.
- To build judicial networks for mutual support between judges, on matters such as judicial philosophy and ethics in adjudicating environmental and sustainable development issues, thus promoting national enforcement of the law.
- To secure endorsement at a global level by the judiciary of the critical role that it plays in balancing environmental and developmental considerations through its judgments.
- To ensure global recognition of the importance of the role of the judiciary in application of laws effecting sustainable development.
- To galvanize international cooperation and donor support for strengthening the capacity of judiciaries in the field of sustainable development.
- To identify the broad features and elements of a global programme for judicial capacity strengthening that is region-specific and country driven.

The following are some of the principal outs that could be expected from the Global Symposium.

- A set of recommendations for concerted international action required to sensitize judiciaries at all levels and in all countries, but especially in developing countries and countries with economies in transition, to the new branch of law in the field of sustainable development.
- The broad outline of a programme of action to implement those recommendations, including a global network linking judges active in this field.
- The launching of the UNEP Publication, A Compendium of Summaries of Judgments from around the World in Environment-related Cases, (Summaries of over 200 cases from around the world).
- Publications of papers, proceedings and related materials resulting from the Symposia.

The Regional Judges Symposia have provided a sound basis in concept and experience for convening of the Global Judges Symposium. The Symposium in Johannesburg will continue this work and, more importantly, initiate a global programme that gives greater coherence and stability to efforts to build capacity among judiciary around the world concerning the

rule of law in the field of environment and sustainable development.

UNEP looks forward to working very closely with the International Network for Environmental Compliance and Enforcement (INECE), the World Bank Institute, IUCN, and other global and regional partners in the organization and conduct of the Symposium as well as in implementing a judicial capacity strengthening programme that we expect would be one of the principal outcomes of the Symposium. The current focus on the rationalization of INECE, will provide a sound basis for INECE and UNEP to work together at regional and national levels, in close cooperation with national judiciaries, in delivering needs-responsive and country-driven judicial and other capacity strengthening programmes in the field of environmental law and policy.

THEME #4

Case Studies: Visits to the Field

Theme 4 consisted entirely of the field visits around Costa Rica, where participants chose to participate in one of the Sites Visits. A case study was prepared for each Site Visit, and they are included in this section:

- Coffee Cooperative: CoopeCafira in San Ramon works to improve the competitive position of Costa Rican coffee in the international coffee market by producing a sustainable coffee. The Sustainable Coffee (SUSCOF) consortium was established in 1999 consisting of 6 coffee cooperatives; CoopeCafira is one of them.
- National Biodiversity Institute: INBio's mission is to promote a new awareness of the value of biodiversity, and thereby achieve its conservation and use to improve the quality of life.
- Market Based Conservation: FUNDECOR is a non-governmental organization founded in 1991 to protect and increase the Costa Rican forests located in the countryís central plateau.
- Ecotourism: The Sarapiquis Neotropical Center is a place where conservation of nature and eco-development, in combination with sustainable tourism, has become a reality.
- Conservation Easements: With help from The Nature Conservancy (TNC), the Environmental and Natural Resources Law Center (CEDARENA in its Spanish acronym), first established a conservation easement in Costa Rica eight years ago and now has fostered 60 contracts with private landowners, protecting some 7,000 acres.
- Wildlife Rescue Center: ZOO AVE accepts orphaned, injured and former pet animals at their Center for Wildlife Rescue and Rehabilitation (CWRR) located on the Zoo grounds in La Garita de Alajuela.

SUMMARY OF SITE VISIT: COFFEE COOPERATIVE

Guide: Myrtille Danse
Rapporteurs: Myrtille Danse & Lawrence Pratt

1 INTRODUCTION

The coffee cooperative Coope-Cafira was funded in March 24, 1968, at which time it represented 195 small and medium sized coffee farmers. At present the cooperative includes 2,600 members and is the owner of different coffee plantations, a coffee mill, a supermarket, and a warehouse for agrochemical products and farm equipment required to produce coffee and other crops. The cooperative is situated in the center of a medium sized town called San Ramon, which is located approximately 80 kilometers west of San Jose. The case study is focused on the activities related to the coffee mill.

The coffee mill is situated at the border of San Ramon in a hilly area. The plant has a total production capacity of 5.6 tons of coffee and employs approximately 15 people. The mill integrates both wet and dry coffee milling process, which means that in the mill the coffee, is processed from coffee cherry (the fruit from the coffee tree) to an exportable coffee bean.

The red cherry is changed into a green-dry-bean by using large de-pulping machines, fermenting tanks, washing channels and drying facilities. Drying is done mostly in a mechanical way (using ovens and drying machines heated by firewood and cherry husks) and sometimes in a natural one (drying platforms using the sun's energy).

2 COFFEE IN COSTA RICA

Coffee has been one of the principal sectors driving development in Costa Rica since the beginning of the nineteenth century. The sector currently accounts for approximately 15% of the country's export income, which correspond to about 3% of the world trade of *Arabica* coffee. The majority of the Costa Rican coffee farms are small to medium sized (less than 15 hectares). Costa Rica is in a leading position in the region in the use modern technology in coffee cultivation and processing. Since the 1960's, cultivation techniques have been modernized and 'traditional' coffee plants have been replaced by higher yield varieties, that resulted in higher densities per hectare, ranging from 1600 trees per hectare in 1955 to 3400 trees in 1980 (Blanco, 1999). The current intensive coffee production in Costa Rica is characterized by specific husbandry techniques, such as high-density planting, pruning, intensive use of fertilizers and pesticides, and replanting with high-yielding drought and disease resistant varieties. The intensive production and processing methods have resulted in an average production of 1,610 kg of coffee/ha, which is considerably higher than the average production in El Salvador (920 kg/ha) or Guatemala or Honduras (690 kg/ha.). Negative side effects of these production methods are the significant amounts of pesticides and fertilizers used on the plantations and the impact this has on soil erosion and water pollution as well as losses in biodiversity.

3 THE COFFEE VALUE CHAIN

Following the coffee chain, the approximately 77,000 Costa Rican farmers generally sell their coffee after harvesting as fresh cherries to small and medium sized private or co-operative coffee mills called "beneficios," of which CoopeCafira is one. Over the last decades the Costa Rican

milling process has gone through a number of important changes. After the Second World War the properties, mainly owned by German residents, were expropriated, causing a significant loss of relatively simple technology that was used for decades. However, the high coffee prices of the 1950's made it possible to import new equipment. The investments resulted in the construction of coffee mills in which both the wet and the dry process are integrated, implying that in the mills the coffee is processed from coffee cherry to the exportable coffee bean. The red cherry is transformed into a green-dry-bean by using large de-pulping machines, fermenting tanks, washing channels and drying facilities, the latter mainly being done mechanically (using ovens and drying machines warmed up by firewood and husk) though sometimes using solar energy (with drying platforms).

4 ENVIRONMENTAL ISSUES IN COFFEE MILLING

Costa Rica has 95 coffee mills located in five different coffee production areas. The total production capacity of these coffee mills is approximately 156 million kilograms of green coffee (3% of the world production of Arabica coffee). Regrettably, when designing and constructing the mills, the environmental effects and energetic efficiency were not considered important factors. Because of this, the milling process has caused (and still causes) severe environmental problems at local level. Significant environmental impacts relate to excessive consumption of energy, water, and firewood, as well as to the production of larges volumes of organic waste (pulp) and highly organically polluted wastewater.

In the 1990s the growing awareness of the environmental problems caused by the coffee production as articulated by conservationists and their organizations - resulted in strict environmental legislation. To prepare the sector for the legal requirements they had to comply with, the Costa Rican coffee sector and governmental bodies agreed on a five-year action plan in 1992. By imposing such a plan - based on an agreement with the entire sector – free riding and other opportunistic effects could be avoided. In accordance with this plan, the coffee mills have implemented different technical devices that greatly reduce the mills' consumption of water and the consequent discharge of wastewater into the rivers. These included water-saving depulping equipment, recycling processes of the water used for depulping and transport of coffee through the plant, processes to separate pulp and wastewater as well as ponds to treat the wastewater.

5 ENVIRONMENTAL PERFORMANCE AND COMPLIANCE ISSUES

In spite of important gains, this one-time technical adjustment of the production process is not a sufficient solution for the long term.

- There may be a positive effect measured at the level of river basins but at the level of the individual cooperative there is no evidence that the required equipment is in place and is adequately used. However, the Ministry of Health requires each coffee mill to check its water effluents three times through independent laboratories to verify if the samples meet the legal requirements for Chemical Oxygen Demand (COD) and Biological Oxygen Demand (BOD).
- A cooperative may cause other environmental problems, which have not been covered by the five-year action plan, such as deforestation, soil erosion and soil pollution due to waste deposits.
- The plan caused higher production costs

due to the requirement to create wastewater treatment systems and the management of waste flows generated by the de-pulping process, while the sector already suffered from higher production costs in comparison to other coffee producing countries in the region.

- It is not guaranteed that by means of the current continuous improvement program that companies will reach legally mandates levels of compliance nor go beyond those levels.
- The five-year plan does not provide for a future-oriented management approach leading to proactive strategies that integrate economic and environmental interests.
- Last but not least, the five-year plan leaves out what happens during cultivation while the use of agrochemicals at the farms represents a sensitive issue in the overseas markets. Costa Rica is known for its very intensive use of agrochemicals. A sustainable coffee would certainly need a clear and demonstrable improvement record in this area.

6 RESPONSE TO ENVIRONMENTAL AND COMPETITIVE NECESSITIES

To remedy the above-mentioned weaknesses and to be able to improve the competitive position of Costa Rican coffee in the international coffee market by producing a sustainable coffee, the Sustainable Coffee (SUSCOF) consortium was established in 1999 consisting of 6 coffee cooperatives, including CoopeCafira. The consortium works based on a chain-oriented management approach, which is aimed at reaching continuous improvements in the subsequent production, processes of the coffee chain. ISO 14001 was made a central tool to facilitate and drive learning, change and voluntary compliance— particularly for organizations at the beginning of launching a program of continuously improving the quality and environmental record of its processes and products.

For this reason, each of the six cooperative coffee mills established management systems (EMS) based on the ISO 14001 norms. The system of Cafira was certified immediately following the 2000-2001 harvests. Internal control over environmental impacts is expected to improve significantly. However, it is too soon to evaluate performance results, or effects on the competitive position of the cooperatives.

7 DISCUSSION QUESTIONS AND ISSUES

- The decision on the part of the government to enter into the plan with the entire industry was a difficult one. It effectively meant gave coffee mills permission to reach legally established goals on a much slower time horizon than that stipulated in the legislation. The decision was made based on the conclusion that more environmental improvement could be made by getting the entire sector to work together, rather than taken direct enforcement action. What are the pros and cons of this type of strategy, for this sector and others?
- It is not clear whether the markets for coffee will be willing to reward the mills for ISO 14001 certified production processes. How critical is this recognition (via higher prices, or simply preferring to buy their coffee over others that are not certified) to the currently certified plants, and the sector in general? Would acceptance in the market make an important difference in achieving the more stringent legally established goals?

SUMMARY OF SITE VISIT: NATIONAL BIODIVERSITY INSTITUTE (INBIO)

Guide: Andrea Borel
Rapporteurs: Elena Mateo, Lawrence Pratt , and Claudio Torres Nachon

1 INTRODUCTION

INBio is a government-created non-profit scientific institution with a mission to serve the public good. INBio´s mission is to promote a new awareness of the value of biodiversity, and thereby achieve its conservation and use to improve the quality of life. It promotes the wise management and use of Costa Rica's biotic wealth through the development and distribution of information on species, genes and ecosystems. INBio generates knowledge about biodiversity. It communicates and promotes this information in many formats designed to be responsive to a broad spectrum of national and international users. INBio´s activities support the spiritual, social and economic development of Costa Rican society in equilibrium with the environment. INBio´s mission is carried out through:

- Biodiversity inventory, with emphasis on our national protected areas
- Search for sustainable uses of biodiversity by any and all social sectors, and promotion of these uses
- Organization and administration of biodiversity information
- Transfer and dissemination of biodiversity knowledge

INBio's headquarters, and its new exhibition centre "INBio Parque" are located 4km from San Jose in the town of Santo Domingo de Heredia.

2 BACKGROUND ON COSTA RICAN BIODIVERSITY

The tropical zones of the American continent, the Neotropics, contain more species than other tropical regions of the world and, definitely, many more species than the Planet's temperate and cold zones. Costa Rica has been considered one of the most diverse regions and it is estimated that 6% of all living species are found here, even though this country comprises only 0.01% of the global territory.

When comparing Costa Rica with large countries well known for their biological resources, such as Colombia or Brazil, the countries great concentration of biodiversity becomes evident. For example, if we consider the number of species for every 10,000 km2, Costa Rica has 295 tree species, while Colombia has 35 species and Brazil, 6.

Out of the 500,000 species estimated for the country, more than 87,000 (17.4%) have been described. Over 79% of these species are arthropods. Plants comprise another important group, of which some 10,979 (91%) species have been described. Such data indicate that out of the entire biodiversity described in the world, approximately 6% belongs to Costa Rica. At present, 98.8% of vertebrates (excluding fish), close to 90% of plants and 60% of fish have been described. However, out of the most diverse group (arthropods), less than 20% of species have been described. The same goes for other invertebrates, excluding mollusks. Groups such as fungi, bacteria and virus are almost unknown, since more than 98% of expected species are yet to be described.

3 NATIONAL BIODIVERSITY PROGRAM

The country has made enormous progress in this direction. During the last four decades, the National Parks System has been consolidated and complemented

by other types of protected areas; all together, these represent 25% of the national territory. The creation of the Ministry of National Resources, Energy and Mines (MIRENEM) —now Ministry of Environment and Energy (MINAE), helped integrate all activities related to the management and conservation of the country's natural resources. Additionally, the concern that these resources be managed adequately led to national consensus to form a suitable structure for this purpose, called the National System of Conservation Areas (SINAC), SINAC is under the direct responsibility of MINAE, with support and participation of certain private organizations.

Moreover, Costa Rica has assumed the task of developing the National Biodiversity Program, aimed at conserving most of the country's existing biodiversity through the sustainable and equitable utilization of these resources. The program works according to the following strategy:

- saving representative samples of Costa Rica's biodiversity through the establishment of protected wildlands administered by SINAC — with support of several conservation NGOs and the National System of Private Reserves;
- increasing knowledge about the existing biodiversity, particularly within the protected areas. This process is carried out by universities, the National Museum, scientists and the National Biodiversity Institute (INBio), among others;
- searching for sustainable and rational uses of such biodiversity. Participants in this search are institutions such as the Clodomiro Picado Institute, the Tropical Agronomical Center of Research and Education (CATIE), INBio and several universities, among others.

NOTE: This national program is based on the framework defined at the international level in "The Global Biodiversity Strategy" (WRI, IUCN, UNEP, 1992) and the June 1992 United Nations Conference on Environment and Development ("Earth Summit"), celebrated in Rio de Janeiro, Brazil.

4 BIOPROSPECTING AND INTELLECTUAL PROPERTY

A primary premise to the mission of INBio is that biodiversity will be conserved only if the areas protected generate enough intellectual and economic income to sustain conservation efforts and to offset revenue foregone from other potential uses. One way to generate this kind of intellectual and economic income is through bioprospecting. An express goal of INBio is to use bioprospecting to "generate income from Costa Rica's conservation areas so as to contribute to Costa Rica's wild land management costs" as well as to the country's GNP.

Profiting from biodiversity resources in this way is conditioned on the Costa Rican government's assertion of property rights over the resources. Intellectual property rights for "improved genetic and biochemical resources" have existed for decades. Ownership interests in unimproved genetic resources, however traditionally have been understood in the context of the "common heritage doctrine". The essence of the common heritage doctrine is that wild species are considered "ownerless, open-access resources". Bioprospecting involves "wild resources with commercial potential," placing the collected specimens somewhere in between an intellectual property rights system and a property rights system based on the common heritage doctrine. To accommodate the type of resource valuable bioprospecting, the Biodiversity Convention affirms a country's national sovereignty over its biodiversity resources.

The Convention also asserts, however, that source countries are obliged to

facilitate access to their biodiversity resources, while all countries-owners of biodiversity resources as well as beneficiaries-are obliged to share the economic benefits from biodiversity. It is on this basis that INBio, vested with the authority over Costa Rica's biodiversity-rich Conservation Areas, has been able to halt what had been a one-way bioprospecting process, and transform the process into a two-way commercial exchange, allowing Costa Rica as the source country to profit from its natural biodiversity resources.

In addition to profiting from facilitating the commercial transfer of biodiversity resources in a non-destructive manner, INBio also is able to profit from the value it can add to a party's bioprospecting efforts. The National Biodiversity Inventory and the trained INBio staff transform haphazard bioprospecting into an efficient, organized, and focused endeavour. This type of arrangement has been captured in contractual relationships between INBio and parties such as pharmaceutical and biotechnological companies interested in utilizing Costa Rica's biodiversity resources. Significantly, INBio is "fully empowered by the Costa Rican government to enter into contracts and agreements with national and international institutions and individuals".

5 MODEL COMMERCIAL AGREEMENTS

In September, 1991, INBio and US-based pharmaceutical company Merck, Sharp and Dohme, Inc. entered into a landmark two-year contractual relationship anchored on sustainably developing Costa Rica's rich biodiversity resources through bioprospecting. Under the terms of the deal, which the parties renewed in 1993 and again in 1996, INBio provided Merck with "chemical extracts from wild plants, insects, and micro-organisms" primarily from Costa Rica's conservation areas. Using these chemical extracts, Merck hoped to develop or find clues that would lead to developing a new medicine. In exchange, Merck paid INBio an up-front fee of US$1 million, donated US$135,000 worth of equipment for use in chemical extraction, and sent two natural products chemists to set up the facilities necessary for chemical extraction and to train INBio scientists in the extraction process. In addition, INBio would receive a royalty from any commercially marketable drug developed from a compound it provided. Although the percentage of the royalty is confidential, it is widely believed to be between one and three percent of net sales. Because drug development usually takes as long as ten to fifteen years and costs between US$300 to 400 million, the possibility of a royalty obviously is considered a long-term, prospective benefit of the contract.

INBio and Costa Rica benefit in several other ways from this contract. One is the relationship with Merck is non-exclusive in that INBio is permitted to enter into agreements with other pharmaceutical companies, or other parties interested in gaining access to Costa Rica's biodiversity. A second is that ten percent of the up-front fee and fifty percent of any royalties go to the Costa Rican government's national park fund to support conservation efforts. This aspect of the relationship is significant, because it implies that conservation of the biodiversity resources is valuable in the market. Contracts that create a demand for species samples also create collection-related jobs for Costa Ricans. Although less tangible than the above benefits, this deal also has generated positive public relations for Merck; in 1993, the National Wildlife Federation bestowed its Environmental Achievement Award upon Merck for its work toward sustainable development as represented by its relationship with INBio.

Capitalizing on the positive exposure from its relationship with Merck, INBio

has since entered into several contractual relationships with other companies. The set of criteria used in the Merck agreement is the same for every new agreement thereafter: access, compensation, transfer of technology, and training, and sustainable uses. If the company does not meet one or more of these criteria, then the potential research agreement is not carried out.

Source: Hunter, Christopher J, *Sustainable bioprospecting: Using private contracts and international legal principles and policies to conserve raw medicinal materials*, Boston College Environmental Affairs Law Review, Newton, fall 1997.

6 DISCUSSION QUESTIONS AND ISSUES

- Could the INBio model of bioprospecting be replicated in other countries? What are the legal, physical and other barriers and opportunities?
- Can bioprospecting agreements and similar mechanisms serve conservation goals in other developing countries? Is it or could it be a sufficient solution to conservation issues in other parts of the world?

SUMMARY OF SITE VISIT: MARKET BASED CONSERVATION (FUNDECOR)

Guide: Marcela Ramírez
Rapporteurs: Frederique van Zomeren, Carolina Mauri, Lawrence Pratt

1 INTRODUCTION

In the beginning of the 1980's, the Costa Rican government decided to protect national primary forest. Instead of regulation, it created market-based incentives. The government developed a system of environmental services payment, based on the economic theory of externalities. Among others, the system focuses on water and biodiversity protection. The governmental funds improve forest owners' income through a market forest policy that acknowledges natural values provided by forest to society.

The Foundation for the Conservation of the Central Volcanic Mountain Chain (FUNDECOR) is a non-profit organization whose mission is to maintain and protect forests, biodiversity and the sustainable use of natural heritage in the Central Volcanic Mountain Range (Central Volcanic Conservation Area - CVCA).

FUNDECOR's strategy for carrying out this mission is to define objectives and policies for protection of natural heritage in the form of national parks, and develop financially and environmentally sustainable activities in the buffer zones. This strategy made it possible for FUNDECOR to rapidly reduce loss of natural forest during the 1992-1996 period, reducing the rate of deforestation from 7000 to 1000 hectares a year. In addition, the foundation became established as an organization with world-class standards, dedicated to the design and implementation of financial and environmental technologies that contribute to the sustainability of development efforts.

FUNDECOR's principal orientation is in the following areas:

National Parks:

- Formulate management and administration plans
- Establish and demarcate the boundaries of park areas
- Improve protection programs and infrastructure
- Promote financial self-sufficiency, offering local communities opportunities for improving and participating in profits from park-generated activities.

Buffer Zones:

- Sustainable management of forests
- Reforestation, protection and regeneration of forest cover
- Promote the profitability of forest conservation and sustainable logging through the application of management systems ensuring that tree planting is successful and impact from timber extraction is minimal

2 FUNDECOR AND MARKET BASED CONSERVATION IN COSTA RICA: A GLOBAL INNOVATIVE APPROACH

FUNDECOR had designed a strategy of creating profitable green market alternatives for forest owners, respecting and strengthening at the same time the existing property structure of small-scale forest dwellings. In doing so, FUNDECOR has empowered forest owners not only to take advantage of the new emerging markets for global commons and increase their income, but most of all to make their own

educated decisions about the forest as an asset for their future social and economic development.

This incorporation of informal productive activities—of Costa Rican small-scale forest owners—to the mainstream local and global economic realms was possible through the linkages created by FUNDECOR between the small forest dwellers and the local international communities. These linkages were established at three levels:

- With the international community via joint implementation projects designed to reduce global climate change emissions or fix carbon in forest resources;
- With the local mainstream production of clean energy via participation in hydro electrical production; and
- Third, to global corporations via production of sustainable wood to supply transnational forest industries and access to global standards like the Green Seal certification of the Forest Stewardship Council.

Particularly, FUNDECOR laid the bases for the creation of a whole new market for carbon sinks. The CARFIX project is recognized as the world's first joint implementation project for the international trade of emissions reductions. Likewise, FUNDECOR designed and organized the Costa Rican Office for Joint Implementation through which the Costa Rican Government sold US$2.000.000 carbon offsets to the Government of Norway, an event that showed the world viability of a global market for environmental services.

The strategy followed by FUNDECOR to preserve the Costa Rican forest has shown as well that empowering citizens, and particularly forest owners, to take control of their own development is the best approach for forest conservation and development. Among the activities jointly implemented by FUNDECOR with forest owners, it is important to highlight the following:

- Preparation of sustainable forest management plans, transfer of technology, and provision of technical support to guarantee the sustainable harvesting of wood.
- Provides forest owners with an advance cash flow for their wood production through an advance wood purchase system designed and executed by FUNDECOR
- Sells wood production in timber auctions designed to guarantee the forest owners the highest market price for their harvests.
- Cooperates with investors in hydro electrical production by protecting the watersheds in which their projects are located through the financial compensation of forest owners that are located in the surroundings of the hydro electrical plants.
- Executes environmental education programs with elementary and high school students from public and private educational centers throughout the country.
- Creates market mechanisms to add more value to sustainable managed forests.
- Helps consolidate the property rights of forest dwellers through the registration of their lands in the National Property Registry.

In terms of the people affected by the initiatives of FUNDECOR, the institution has subscribed 450 contracts with small forest dwellers to provide technical assistance to manage their forest under the strictest standards of environmental sustainability. The total extension of the land under FUNDECOR's supervision is 40.000 hectares. The direct beneficiaries of FUNDECOR's projects are approximately 2.600 people, considering that the average family of forest owners has 5.2 members. The indirect beneficiaries of FUNDECOR's activities include 40.000 persons that live in

FUNDECOR's area of influence, as well as 350.000 international and domestic tourists that visit the Costa Rican national parks in the conservation area every year. Other indirect beneficiaries are the Costa Rican sustainable forest industry, and the 50% of the Costa Rican population that lives in the Central Valley and that benefit from the water and energy services provided by the programs designed by FUNDECOR and implemented in the region by the private sector.

At the same time, local and foreign investors in hydro electrical production have benefited from FUNDECOR's project to pay the environmental services that forest owners provide by feeding the watersheds. The producers pay into a fund that compensates landholders for maintaining forest cover. This serves a two-fold purpose: preserving the forest and guaranteeing the long-term sustainability of private investments in hydro electrical production. FUNDECOR has also helped the Costa Rican State design a system to manage the payment of these environmental services provided by privately owned forests. Finally, because the environmental services of preserving biodiversity and carbon sinks have a global character, the beneficiaries are also global and can be quantified as the total population of the world that benefits from these two privately produced goods.

3 STARKE'S FOREST MANAGEMENT FARM

FUNDECOR provides technical assistance by developing a general forest management plan. To start with, all trees, rivers, hills etc. are mapped. Protected zones were created near rivers (15 meters) and hills (>30 %, 50 meters) to prevent and control erosion. Secondly, the different forest species were studied. This included both flora and fauna, in quantity and quality. Then trees were marked. It is only allowed to harvest 60 % of the trees with a diameter of 60 cm or more. Rare species are also marked, and will not be harvested. The next step is an assessment of causable environmental damage. Research will be done on the exact location of the cut tree and the access roads that need to be built to transport the wood. Heavy equipment is used for the transportation, because no other means are feasible. The whole process will take approximately 2 months for 2 technicians and 3 co-workers.

The forest owner receives an environmental services payment of 45 USD per hectare per year. The forest owner only has to pay 50 USD per hectare to FUNDECOR once. The price of the wood will be higher as the wood will be certified by FSC. Every 12 to 14 years there will be a harvest. The profit is about 1000 USD per m3. The overall result is a sustainable forest reservation and a higher income for the private forest owners.

4 FUNDECOR's FUTURE

Within the framework of prevailing currents in sustainable development, FUNDECOR stands out as a world leader in the field of new environmental technologies and financial mechanisms for conservation of natural resources and biodiversity.

The key to FUNDECOR's strategy is creativity in generating markets that make conservation profitable for the owners of forests. The foundation is also notable at the world level for its capacity in conceiving new environmental services that give substance to the concept of joint implementation. One example is Project CARFIX, the first in the world to sell the carbon-fixing capacity of forest.

Currently FUNDECOR is preparing to extend its activities to the Tortuguero Conservation Area, and is designing a strategy for transfer of its technologies to the Costa Rican State, particularly to the

Ministry of Environment and Energy. In addition, these technologies will be made available to other private organizations and NGOs as a means of extending their application to new areas of the country.

FUNDECOR also places its knowledge and technologies at the disposition of other nations interested in replicating these experiences in the field of conservation and the development of environmental services.

5 DISCUSSION QUESTIONS AND ISSUES

- To many in Costa Rica and elsewhere, the activities carried out by FUNDECOR are controversial because they involve promoting economic activities on sensitive lands. It is at the heart of the fight in the "conservation versus sustainable use" debate. To some, these lands should be in the National Park system since they are biologically important. Is what FUNDECOR does a perverse substitute to the role of the state in protecting sensitive lands? Could it or should it be a viable complementary strategy? How and why?
- Much of the income flow to the landowners has come from international sources. This is appropriate, since the compensation is in exchange for protection of global commons (climate change and biodiversity protection). However, the local forests provide a great deal of local value in terms of scenic beauty, water capture, local climate control, etc. To date, a handful of hydroelectric operators are the only ones compensating landowners for maintaining forest. What other parts of local society should be involved in this type of payment activity? Why, and for what specific benefit?
- How does FUNDECOR enforce their agreements with the local landowners? What could be a good sort of agreement? How does FUNDECOR guarantee to the international partners their mission? What is the office of FUNDECOR and how many people are working there? How does FUNECOR guarantee that the levels of preservation are kept at a desired level?

SUMMARY REPORT OF SITE VISIT: ECOTOURISM

Guide: Enid Chaverri
Rapporteurs: Carolina Mauri, Lawrence Pratt, and Neil Emmott

1 INTRODUCTION

The "Centro Neotrópico SarapiquiS" is a relatively new effort to create a place for further conservation of nature and eco-development, in combination with sustainable tourism. It was recognized as an important effort, and was officially name a Public Interest Project" by the Costa Rican Government in 1997. The Center is an integrated ecotourism destination featuring lodging, meals, nature reserve, museum, botanical gardens, an on-site archaeological excavation, and a number of other interesting features.

The SarapiquiS complex is located at the border of the Tirimbina Biological Reserve in La Virgen de Sarapiquí, 85 kilometers from San Jose. On this side of the foothills of the Cordillera Central mountain range, the Sarapiqui River flows past the towns and villages of the Sarapiqui region, creating a superb riverine corridor for a diversity of wildlife. For centuries, and perhaps millennia, this region has been home to a number of different indigenous peoples. More recently, this area has seen fairly rapid growth in environmentally oriented tourism. The rich wildlife, relatively intact ecosystems and accessibility to tourists from different points in the country have made it an important "ecotourism" destination.

Centro Neotrópico Sarapiquís, is modeled on a pre-Colombian village, and was designed and developed as an eco-model project using ecological sustainable technologies (solar energy, use of local natural materials, and an innovative wetland waste-water treatment installation, etc...)

2 SARAPIQUIS ECOLODGE

The architecture of the project is inspired by the indigenous pre-Columbian construction techniques of the region. The round palenques (or ranchos) are covered by a traditional thatched roof of palm leaves. The palenque structure is central to the SarapiquíS concept: the story of nature and its relation to mankind.

The ecolodge consists of four palenque structures. Three contain guest rooms, and the fourth is the central building with the lobby, restaurant, bar, gourmet coffee bar, photo gallery, administration, and gift shop.

The three guest units are divided into eight spacious and deluxe rooms, jointed within the turret reaching an impressive height of 18 meters. All the units are located in the gardens and orchards of the property. Many of the rooms have an outstanding view of the rainforest canopy; while others are nestled in the gardens.

3 TIRIMBINA BIOLOGICAL RESERVE

The Tirimbina Biological Reserve is key to the entire concept of the Centro Neotrópico Sarapiqui.

The 300-hectare Tirimbina Biological Reserve is one of the last remaining stands of mid-elevation, premontane rainforest in northeastern Costa Rica. The reserve is teeming with the diversity of botanical and zoological species characteristic of such ecosystems, and provides an important component of the biological corredors that link habitats for regional wildlife. Tirimbina has been the site of numerous biological research projects and serves as a living laboratory for study, as well as an accessi-

ble day trip from different parts of the country.

An island with lush tropical vegetation lies between Centro Neotrópico SarapiquiS and the Tirimbina Biological Reserve in the middle of the Sarapiquí River. Varying in size with the volume of the water rushing off the Barva volcano watershed, this island offers an easily navigated introduction to a tropical forest ecosystem through a self-guided tour. The river itself is a rich and vital corridor for tropical wildlife. A 260m long suspension bridge connects the Centro Neotropico SarapiquiS to the Tirimbina Reserve.

Several trails cross the reserve for access by researchers and visitors. These trails approach areas of high interest for wildlife watching or viewing highlights of rainforest biodiversity. Because it is a protected area, they are designed to create the least negative impact possible on delicate ecosystems. The company of a trained naturalist or other staff member of Centro Neotrópico SarapiquíS is required, except for researchers with permits.

Centro Neotrópico SarapiquíS offers field based education in nature history for adults and children, emphasizing the interrelatedness of individual systems and species in the natural word. The Tirimbina Biological Reserve is a place for illumination of some of the mysteries of the rainforest and for experiencing the innate response of humans to wildness and natural beauty.

4 ARCHAEOLOGICAL PARK "ALMA ATA"

The Park "Alma Ata" at the Centro Neotropico SarapiquiS is the first archaeological park of its kind in Costa Rica. The Park is set in the orange orchard of Centro Neotropico SarapiquiS, where in October 1999, a large exquisite Pre-Columbian tomb field of at least 600 years old was discovered.

The Park has been developed in close coordination with Costa Rican National Museum.

Four major themes are exhibited in the park :

- Theme 1 : 15th century Costa Rica: Reconstruction of housing, streets and marketplaces of the indigenous village
- Theme 2 : Pre-Columbian Stone Sculptures
- Theme 3 : Pre-Columbian Burial Field. Excavation site in process including "casita" of archaeologist with exhibition of tools, materials, etc...
- Theme 4 : Petroglyphs. Reconstruction of a rocky landscape with petroglyphs.

Extensive information is provided all along the trails in the park. Landscape Foundation Belgium, owner of the Centro Neotropico, has had on staff since May 2000 two very skilled Costa Rican archaeologists: Anayency Herrera for the excavation of the tombs, and Javier Artavia for the reconstruction of the 15^{th} century village,. All the works has been done under supervision of the National Museum of Costa Rica.

5 RAINFOREST MUSEUM

A 1000 m^2 museum will be opening in April 2002. It will be the largest on-site-museum of rainforest ecology and pre-Columbian history of Central America and will include a 60-seat theater A dynamic and contemporary audio and visual concept that makes use of state-of-the-art technology and presentation techniques will present the main themes of the museum

- Biodiversity
- Sounds of the rainforest
- Pre-Columbian cultures
- Conservation

- The endangered rainforest

6 SARAPIQUIS GARDENS

The gardens of Centro Neotrópico SarapiquíS are designed to demonstrate and to reflect the richness of the rainforest. They also link several aspects of Centro Neotrópico. It is an introduction to the Tirimbina Forest, illustrating topics presented in the SarapiquíS Museum, and also an education in botany and horticulture. The Gardens are comprised of four distinct elements:

- Plants of historical or economic value, including medicinal and edible.
- Tropical plants both ornamental and vital to wildlife.
- Natural botanical succession.
- Reforestation of agricultural land, as a transition to the Tirimbina rainforest

Each element is expressed by a different design:

- The first garden is formal, with several specific themes. It is easily accessible for casual visits or study.
- Around the main building, gardens are less formal, with an emphasis on plants attracting hummingbirds and butterflies.
- In the old orange orchard, the natural succession of epiphytes, orchids, ferns and other genera demonstrate a lesson in tropical ecology.

The orchard remains in use, however no longer with an emphasis on production. Grass continues to be mowed, however epiphytism will have full freedom to develop (orchids, ferns, etc), eventually destroying the orchard in a natural way, but giving during those years a splendid opportunity to explain ecology.

The portion of land on the floodplain below the buildings is partially cultivated for food and is partially under reforestation. Fast - growing species are planted here to prepare a microclimate for later woody species of a higher biological interest. Special attention is paid to woody species of the Rubiaceae and Acanthaceae as research collections will be used in major research projects of the National Botanic Garden of Belgium. Part of the land is used for wastewater treatment and purifications plants using living plants.

7 DISCUSSION QUESTIONS AND ISSUES

- Ecotourism in general generates income that helps protect endangered ecosystems. This is certainly the case in Costa Rica. Forest and other sensitive habitat that would have been destroyed for agricultural use remains intact due to the value they provide to the tourism sector. Today, Costa Rica receives more than 1.1 million tourist per year. Nearly all come with the expectation of seeing nature and participating in a "natural" experience in the wild. In response to this demand, there has been a rapid growth in tourism infrastructure (particularly hotels and lodges). Increased demand places increased pressure on remaining habitat. How should Costa Rica or other countries take advantage of demand for protected habitat to build healthy tourism industries (that create jobs, income and educational opportunities for needy rural communities), while still maintaining the integrity of the resources tourists want to visit?
- Centro Neotropico SarapiquiS is but one model being used. Is it a good model? In what ways yes, and in what ways no?

SUMMARY OF SITE VISIT: CONSERVATION EASEMENTS

Guide: Ana Victoria Rojas
Rapporteurs: Carolina Mauri & Lawrence Pratt

1 INTRODUCTION

Well aware that millions of biodiversity-rich, forested acres lie in private hands, conservation groups in Latin America are developing creative ways to encourage landowners to safeguard the forests they own. With help from The Nature Conservancy (TNC), the Environmental and Natural Resources Law Center (CEDARENA by its Spanish acronym), first established a conservation easement in Costa Rica eight years ago and now has fostered 60 contracts with private landowners, protecting some 7,000 acres. "Conservation easements," are self-designed legal agreements in which a landowner voluntarily limits development and other activities on his or her property. While conservation easements are still new in the region, they are growing in popularity.

CEDARENA experts are helping landowners survey their acreage and devise a management plan that might, for example, keep much of the property in untouched forest, while permitting a few homes, low-impact farming, or sustainable logging on another portion. The agreed-upon plan is written up as a contract and transferred to anyone who might purchase the land, right along with the deed to the property.

2 CONSERVATION EASEMENTS

An increasingly common legal tool for land owners desiring to maintain certain portions of their land in an undeveloped state is the conservation easement, which is granted to a nonprofit land conservation organization or a government agency, giving that grantee the right to enforce the terms of the easement. The potential positive income and estate tax benefits of donating a qualified conservation easement to an appropriate grantee, or possible revenues from the sale of an easement for lands with exceptionally high natural resource values, make the mechanism one worthy of consideration for individuals and businesses. A reduction in property taxes may also result from the restrictions imposed by the easement.

A conservation easement is a relatively simple and very flexible legal mechanism by which property owners voluntarily, and in writing; agree to certain use restrictions on their properties. These agreements may be between two or more individuals or organizations and may relate to several properties simultaneously.

Under an easement, landowners still own and use their land and can sell it or pass it on to their heirs, with future landowners bound by the easement's terms. The grantee remains responsible for monitoring the property to make sure the terms are followed.

No zoning ordinances are required and no governmental intervention is necessary, other than the filing of a simple legal document with the Civil Registry (this is the Costa Rican national property registry). These voluntary use restrictions "run with the land" until such time as all property owners involved in the easement mutually agree to a different arrangement. No modification or revocation of the agreement can be binding unless the parties subsequently file another written document memorializing the agreed upon change(s) or nullifying the easement in its entirety. In the event of sale and/ or subdivision of a property, the easement is not affected.

Lands of local significance may also generate funds raised by local land trusts, which purchase conservation easements when a landowner is willing to maintain land in a natural state, and local donors ante up adequate funds to conserve a local natural landmark. Land trusts are thus uniquely capable of tapping local concern for maintaining scenic views or protecting wildlife habitat.

Purchase of conservation easements by governmental agencies is increasingly common, although funding is usually reserved for land that has extremely high natural resource values.

3 THE EXAMPLE OF MONTEVERDE'S CONSERVATION EASEMENT

Fore example, many residents of the Monteverde community are advancing an initiative designed to provide corridors, or "stepping stones" of natural habitats between larger existing protected areas. This initiative, named Enlace Verde or "Green Link," was initiated in 1994 during a Monteverde Town Meeting. Initially, the idea of easements arose as an option that would allow private landowners to effectively determine the zoning of the community neighborhoods and common areas. A volunteer commission was established, and it was there that the idea of linking reserves was incorporated into the plan. It has evolved into a broadly supported initiative through which local landowners may dedicate all or discrete parts of their properties to conservation easements.

At this point, the biological corridor has become a central focus of many landowners, and is one point that everyone has agreed they would like to incorporate into their easements. During a July 1997 meeting of property owners, it was unanimously agreed that by establishing conservation easements to protect the forest corridor on some ten contiguous properties bordering or near to the Guacimal and Maquina Rivers, the community could make a strong and lasting outward demonstration of inner beliefs about the importance of conserving certain critical areas of forest for current and future generations.

The Enlace Verde Commission, and CEDARENA, embrace the opportunity to be leaders in demonstrating thoughtful land use planning and conservation of critical habitats through the use of easements, as well as the opportunity to demonstrate through example the inclusion of creative and positive-focused provisions for monitoring and dispute resolution. For example, monitoring provisions for some properties will include students from the local high schools' science programs, and dispute resolution clauses include mediation and arbitration channels involving community members and NGOs rather than the traditional judicial processes which can be expensive and drag out for years without resolution.

4 CONSERVATION EASEMENTS AND THE AERIAL TRAM

The Tram's developers spent several years investigating possible sites to locate this new concept in conservation-oriented tourism. They selected the current site because of the extraordinary biological richness of the area and its proximity to San Jose (approximately one hour by car or bus). The site is old growth forest adjacent to Braulio Carrillo National Park, and is located in one of the most important corredors of biological diversity in Central America. The site is officially located in the Park's buffer area, however other buffer areas (those adjacent to the Tram site and in the surrounding area) are under pressure from agricultural and other less environmentally friendly tourism development.

The Tram's developers recognized the inseparable relationship between the

health of the ecosystem in which they are operating and the success of their business. With CEDARENA they established a conservation easement to ensure that a broad area of primary forest is protected in perpetuity to simultaneously protect the natural resources and help ensure the long-term success of their investment.

5 DISCUSSION QUESTIONS AND ISSUES

- Conservation easements have existed in many industrialized countries for at least two decades. Only recently have developing countries begun to use them as conservation instruments. What are the necessary conditions for a country to use this mechanism? How transferable are the concepts?
- Is there a potential role for conservation easements in environmental enforcement and compliance? Either through enforcement of the agreements, or in remedial actions?

SUMMARY OF SITE VISIT: WILDLIFE RESCUE (ZOO AVE)

Guide: Carolina Mauri
Rapporteurs: Peyton M. Sturges & Lawrence Pratt

1 INTRODUCTION

Zoo Ave Wildlife Conservation Park is one of three wildlife projects owned and operated by the Nature Restoration Foundation (NRF). It is an officially recognized Costa Rican wildlife rescue center and premier zoological facility. The park hosts over 60,000 visitors every year, the vast majority of which (95%) are Costa Rican Nationals. Since 1990, Zoo Ave has worked to preserve native flora and fauna through wildlife rehabilitation, captive breeding, and release of native species and operation of the zoological garden. The Zoo itself is designed to enlighten and educate people about the importance of Costa Rican wildlife to the tropical ecosystems and their vital role in the global environment through interactive exhibits, wildlife rehabilitation and release of native fauna.

2 RESCUE AND REHABILITATION PROGRAM

Zoo Ave accepts orphaned, injured and former pet animals at the Center for Wildlife Rescue and Rehabilitation (CWRR) located on the Zoo grounds in La Garita de Alajuela. They have also received a number of confiscated animals at Playa San Josecito Center for Release in the Golfo Dulce region. In 1999 alone, they accepted almost 600 animals. The vast majority of these animals (77%) were birds, primarily psitticine species (parrots). The most common species donated include red-lored amazons (*Amazona autumnalis*), crimson-fronted conures (*Aratinga finschi*) and orange-chinned parakeets (*Brotogeris jugularis*). Other species of parrots are also donated including scarlet macaws (*Ara macao*) and a variety of other amazon and conure species. Other birds donated include a healthy number of owl species including tropical screech owls (*Otus choliba*) and ferruginous pygmy owls (*Glaucidium brasilianum*) and a variety of songbirds.

Almost 20% of donations to Zoo Ave's Clinic are reptiles, primarily green iguanas (*Iguana iguana*) and boa constrictors (*Boa constrictor*) and a variety of turtle species. A great majority of these animals are wild individuals that have arrived at someone's house or barn and been caught. In these cases, the animals are given an examination and released at appropriate nearby sites. Animals that cannot be released immediately for one reason or another (injury, for example) are placed in the rehabilitation or reproduction programs. In addition to public donations, Zoo Ave receives a number of animals through government confiscations. Each year, around Easter Week, the government does a massive nationwide roundup of illegally captured animals.

The remaining 4% of donations are mammals including monkeys, sloths and squirrels. Zoo Ave regularly cares for orphaned baby howler monkeys (*Alouatta palliata*) that are hand fed and cared for until they are old enough to be released. These animals require an enormous amount of care and attention in order to assure both good health and adequate socialization with others of their species. Zoo Ave is fortunate to currently have a group of babies who are being raised together. This should assure appropriate social bonding and a better chance at living a natural life in the wild. The dedication of the Zoo staff and consulting veterinarian

has produced strong, healthy monkeys from malnourished orphans.

3 CAPTIVE BREEDING

The NRF has successfully bred and/or released over 40 species of native Costa Rican birds, reptiles and mammals. Breeding efforts are focused on threatened, endangered or otherwise sensitive species such as the scarlet macaw (*Ara macao*), great green macaw (*Ara ambigua*), green iguana (*Iguana iguana*), and Central American squirrel monkey (*Saimiri oerstedii*). All of the animals housed at the Zoo are provided the room, appropriate nesting material and nutrition in order to successfully breed and rear young. The majority of these young are in turn released into appropriate habitats.

4 DISCUSSION QUESTIONS AND ISSUES

- Zoo Ave is a private, independently financed effort. If not for the generosity of the founders, and the patronage of visitors, this type of effort would be unable to sustain itself financially. How viable a mechanism is this in other countries? What alternative mechanisms could be considered to finance and sustain this important activity?
- The focus of Zoo Ave is on so-called "charismatic megafauna" (i.e. big, exciting animals). What are the ethical or practical considerations in excluding other endangered species? What type of an approach should be taken for these other forms of endangered biodiversity?

5 ADDITIONAL INFORMATION

5.1 Captive Breeding and Release Programs

5.1.1 Captive Breeding of Birds

The scarlet macaw-breeding program is designed to provide birds with sufficient genetic variability to establish a reintroduced population at the Golfo Dulce Center for Release site. The NRF's Scarlet Macaw Conservation Program is currently underway and 28 birds have thus far been released. A new breeding facility was constructed in July of 1998 and now houses the potential for 40 plus pairs of breeding psittacines. The first full year of activity in the new facility has shown 14 pairs make an attempt and 8 pairs which have succeeded in producing young including three active pairs of scarlet macaws and two active pairs of great green macaws. The success of the Breeding Area should only improve in the years to come. Captive breeding at Zoo Ave involves a combination of artificial incubation, hand feeding and parent reared chicks. In order to encourage multiple clutching (the laying of more than one set of eggs), the first eggs of the season are often pulled from the parents and chick are hand raised. Subsequent clutches may also be pulled due to problems or poor parenting abilities with some birds. However, efforts are made to leave at least one clutch per season to the parents. This encourages a more natural process (and ultimately produces bigger, stronger chicks).

Other psittacine species such as white-crowned parrots (*Pionus senilis*), yellow-naped amazons (*Amazona auropalliata*), and aztec conures (*Aratinga nana*) are also captive bred in this facility. Chicks are usually parent raised but may be pulled for various reasons (such as sickness or poor parenting) and hand raised. As with all of Zoo Ave's captive breeding efforts, these chicks are placed in appropriate specific groups and released into appropriate habitats.

5.1.2 Captive Breeding of Reptiles

Each year Zoo Ave progress towards better hatchling numbers and survival. Zoo Ave hopes to in the coming years to reproduce every native species in the

Zoo successfully. All offspring are immediately placed on a release course. In the case of most, this involves staying at the zoo for a few months to grow up a bit, to counteract the predation pressures hatchlings have in the wild.

The green iguana (*Iguana iguana*) breeding program has been very successful. The eggs were artificially incubated through a variety of methods in order to establish which is the most successful and practical. This process established future protocols that will maximize the iguana-hatching rate. They will eventually be released at the Bosque Escondido site, or on the Zoo grounds.

In addition to iguanas, the Zoo hatched 39 baby turtles of various species including mud turtles (*Kinosternon scorpioides*), Central American Wood Turtles (*Rhinoclemmyspulcherrima*), Costa Rican Sliders (*Trachemys ornata*), and our exotic African Spur-Thighed Tortoise (*Geochelone sulcata*). Zoo Ave also currently has multiple clutches have Snapping Turtle (*Chelydra serpentina*) and Black River Turtle (*Rhinoclemmys funerea*) eggs. Recently one of the Black River Turtles laid a whopping 12 eggs... a record number documented for this species. The new hatchlings of native species are currently being housed in the turtle kinder where they are provided shelter and food until large enough to be released.

5.1.3 Captive Breeding of Monkeys

All four species of native monkey at the Zoo have been actively breeding. Thus far both of the free-roaming female-mantled howler monkeys (*Alouatta palliata*) have given birth to healthy offspring. Periodically, males are kept in an open-air enclosure to which the females are freely able to visit. While the males are unable to leap out of the enclosure, the females seem to have no problem coming and going as they please.

5.1.4 Release and Reintroduction of Species

At Zoo Ave there are three probable destinations for donated animals: Release, Exhibition or Captive Breeding. Immediate release is realized for those animals, which come to the Wildlife Clinic without injury and free of behavioral abnormalities (i.e. are not former pets). Other animals require medical or other care prior to release. Once these animals are free of clinical problems, eating on their own and otherwise healthy, the decision is made as to their appropriate dispensation.

Some animals are quickly determined non-releasable because of injury or behavioral problems. Many of the breeding parrots are former pets that have not proven capable of behaving normally in a group or have plucked their feathers to the point where they are incapable of flight. Additionally, some of the raptorial birds on display here at the Zoo have fractured or amputated wings and therefore cannot function in the wild.

Other animals are retained at the Zoo until release is deemed appropriate and feasible. Most of the monkeys on display are former pets or orphaned animals. Because of the complex social needs and numerous logistical complications involved in primate releases, most of these animals must be housed for a period of time before being considered for release.

Ideally, all physically and behaviorally capable animals are considered as viable release candidates. Those, which can be released promptly after clinical or hand-rearing care is complete, are released at one of three Zoo Ave sites: Zoo Ave Wildlife Conservation Park, the Golfo Dulce Center for Release or Bosque Escondido Biological Reserve. Other release candidates are housed appropriately and care for until the appropriate facilities, social groups and permits have been established.

The Nature Restoration Foundation (NRF) is the official home of the Scarlet

Macaw Conservation Project that has the objective to establish a population of free-flying, reproducing macaws over the next ten years. The site is located adjacent to the recently established Piedras Blancas National Park, therefore providing access to appropriate habitat in an area where this species once thrived. Birds released are bred and raised at Zoo Ave and transferred to the site for prerelease screening and training.

The Center is also the site for various other release efforts including the liberation of various birds brought to the Center for Wildlife Rescue and Rehabilitation by private citizens and through government confiscations during Easter Week and throughout the year. Monitoring is taking place on a variety of levels from behavioral observations of pre-release and released macaws to point count surveys for all parrot species living in the valley.

Below is an interesting article on the release process of Endangered Species implemented by the Nature Restoration Foundation (NRF).

5.2 Technical Report on NRF Activities: Nature Restoration Foundation's Center for Release, Playa San Josecito, Costa Rica, Field Report 1998-2001, by: Jennifer Hilburn and Katie Higgins

Introduction: In 1998, the Nature Restoration Foundation (NRF) acquired property and began construction of cages and housing for the implementation of its Scarlet Macaw (*Ara macao*) Conservation Project. The Playa San Josecito Center for Release (Centro de Liberación) is one of three projects owned and operated by the NRF in Costa Rica. The other two are Zoo Ave Wildlife Conservation Park in la Garita de Alajuela located in the Central Valley and Bosque Escondido Biological Reserve in the Nicoya Peninsula.

The Center for Release is located in the Golfo Dulce area of southwestern Costa Rica (08° 39.73N, 083° 15.30W) within a 5-km2 valley bordering the 15,000-hectare Piedras Blancas National Park. The site is approximately 16 km north of the small town of Golfito and can only be reached via a 40-minute boat ride or 7 hour hike over rough terrain. Rainfall (as reported for Piedras Blancas National Park) is estimated at 5,500 mm to 6,000 mm with a peak rainfall in September of 900 mm. The park and surrounding areas are classified as wet tropical forest with evergreen vegetation. The climate, topography and vegetation closely resembles that of Corcovado National Park which is the home of the nearest extant Scarlet macaw population. Due to its isolated location, there are few surrounding human inhabitants, some of whom are employed by NRF to assist in construction and maintenance of the Center and field work including feeding station observations, fruit collecting, browsing and radio tracking.

The Center is in its third year of existence and in its second year with the Scarlet Macaw Conservation Project. This project's long-term objective is to reestablish a third population of scarlet macaws in Costa Rica. Releases of captive bred, confiscated, and donated birds will be performed over a ten-year period (1999-2009) with the goal of establishing a free flying, reproducing population of macaws. As an extension of Zoo Ave, the Center is also utilized as a Wildlife Rescue Center for the ACOSA branch of MINAE (*Ministerio del Ambiente y Energia*), which is the government agency in charge of enforcing Costa Rica's wildlife laws. Over the past three years, the Center has been accepting animals confiscated by MINAE. While animals are accepted throughout the year, the vast majority is confiscated during the Semana Santa (Easter week) holiday period. These animals receive care, housing and prepara-

tion for release back into the wild. In addition to these functions, a variety of other conservation projects, studies and community activities are already underway, continuing the goals of the NRF to help protect and conserve native Costa Rican flora and fauna.

5.2.1 Scarlet Macaw Conservation Project

Goals: This project proposes to establish a third, self-sustaining population of Scarlet macaws within its historic range. Objectives include: a) the enhancement of the long-term survival of Scarlet macaw; b) the provision of long-term economic benefits to the local and national economy through eco-tourism; c) the promotion of conservation awareness; and d) the development of pre and post-release protocol for large psitticine birds.

5.2.2 Project Design and Implementation

Scarlet macaws are considered endangered throughout its range (CITES Appendix I). There are currently two recognized Scarlet macaw populations in Costa Rica, and a few small groups within scattered pockets of habitat (Janzen, 1983). The first of the two major populations is found in and around Carara Biological Reserve (CBR), in the Central Pacific region of the country. This population contains approximately 330 individuals (Nemeth pers. comm. 1999, Vaughn 1999). The second population occurs on the Osa Peninsula in and around Corcovado National Park (CNP). Scarce data is available on this population, although estimates are between 200-700 individuals (Vaughn 1999). Two of the primary threats to these populations are habitat destruction and poaching for the illegal pet trade, specifically within the country. Due to habitat destruction, 20% of the original Scarlet macaw habitat in Costa Rica remained in 1993, the remainder of which is currently protected (Marineros and Vaughan 1995).

The NRF and Zoo Ave's decision to begin the Scarlet Macaw Conservation Project was based on the endangered status of this species in Costa Rica, the continued existence of protected habitat within the macaw's native range in which the species has been extirpated and the presence of an existing captive population and source of new genetic material in the form of confiscated birds entrusted to Zoo Ave.

For the past ten years (1990-2000), Zoo Ave has been preparing birds for the Scarlet Macaw Conservation Project. Preparations have included a breeding program, extensive health screenings, genetic considerations and an appropriate location. By 1998, these preparations were in place. In November 1998, the first group of Scarlet macaws was transported to the Center. On arrival they were placed as a group in a large flight cage, where they began to develop flight and landing skills. Being placed in a large group initiated many different social behaviors and the development of complex relationships between the different members of the groups. Browsing of cages with many species of trees containing fruits, flowers and seeds which are known to be eaten by two different populations of Scarlet macaws from Costa Rica to Peru (Marineros and Vaughan 1995, Munn 1992) allowing the birds to develop the ability to recognize and utilize food found in nature. Once the birds met the pre-release criteria, they were released in five groups, occurring between May and December 2000. Currently there are 21 free-flying macaws around the Center. Current projects, studies and activities are underway to continue the development of the Scarlet Macaw Conservation Project.

5.2.3 Development of Pre-Release

Protocol

Before reintroduction and release projects can occur, individual animals must be evaluated to determine their potential fitness for life outside of the captive environment. We are developing a pre-release protocol that uses descriptive and comparative behavior analysis to quantitatively determine whether a bird is a good release candidate. We are using a focal method of behavioral sampling using instantaneous recording during ten-minute periods in order to determine an activity budget of each release candidate. In addition, we are taking all frequency data on behaviors such as flight and copulation. Seven major behaviors are monitored within the cage, these are: feeding, socializing, moving, self-maintenance, breeding, no activity and any occurrence of non-natural behaviors such as talking or self-destructive feather plucking, etc.

These behavior patterns will be compared to patterns in our free-flying birds and with the same individual after it has been released. With this technique, we hope to track the progression of each release candidate and compare their success or failure outside of the cage with the behaviors recorded during captivity.

5.2.4 Establishment of Release Techniques

Something rarely considered is how to release a bird into its natural surrounding in the least stressful way. At this point we have released five groups of birds. The manner of release has varied from catching and placing the bird on the outside of the cage to luring and/or waiting for the bird to walk or fly out of a door located on the roof of the cage. The latter method has met with greater success as judged by the distance moved from the release cage within the first 48-72 hours. This period appears to be critical, as 5 out of the 6 birds, which have been "lost" during the project, have disappeared within the first three days.

During the first release, two birds were lured (using food) out of the cage. The birds stayed within 15 m of the cage for the first three days. One eventually flew away, and was later returned to the project with clipped wings, and was placed back in the cage for future release. The second release, in which we caught the birds and transferred them to the outside of the cage, 4 out of 5 birds immediately flew more than 50 m away. Two of these birds flew away, and were "lost." For the third release, the birds were allowed to fly out of the cage. Unfortunately this occurred while workers where still climbing around on the top of the cage, and the birds left the cage in moments of stress. Of the three birds released, two immediately flew away and were "lost" and the third remained with the already released birds. In the fourth and fifth releases, we again allowed the birds to come out of the cage on their own, the majority of the birds sat on the cage for a short time (10-30 minutes) before flying to a nearby perch. The perceived stress level, judged by "panic" reactions from the birds such as immediate flight, appeared to be much lower with this more passive technique. As the initial flights and subsequent landings have been judged a critical learning phase for the birds in order for them to learn the boundaries of the station and their flying abilities, allowing the birds to take this step on their own time appears to be important to the survival of release candidates.

5.2.5 Development of Post-Release Protocol

Post-release monitoring involves a variety of methods including continued behavior sampling as described above in "Pre-Release Protocol." Radio telemetry equipment is used to supplement this protocol as well as track any birds, which wander from the site. The radio collars are expected to last for 18 months, giving

ample time to observe the behavior of these birds (Holohill, 1999). In addition to these methods, routine head-counts are made at supplemental feeding platforms provided in and around the site. Individual birds are identified and accounted for at least twice each day.

5.2.6 Nest Box Supplementation

Appropriate nesting cavities are a potential limiting factor for reproduction in macaw. populations. In studies conducted in Peru on three large macaw species (Scarlet macaws, Green-winged macaws (*Ara chloroptera*) and Blue and yellow macaws (*Ara ararauna*), a high degree of aggression was observed in and around nest sites during the breeding season indicating intense competition for low numbers of appropriate nesting cavities. Researchers provided artificial nest boxes to augment available nesting habitat. In each case, macaws attempted to nest in the artificial boxes. In one case, a pair of Blue and yellow macaws successfully fledged young (Munn, C.A. 1992). Artificial cavity studies have also been conducted on the CBR Scarlet macaw population. 12 out of 33 nest boxes placed between 1995-1999 were found with a total of 21 chicks (Vaughan et al. 1999). Nest boxes provided for the Scarlet Macaw Conservation Project have been similar in design to those used in and around CBR. Additional nest boxes have been designed and placed using information on nest boxes design from the Tambopata Nest Box Project in Peru (Brightsmith, 2000).

In October 1999, seven artificial nest boxes were built and placed around the release site. They were placed at various heights, positions and on a variety of tree species. Heights varied between 15 – 35 from the ground. Tree species used were cedro amargo (*Cedrela odorata*) – 1 box, gallinazo (*Schizolobium parahyba*) – 2 boxes, balsa (*Ochroma pyramidale*) – 3 boxes, and machete gauva (*Inga spectabilis*) – 1 box.

In January 2001, nine more artificial nest boxes of a slightly different design were built and placed around the release site, again at various heights, positions, and on a variety of tree species. All these boxes have been investigated within three to four days of placement. Thus far, nest box use has been restricted to exploration by several release birds. Although occasionally one pair of birds has been observed sleeping in the box located nearest to the site (in a large machete guava), no reproductive attempts have been made.

Monitoring of the nest boxes will continue throughout the project duration and will include both observations from the ground as well as periodic climbing checks. Data collected will include size and timing of clutch, hatch dates and subsequent growth of chicks. Each chick will be banded and periodically weighed and examined. Fledging time and survival will be closely followed. Data analysis will include preferences and success or failure in reference to box location and design. At least 30 more boxes will be built, placed and monitored during the first ten years of the project.

5.2.7 Community Activities and Involvement

As part of the pre-project preparations, in 1998 a Zoo Ave biologist met with the community to survey interest and reactions from local families. Without exception, the local people were encouraging and supportive (pers. comm. Torres, 99). Over the first three years, the community has proven to be of great importance in keeping us abreast of released macaw activity in the area. Within an approximate 100-km2 area, messages pass from person-to-person by word of mouth (a phenomenon locally known as the "jungle telephone"). No matter the location, word of a macaw sighting usually reaches the Center within 2-3

days. This communication has assisted in the retrieval of three lost birds as well as valuable information on daily and incidental macaw movements.

The local school (consisting of 9 students ranging in age from 5-16 years) visited the Center in May 2000 for tours, games and information on the project. This "Day in Conservation" successfully interested the students and has resulted in requests from neighboring community schools to participate in similar field trips to learn more about the work occurring at the Center.

We have also recently begun work with a local group of students from the La Palma Association of Conservation of Scarlet Macaws. This group formed in 1998 independently from NRF's Scarlet Macaw Conservation Project and consists of students ranging in age from 15 to 20 who are working on local projects designed to promote awareness of endangered species in the area. Each year, this group hosts a festival that includes puppet shows, food, games and other activities centered on the plight of the Scarlet macaw. Staff from the Center participated in this event in 2000 and is currently collaborating further with the students on various projects. Such projects may include planting of known macaw food trees within and around Piedras Blancas National Park, and participation by La Palma volunteers in seasonal MINAE wildlife confiscations.

The Center is not open to the public; however there have been many visits from people living in the area. Although visitors are not taken to the release cages, they are able to enjoy seeing many released birds flying, eating and living a life outside the caged environment. Tee shirts and coloring books have been handed out to the community on a variety of occasions and will continue to be handed out to visiting schools.

5.2.8 Survey of Food Sources

Two known studies have produced lists describing natural food sources of the scarlet macaw. These studies were performed on the CBR population in Costa Rica and the Manu population in Peru respectively (Marineros and Vaughan 1995, Munn 1992). Comparisons of the tree species in and around the Center for Release with these studies have been made to determine availability of natural food resources. Many key species have been identified within and around the site. As birds are released, records are kept of identified tree species being used as food sources. Released birds have been observed eating all of the plant species in Table 1. Parts eaten include flowers (fl), fruit (fr), seeds (s), bark (b) and leaves (l).

5.2.9 Native Avifauna Release Projects

Although government confiscations happen throughout the year, MINAE officials, by far, confiscate the highest proportion of illegal wildlife, during the week before and two weeks following the Easter holiday. The week before Easter is officially considered the week of the saints or *Semana Santa*, therefore all government confiscations brought to the Center during this period are considered *Semana Santa* birds. Beginning during Semana Santa 1998, ACOSA asked the Center to rehabilitate and release birds that had been confiscated from the area. In the past three years, the Center has provided housing and training for these birds until release. To date, 285 birds have been released into the area (Table 2). The pre and post release methodologies used in these projects are similar to those of the Scarlet Macaw Conservation Project.

5.2.10 Release Techniques

Effectiveness of different release techniques is being evaluated. As Semana Santa coincides with the presence of neonates in the wild, the majority of the birds arrive as either nestlings or fledglings

and require extended care.This has created a unique opportunity to develop release techniques using very young birds.

These young birds are housed in boxes with open tops during the daylight hours as climate at the Center does not require artificial heat sources even for naked chicks. Once the young have reached fledgling age, they are transferred to nearby trees during daylight hours and returned to their boxes only for the night. This situation encourages young birds to take their first flights within hours or, at most, a few days after being placed outside of the "nest." In effect these birds are being released during their fledging period, an appropriate imitation of life in the wild. Fledglings continue to be fed until weaned and are provided cages in which to return to during the night until better able to fend for themselves. Six of seven red-lore amazons (*Amazona autumnalis*) released in June of 2000 using this method are observed daily foraging on their own within the site. These birds return nightly to roost in nearby trees.

5.2.11 Feasibility of Release Ex-pets

Many of the confiscated and donated birds accepted at the Center are former pets. This offers the opportunity to assess the feasibility of releasing such birds. These birds are often slower to fly, socialize and eat natural foods. Although they may take more time, thus far results show that many are able to re-adapt to a natural environment. In the last two red-lore amazon releases (June and July 2000), 35 birds were released, at least 30 of which were former pets. This number does not include the Semana Santa young or birds that were pulled from the project within the first 48-72 hours of release. These release birds consisted mainly of ex-pets.

5.2.12 Nest Box Designs and Preferences

Nest box augmentation will be provided throughout the site for a variety of psittacine species released. Dimensions for boxes will vary in order to provide adequate nesting options. To date, 8 nest boxes for *A. autumnalis* have been built of balsa wood from a fallen tree. These boxes vary in lengths and cavity size. As other trees fall, more nest boxes will be built and hung. Other nest box designs such as PVC tubing, hollowed palm trunks and plastic barrels will be used for comparative preference and success/failure studies.

5.2.13 Non-releasable Birds

Unfortunately, there will always be birds that are not releasable due to physical or behavioral reasons. A large "gymnasium" structure consisting of long, intertwined perches and trees is being built within a predator-proof enclosure to house these retirees. This will provide space for these birds to live out the remainder of their lives in an open, natural setting while also keeping them protected. Flight capable non-releasable birds will be housed in large, well-vegetated cages.

5.2.14 Native Fauna Conservation Projects

The NRF is also works on non-avian projects. To date, three other conservation projects have taken place in Playa San Josecito. These include a scorpion mud turtle (*Kinosternon scorpiodes*) release project, a spectacled caiman release (*Caiman crocodiles*), and conservation efforts with the Central American Squirrel monkey (*Saimiri oerstedi oerstedi*), a species listed as endangered (B1+2abcde, C2a (Primate Specialist Group)) on the IUCN Red List.

5.2.15 Turtles

There are three families of freshwater and terrestrial turtles found in Costa Rica. The semi aquatic mud turtles are found in the family Kinosternidae, and have three representatives in Costa Rica. All three are generally found in swamps, slow streams, and temporary ponds, and some individuals travel overland. These turtles are considered omnivorous, feeding on land as well as in water. They lay their eggs in small clutches throughout the year, and there is no special nest construction or site (Janzen, 1983). Due to the largely instinctive behavior of these animals, the pre-release protocol consists primarily of assessing physical condition rather than training them to find and manipulate foods, predator avoidance and other learned behaviors important to avian and mammalian species. On February 9th, 2000, thirty-one *K. scorpiodes* were released into the riverbed flowing through the San Josecito valley. A system of numbering the turtles with notches chipped out of the marginal scutes on the their carapace was used to identify individuals. As of September 1, 2000, NRF staff and locals have found six of the released turtles. Another 4 sightings have been reported to the Center, although without individual identification. These have been found throughout the valley, and all in good physical condition.

5.2.16 Caiman

The spectacled caiman (*Caiman crocodiles*) is a small species commonly found in lowland swamps and slow rivers throughout Costa Rica. Occasionally individuals are brought to the NRF's Center for Wildlife Rescue and Rehabilitation for care. One such animal arrived in April of 1999 with toxic levels of iron in its blood as a result of being housed in a metal tub. This animal remained at the clinic for several months for detoxification. In January of 2000, blood levels were found to be normal and it was taken to Playa San Josecito for release on February 10th, 2000. It was released in a lagoon located near the Center. Approximately 3-5 caiman seasonally occupy this lagoon. Their migratory nature is unknown at this time. On the night of July 15th a single caiman was seen hunting night by two biologists. As this was the only caiman seen, the probability is that it was our released animal. On November 2nd, 2000, another caiman was released into the lagoon.

5.2.17 Central American Squirrel Monkeys

From 1997-1999 another conservation group was located in the San Josecito valley. They were working with mammals. For a variety of reasons, they were unable to continue their work in the area, and left at the end of May 1999. When they left, they abandoned six recently escaped Central American Squirrel monkeys (*Saimiri oerstedi oerstedi*). These monkeys had been confiscated by MINAE and were all former pets, with 4 of 6 being very young, incapable of taking care of them, and bonded with people. The monkeys escaped on 22 May 1999. The two older females were quick to go exploring, leaving the four young males behind to fend for themselves. Within two days, the four monkeys found the Center. As they were accustomed to living with people, they immediately became intolerable pests to the biologists as well as to the caged and released birds. As there was no cage available to house them, the staff at the Center had to find another solution. We began a program of territorial exclusion. This consisted of feeding the monkeys outside the station, and acting like a tribe of aggressive primates when the squirrel monkeys came into the site. We literally jumped up and down in threat displays, making grunting and squealing noises, and shaking branch-

es. Within a month the two females and the four males had re-grouped. Unfortunately the youngest male monkey died in June of 1999. The additional feeding was terminated in July 1999. It was approximately one year of work before the monkeys became reluctant to enter the station. One of these five was (for unknown reasons) kicked out of and excluded from the group in September of 2000. This monkey retreated to the station, where it was captured and returned to Zoo Ave's captive breeding program. In December 2000, a male was brought to the group from Zoo Ave and introduced. This monkey became instantly attached to the group, and has been seen mating or attempting to mate with the two females. To date the remaining five monkeys (including the new addition) are seen almost daily around the site area. They are eating on their own, and have established a territory, including feeding areas and designated trees for sleeping. They seem to be reluctant to approach humans, although they still don't show actual fear of humans. If the area were more densely populated, this would pose a more serious problem, however currently this lack of fear poses little threat to the animals. Hopefully, with time, these monkeys will continue to become wilder. Although this project was more or less forced on NRF staff, the success of the released animals is encouraging. As this subspecies of *S. oerstedi* is endangered, as it is regularly accepted at the Center for Wildlife Rescue and Rehabilitation, and as appropriate habitat exists in the San Jocecito Valley, we are developing a project to release more individuals in order to augment this small released population.

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THEME #5

Constructing Effective Interlocking Networks at the Country, Region and Global Levels

Theme #5 held one panel entitled "Implementation of International Environmental Agreements Through the Domestic Legislation of Signatory Countries" which first examined the new UNEP guidelines for enhancing compliance with multilateral environmental agreements and for combating violations of national laws implementing these agreements. It then explored how consistent, or inconsistent, is the enforcement of multilateral agreements by individual countries and offer examples of cooperative efforts. Panelists presented examples of regional networks that assist domestic implementation efforts, ideas on how to draft laws that consider domestic capacity and encourage real enforcement at the operational level. The panelists shared ideas on methodology for the various Secretariats to communicate with INECE and each other for more effective and resource efficient capacity building and enforcement cooperation.

Included under this theme are the panel presentation and the following workshop summaries and papers:

- MEAs Governing Vessel Operations: The Role and Challenges of Enforcement, *Linsin, Gregory*
- Summary of Workshop 3A: Role of Police as Environmental Enforcers: INTERPOL Training
- Summary of Workshop 3B: Illegal Transfrontier Movements of Hazardous Waste (International Link to Basel Convention): Establishing the Network/Contact Database
- Summary of Workshop 3C: Development of Sustainable Regional Enforcement and Compliance Networks: Elements and Examples
- Summary of Workshop 3D: International Targeting on Environmental Crime/Activities
- Summary of Workshop 3E: Enforcing Domestic Programs Implementing International Agreements
- Summary of Workshop 3F: Designing a Pesticide Forum: Identifying Common Elements of a Forum as Well as Specific Information Needs for Pesticides

SUMMARY OF PLENARY SESSION #8: IMPLEMENTATION OF INTERNATIONAL ENVIRONMENTAL AGREEMENTS THROUGH THE DOMESTIC LEGISLATION OF SIGNATORY COUNTRIES

Moderator: Donald Kaniaru
Rapporteur: Frederique van Zomeren

1 INTRODUCTION

This panel examined the UNEP guidelines for enhancing compliance with multilateral environmental agreements and for combating violations of national laws implementing these agreements. It continued with an exploration of how consistent, or inconsistent, is the enforcement of multilateral agreements by individual countries and offers examples of cooperative efforts. Panelists presented examples of regional networks that assist domestic implementation efforts, ideas on how to draft laws that consider domestic capacity and encourage real enforcement at the operation level.

2 PRESENTATIONS

Mr. Kaniaru opened the panel discussion. He introduced the panelists and announced that information on the UNEP guidelines is available in three languages. He thanked the UNEP guidelines team.

The first speaker was Marcia Mulkey. She started with the statement that "no matter how good the science, policy and legislation is, it is worth nothing without compliance and enforcement". Ms. Mulkey discussed the national compliance and enforcement of three international environmental agreements: PIC, IMO and Antifouling. For effective compliance and enforcement it is necessary to start with the development of a unified national position. Think of capacity and infrastructure and start a dialogue with effected parties. Enforcement issues must be discussed at this stage. Secondly you need to translate the international agreement into national law. Provide for information and technical expertise and a legal authority. Third and last, you need to promote a culture of compliance: empower governments to ensure a culture of compliance will be established. Conclusion: it is a responsibility for the government, private sector and the general public to reach the international goals. Governments need to assure enforceability of international conventions and establish national procedures that promote a culture of compliance. The private as well as the public sector need to participate in the policy formulation process and compliance with regulations.

Mr. Andrew Lauterback talked about the role of Interpol as criminal law enforcement organization. It is a facilitating police network that deals with trafficking of children, drugs and terrorism. Since 1986 it also deals with environmental crimes, e.g. illegal trafficking of endangered species. Forty nations participate in the environmental crimes committee. This committee is divided by 3 working groups:

- pollution crime,
- illegal traffic of endangered species and,
- illegal traffic of nuclear materials.

One of the important achievements of the environmental crimes committee is the development of a database of ecomessages. An ecomessage is a national reported crime, that is addressed to Interpol's headquarters and which is then sent to an effected country. It helps to discover links between different sorts of crimes. Green

Interpol can and will help to train the trainer on environmental crimes, help with capacity building and provide a network for the exchange of best practices. It will be useful to build a strong relationship with other partners as INECE.

Mr. Roy Watkinson presented the UK overview of environmental enforcement, developments in international cooperation and the future needs and roles for UNEP, Interpol and IMPEL. He explained some of the definitions in the MEA's, e.g. what is an environmental crime and what is enforcement. Environmental crime is a high profit activity. Also used in organized crime. There is a need for more criminal investigation techniques and international initiatives. The use of scarce tools will be maximized and overlap prevented. He saw a role of importance for international cooperation and organizations, but concluded that national enforcement is the key.For international compliance it is necessary for a country to have good national regulations and laws and a working institutional structure. You need a system of national coordination, training and public awareness.

Mr. Greg Linsin was the final speaker. He spoke about a facet of his work at the environmental crime section of the Ministry of Justice. He specifically talked about the implementation of the Marpol protocol on the prevention of pollution from ships. By mid 1980's it seemed that the protocol was successfully implemented. But, due to prosecutions of shipping companies in the late 1980's and begin 1990's it appeared to be a fraud. From 1996 and on enforcement had serious deficits. Cruise ships complied as regards the necessary permits, but also developed ways to bypass the law in order to save a lot of money. Prosecution was difficult as many ships violated the law, while fleeing out to the high sea where the US has no jurisdiction. Lessons learned of the MARPOL protocol enforcement: enforcement in any state requires coordination among states and flag, port and coastal states must also perform their international obligations.

3 CONCLUSIONS

- Without implementation, environmental laws mean nothing.
- UNEP's new guidelines will be useful for improving the current state of implementation.
- International organizations, such as INTERPOL, play an important role in fostering cooperation between enforcement authorities in different nations.
- INECE should encourage both the use of the UNEP guidelines and international cooperation in criminal enforcement.

MEAs Governing Vessel Operations: The Role and Challenges of Enforcement

Gregory F. Linsin
United States Department of Justice
INECE 6th International Conference
Costa Rica April 2002

International Agreement: MARPOL Protocol

- International Convention for the Prevention of Pollution From Ships (MARPOL Convention), London, 1973
- Protocol of 1978 Relating to the MARPOL Convention (MARPOL Protocol)
- United States signed in 1978; Senate ratified
- UNCLOS has some application in defining scope of enforcement and obligations of flag, port and coastal states

United States Compliance With Obligations Under MARPOL

- Clean Water Act predated MARPOL but not an adequate to implement protocol
- 1980 – act to prevent pollution from ships (APPS) enacted to satisfy protocol obligations
- Coast guard promulgated extensive regulations implementing MARPOL
- Coast guard integrates MARPOL requirements into vessel inspection regime

Early Enforcement Efforts in United States Under MARPOL

- Deficiencies identified in CG inspections
  - Absence of required logs, disposal records
  - Inoperability of required pollution prevention equipment
- Referral of more significant violations to flag states
- Net effect: no significant enforcement actions

Early Vessel Pollution Enforcement Cases in United States

- Prosecutions resulting from catastrophic marine casualties
- 1993 – 1997
  - Several cruise ship plastics violations
  - Inland water oil and plastics discharge
  - Tanker oil discharge on high seas
- In sum: serious but apparently isolated violations

U.S. v. Royal Caribbean Cruises, Ltd. An Illusion Dispelled

- In 1996, RCCL operated one of largest cruise ship fleets in world
- Enjoyed positive environmental image
- Criminal case developed from proactive Coast Guard surveillance operation
  - One vessel discharge in San Juan, Puerto Rico
- Uncovered systematic by-passing of OWS and falsification of ORB

U.S. v. RCCL – cont'd

- Investigation revealed systematic, fleet-wide violations
  - Variety of by-pass mechanisms to discharge oil
  - Routine log book falsification to conceal
  - Routine discharge of hazardous wastes
- Guilty pleas to criminal violations of APPS and variety of other offenses in 6 districts
- $ 27 million dollar criminal fine

New Skepticism Regarding MARPOL Enforcement Needs

- Flag state enforcement clearly inadequate
- Enhanced Coast Guard inspections
  - Data comparison and analysis
  - Internal inspection of pipes around OWS
  - Holds on vessels to permit inspection
- 1997 – 2001 several similar prosecutions
- 2001 Priority boardings of all ships in one of largest fleets of container ships in world

Challenges of MARPOL Enforcement Case

- Vessels are mobile
- Records dispersed around globe
- Discharges on high seas
- Foreign national crew members
- Quasi-military command structure
- Owners, operators, charterers , employers can be difficult to trace

Challenges of MARPOL Enforcement Regime

- Effective enforcement in any state requires coordination among states:
  - Records of inspections, disposals, crew members and enforcement actions
  - Real-time coordination of investigations
- Flag, port and coastal states must perform obligations under UNCLOS
- New Annexes being negotiated for air emissions and ballast water (Invasive species)

Conclusions

- Enforcement must be component of implementation from day one
- Must scrutinize apparent compliance
- Globalization of enforcement under MARPOL
- Protection of coastal waters and high seas dependent on all parties to agreement

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SUMMARY OF WORKSHOP: ROLE OF POLICE AS ENVIRONMENTAL ENFORCERS

Facilitators: Andrew Lauterback
Peter Lehner
Rapporteur: Robert Chouinard

GOALS

- Determine the role of police as environmental enforcers.
- Discover barriers to cooperation between police and environment personnel.
- Determine necessary investigative, technical and legal tools for effective enforcement of environmental crimes.

1 INTRODUCTION

The workshop will discuss the experience of INTERPOL and the National Environmental Crime Unit that began operations in The Netherlands in 2000 Workshop participants will evaluate the unique role of police as environmental enforcers, methods, analysis of recent cases and overall results of criminal enforcement activities.

Questions the facilitators asked:

- What is the appropriate role of the police in enforcing environmental crimes?
- How can the information be shared?
- What training strategies should be adopted?

2 DISCUSSION SUMMARY

Criminal enforcement of environmental crimes needs three components:

- Technical expertise provided by the environmental agency.
- Investigation tools provided by a police agency.
- Prosecution.

"Police" must be taken in its broadest sense and includes traditional national, state/provincial and municipal police forces as well as environmental police and some components of the Armed Services.

Because of different cultures, police and environment personnel are strange bedfellows. The police's role is to bring defendants before the Courts whereas the role of environmental agency personnel is to solve the environmental problems. Also, the importance of environmental crimes for society must be made to police agencies since they will in most cases, attach more importance to violent crimes, such as murder, rape, etc. than to environmental crime and establish their priorities accordingly. The same could also be said for prosecution.

The barriers to sharing information between the environment and the police stem from the people involved themselves, the way the organization and systems have been established and also from legislation restricting the exchange of information.

A team approach to environmental enforcement where the police component is the coordinator of the actions is a possible solution. The police can then focus on it's traditional role for protecting the community by being the eyes and ears of criminal law enforcement as well as a deterrent to unacceptable behavior. A team approach can also ease the problems encountered in sharing the information.

Another possible solution to the problems encountered is the formation of dedicated personnel to environmental police units or special environmental units within traditional police agencies. In the same manner, special environmental prosecutors would alleviate the problem at that level.

Training at all levels is also necessary to foster better understanding and cooperation between the different players:

- basic training to the "cop on the beat" so he can identify the problem and knows who to call;
- training and networking of prosecutors involved in environmental cases to give them tools and support (a good example is the Central American Environmental Prosecutors Network);
- training of the judiciary to give them some knowledge of the science involved and the effects of environmental crime on society;
- training focused on interpersonal relationships and on the understanding of each other's culture.

3 CONCLUSION

The group established that with the different cultures represented, the word POLICE had to be taken in its broadest sense and include traditional national, state/provincial and municipal police forces as well as environmental police and some components of the armed services. The group also recognized that regardless of the country or region, a common theme prevailed: Police and Environment Personnel are strange bedfellows: the role of Police being to bring a defendant before the Courts and the role of Environment Personnel being to solve the environmental problem.

The barriers to cooperation between the Police and the Environment Personnel are: the different cultures, the different priorities (the same applies to prosecution), the sharing of information which is impeded by the people themselves, the organization/system and in some instances by the law. A proper training strategy should help overcome most of these barriers.

The groups concluded that any criminal enforcement action requires that the evidence you present is in a manner acceptable to the court and that this role can best be played by police who are "investigation specialists".

In the environmental enforcement, it is essential that the evidence be presented in a manner acceptable to the Courts. The police, as investigation specialists, have all the qualities to play that role effectively.

SUMMARY OF WORKSHOP: ILLEGAL TRANSFRONTIER MOVEMENTS OF HAZARDOUS WASTE

Facilitators: Brad May
Silvia Nonna
Rapporteur: Peyton M. Sturges

GOALS

Discuss ways that INECE can improve networking for the control and monitoring of illegal trans-border shipments of hazardous wastes.

1 INTRODUCTION

This session had two questions raised by the facilitators: How can we improve networking in the control and monitoring of Illegal Transfrontier Shipments of Hazardous Wastes and to what extent can INECE contribute to this effort?

2 PAPERS

- Ruud MA De Krom, *How to Optimize the Control of Hazardous Waste Enforcement in Argentina* (6th Conference Proceedings, Volume 1).
- W. Snells and T. Liebregts, *Enforcement of the Regulation on the Supervision and Control of Waste Shipments Within, Into and Out of the European community (EU259/93): Collaboration on the Processing of Waste Substances* (6th Conference Proceedings, Volume 1).
- Maria Eugena Di Paola, *Governmental Coordination and Hazardous Waste Enforcement in Argentina* (6th Conference Proceedings, Volume 1).

3 DISCUSSION SUMMARY

This workshop discussed the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their disposal and developed a proposal to establish a Network/Contact Database that would enhance environmental enforcement and compliance of Basel Convention by improving control and monitoring of confirmed and alleged cases of illegal transfrontier movements of hazardous wastes. This workshop also explored challenges to identifying, targeting, and intercepting illegal transfrontier movements; identified country-specific differences in classification of illegal hazardous waste; and discussed possible approaches for the rapid dissemination of intelligence through effective use of Web and network/contact database at the local and regional level.

The group identified several themes, including the need to encourage informal exchanges of information and information sharing, the desire to harmonize the definition across countries and regions of the terms used to describe hazardous wastes and recycled products, the need to encourage further training of inspectors and further education of the public, and the challenges posed by overlapping treaties and regulatory requirements.

Most members of the group have experienced problems involving inadequate control of hazardous waste shipments, whether PCBs, contaminated soils, lead wastes, or various substances masquerading as useful materials or beneficially recyclable materials. Several recounted how special problems can arise with "transit" shipments, where waste transportation

modes or waste ownership changes as the waste moves or is transformed through complete or partial treatment. Although the Basel Convention is the broadest most significant legal baseline in this arena, it cannot solve transfrontier shipment problems in a vacuum. The shortage of confirmed cases of illegal shipments entered by the administrative body established under the convention, as well as the fact that some major waste producers are not a party to the convention, suggest more needs to be done to utilize networking capabilities, both formal and informal, to raise the degree of compliance.

3 CONCLUSION

The group concluded that INECE can play a significant role on the information harmonization and dissemination fronts, as well as contribute to training needs of customs authorities, because of its informal networking expertise. In addition, proven capabilities of INECE might lend themselves to additional projects involving creation of various data bases, including one covering confirmed and settled cases that might even incorporate data from non-signatory countries, and an INECE member sources network. It was even suggested that a database of cases could provide sufficient information to allow its use in risk analysis and in developing illegal shipment profiles.

SUMMARY OF WORKSHOP: DEVELOPMENT OF SUSTAINABLE REGIONAL ENFORCEMENT AND COMPLIANCE NETWORKS: ELEMENTS AND EXAMPLES

Facilitators: Daniel Sabsay
Ignacio Gonzalez
Rapporteur: Davis Jones

GOALS

Share examples of successful activities that have helped establish and strengthen regional networks and establish a list of common elements for success.

1 INTRODUCTION

Focused on the role regional/sub-regional organizations can play in compliance and enforcement of multilateral environmental agreements. Participants will: examine and evaluate current institutional framework of regional organizations their linkages at national and international levels; Identity constraints in compliance and enforcement at regional levels and their impact at national and internal level; identify a set of innovative capacities that could bring about effective compliance and enforcement; and revolutionize approach to thought in compliance and enforcement.

2 PAPERS

- Marc Proost, CLEEN: *The Need for a Separate Enforcement Network for Enforcement of Chemicals Legislation in the EU* (6th Conference Proceedings, Volume 1)
- Vaclovas Berinskas, *Successful Implementation of IMPEL Concepts and Recommendations in Lithuanian Environmental Protection System* (6th Conference Proceedings, Volume 1).
- Katerina Lacovidou-Anastasiadou and Anastasia Kotronarou, *The IMPEL Food Project: Environmental Compliance and Enforcement to Selected Sub-Sectors of the European Food Industry* (6th Conference Proceedings, Volume 1).

3 DISCUSSION SUMMARY

Robert Glaser began the discussion by describing some key elements he has found to be crucial to forming a successful regional network. First, you must start networking between people with common interests and find devoted individuals to start the work. Those individuals must create the policy support and find followers. The next steps are:

- Develop common denominators.
- Establish a Secretariat.
- Get country profiles of each country in the network.
- Establish exchange programs – create opportunities for inspectors or other staff to get to know each other socially; informal networks are important.
- Look for projects that connect countries, trans-border pollution, etc.
- Show products to interested managers and get funding for continued operations.

These steps worked during the creation of IMPEL and are being used in the creation of BERCEN, the network of Baltic States.

Terry Shears spoke further of the

IMPEL experience. They initially overcame skepticism by developing a useful product. Their first results included documents on minimum criteria for inspections. This product was subsequently adopted as a standard for the European Union, and now IMPEL has to implement through training and reports on commonalities between countries.

Terry continued by saying that networks can't be inwardly focused. It is not enough to produce reports for the members of the network. Rather you must advertise to a wider audience and make the products of the network useful to a wide range of users. Daniel Geisbacher reinforced the need for support and funding to start a network and questioned how it could be done without outside support.

Pavel Sremer said that strengthening of networks could be achieved by sharing information. How have existing networks facilitated that exchange without releasing confidential information? Robert Glaser agreed that confidentiality between countries can be difficult, but is a necessity for an honest flow of information. However, everyone must understand that there will be some restrictions on information due to confidentiality concerns.

Daniel Sabsay stressed that the network must find transferability in their work. Robert replied that the country profiles should include an assessment of the member countries' needs so that the network can focus on transferable products that respond to the needs of the member countries.

Sladjana Miocic discussed the importance of starting a secretariat. The network should be careful selecting the individuals that will staff the secretariat. The network should clarify goals and objectives early on to avoid frustration and confusion. It should also be advertised; if it is not well known that you are in the process of starting a network and secretariat, it is very hard to generate support. In addition, you need a clearly defined purpose and mission to show to supporters or potential supporters.

Maria Di Paola asked how to maintain a network once it is started? What is important to keep a network alive? Waltraud Petek replied that the network must be beneficial for the participants in order to survive. To demonstrate the benefits, the network must involve the right people, including multiple people from each country to spread the interest. The work must not overburden individuals, but spread work so that more people are involved. Create results that directly benefit each country. An example in Europe occurred when a company complained that other countries treated the company better and threatened to leave. IMPEL discussion showed otherwise, and that the governments required the same standards in whichever country. The managers where able to respond to the company and show that the company would be treated equitably across the region. The network should look for activities that will engage lots of people, such as the work on cement kilns that drew people from all over Europe. A regional network can also help compare requirements among nations to ensure that no one country offers economic advantage, a particular necessity in the European Union.

The European situation does not always apply worldwide. For example, the Council of Environmental Cooperation (CEC) represents the network for North America. The borders of USA, Canada, and Mexico are not as open, and there is not so much interchange possible since each country sacrificed some autonomy to join the European Union. Nonetheless, the CEC was set up with strong, principles of cooperation and a network was formed from that framework and was built with some expectation of sustainability.

Joseph Milewski asked what

resources are required to maintain a network. Terry Shears replied that he is the only IMPEL staff. But human resources are more important than money and can be drawn from member countries' staff. People's time and enthusiasm are more important than funds. The network has no budget, therefore the member countries supply the rotating staff and fund specific projects as they see fit.

Marie Di Paola stated that in Latin America, particularly South America, different characteristics make the development of a sustainable network more difficult. Dissimilar situations, both economic and institutional make regional harmonization difficult despite a common language and culture. Chile and Bolivia are associated countries but vastly different. However, everyone recognizes the need to create a level playing field in the region. There is a need to determine what profile they want for MERCUSOL? Is the goal to develop a common market similar to NAFTA, or to solely focus on environmental issues only? Is MARCOSUR just about interaction? Now it is just at the governmental level, and does not include NGOs.

In May, they will hold a meeting and will explore existing ways of interacting to optimize relationship and work in Latin America. However, they need more analysis and a common environmental protocol. No current decisions have been made and they are beginning to take baby steps. Robert Glaser added that the south looks north for economics. But, the northern countries are saying no to trade without environmental protections. An excellent use for regional networks is to create a push for countries to improve their environmental management in preparation for trade with other regions.

Geoff Garver suggested that the development of cooperation on enforcement and environmental protection can flow directly from economic integration. There are similar challenges linking the United States and Mexico, but certain principles have emerged. There is recognition of sovereignty concerns and that states have to make their own laws internally. But there must be mechanisms for cooperation in some areas and work on common approaches.

Beatrice Olivastri asked if regional networks are set up to deal with new or evolving issues such as the Cartagena protocol for trafficking genetically modified organisms. Are there international/regional solutions? There do not appear to be regional efforts to control this cross-boundary issue. NGO's can be better suited than governments to keep up with emerging issues.

Yvan Lafleur stressed that as networks are formed, they should maintain their focus. Many groups spread their resources too widely and begin to tackle issues beyond enforcement. Problems may be regulatory or legislative and there is no role for enforcement; regional enforcement networks cannot do everything. There must be networks at other levels and dealing with other issues, but all networks must flow down to operational level.

According to Ignacio Gonzalez, the CEC enforcement group has institutionalized the network. It is more than just networking; it has formed permanent working groups and an annual agenda that includes a review of ongoing projects and identification of environmental concerns for integrated work. During the development of the annual agenda, common environmental problems in each country are identified and the workgroups decide how to cooperate on those problems. In this way, new problems are brought to table and the group decides how to best address. Projects are then delegated to various task forces to implement. The overarching enforcement working group reviews and oversees the projects, and prioritizes between projects

where resources are limited.

Antonio Benjamin turned the conversation to the role of INECE in developing Regional networks. He said that the group was discussing two different aspects of the same problem and the answers are different. First, how can INECE regionalize outreach? There is no other way than to work with regional institutions already in place. INECE does not have the resources to reinvent existing work or organizations, so we must work with existing institutions such as MERCASUR or the parties to the Amazonian treaty. The institutions must be willing to work with INECE and support co-proposals that carry more clout than proposals from single organization.

We should also look at how we ourselves work more in network. There is no global answer for the entire world.There are different levels of development, ease of travel, etc. However, there is a common recognition of the importance of enforcement in region.

With this in mind, INECE should approach existing organizations to incorporate enforcement into their mission rather than creating a separate network. This also has benefits because policy makers need to hear about enforcement, and if we are part of their organization we can more easily inform them. Maria DiPaola agreed that existing institutions are the policy makers, and they don't have a knowledge base about enforcement. We should sell the idea as a positive aspect of their work that they need.

Antonio Benjamin contrasted the development of NAFTA to current trade agreements such as the ANDEAN treaty and agreements being developed in Africa. NAFTA was a fairly mature agreement to which environmental enforcement was added as an afterthought. It may be working well, but it could be better incorporated into the terms of the agreement. As the rest of the world is developing similar agreements, INECE can help get enforcement issues into the agreements earlier in the process and in a more coordinated way.

Maria Comino asked how existing networks deal with divergent cultures and languages. For example, in the Asia/Pacific region, there are three continents with multiple languages leading to huge communication problems. Sub-Regional groupings may be effective, but integrating them up to regional groupings and further up to INECE is very difficult. Terry Shears responded that if you can find and use one common language, it helps tremendously. (English or other) INECE uses English, but the NIS countries use Russian. They are developing a glossary and translations to commonly define terms to standardize the discussions.

Yvan Lafleur agreed that language has been a major issue in the CEC. In North America, if the network only uses English, they lose Mexicans. If the meetings are held in Spanish, you loose both the Canadians and the Americans. Now they are working in all three languages (but not always for meetings). All publications are in three languages. This is very difficult in three languages, could it become impossible with more? Any network should push for translation of all information into all relevant languages.

Networks need to decide how to include all stakeholders including NGO's and industrial groups. Whether they are included in the membership or not, they should be part of the formation of the scope and design of the network, since it does directly affect them. Aid banks should also be involved to take advantage of their experience enforcing environmental management systems and checking on the due diligence of a company or project. Banks are now doing checks on environmental and social issues prior to issuing loans. They must make decision on level of risk in company and beginning to collaborate with the

various ministries of environment to find out if the company has risks. Banks often offer training to problematic companies. This is one example of collaboration between private sector and public.

3 CONCLUSION

Maria DiPaola concluded that we have more questions than answers in developing networks. While trying to build or enhance enforcement and compliance is a big job, and we are always dealing with how to handle scope. What are the concepts that we need to consider when we design scope of network, who are the actors, what are the main issues, and what are the goals? Some key factors for sustainable networks are:

- The scope and goals should be focused, well defined, and widely publicized.
- All key stakeholders should be involved with developing the scope, even if they are not to become "members" of the network.
- The network should focus on common elements and needs among the states.
- It should develop products that generate interest among members.
- The products must be well advertised to increase participation.
- The scope and membership should be flexible enough to shift as member's needs change.
- All participating countries must contribute, in some part, to the network's success.

SUMMARY OF WORKSHOP: INTERNATIONAL TARGETING ON ENVIRONMENTAL CRIME/ACTIVITIES

Facilitators: Greg Linsin
Roy Watkinson
Rapporteur: Neil Emmott

GOALS

To consider issues including:

- Measures to build national capacity to investigate domestic violations and crimes, as needed to fulfill national obligations under multilateral environmental agreements (MEAs).
- Interagency cooperation between environment and customs ministries to control imports and exports.
- International cooperation to address common problems including transborder pollution spillover from one nation to another.
- Damage to ecosystems shared by two or more nations.
- Illegal trafficking across national borders.

1 INTRODUCTION

Participants were asked to reflect on the different stages, states and mechanisms for working in this area. This was to provide a basis for comparison of what tools and systems are available from bodies such as UNEP, identification of gaps, and consideration of possible priorities for INECE.

2 DISCUSSION SUMMARY

This workshop considered issues including: measures to build national capacity to investigate domestic violations and crimes, as needed to fulfill national obligations under MEAs; interagency cooperation between environment and customs ministries to control imports and exports and international cooperation to address common problems including transborder pollution spillover from one nation to another, damage to ecosystems shared by two or more nations, and illegal trafficking across national borders.

The group noted that the following four issues affect the level of motivation for implementation of MEAs:

- The construction of the MEA in question. Some agreements are "rich", for example in the sense that they may include a funding mechanism to help parties to comply. Others, however, are "poor", e.g. the Basel Convention, with little provision for compliance assistance. In addition, some MEAs include a specific enforcement element, such as CITES, whereas others, such as Basel, do not.
- Shared international interest. In respect of some MEAs, the prevention and punishment of violations will be of interest to countries beyond the one where the violation is detected. For example, CITES violations will normally be of concern in the country of origin, which will be concerned about its loss of wildlife, plus the country of destination, which is con-

cerned to prevent illegal trade. In contrast, in the area of pollution from ships, there will clearly be concern on the part of the country affected by the pollution, but not necessarily from the flag state.

- The level of peoples' concern about the topic of the MEA. In this regard a measure such as CITES may have an advantage over the Basel Convention, as wildlife is a more public-friendly topic compared to hazardous waste shipments.
- Economic issues. There is generally a need to have a better understanding of the economics of non-compliance. The costing of illegal activity affecting the environment is still at a very early stage. If the topic were better understood, there may be a greater incentive to secure compliance and counter illegal activities, and also a greater ability to focus on priority areas. There is also concern that profit from illegal activity goes partly to support other criminal activities, such as drug trafficking and terrorism. So greater knowledge of and focus on this topic would inform enforcement activities and also persuade policy-makers of the need for more action.

Identification of illegal activities is often dependent on access to technology. For example, the USA has a forensic laboratory for analysis of samples associated with suspected incidences of illegal trade in products derived from wildlife. Similar resources do not exist in other countries, although access to the US facility is possible.

Training cannot be too theoretical if it is to be successful. Illustrations of real investigations, prosecutions, etc. should be built into training programs.

Positive examples of NGOs supporting MEAs were cited. For example, the Environmental Investigation Agency placed an advertisement for a fictional company requesting the supply of CFCs. This led to a number of offers that, if taken up, would clearly have involved illegal trade.

Coordination and communication: Effective enforcement is usually reliant on a free-flowing exchange of information. The Secretariats of MEAs, and organizations such as UNEP, need to be clear whom they should be interacting with at the national levels. Increasing collaboration with INTERPOL is also required.

3 CONCLUSION

By and large, all of the tools and techniques for criminal enforcement already exist and are being employed in conventional criminal enforcement. The question is: what are the barriers to this being replicated in environmental crime? Is there just insufficient interest? Is, for example, global trade a greater priority. Or is it simply a question of resources that needs to be tackled?

Further to the above, what can INECE do in this area? The following possibilities were noted:

- Provide information and education on what enforcement tools are available and how they can be used.
- Develop materials for case studies and best practice studies.
- Facilitate resource sharing and training.
- Build networks.
- Contribute to greater knowledge on the scale of environmental crime and its economic implications.
- Look into the activities of multinationals that transgress around the world develop innovative ways of funding enforcement programs.

SUMMARY OF WORKSHOP: ENFORCING DOMESTIC PROGRAMS THAT IMPLEMENT MULTILATERAL ENVIRONMENTAL AGREEMENTS (MEAS)

Facilitators: Claudio Torres
Robert Wabunoha
Rapporteur: Ana Maria Kleymeyer

GOALS

Find modes by which INECE can contribute in the area of implementing MEAs.

1 INTRODUCTION

This workshop discussed policy and institutional requirements to ensure appropriate and comprehensive transposition of the requirements of MEAs in national legislation, incorporation of additional requirements in inspectors schedules and the mobilization of adequate resources for increased or new enforcement burdens.The workshop also discussed the need for sharing information about the requirements of international agreements, strengthening capacities of enforcement agencies in overseeing the implementation of MEAs at the national level and strengthening involvement of enforcement agencies in co-operation among the Parties to various international agreements.

2 PAPERS

- Winston Anderson, *Domestic Programs for Implementing MEAs: Establishing MEA Implementation Mechanisms* (6th Conference Proceedings, Volume 2).
- Marcia E. Mulkey and Keith E. Chanon, *National Compliance and Enforcement of International Treaties*, published in this volume of the 6th Conference Proceedings.

3 DISCUSSION SUMMARY

Several themes surfaced during the discussion. The first, focusing on the Convention for International Trade of Endangered Species, highlighted the difficulties that signatories have at the ground level in implementing international treaties. Such difficulties arise due to lack of communication between the legislators who create regulations to implement the agreements and the enforcers who carry out the task. Notably, the NAFTA signatories have had more success dealing directly with other officials from the neighboring country than in carrying their work out through their top-level government officials. Conflicts with domestic laws and regulations as well as with other international commitments create obstacles that make implementation exceedingly difficult or, at times, impossible. The lack of communication between the policy makers and those who carry out enforcement results in a failure to implement MEAs.

Although countries suffer from difficulties in implementation, it is noteworthy that the success Uganda has enjoyed from effective coordination at the ground level has contributed to the formation of international agreements based on these positive results. Also, success is somewhat greater with bilateral agreements and internal projects. In these areas, national regulations

are carried out with greater communication and understanding throughout the various levels of government and at the borders as a result of greater collaboration and prioritization among decision-makers and enforcers.

3 CONCLUSION

Participants raised various key recommendations for ways that INECE can contribute in the area of implementing MEAs. One area needing support is training and capacity building in environmental agreements and issues. The groups who could benefit from such training include judges and other members of the judiciary, legislators, customs agencies, and members of civil society. Additionally, INECE should explore ways to enable a private right of enforcement for individuals and NGOs, as well as increased access to justice and information. Finally, it was also recommended that INECE champion a robust indicators project to provide information and support training programs that would assist with needs of developing countries.

SUMMARY OF WORKSHOP: DESIGNING A PESTICIDE FORUM: IDENTIFYING COMMON ELEMENTS OF A FORUM AS WELL AS SPECIFIC INFORMATION NEEDS FOR PESTICIDES

Facilitators: Marcia E. Mulkey
Marco Gonzalez
Rapporteur: Keith Chanon

GOALS

- Identify common elements of a forum as well as specific information needs for pesticides

1 INTRODUCTION

Questions presented by facilitators:

- Who are the key actors or stakeholders?
- What are the priority information needs?
- What are the existing institutional and electronic information networks?

2 PAPERS

- Background information on the U.S.-Mexico Pesticide Inspector Exchange Program that has resulted in the training of over 60 pesticide inspectors in both countries
- Fact sheet on the U.S. Environmental Protection Agency (EPA) – United Nations Environment Programme Chemical Information Exchange Program which will provide training to chemical managers in Central America and Mexico in using the Internet to access needed information and in promoting a regional exchange of information on pesticides

3 DISCUSSION SUMMARY

With the majority of participants representing the Central America region and the United States, discussions focused on the establishment of a Pesticide Forum for Central America. After all participants shared their experiences and interests regarding pesticides, four short presentations were given on existing regional programs. Marco Gonzalez provided a summary of Comisíon Cebtro-american de ambiente y Desarolla's pesticide related activities, Adele Cardenas (EPA) described the accomplishments of the U.S.-Mexico Pesticide Inspector Exchange Program, Roberto Morales summarized U.S. Agency for International Development regional environment program, and Keith Chanon (EPA) presented information on the EPA-UNEP project to train chemical managers in the region on using the Internet to access chemical information.

Substantive discussions addressed the wide-range of pesticide issues of importance in Central America. Due to the need for understanding these issues regarding pesticides, time was not sufficient for discussing the detailed requirements of a functioning Pesticide Forum. Rather, the group agreed to first focus on identifying the important stakeholders that are involved or affected by the use of pesticides in the region and to identify the priority information needs of the region.

As pesticide issues span across the environment, health, and agriculture sectors and affect numerous stakeholder groups, it is clear that compliance and enforcement activities are an important

component to overall pesticide management. Nonetheless, a number of other priorities surfaced that demonstrate the complexity of regulating pesticides and educating users and the general public about their risks as well as the benefits that can be attained through investments in sustainable alternatives. Having identified the important stakeholders and the priority information needs of the region, additional efforts are needed to further define the scope and operationalization of the Pesticide Forum.

Key Stakeholders Involved in Pesticide Activities:

- Non-governmental organizations
- Academia
- Industry
- Commodity groups
- Farmworkers
- Community organizations
- International organizations
- General consumers

Priority Information Needs of the Central American Region:

- Information on alternative sustainable agricultural practices (i.e., organic agriculture, integrated pest management, non-synthetic pesticides);
- Market information required for domestic sales and export of foods;
- Information and guidelines for inspections;
- Farmworker safety information; and
- Information for developing enforceable regulations

Participants also identified numerous issues and challenges in strengthening overall pesticide management practices and for promoting the adoption of alternative sustainable agricultural practices.

While Central America hosts some small-scale projects to promote the development and use of alternative sustainable agriculture practices that do not rely solely on synthetic pesticides, the group recognized that large-scale efforts to promote alternatives and the exchange of technological information is needed. To facilitate this cultural transformation, information exchange and awareness raising activities are needed to highlight the environmental, health, and economic benefits associated with sustainable practices. This education effort must target all stakeholder entities, including government and the general public. A central function of the Pesticide Forum could be to provide information on the wide range of alternative practices available to farmers within the region.

The multi-dimensional market in pesticides involves the international trade of pesticides as products, the international trade in foods containing pesticide residues, and the international migration of farmworkers who apply pesticides in more than one country. These aspects directly and indirectly impact pesticide use practices. The international trade in pesticide products necessitates national capacity to monitor and enforce import and export controls. National and international food safety standards necessitate enforceable domestic regulations. Lastly, the migration of farmworkers requires that countries collaborate in educating and training this population group to assure their protection and that of their families.

A central aspect of the international market in pesticides involves the price of agricultural commodities and strategies for gaining market share. The market price of pesticides will likely influence the management practices chosen by the farmer. As commodity prices fall, the farmer may seek alternative pest control strategies that are less costly. This can either result in the farmer adopting non-chemical control methods or reverting to using older, lower cost pesticides that may pose greater risks to the environment. Also, in some countries, government subsidies and policies of financial lending institutions encourage

pesticide use.

International consumer demand can also drive decisions at the farm level. Specifically, the growing demand for pesticide free produce and expectation that growers follow sustainable agricultural principles introduces new market forces. To attract this growing consumer sector, farmers will inevitably need to adopt sustainable agricultural practices. Certification schemes (e.g., organic certification) will undoubtedly influence the decisions of growers in their choice of using certain types of pesticides.

The Pesticide Forum should play a role in providing growers with up-to-date information on market trends and requirements as well as information needed to develop regionally harmonized regulations.

Enforceable regulations are critical for assuring the safe use of pesticides. In Central America, there is an undeniable need for technical information that will assist countries in establishing and implementing effective regulations. In this area, the Pesticide Forum can be used for disseminating needed information in addition to facilitating the harmonization of approaches to pesticide regulation throughout the region. The experience and input from the compliance and enforcement community will greatly improve the effectiveness of newly established regulations.

A critical tool for the compliance and enforcement of pesticide regulations is the use of inspections. Inspections of farms and pesticide manufacturing and formulating facilities will help assure compliance. Therefore, information and training for inspectors will strengthen capacity in the region. A possible activity that can be facilitated through the forum is the expansion of the U.S.-Mexico Pesticide Inspector Exchange Program. The program would enable inspectors from Central America to receive training in Mexico and the U.S.

As a sub-population that can incur high levels of pesticide exposure, it is important to provide farmworkers with proper education and training on the safe handling and use of pesticides. In this area, the Pesticide Forum can provide basic information and training resources. For example, information and materials from existing training programs in Costa Rica, Guatemala, and the joint U.S.-Mexico Worker Protection Program can be shared and disseminated through the forum.

4 CONCLUSION

The group agreed that additional work and consultation is required in order to prioritize and narrow the issues for inclusion in the Pesticide Forum and to establish links with existing regional networks. Moreover, the operational design of the forum and its integration into the INECE network needs to be addressed. Participants agreed to participate in future consultations to further develop the Pesticide Forum.

From the workshop discussions, it is clear that pesticides present a complex set of issues and problems that cannot be addressed through any single means. Changes must be made at the government, industry, grower, and consumer levels. While enforceable legal requirements are an important element, in the context of Central America, the group emphasized the need to promote a cultural shift toward the adoption of sustainable agricultural practices. This will require the participation of all stakeholder entities.

The Pesticide Forum should become a valuable tool for facilitating the adoption of alternative pest control strategies. The participants of the workshop recognized that further work is needed to define the scope and design of the forum and committed to participate in the continual design and development of the forum.

THEME #6

Sustainable, Effective Regional Networks

The final Theme included Panel 9 "Reports of Regional Meetings and Workshops" in which designated spokespersons shared the findings of the Regional Workshops and presented elements for incorporation into the strategic plan of INECE and a work program for the Region and panel 10 where the co-chairs and Director of the INECE Secretariat shared "The INECE Strategic Vision" which included presentation and discussion of the Strategic Plan as charted with the input and recommendations made during the Conference.

The regions that reported were:

- Africa
- Asia & Pacific
- Central America & Caribbean
- Europe
- North America
- South America

SUMMARY OF PLENARY SESSION #9: REPORTS OF REGIONAL MEETINGS AND WORKSHOPS

Moderators: Tony Oposa
Wout Klein
Rapporteur: Davis Jones

1 INTRODUCTION

Each Region presented results from the previous day's Regional Workshop that included:

- What are the critical environmental challenges important to your region?
- What are the institutional challenges that make it difficult to address the environmental problems?
- Identify the different environmental networks that currently exist in the region and challenges those present?
- The region's thoughts on environmental enforcement indicators?
- What projects proposed in the INECE draft strategic plan are most important to the region.

Below is a recap of each regions report with concluding statement from Mr. Klein and other comments.

2 SOUTH AMERICA

Reported by Antonio Benjamin, Brazil

Six countries were represented and two international organizations attended the meeting.

2.1 Critical Environmental Challenges

- Environmental effects of illegal mining.
- Inadequate management of hazardous and non-hazardous wastes.
- Poverty.
- Air pollution in large cities.
- Desertification.
- Deforestation.
- Deterioration of biodiversity.
- Water pollution (groundwater, freshwater, marine / industrial, urban, etc. sources).

2.2 Critical Institutional Challenges

- Poor access to information.
- Lack of citizen participation.
- Low priority of environmental issues in policy and political agenda.
- Lack of institutional coordination among different state institutions (horizontal and vertical).
- Weak institutional capacity.
- Low allocation of public and private financial resources.
- Weak enforcement and compliance systems and lack of indicators.

2.3 Regional Networks and Challenges

2.3.1 Partners (Non-exhaustive List)

Immediate viability

- Fundación Ambiente y Recursos Naturales (FARN)
- Planeta Verde

Viability to be explored

- Secretariat Amazonian Cooperation Treaty
- Community of Andean Nations (Environment Committee)
- Common Market of the South (MERCOSUR) (Sub Group 6)
- Forum of Environmental Ministers of Latin America and the Caribbean
- Economic Commission for Latin America

and the Caribbean (ECLAC)
- United Nations Environment Programme (UNEP)
- Inter-American Development Bank (IADB)
- The World Conservation Union-South (UICN-Sur)
- CAF

2.3.2 Information Exchange
- UN System websites
- www.medioaambiente.gov.ar
- www.farn.org.ar
- www.worldbank.org.ar
- www.cvg.com.ve
- www.minsostenible.gov.bo

2.3.3 Enforcement Indicators Information
- North American Free Trade Agreement-CCA (NAFTA-CCA),
- Economic Commission for Latin America and Caribbean (ECLAC), Forest
- INECE website
- More linkages
- Professional discussion space

2.4 Enforcement Indicators

Note 1: The group is not sure about the definition or scope of indicators

Examples of some indicators experiences (existing/in process):
- Bolivia: Performance indicators with the support of the World Bank.
- Colombia: Institutional performance (efficacy and effectiveness of public policies is being development).

Note 2: We need indicators and they should reflect regional needs and perspectives.

Note 3: Check the NAFTA indicators.

Note 4: INECE could add linkages to existing forest indicators and NAFTA - Commission for Environmental Cooperation (CEC) indicators and ECLAC study (see 3.b).

2.5 Priority Projects for INECE

(See strategic plan for detailed description)
- Goal 1: INECE indicators 1.A.1
- Goal 2: Strategy 2. B to reach 2. D
- Goal 3: Strategy 3.A
- Goal 4: Strategy 4 .C

3 AFRICA

Reported by Jonathan Allotey, Ghana

Only 5 countries were represented out of 53 African countries, therefore this is not necessarily representative of region.

3.1 Critical Environmental Challenges
- Balancing environmental and developmental issues;
- Effective utilization of resources (human & N.R.) or the lack thereof;
- Poverty Reduction;
- Awareness/availability of information/dissemination;
- Lack of capacity;
- Lack of technology to control small & medium enterprises;
- Application of ethics;
- Lack of capacity to comply (especially small & medium enterprises);
- Low political will/priority;
- Political interference.

3.2 Critical Institutional Challenges
- Lack of institutional capacity;
- Clear legal/institutional framework for environmental compliance and enforcement;

- Inadequate resources (financial, human, technical);
- Lack of co-operation/collaboration;
- Dependence on external resources;
- Language constraints;
- Lack of common objectives/priorities;
- Overlap/duplication of functions;
- Absence of critical mass/stability of technical staff.

3.3 Regional Networks and Challenges

- Partners with existing networks (regional, sub-regional) e.g. Capacity Development and Linkages for EIA in Africa (CLEIAA), Network For Environment And Sustainable Development In Africa (NESDA), Basel Convention Centre, United Nations Environment Programe (UNEP);
- Work through intergovernmental groupings (e.g. Southern African Development Community (SADC), Common Market for Eastern and Southern Africa (COMESA), EAU, Economic Community of West African States (ECOWAS), Intergovernmental Authority on Development (IGAD), Magreb Union, African Union, Economic Community for Central African States.

3.3.1 Key Contacts

- CLEIAA
- NESDA
- Basel Convention Centres
- UNEP Collaborative Centres
- Intergovernmental Organizations

3.3.2 Advantages of Existing Networks

- Better potential due to existing framework;
- Could be budgeted for by regional groupings.

3.3.3 Information Exchange

- Create regional web page on INECE site;
- Create a portal on INECE site to connect to Environmental Information Systems (EIS) Africa;
- Engage persons to update INECE Africa site;
- INECE Africa site to capture laws; judgments, and other information;
- Utilize INFORTERRA focal points on country database support.

3.3.4 Other Instruments/network Improvements

- Modalities to operationalize the networks;
- Need for Civil Society/NGOs and government structures to compliment each other in selling the INECE Africa idea;
- Need to assist countries without internet service;
- Need to identify contact persons in ministries of Environment/NGOs of member states through UNEP;
- Material production and distribution.

3.4 Enforcement Indicators

- Participate in development of INECE indicators project;
- Application of INECE indicators in African setting.

3.5 Priority Projects for INECE

- Harmonization of legal instruments/frameworks on environmental compliance and enforcement;
- Information exchange/dissemination/ awareness;
- Resource sharing;
- Capacity building;
- Regional meeting of environmental com-

pliance and enforcement officials to prepare for Kampala Council of Ministers meeting (To strategize on harmonization of legal framework for environmental compliance and enforcement);

- Review of legal framework for environmental compliance and enforcement using UNEP/OUTCH Law Project as demonstration;
- Creation of INECE Africa Portal in collaboration with Environmental Information Systems (EIS) Africa;
- Develop Africa section of INECE Newsletter and dissemination to African countries distribute environmental compliance and enforcement awareness material for Africa;
- Develop Best Practice Manual for Africa;
- Evaluate available databases on existing resources (Training Needs Assessment) for posting on INECE Africa website;
- Develop framework for resource sharing protocol;
- Capacity Building;
  - Training
  - Development of materials (manuals) for environmental compliance and enforcement
  - Institutional development
  - Provision of equipment and materials

3.6 Comments on INECE Strategic Plan

Strategic plan is acceptable but needs to address Africa's PRIOR TY ISSUES, namely:

- Biodiversity related conventions;
- Pollution related conventions (e.g. Basel/Stockholm, Rotterdam conventions).

4 EUROPE

Reported by Neil Emmott, England

4.1 Critical Environmental Challenges

GLOBAL:

- Climate Change

REGIONAL:

- Availability and Quality of Water;
- Waste including Waste Shipments;
- Resource Consumption Management;
- Environmental Impact of Transport and Agriculture;
- Historic Pollution Legacy;
- Sustainable Economic Rebuilding (e.g. Balkan).

4.2 Critical Institutional Challenges

- Effective Legal Framework and Regulations;
- Effective Institutional Structures;
- Adequate and Efficient Resources;
- Policy Coherence;
- Communication, Co-Ordination and Co-Operation between Authorities and Countries;
- Transparent Procedures and Administrations.

4.3 Regional Networks and Challenges

- IMPEL - (15 EU MEMBER STATES)
- AC-IMPEL - (12 ACCESSION STATES)
- NISECEN - (12 COUNTRIES IN EAST EUROPE & CENTRAL ASIA)
- BERCEN - (8 BALKAN COUNTRIES)

Improved Cooperation Between European Networks

- Merger of Impel and AC-Impel;
- Regular Meetings between the Four (Three) Network Coordinators;
- Joint Meetings on Selected Issues;
- Experts Exchange/ Study Tours;

- Joint Projects;
- Electronic Exchange of Information;
- Pan European Contact List.

4.4 Role of European Networks in INECE

- The needs specified by developing countries should drive the INECE agenda.
- The European networks can supports the activities within this agenda by:
- Technical Support
- Building Networks
- Geographic Cooperation (e.g. Mediterranean).

4.5 Priority Projects for INECE

- need to develop criteria for selection/adoption of projects;
- need to focus more on projects with practical outputs;
- need to avoid duplication with ongoing work (MEAs, Rio updates, etc.);
- need to reflect priorities of developing countries;
- need to separate substantive projects from the maintenance of INECE;
- European networks could contribute to e.g. minimum criteria for inspection/inspectors, distance learning, building of other networks, and dissemination of information/publications.

5 CENTRAL AMERICA

Reported by Patricia Madrigal, Costa Rica

Approximately 30 people from the region attended the session.

5.1 Critical Environmental Challenges

- Integrated water management;
- Toxic substances and pesticides;
- Trafficking of environmentally controlled substances and animals;
- Forest protection;
- Transfrontier pollution;

5.2 Critical Institutional Challenges

- Strengthen links between INECE and the Region.
- Strengthen institutions on technical and legal aspects of compliance and enforcement.

5.3 Regional Networks and Challenges
Regional networks:

- CCAD Central American Environmental Commission with 4 areas of focus
- Harmonization of environmental stats
- Increase Capacity for implementation
- Application of International conventions

Harmonization of environmental instruments (audits, EIAs, certification)

- Red de fiscales ambientales
- Asociacion Mesoamericana de
- (Coming soon) University Network for Environmental Law Education (w/CCAD)
- E-Law

In-Country Networks

- Guatemala: Red de Informacion y Investigacion Ambiental
- Honduras: Alliance of NGOs for Protected Areas
- Nicaragua: Red de Unidads Ambientales Sector, Red de Desarrollo Sostenible, Foro Nacional de Segunded Quimies
- Costa Rica: FECON, Asociacion Costaricense de Derecho Ambiental
- Panama: Red de Unidades Ambientales Sectonales
- Belice: none identified

The region discussed not to have

one person be the only contact with INECE but to form a committee with representatives from each country, and to prepare an action plan for INECE.

5.4 Priority Projects for INECE

- Harmonization of environmental enforcement mechanisms;
- Training- Enforcement manual in Spanish;
- Common guidelines on inspections;
- Preparation of didactic material;
- Training for police/army on environmental enforcement (smuggling of wildlife, trans-border issues);
- Access to justice and public participation for national and trans-border complaints, for issues of human rights;

6 NORTH AMERICA

Reported by Geoff Garver, United States

Mexico was not well represented so this should not be taken as regional agreement.

6.1 Critical Environmental Challenges

- Key sectors: Energy and Agriculture
- Biodiversty Issues:
  - loss of species and overall numbers
  - habitat destruction - forests and other
  - over fishing-managed fisheries and illegal
  - invasive species
  - coral reef destruction
- Water Issues:
- quantity/allocation
- wetland loss
- intensive agriculture
- deposition of pollutants(including air pollutants)
- vessels pollution
- Air Issues:
  - Long-range transport
  - Ozone depletion
  - Climate change
- Hazardous Waste and Toxic Materials:
  - pesticide control and management
  - illegal drug labs
  - terrorism issues
  - Management of GMOs and Biotech
- Border Issues:
  - Transboundary movement of materials
  - Border as a shield

6.2 Critical Institutional Challenges

- Capacity Issues: Lack of resources and intra-regional differences in capacity;
- Language and cultural differences;
- Reacting to shifting policies and political environments;
- Creating links between agencies w/different missions and mandates (e.g. pollution control vs. resource management; resource use vs. resource protection);
- Federal-subnational dynamics;
- Bureaucratic impediments;
- High data management needs, esp. w/technically complex issues;
- Making informal networks last (e.g. through institutionalization);
- Maintain political and public support for enforcement;
- Ensure accountability is assured w/new or alternative approaches;
- Ensuring public participation.

6.3 Regional Networks and Challenges

- General:
  - Commission for Environmental Cooperation (CEC), Environmental

Working Group-North American Wildlife Enforcement Group (EWG-NAWEG)
- AFour Sisters@ (sub-regional)
- The World Conservation Union (IUCN)
- International Association of Fish and Wildlife Agencies (IAFWA)

- Specialized:
  - Pesticide Technical Work Group
  - BECC
  - Law Enforcement Coordinating Committee (LECC'S)
  - Association of Natural Resources Enforcement Trainers (ANRET)
- U.S. Networks:
  - The National Association of Attorneys General (NAAG)
  - Environmental Crime Policy Comm.
  - Clean Water Network (NGO)

6.4 Priority Projects for INECE

- Support a sustained regional network linked to existing sub-regional networks, filling any gaps, and facilitation enforcement projects of joint interest (e.g. regional enforcement initiative, e.g. agriculture sector, with INECE facilitating tracking).
- Support creation of contact lists/directory of enforcement/compliance network for North American region including technical experts (with summary of expertise).
- Facilitate training courses within the region (e.g. this need expressed for Vera Cruz, Mexico), and facilitate and track follow through.
- Keep North America region informed of relevant training and other activities in other regions.
- Enforcement indicators: North America region supports INECE's overall efforts in this regard.

7 ASIA AND PACIFIC

Reported by Tony Oposa, The Philippines

The Asian and Pacific group consisted of 16 representatives spanning the globe from Israel and Jordan to the Peoples Republic of China and Australia. The group did not report out on each of the directed questions, but did list their priority activities for the Region and INECE:

- Create a database of regional members, including biographical sketches;
- Commit to meet next year, possibly in Bali, Indonesia on 17 April 2002, in order to:
  - Establish a regional group with a record of accomplishments.
  - Share case studies with a focus on lessons learned.
  - Focus on key environmental issues in the region.
  - Canvas INECE to support regional networks, as suggested in goal 2D3 of the strategic plan.

7.1 Key Issues Include:

- Public information on Enforcement and Compliance mechanisms;
- Voluntary compliance;
- Effective governance;
- Inclusion of green, blue and brown issues;
- Inclusion of multi-stakeholders, including parliamentarians, judges, and Civil Society, in regional participation efforts;
- Contacting representatives of countries missing from this INECE meeting.

8 SUMMARY FROM CO-CHAIR

Reported by Wout Klein, Netherlands

These are not a summary of the sessions already presented, but do repre-

sent some common themes among the regions that may be helpful in focusing INECE's attention and activities.

8.1 Critical Environmental Challenges

- Biodiversity.
- Water, waste, and pollution issues.
- Energy and climate seem more North American and European.
- Agriculture, including forestry.

8.2 Critical Institutional Challenges

- Capacity, capacity, capacity.
- Political priority and public interest.
- Procedures and legal harmonization.
- Indicators.

8.3 Regional Networks and Challenges

There appear to be three levels of networks:

- Well established (North America, Europe).
- Fragile networks (South America, Africa, Central America, Southeast Asia).
- Absent (Mediterranean, Middle East, Central Asia, China).

Should one continue to strengthen existing networks or build where there's nothing?

8.4 Priority Projects for INECE

- Networking, contacts, information access.
- Training, good practices, material distribution.
- Indicators, applicable in developing countries.

8.5 Questions

The following questions or comments were raised from the floor.

Bill Futrell spoke as a representative from the NGO networks. The group was unanimous about the conference's success, and agreed conferences should continue to be held. It built on the Oaxaca conference and it is doubtful that a Central or Eastern Europe conference would have had the same effect. The groups did wish to communicate to the secretariat on efforts to engage NGOs more actively. 15 NGOs were invited but did not attend, similar to some representatives from developing countries. INECE should devote a newsletter or website to tell members what the network can get for NGOs. NGOs have capabilities for citizen enforcement that government agencies don't always have. INECE should carefully examine the role of citizen enforcement.

Maria DiPaola from Argentina spoke of FARN's program in Latin America that links intentions for regional networks in the region with possibilities. They have established an E-dialogue with people from different Latin American countries with interesting comments about the definitions of enforcement, lack of compliance assistance in Latin America, and sharing experiences of participants. This has been combined with distance learning courses from the World Bank and an upcoming conference in Buenos Aires in May to build knowledge and exchange experience and to help build a network.

Ms. DiPaola stressed that it was a fascinating conference. She charged the group to think globally, but act locally and logically. Efforts should begin with domestic laws, but expand to MEAs and cooperation with neighboring countries to fight crime. Networking is important as shown by European examples where neighbors are ready to help develop good practices and provide training to implement those practices. But for future conferences, INECE should ensure that people from all parts of the world are represented, from the public, NGOs and governments.

Jose Pablo Gonzalez from Costa Rica announced the formation of the International Network of Environmental Public Prosecutors created at breakfast. It will begin with U.S. and Central America but will work within the framework of INECE and will advertise through INECE and get members.

Michael LeRoy-Dyson from New Zealand stated that he was humbled by experiences he's seen. He stressed that material that is produced by INECE for capacity building should be simple publications for use in front line. He asked for a show of hands to get an idea of representation from different groups showing:

- Law: about 20%
- Administrative Policy: about 20%
- Federal: 30-40%
- Provincial/state government: 5%
- NGO: 10%
- Front line enforcement, inspection, 35%

Carl Brunch from ELI stressed the role of good governance and how INECE has become a key proponent on the world stage. But civil society and NGOs have an important role with information, involvement and access to justice. INECE can do a lot to highlight good governance at the WSSD, and work with NGOs as they developing indicators of good governance (see www.access.org).

SUMMARY OF WORKSHOP: AFRICA REGIONAL MEETING

Facilitators: Group
Rapporteur: Jonathan Allotey

GOALS

- Improve environmental enforcement and compliance through improved networking.
- Learn to cooperate better within each country and then within the region.
- Gain knowledge of environmental issues.
- Identify key environmental players within countries and the region so that we are better able to share our resources, including technical skills and lessons learned.

1 INTRODUCTION

Critical Environmental Challenges

- Balancing environment and development.
- Effective utilization of resources (human and natural).
- Poverty (reduction eradication).
- Public awareness-availability of information and dissemination (sharing).
- Lack of capacity to comply with good practices by small and medium enterprises.
- Political priority misplaced and interference.

Critical Institutional Challenges

- Lack institutions and capacity.
- No clear institutional and legal framework for ECE Duplication in some situations.
- Inadequate resources (financial, human, technical).
- Dependence tendency on external resource and institutions.
- Lack of common objectives/priorities.
- Overlapping and duplication of functions.
- Absence of critical mass of technical staff thus affecting Stability of technical staff.
- Lack of cooperation between institutions and donor countries.

2 DISCUSSION SUMMARY

Network Challenges

2.1 Partnership with existing networks (at regional, sub-regional)

- CLEIAA (Capacity Development and Linkages for environmental impact assessment in Africa) Dr. P. C. Acquah
- NESDA – Network for Sustainable Development in Africa – Abu Bamba
- Basel Convention Centers
- UNEP collaborating Centers
- Center for environment and Development for the Arab Region and Europe (CEDARE),
- IMESCAR
- Inter-governmental Authority on Drought and Development (IGADD)

Work through and with intergovernmental groups such as Southern African Development Cooperation (SADC), East African Community (EAC), Economic Community of West African States (ECOWAS), Economic Community for Central Africa States (ECCA), MAGREB Union–North Africa, Intergovernmental Agency on Drought and Development (IGADD), African Union, AMCEN, EIS-AFRICA – Information

An advantage of using existing

Networks/Frameworks is that regional grouping could budget for activities and work at regional level but use sub-regional groups as vehicles for achieving objectives.

2.2 Information Exchange

- Create regional web page on INECE site
- Create a portal on INECE site to connect to EIS-AFRICA website
- Engage persons to update INECE Africa site
- INECE Africa site to capture laws, judgments, other parameters.
- Use INFOTERRA Focal Points on country database support.

2.3 Other Instruments/Network Improvement

- Modalities to operationalize the networks.
- Need for Civil Society/NGOs and Government institutions to complement each other to promote/(sell) INECE Africa network.
- Need to assist countries without internet service
- Need to identify contact persons in environment ministries and agencies, NGOs of member states through UNEP
- Materials production and distribution.

2.4 Priority Regional Needs

- Harmonization of Legal Instruments/frameworks on Environmental Compliance Enforcement
- Information exchange/dissemination/awareness
- Resource Sharing
- Capacity Building

2.4.1 Priority Projects/Activities: Harmonisation

- Regional Meeting of Environmental Compliance Enforcement officials to prepare input into African Ministers on the Environment meeting to be held in July in Kampala Uganda. The aim of the meeting is to prepare strategy.
- Review of existing legal framework for Environmental Compliance Enforcement and undertake harmonization using UNEP/Dutch Law Project as example – demonstrating case study.
- Participate in development of INECE indicators project
- Application of INECE indicators in African Setting

2.4.2 Information Exchange Dissemination

- Creation of INECE Africa Portal in collaboration with Environmental Information Systems-AFRICA
- Develop Africa Section of INECE Newsletter and its dissemination to African countries.
- Develop, produce and distribute Environmental Compliance Enforcement awareness material
- Develop Best Practice Manual for Africa

2.4.3 Resource Sharing

- Evaluation and development of databases on existing resources.
- Training needs assessment.
- Framework for a Resource Protocol
- Capacity Building
  - Training in Environmental Compliance Enforcement
  - Development of materials (manuals) for ECE
  - Institutional Development
  - Provision of equipment and materials

2.5 Time Frame
Five (5) years

2.6 Comments On Inece Strategy

Strategic Plan needs to address Africa's PRIORITY ISSUES, namely:

- Biodiversity Related Conventions
- Pollution related conventions (eg. Basel, Stockholm, Rotterdam etc.)

3 CONCLUSION

Within different phases of enforcement there can be a conflict between public and government because of confidential information but also a natural conflict if the public is seen as challenging government action or inaction.

The following recommendations for the co-chairs of INECE could be made:

- Sponsor a side event on the role of the public within environmental compliance and enforcement during the World Summit for Sustainable Development (WSSD).
- Keep promoting the role of the public within compliance and enforcement by developing a methodological basis on the public role; publishing a compendium of case studies and experiences.
- Provide a platform for the exchange of regional experiences
- Support capacity-building, through training courses for example.

SUMMARY OF WORKSHOP: ASIA & PACIFIC REGIONAL MEETING

Facilitators: Lal Kurukulasuriya
Maria Comino
Atonio Oposa
Rapporteur: John A. Boyd

GOALS

- Improve environmental enforcement and compliance through improved networking.
- Learn to cooperate better within each country and then within the region.
- Gain knowledge of environmental issues.
- Identify key environmental players within countries and the region so that we are better able to share our resources, including technical skills and lessons learned.

1 INTRODUCTION

Questions presented by facilitators:

- What is meant by the term "networking"?
- What are the existing regional networks?
- How can we improve regional networking?
- What can we accomplish in the next couple of years?

Mr. Oposa suggested that networking needs to start at home and grow through national and regional networks. Mr. Kurukukasuriya suggested that we need to move from networks consisting mainly of addresses to organic networks. Ms. Comino suggested that we describe briefly the networks that currently exist in the region and improve networking within countries.

2 DISCUSSION SUMMARY

According to Mr. B. Sengupta, India faces several environmental problems including air and water pollution, hazardous waste disposal, waste management, solid waste disposal, ground water pollution, as well as maintaining its national forests. The judiciary is active, pollution is declining, and the amount of such pollutants as nitrates and heavy metals is being reduced. Mr. Phung Van Vui told of how Vietnam faces many environmental problems ranging from pollution to lack of human and financial resources. Mr. Hua Wang of the Peoples Republic of China told of how the problems of China are similar to those just noted for India and Vietnam. Mr. Mas Santosa states that Indonesia confronts blue, green and brown environmental issues, most of which are caused by a lack of good governance. To improve environmental compliance and enforcement, Indonesia will need to rely on Civil Society, government, Parliament, NGOs.

According to Mr. Islam Heydayetul Chowdhury, Bangladesh faces many different environmental problems including air pollution from vehicles, industry and brick laying, solid waste disposal, waste water, arsenic in water, and lack of facilities to deal with environmental problems. Mr. Prasaniha Dias Abeyegunawardene told of how Sri Lanka has lost a great deal of its wetlands and forests due to a lack of sufficient institutional capacity. Mr. Narayan Belbase of Nepal and the Ford Foundation office in India told of how Nepal's problems fall under six headings:

- deforestation;

- loss of biodiversity;
- loss of soil;
- water pollution;
- solid waste management;
- and ineffective coordination of environmental management.

Mr. Sadhu Sapkota of Nepal thinks that Nepal needs to control illegal logging and deal effectively with threats to its endangered species. Ms. Donna Campbell told of the significant environmental problem caused by Australia's waste management. Australia has substantially solved its point source pollution problems but now must deal effectively with diffuse sources of pollution such as runoff of waste from vehicles. Australia also faces significant problems arising from its dry climate. Dr. Lssa Ababneth feels that Jordan's water management is perhaps its most significant environmental problem. Mr. Ben David Izhak informed the participants of Israel who, like its neighbor to the east, faces significant water resource problems. Resolving the marine pollution problems of the Gulf of Aqaba has provided a significant opportunity for Israel to cooperate with Egypt and Jordan. In the Pacific, New Zealand confronts environmental problems concerning air pollution, waste disposal, disposal of waste in the context of values held by its indigenous peoples, water pollution including disposal of PCBs, and soil conservation, according to Mr. Michael Leroy-Dyson. Ms. Maria Camino of Australia: since Australia has such a dry climate, Australia needs to attempt a complete water cycle approach, including use of effluents.

Mr. Lal Kurukulasuriya's description of existing regional networks included the South Asian Association for Regional Environmental Assessment Association (SAREAA), South Pacific Regional Environmental Association for Regional Cooperation Program (SPREP), Association of South East Asian Nations (ASEAN), South Asian Cooperative Environmental Program (SACEP) based in Columbo, the Asian Development Bank, International Union for the Conservation of Nature (IUCN), International Centre for Integrated Mountain Development (ICIMOD)Dr. Ababneth noted the Regional Center for Environmental Health Activities (WHO) in Amman, Jordan. Mr. Sengupta pointed out that India deals effectively with environmental network problems by having State officials meet quarterly to discuss common problems. India also meets periodically with representatives of its neighbors to deal with environmental issues. Mr. Belbase noted that IUCN has regional offices which foster associations that deal with the preparation of environmental impact assessments. Mr. Enayet Ullah stressed the importance of local networks that deal with such significant issues as waste disposal.

Dr. Wang suggested that a website could help improve regional networking with thousands of individuals. Mr. Oposa suggested that we all create biographical sketches so that we are better able to work together as a regional network. Mr. Boyd suggested that this regional network should meet annually at a low cost, environmentally significant site so that we can discuss environmental issues of common concern. Mr. Oposa indicated that an exchange of views he recently had with a representative of Bangladesh on a recent ban of plastic bags in Bangladesh was very important and helpful to him. Mr. Kurukulasuriya suggested that a regional environmental website should be linked to significant other environmental websites, including government offices and the offices of NGOs. This could be accomplished through an improved INECE website. Mr. Boyd suggested that significant environmental laws, such as those dealing with water and air pollution, could also be referred to on these

websites to assist with compliance and enforcement efforts.

Ms. Campbell emphasized the importance of focusing on compliance and enforcement issues, rather than the collection of laws. Mr. Chowdhury stressed the importance of sharing experiences in the enactment of new environmental legislation. Mr. LeRoy-Dyson suggested that the group attempt to find themes that would be of common interest such as dealing with governance, air pollution and waste management. Mr. Santosa indicated that Indonesia needs to learn more about how to decentralize the enforcement of environmental laws. Mr. Belbase suggested that funds might be sought for such purposes from international funding sources for future regional meetings. Mr. LeRoy-Dyson recommended that the group focus on issues related to obtaining voluntary compliance. Mr. Oposa suggested that each member of the group nominate another to join the group at the next regional meeting. Mr. Boyd suggested that the group might focus on how to improve compliance and enforcement in a particular country in the region, perhaps in the country where the group was meeting. Mr. Oposa suggested that the group would need a secretariat to facilitate future such regional meetings. Mr. Wang suggested that the existing INECE secretariat could provide necessary minimal secretariat and financial support and Mr. Santosa suggested that the group should be a meeting of the network and should include members of parliament and the judiciary so that opportunities for success would be enhanced.

Mr. Enayet noted that many regional countries are not represented at this meeting and that the group should try to reach out to those missing countries. Mr. Oposa suggested that the group could attempt to develop techniques to assess existing capacity and gaps in such capacity. Experts could be invited to assist in this effort and in developing indicators to measure success and failure. Mr. Kurukulasuriya stressed the importance of taking into account parallel efforts by other regional bodies such as SACEP. Our focus should be on networking, gaining knowledge from such networking, and then sharing our knowledge with others. Mr. LeRoy-Dyson suggested that the development of easy to read publications could be considered as one outcome of our efforts so that our knowledge would be shared broadly in the region. Mr. Oposa suggested that the next regional meeting of the group could be held on or about 18 April 2002 and the group suggested that Ms. Comino and Mr. Oposa should be the coordinators for the 18 April 2002 meeting, which might be held in Bali, Indonesia, and carry out other ad hoc tasks for the network.

4 CONCLUSION

The Asian and Pacific group, consisting of 19 representatives spanning the earth from Israel and Jordan to the Peoples Republic of China and Australia, agreed upon the recommendations to create a database of regional members, including biographical sketches; and commit to meet next year, perhaps on 18 April 2002, in order to:

- establish a regional group to assist each other in environmental implementation, compliance and enforcement;
- share case studies with a focus on lessons learned;
- focus on key environmental issues in the region;
- canvas INECE to support regional networks in Asia;

Other issues for consideration include:

- public information on Enforcement and Compliance mechanisms;
- voluntary compliance;
- effective governance;

- inclusion of green, blue and brown issues;
- inclusion in regional participation efforts of multi-stakeholders, including parliamentarians, judges, and Civil Society,
- contacting representatives of countries missing from this INECE meeting.

The discussion included a country-by-country analysis of environmental and networking problems at the local, national and regional levels. A short list of significant regional intergovernmental bodies and NGOs was prepared. The discussion of ways to improve networking included the need to establish a website, to prepare easy-to-read publications on enforcing national and local laws and on developing opportunities for more face-to-face contacts.

SUMMARY OF WORKSHOP: CENTRAL AMERICA & CARIBBEAN REGIONAL MEETING

Facilitator: Group
Rapporteur: John Milewski

GOALS

- Strengthen the link between INECE and Central America through regional networks.
- Strengthening environmental management institutions on technical and legal aspects of compliance and enforcement.

1 DISCUSSION SUMMARY

The need for collective cooperation between the Caribbean and the Central American countries was recognized, especially in the run-up to the World Summit for Sustainable Development in September 2002. This is the beginning of a process, to be completed by September, a plan for how the wider region can cooperate. Superimpose the issue of climate change and it becomes clear that the social and economic problems of the region are getting worse. Where are the areas for cooperation among the regional interests?

In the round of introductions the following issues were raised, and included the need for cooperation among countries that are neighbors in the hurricane belt, many issues that can only be solved through cooperation. The examples of disaster management systems as well as protected areas were also raised. Cooperation among donors in the region could also be useful. The two sub-regions have more to gain from cooperation. Can encompass sectors like freshwater management techniques and information sharing on resource management. Cooperation among local agencies in the countries is important. Different structures of agencies were discussed. Solar energy was suggested as a means of reducing environmental impact of energy on societies. The establishment of a regional climate change center was mentioned. Technical and human capacities to deal with environmental problems are required. The importance of the initiative was stressed by all as well as the need to focus on solutions. How can the countries learn from each other?

A question arose as to whether there were other thematic areas that require discussion in case they would lend themselves to cooperation. The need to define an inter-regional collaborative agenda will be fleshed out in the discussions.

Nelson Andrade, UNEP regional seas programme, presented on the sources of land based sources of pollution in the greater Caribbean region. He explained the processes within which the region has established the program. Legal instruments such as the Cartagena Convention are important. The geographic region encompasses great diversity. Convention of Cartagena focuses on oil spills, in Caribbean Area and SPAW protection of marine flora and fauna. 80 % of pollution of marine areas comes from terrestrial sources. Industrial waste from beverage companies, domestic sources etc., contributes to pollution. Focus on sources such as black waters was recommended. It was suggested that it was necessary to reduce quantity of pollutants through improvement

in technology and improve management practices of agricultural areas. The Protocol has mechanisms to apply standards appropriate to the region. Countries cannot sign and apply everything in protocol but focus on what is applicable. Two types of residual waters were mentioned:

- waters that have reefs, grasses or mangroves, reproductive areas, protected areas.
- less sensitive waters that have greater capacity of dilution and where humans are not exposed.

An explanation was given to the permissible limits of the contents of effluent with regards to BOD, pH, fats and oils, fecal coliforms and other parameters for Type I and II waters. Ratification means that standards need to be met due to the compromise made by each country. There is a timeframe to apply standards but can ask for extension of time if they cannot meet the compliance date in the calendar of implementation.

The National Environmental Plan of each country should guide us to know what is found in waters to be able to monitor. Baseline information is important for monitoring to take place. Control of Non-specific agricultural sources should be executed, and other specific future sources to focus on include chemical industries etc. It is preferable to focus on sources of pollutants instead of the pollutants themselves. Challenges include national/local implementation such as finance, technical and institutional capacity formation, etc. Projects and activities of support are underway through UNEP and these include more appropriate technologies for treatment and collection of residual waters, integrated management of watersheds, evaluation of contaminated bays, assessment of improved management of agricultural practices in Wider Caribbean Area due to agrochemical such as pesticides found in the Caribbean originating from Colombia and other south American Caribbean countries. A Web site to be contacted is www.cep.unep.org

Carlos Fuller (Belize) presented on climate change for the two regions. Both regions have valuable resources under threat from sea level rise, flooding, and erosion. Warmer sea temperatures could affect fisheries and reefs. Biodiversity, health and agriculture could be affected. Technical personnel in both regions have recognized the threats. Both have been proponents of the Framework Convention on Climate Change. Both have been seeking its full implementation. They have many similarities in their demands to the Kyoto Protocol negotiations. All have welcomed the Clean Development Mechanism. Mutual interests are shared, yet there have been little common positions. Caribbean Community (CARICOM) negotiates within Alliance of Small Island States, while Grupo Campinas de Recursos Hamanos aligns with Latin America. The question of self-identification, of finding alliances and common interests, and also recognition of common problems has arisen. Roles of SICA and CARICOM are important. National level coordination is also not quite as well formed as could be. Sharing of information does not always occur. Those that have effective information sharing allow for better preparation for negotiations. Each country should have a national policy on climate change that covers all sectors. One mechanism that could work would be through national climate change committees that could inform and disseminate information and expertise. The committees could also cooperate with other countries committees.

Mesoamerican Barrier Reef System (MBRS): Marine biodiversity is under pressure regionally. Fish and vertebrates populations are not well known. It is difficult to coordinate countries using water resources. MBRS is an effort for multi-disciplinary coordination. Pamphlets circulated

show the problems and how it will be dealt with. It involves declaration as a Natural Heritage Site covering the largest Barrier reef in the New World. It contains diversity of corals, manatee etc. It originated from the Tulum declaration where the Prime Minister of Belize was signatory to the conservation of reef systems and supports MBC to compliment management of reef systems. Other countries like Honduras, and Guatemala are participating in this effort through regional projects. Workshops in the region were carried out in the form of consultations to start the project. Objectives focus on strengthening Marine Protected Areas, establishing standard monitoring systems, sustainable use of resources and environmental awareness. Environmental Information Systems are to be established, providing a database for the region to access. Priority areas are establishing biodiversity monitoring, identify spawning areas, sustainable tourism etc. Education, environmental management and public awareness campaigns include incorporation of school curricula as part of the project, school fairs on coastal resources of MBRS and synergies to be established in the region. Fifteen-year projects requiring cooperation from all participants of this workshop with 15 priority areas plus 8 more transboundary areas included in this project since terrestrial impact is received on the reefs through spawning areas. Climate change can have an impact on MBRS but we need to include all other ecosystems including mangroves, rivers etc. The focus is on wetlands since we cannot cover terrestrial area. We aim to establish coordinating mechanisms in the Caribbean in mgmt of Coral Reefs, capacity building, and monitoring of coral reefs. MBRS could be a sub-regional node for the Monitoring of coral reefs. Hol Chan will serve as a demonstration site for the management of marine parks containing coral reefs. For this to happen, regional cooperation through the preparation of a Memorandum of Understanding would need to occur.

List of projects, including projects of MBRS in Excel, with parameters to be monitored: Espen Ronneberg highlighted the manner in which Small Island Developing States have utilized information management for sustainable development especially in the field of climate change. He gave details of the negotiating process and the difficulties and constraints faced by SIDS and other small delegations. The emerging process using SIDSNet and the plan for phase 2 of SIDSNet was explained, in particular the use of closed virtual discussion spaces for elaborating and negotiating position papers for the group. In addition, SIDSNet will provide a virtual library of all relevant SIDS documents. He stressed that there must be a commitment to be well informed, a commitment to cooperate and to take responsibility for carrying out the work. It is necessary to clearly articulate concerns and constraints so as to convince the international community of the seriousness of purpose of the regions and of the countries. An example of an attempt to explain and evaluate climate change impacts was described. Should the two regions decide to cooperate, they must utilize existing mechanisms and also build on their respective expertise. A number of issues and modalities questions will need to be decided upon, but these are the finer details. The important issue is to decide to cooperate and to begin the process.

Al Binger explained the process for the next day. 6 areas should be looked at.

- Sharing of knowledge across region (mechanisms).
- Longer term establishment of capacity – language barrier and sharing of expertise and information between regions.
- Development of new knowledge to tackle the issues, and the emerging issues – compliance.
- Information exchange: look at lessons from SIDSNet, all must contribute to

cooperate. Joint purchasing of technologies, best practices.

- Political cohesion: educate the politicians and the public.
- Resource mobilization: accountability, transparency, dealing with donors.

Three presentations were made by the sub-regions, which summarized the environmental management structure and policy frameworks, along with the programmes currently in existence.

Marco Gonzales of the Central American Commission on Environment and Development (CCAD) presented on the Central American Integration process and in particular CCAD and the structure of that organization. He also outlined the membership (Belize, Guatemala, Honduras, El Salvador, Nicaraga, Costa Rica and Panama, with Mexico as permanent observer). He explained that CCAD is an institution of SICA which was created in 1991 by an International Treaty known as the Tegucigalpa Protocol. Other systems and subsystems in SICA include the Central American Parliament, the Central American Court of Justice, the Central American Bank of Economic Integration, the General Secretariat of SICA and a Civil Society Consultative Council. There are also various Subsystems, such as the System of Central American Economic Integration, the Central American Commission on Environment and Development and the Social Integration System.

Mr. Gonzales then focused on the structure and work programme of CCAD. He also provided a summary of the role of the organization which was to *inter alia* promote a regional environmental regime, establish an environmental cooperation regime for pollution prevention and control, and prioritize the issues related to the import and management of toxic and hazardous materials and waste and to act as Secretariat for the Regional International Agreements on Environment ratified by the 7 countries. He also described a Central American environmental action plan which had as it key points:

- Reduction of Water, Soil and Air Pollution
- Follow up and promotion of the implementation of Multilateral Environmental Agreement and enhancing the 7 countries capacity to do that.
- To cluster the 25 or so MEAs, which are ratified by the Central American countries to facilitate the follow up of these treaties.
- Create Cluster on treaties on Multirateral Agreements on Air, Chemicals and Conservation
- Promote the needed mechanisms, institutional arrangements and legal reforms to do that.

Mr. Gonzales also provided an example of regional cooperation in the form of a Regional Center for Training and Transfer of Technology for Central America and Mexico. Activites in the training center include: Inventories of PCB, Recycling of Car Batteries, Promotion of safe incineration in Cement Kilns. Envisioned Actions include support for the countries in requesting GEF funding for the POPs Convention Enabling Activities and National Action Plans. Other activities include facilitation of the establishment of a partnership with the Global Environmental Facility executing agencies chosen by the countries seeking the best comparative advantages and ensuring that in the preparation of proposals for funding there is a regional coordination component included in each country's proposal.

Mr. Byron Blake of the Caribbean Community Secretariat made a presentation on the Caribbean integration process. He also outlined the membership (Antigua & Barbuda, Bahamas, Barbados, Belize, Dominica, Grenada, Guyana, Jamaica, Montserrat, St. Kitts & Nevis, Saint Lucia,

St. Vincent & The Grenadines, Suriname and Trinidad & Tobago). He explained that the Community was goverened by the Conference of Heads of Governments. Under the Conference, a body called the Community Council of Ministers which is responsible for the agenda of the heads of government and the Work Programme of the Central Secretariat, which is based in Georgetown, Guyana. He then explained that under the Community, there are three councils of Ministers that cover the work of the central secretariat and these are the Council for Trade and Economic Development (COTED) under which the sustainable development unit is situated and the trade and economic development business of the community is overseen, the Council for Human and Social Development (COHSOD), where this council is responsible for such activities as community development, health, education and youth, sports and labour and the Council for Foreign and Community relations (COFCOR) which deals with the external relations of the community.

He then focused on the work of the sustainable development unit of the Secretariat which had the primary aim of assisting the Member States to develop environmental management and sustainable development policy frameworks. He also detailed some of the areas of work of the unit, which included sustainable human settlements, coastal and marine resources, comprehensive disaster management and science and technology. Mr. Blake also explained that a lot of the work of the Community was also carried out by a number of specialized institutions many of which are autonomous and had their own governing structures. A few of these include the Caribbean Disaster Emergency Response Agency (CDERA), the Caribbean Environmental Health Institute (CEHI), the Caribbean Law Instutite (CLI) and others.

Mr. Blake then focused on a number of specific projects that the sustainable development unit was involved in, in which there were a number of collaborative opportunities available with Central America. These include:

- The Caribbean Climate Change Center
- Development of a Management regime for the caribbean sea
- Development of a mechanism for the enhancement of participation and benefits to be derived from Multilateral environmental agreements
- The work of CDERA

Mr. Gonzales also provided an example of regional cooperation in the form of existing regional agreements with the Government of Mexico. Activites under this regional cooperation in the environment include pesticides management, coastal and marine resources management, GIS training and its use in sustainable development, development of pollution registers and inventories of PCB. Envisioned actions include support for disaster management projects and activities, student exchanges and project development.

The final presentation was given by Mr Orlando Cabrera Rodriguez from the Caribbean Alliance for Sustainable Tourism

Looking back through the agenda we know where we have come in the elaboration of our concerns and resources. What is needed is not the particular problems, but rather the mechanisms to address those problems. What would constitute an agenda for cooperation between the regions? We need to know what are the ongoing activities, of course non-exhaustive, but nevertheless get a view of what our infrastructure for cooperation might be.

- First is sharing of knowledge, and the mechanism for doing so in priority areas. Limited human and financial resources warrant such cooperation.
- Second is the development of new knowledge to assist us with sustainable development. Pollution is especially a

worry, derived from our necessary agriculture for the economies. Better management and utilization of existing natural resources. Political leaders need to hear of the possibilities for the better choices to be made.

- Political cohesion is the external part of the agenda, for our leaders to affect the donors. Improving response to our needs.
- Technology development is the fourth, so that we can share the quality control; cover joint acquisition and use, as well as for deployment and development.
- Resources mobilization is very necessary, but would require greater accountability and management on our part.
- Information exchange for compliance and best practices.
- Cooperation on public education and awareness.
- Cooperation with the media.

A schematic over the structural arrangements of each region was described. For SICA the use of CCAD was helpful, as the Caribbean does not have such a mechanism. Challenge for the region, and could be established through the CARICOM machinery. But this could be costly and may require certain mandates.

Working groups are now being asked to look beyond ongoing activities. Look at what the collaboration will entail, matching up specific needs. We must make an inventory of projects, or ongoing plans. Each group should have a facilitator and rapporteur.

An important item missing is the issue of linking environment and health, on prevention and not mitigation. Many of the cures are actually being developed as a part of this six part agenda, as the impacts on whole ecosystems may be addressed. So a focus on the causes can lead us to a discussion on health as a sector. Early prevention is better than late cure. Where does the issue of health fit in, is it a separate issue or one to keep in focus in each of the discussions? Are all working groups going to look at all the 6 areas.

The preliminary agenda is for the working groups. Each group should make the decision on priorities, explaining the rationale to the larger groups. Additional items can be raised in your group.

There are broad issues of cooperation, therefore, do we want the working groups to look at all institutional arrangements? One group could look at that, with another looking at experiences and best practices by another.

What is missing is a need for a careful elaboration with conceptual clarity before we go to working groups. Over the last days the terminology has not been entirely clear, for example sustainable development as opposed to environmental management. Collaboration at the regional level needs to look at sustainable development in the post-Rio and the acceptance of this as a symbol is non-threatening to most groups or countries.

One of the challenges has been to define an agenda for a group of people like this, focus the work yet not prohibit creative flows. We can adjust, because we all have individual perspectives. This is collaboration on the mechanisms to get there. This is not limiting but rather an attempt to get the groups to work on this.

Based on the six areas we could group them into four groups:

- Capacity and technology group together.
- Information exchange. Useful document is the Belize Declaration, which talks about different levels, consultation, cooperation and collaboration.
- Foreign policy consultation will be different than cooperation in international negotiations. Need to duplicate the successes. Need a mechanism for the prevention of replication of failures. Identification of experiences is also

important since we have the two sub-regions together. Some countries have not ratified Cartagena Protocol. These issues should be considered in the working groups.

- Third group could be on an agenda for collaboration. Could include issue of ratification of key conventions. Proposal is possible. I think it is not perfect but a start. A thematic list and looking at the instruments. Information exchange and best practices, existing networks Capacity, technology and resources. Agenda for collaboration, thematic issues. Legal instruments are important, and should not be ignored. May be covered by all the groups.

4 CONCLUSION

Ideas for cooperation have been outlined. Needs a new paradigm for collaboration in fields like education and public awareness. Also necessary is cooperation at the level of international negotiations. A suggestion is that the higher level political cooperation can be used such as a ministerial meeting. The program of activities will have to be accepted at that level. There could be such an endorsement at a meeting in July or August. Having the Caribbean Sea as the uniting force is a useful way to look at the issues. The issue of transportation routes of oil-tankers requires investigation with modeling of current and routes as well as including meteorological data.

This is not going to reinvent the wheel and find the processes that already are in place. Liaise with Intergovernmental Oceanographic Commission Caribbean. The Chairman will make a summary of the meeting and the process so as to inform the WSSD process of the interest and concerns of the two regions. The participants have worked very well in putting together a tangible and credible agenda for the common interests and challenges.

The time has come for the regions to build their alliances. Set up observer system for CCAD and CARICOM to work together in each organizations and institution. This will bring together the tremendous capacities that there are in the regions. There will be a political element and the Ministers will have to get together. But at least there is a good basis for action and a new working relationship. We need to have an effective use of resources.

The involvement of the Belize Government and the Ministry was recognized and applauded. The personal interest of the DPM was noted. Marco Gonzalez and Albinger were also congratulated for their commitment. It is fortunate that the Belize Ministry is a dedicated and professional team. The synergies of the meeting were such that there was no need for separation of the stakeholders and international organizations. It is necessary for us all to consider compromises of sovereignty and priorities if cooperation is going to function and become a vital part of our cooperation.

Next Steps:

- Prepare an action plan to be submitted by INECE.
- Identify a temporary liaison ideally for each country of the region, who will participate in the preparation of the action plan, and liaise with the country.
- Volunteers are: José Cardona, (Belice); Helio Zamora (Nicaragua), Rolando Alfaro (Guatemala); Patricia Madrigal (Costa Rica); Lucia Chandeck (Panamá).

SUMMARY OF WORKSHOP: EUROPE REGIONAL NETWORK MEETING

Facilitators: George Kremlis
Krzysztof Michalak
Rapporteurs: Machteld Brokerhof
Ladislav Miko

GOALS

All regional meetings will address the following issues:

- Critical environmental challenges.
- Critical institutional challenges.
- Network challenges:
  - Partners: Identify existing regional networks for INECE to partner, including key contacts, relevant strengths, geographic range.
  - Information exchange: Explore elements of effective Regional Web page on INECE site, the maintenance of country contacts and database support, the development of best practices and a system to assess information management needs.
  - Other instruments and network improvements.
- Enforcement indicators:
  - Identify any existing projects on enforcement indicators that are occurring on national or regional level in your region, and note any organizations or individuals who might be interested in participating.
  - Discuss key needs within the region for indicators.
  - Discuss the proposed methodology and solicit comments and suggestions.
- INECE proposed projects:
  - Review the list of proposed INECE projects for regional linkages.
  - Prioritize regional needs.
  - Identify potential regional partners to help carry out projects, and/or to work with INECE on projects.

1 INTRODUCTION

At the beginning of the meeting George Kremlis noted that this was a unique opportunity for the 4 existing networks in the European region to meet for the first time:

- IMPEL: 15 EU Member states.
- AC-IMPEL: 12 Accession Countries.
- NISECEN: 12 countries in Eastern Europe & Central Asia.
- BERCEN: 8 countries in the Balkan region.

2 CRITICAL ENVIROMENTAL CHALLENGES

On a global level it is obvious that the climate change is an important issue. On a regional level the meeting identified

the following challenges:

- Availability and quality of water.
- Waste including waste shipments.
- Resource consumption management.
- Environmental impacts of transport and agriculture.
- Historic pollution legacy.
- Sustainable economic rebuilding (e.g. in the Balkan area).

3 CRITICAL INSTITUTIONAL CHALLENGES

The following challenges were identified:

- Effective legal framework and regulations (up-to-date and upgraded).
- Effective institutional structures.
- Adequate and efficient resourcing (quantity and quality).
- Policy coherence.
- CCC (communication, co-ordination, cooperation) between authorities and countries.
- Transparent procedures and administrations.

4 NETWORK CHALLENGES

Regarding the 4 networks (in the future 3 when AC-IMPEL will be integrated with IMPEL) within the European region further initiatives will be undertaken to improve the mutual cooperation. The suggestions include:

- Regular meetings between the network coordinators (every 3 months?).
- Joint meetings of all network participants on selected issues.
- Experts exchange programmes and study tours.
- Joint projects and mutual invitations for projects of the separate networks (à la carte), e.g. the possibility of participants from NISECEN and BERCEN at the European (AC-)IMPEL conference in 2003 (Maastricht).
- Electronic exchange of information (reports, website links, e-mail).
- A Pan-European contact list.

George Kremlis stated that the European Commission is willing to stimulate and facilitate these initiatives.

5 LIST OF INECE PROPOSED PROJECTS (INCLUDING ENFORCEMENT INDICATORS)

All the participants agreed on the fact that the needs that are being specified by developing countries should drive the INECE agenda. The European networks can support the activities within this agenda especially concerning technical assistance and sharing the experiences of building networks. There should also be more attention for geographic cooperation like for instance in the Mediterranean region.

- Regarding the list of proposed projects, the meeting came up with some general remarks:
- Criteria should be developed concerning the selection and adoption of projects.
- There is not enough focus on projects with practical outputs.
- Duplication with ongoing work (e.g. MEA Secretariats, RIO updates, etc.) should be avoided.
- The priorities of developing countries should be more reflected in the work programme.
- Substantive projects needs to be separated from the "maintenance" of INECE.

The contribution of the European networks to the work programme can be found in:

- Minimum criteria for inspections and/or

inspectors.

- Distance learning.
- Building other networks.
- Dissemination of information/ publications/etc.

6 CONCLUSIONS

Within the European continent a variety of environmental and institutional challenges were identified. These challenges will be faced in a positive and practical way by closer cooperation between the existing networks. The expectations regarding the input and output of INECE focusses on the assistance that Europe can provide to other regions based on the needs of these regions and the available knowledge in Europe. Furthermore the regional meeting pointed out some crucial points of interest regarding the development of the list of proposed projects that may enable the Executive Planning Committee and the Secretariat of INECE to refine the strategy and multi annual work programme.

SUMMARY OF WORKSHOP: NORTH AMERICA REGIONAL NETWORK MEETING

Facilitators: Geoffrey Garver
Christopher Currie
Rapporteur: Claudio Torres Nachon

GOALS

- Improve environmental enforcement and compliance through improved networking.
- Learn to cooperate better within each country and then within the region.
- Gain knowledge of environmental issues.
- Identify key environmental players within countries and the region so that we are better able to share our resources, including technical skills and lessons learned.

1 INTRODUCTION

Over twenty representatives of the North America region met to discuss several issues regarding environmental law enforcement and compliance.

2 DISCUSSION SUMMARY

The participants identified the following Critical Environmental Challenges for North America:

Key Sectors: Energy and agriculture

Biodiversity Issues:

- loss of species and overall numbers.
- habitat destruction- forests and others.
- over-fishing: managed and illegal fisheries.
- invasive species.
- coral reefs destruction.

Water issues:

- quantity/allocation.
- wetland loss.
- intensive agriculture.
- deposition of pollutants, including of air pollutants.
- vessel pollution.

Air issues:

- long range impacts of poor air quality,
- ozone depletion.
- climate change.

Hazardous waste and toxic materials:

- pesticide control and management.
- illegal drugs laboratories.
- terrorism issues.

Management of GMOs and other Biotechnology

Border issues:

- transboundary movement of materials.
- border as a shield.

The participants then moved to identify the Critical Institutional Challenges of North America for Effective Enforcement and Compliance:

- Capacity issues: lack of resources and intraregional differences in capacity
- Language and cultural differences
- Reacting to shifting policies and political environments
- Creating links between agencies with different missions and mandates (e.g. pollution control vs. resource management; resource use vs. resource

protection)

- Federal-subnational dynamics
- Bureaucratic impediments
- High data management needs, especially with technically complex issues
- Making informal networks last (e.g. through institutionalization)
- Maintain political and public support for enforcement
- Ensure accountability is assured with new or alternatives approaches
- Ensuring public participation

Immediately the participants proceeded to point out Examples of North American Networks for Enforcement and Compliance in three subdivisions:

- General:
  - Commission for Environmental Cooperation (CEC)
  - "Four sisters" (Subregional)
  - The World Conservation Union (IUCN)
  - International Association of Fish and Wildlife Agencies (IAFWA)
- Specialized:
  - Pesticide Technical Working Group
  - BECC
  - Law Enforcement Coordinating Committee (LECC)
  - ANRET
- US Networks:
  - National Association on Attorneys General (NAAG)
  - Environmental Crime Policy Commission
  - Clean Water Network (an NGO)

3 CONCLUSION

The participants elaborated on a set of Proposed INECE Projects for North America:

- Support a sustained regional network linked to existing sub-regional networks filling any gaps and facilitating enforcement projects of joint interest (e.g. regional enforcement initiatives, e.g. agriculture sector with INECE facilitating tracking)
- Support creation of contacts lists/directories of enforcement/compliance networks for North America region, including technical experts (W/Summary of expertise)
- Facilitate training courses within the region (e.g. need expressed for Veracruz, Mexico), and facilitate and trace follow through.
- Keep North America region informed of relevant training and other activities in other regions.
- Enforcement indicators: North America region supports INECE's overall efforts in this regard.

SUMMARY OF WORKSHOP: SOUTH AMERICA REGIONAL NETWORK MEETING

Facilitators: Antonio Benjamin
Daniel A. Sabsay
Rapporteurs: Maria Di Paola
Adriana Bianchi
Isabel Martinez

GOALS

- To analyze a future regional network in South America, its goals, priorities, and actions .
- To identify regional elements for INECE strategic plan.
- To consider the 6th INECE conference statement.
- To identify existing relevant networks to engage.
- To recognize critical environmental challenges.
- To recommend specific project needs.
- To explore enforcement indicators and assessment methodology.
- To communicate ways to benefit from technology on the Web.

1 INTRODUCTION

Questions presented by facilitators:

- What are the critical environmental challenges in South America?
- What are the critical institutional challenges in South America?
- What are the challenges of a Regional Network in South America?
- What is the opinion of the participants about INECE proposal projects?

List of participants:

- Argentina: María Di Paola, Silvia Nonna, Daniel Sabsay
- Bolivia: Patricia García, Hernan Zeballos
- Brazil: Antonio Benjamin
- Colombia: Manuel Rodriguez
- Paraguay: Victor Valdovinos
- Venezuela: Rebeca Erebrie, Santos Carrasco
- WBI: Adriana Bianchi
- Programa de las Naciones Unidas para el Medio Ambiente (PNUMA): Isabel Martinez

2 DISCUSSION SUMMARY

- We identified critical environmental challenges as:
  - Environmental effects of illegal mining.
  - Inadequate management of hazardous and non hazardous wastes.
  - Poverty.
  - Air pollution in large cities.
  - Desertification.
  - Deforestation.
  - Deterioration of biodiversity.
  - Water pollution (groundwater, freshwater, marine/industrial, urban, etc. Sources).

- Critical Institutional Challenges that exist are:
  - Poor access to information.
  - Lack of citizen participation.
  - Low priority of environmental issues in policy and political agenda.
  - Lack of institutional coordination among different state institutions (horizontal and vertical).
  - Weak institutional capacity.
  - Low allocation of public and private financial resources.
  - Weak enforcement and compliance systems and lack of indicators.
- Network challenges
  - Partners (non exhaustive list).
  - Immediate viability.
  - Fundacion Ambiente y Recursos Naturales (FARN).
  - Planeta Verde.
- Viability to be explored
  - Secretariat Amazonian Cooperation Treaty.
  - Community of Andean Nations (Environment Committee).
  - Mercosur (Sub Group 6).
  - Forum of Environmental Ministers of Latin America and the Caribbean.
  - Comision Economica Para America Latina y el Caribe (ECLAC)
  - United Nations Environment Program (UNEP)
  - Inter-American Development Bank (IADB)
  - The World Conservation Union (UICN)-Sur
- Corporación Andina de Fomento (CAF)
- Information exchange — UN System websites
  - www.medioambiente.gov.ar
  - www.farn.org.ar
  - www.worldbank.org.ar
  - www.cvg.com.ve
  - www.minsostenible.gov.bi

Enforcement indicators information — North American Free Trade Agreement (NAFTA)- North American Commission on Enviroment Cooperation (CEC), Economic Commission for Latin America and the Caribbean (ECLAC), Forest

- INECE website
- More linkages
- Professional discussion space

Examples of some indicators experiences (existing/in process):

- Bolivia: Performance indicators with the support of the WB
- Colombia: Institutional performance (efficacy and effectiveness of public policies is being developed)
- Note 1: The group is not completely sure about the definition or scope of indicators
- Note 2: We need enforcement indicators and they should reflect regional needs and perspectives.
- Note 3: Check indicators in different countries and regions (NAFTA experience)
- Note 4: INECE could add linkages to existing forest indicators and NAFTA-CEC indicators and ECLAC study (see proposal of INECE 3.b.)

3 CONCLUSION

The participants agreed about the following prioritization on INECE Strategic Plan (proposal projects):

- Goal 1: INECE indicators 1.A.1.
- Goal 2: Strategy 2.B. to reach 2.D.
- Goal 3: Strategy 3.A.
- Goal 4: Strategy 4.C.

SUMMARY OF PLENARY SESSION #10: THE INECE STRATEGIC PLAN

Facilitators: Durwood Zaelke
Rapporteurs: Ken Markowitz

1 INTRODUCTION

This Panel of the INECE C0-chair presented and discussed a future vision for INECE, including strategic planning as charted with the input and recommendations made during the conference.

2 PRESENTATIONS

Charles Sebukeera: I wish to emphasize the importance of regional networks, while we can and do learn a lot from each other at meeting like this, it is at the regional level where we share similar cultures and problems that we can gain the most. INECE needs to continue to explore ways that will both support the needs of individuals and individual countries as well as important regional initiatives. This has been a very good session of practitioners working together. We are not all at the same level of abilities and needs but INECE is there for all of us. I think the future of INECE is in regional networks and general meeting like this if the regional networks deliver.

Sylvia Lowrance: While this is my first time as co-chair of an INECE conference, I have followed the development of INECE with great interest. I have enjoyed the energy that everyone has brought to the discussions and the wealth of ideas. It is now important that we put this into the next steps of the Strategic Plan. In the next months it will be extremely important for us to focus our energy on developing this Strategic Plan that address the needs of this diverse group- from inspectors to judges from countries that are just starting on the path of building the capacity to implement sound environmental management to countries that are looking for other approaches to try.

INECE is a network of practitioners with less emphasis on the broader policy making. We are an informal network of enforcers, inspectors, judiciary, police, etc. As such, these meetings are the icing on the cake for our network. The projects that we do to support capacity building, such as the indicators project and training programs, is the cake. However the bread and butter of INECE will be the capacity building that is a result of our regular communication- group to group and individual to individual. The INECE website and regional meeting will be our most important deliverables in enhancing this important communication.

Gerard Wolters: INECE is a network of enforcement practitioners that need to meet. This conference was a good one but we need to focus on regional meetings and activities that support capacity building. We co-chairs will direct the Secretariat to focus in that direction.

We accomplished a lot this week. Most of you were able to stand the temptation to go on extra side trips. The visits that we did conduct this week were a very good idea to have in the program. We learned how our host country Costa Rica is doing in environmental protection and some aspects of their activities in enforcement. We talked with a lot of participants this week and heard some very good contributions to the direction of INECE. The strategic project and the co-chair statement are very well suited for use in your local network when you are at home again. Please use it in your local networks to emphasize the importance of enforcement and the importance of enforcement networking.

3 DISCUSSION

Challenges for INECE

- develop capacity building to meet the range of development across our membership
- encourage and support the development of regional groups and specialty groups
- develop a more sustainable funding base
- keep the product development and decision of the INECE transparent through the use of the INECE website

General Accomplishments at the Sixth INECE Conference

- We had participants from countries and international organizations engage in a rich discussion about the profession of ensuring good governance and rule of law.
- We discuss important activities that INECE can carry out or support in the future
- We gained valuable input for the development of a multi-year strategic plan for INECE
- Even though our days were full, we found time to have additional discussion on indicators and other areas of interest.
- Specific practitioners recognize the need to meet and discuss their specialized interests. This included NGO's , the judiciary, and inspectors
- Many individuals were able to make connections with others to support immediate capacity building needs.
- We have added to the library of information on environmental compliance and enforcement with the production of Volume 1 of the proceedings. Volume 2 will capture the reports from each of the workshops, the special discussions on regional network development, and additional proceeding from the plenary sessions
- We build on the importance of INECE as a contributor to the goals of our individual countries and organizations at the World Summit on Sustainable Development.

What is the direction for each of us as we leave this conference?

- Continue to provide your thoughts on the strategic plan and current projects such as indicators
- Work to support regional networks in you area and specialized practitioner subgroups
- Strengthen the support for INECE and regional environmental compliance/enforcement networks in your country and organization and the importance of these networks Sustainable Development and the discussions in Johannesburg in August 2002

4 CONCLUSION

What do we do in the next weeks as:

Co-chairs

- Seek financial support for the current proposed INECE projects

EPC members

- Keep the interest of the INECE Conference participants up on the projects of INECE
- Refine the listing of the general membership of INECE
- Working through the workgroup process contribute to the development of the Strategic plan and indicators proposal

INECE members at large

- Circulate Press statement and background material to you local press
- Circulate Co-chair Conference Statement to all interested parties in your functional and geographic area
- Comment on INECE proposed work products through the INECE website

- Be an ambassador for INECE in the discussion in your country relating to WSSD
- STAY INVOLVED

EVALUATION OF THE 6TH INTERNATIONAL CONFERENCE ON ENVIRONMENTAL COMPLIANCE AND ENFORCEMENT

1 INTRODUCTION

The INECE Secretariat conducts an evaluation to provide information to educate the Conference sponsors and planners about the participants' perceptions, in order to improve the effectiveness of future events and to help shape the INECE Strategic Plan.

At the conclusion of the Conference, participants were requested to complete a comprehensive questionnaire on the Conference program, materials, and organization and to provide narrative remarks. The questions addressed general issues such as the value of the Conference in "meeting its purpose and goals," "effectiveness of structure" and "usefulness of program to the participant's work." It also addressed specific panels and workshops. For example, "was the discussion in the workshop on Development of Sustainable Regional Networks valuable, or what was the quality of the case study for the Ecotourism Site Visit?"

The questionnaire consisted of 102 questions that asked participants to assign a rating of 1 through 5: 1=Excellent, 2=Very Good, 3=Good, 4=Fair, and 5=Poor. Of the 170 participants at the 6th INECE Conference, 117 persons completed questionnaires. The average rating for most questions ranged between Excellent and Very Good, and no question was rated below Good.

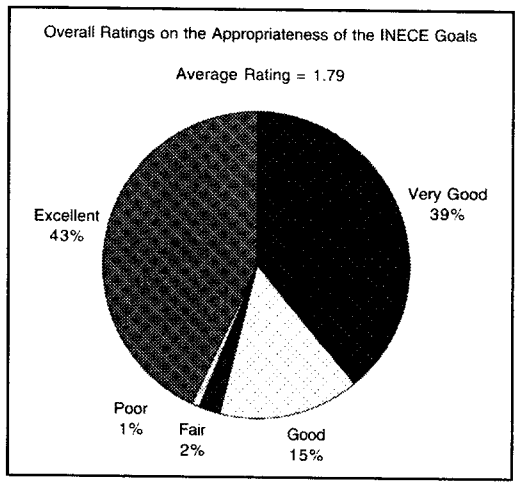
Additionally, the Secretariat received a significant number of written comments, which provided further support that the participants considered the 6th International Conference on Environmental Compliance and Enforcement well organized, productive and worth their time and energy. These written comments were carefully considered in formulating the recommendations and conclusions presented at the conclusion of this report.

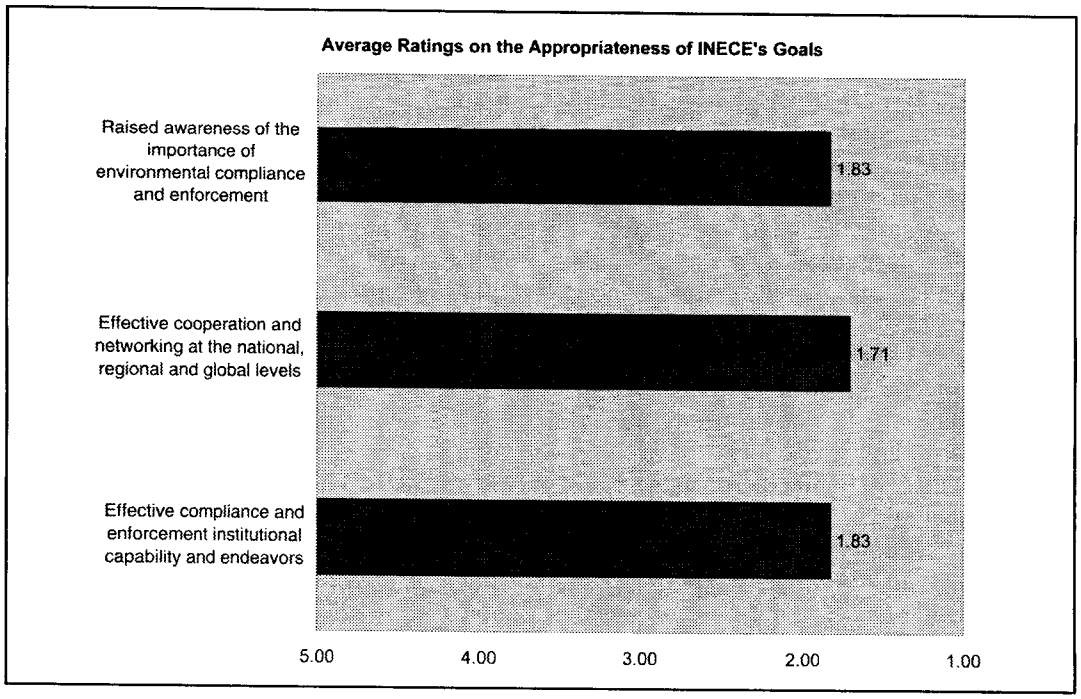
Overall, the participants were enthusiastic about the substantive sessions both in terms of the quality of the discussions and the value to their work. Several innovations offered at this Conference were well received by the participants, including the development of a Conference Statement, the on-site Internet Café, and the day devoted to the six Site Visits. On average, participants rated the Site Visits, the Conference Organization and the Conference Staff the highest.

Participants were asked to evaluate the "appropriateness of INECE's [three] goals" -- the effectiveness of INECE's institutional capability and endeavors; the effective cooperation and networking at the national, regional and global levels; and the ability to raise awareness around environmental compliance and enforcement. Their high evaluations — 97% rated the goals from Excellent to Good — demonstrate strong support for INECE to focus its strategic planning on these objectives.

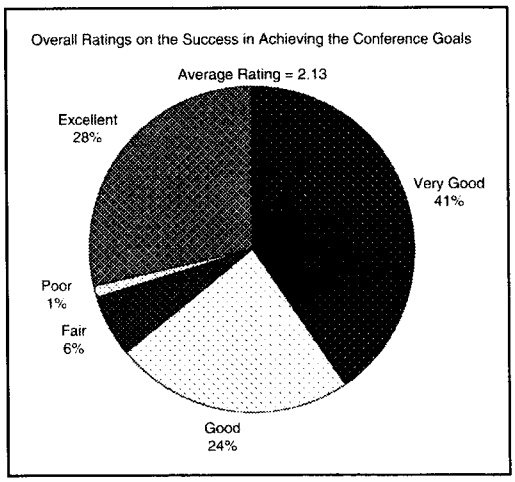
2 VALUE OF THE PURPOSE AND GOALS OF THE CONFERENCE TO THE PARTICIPANTS

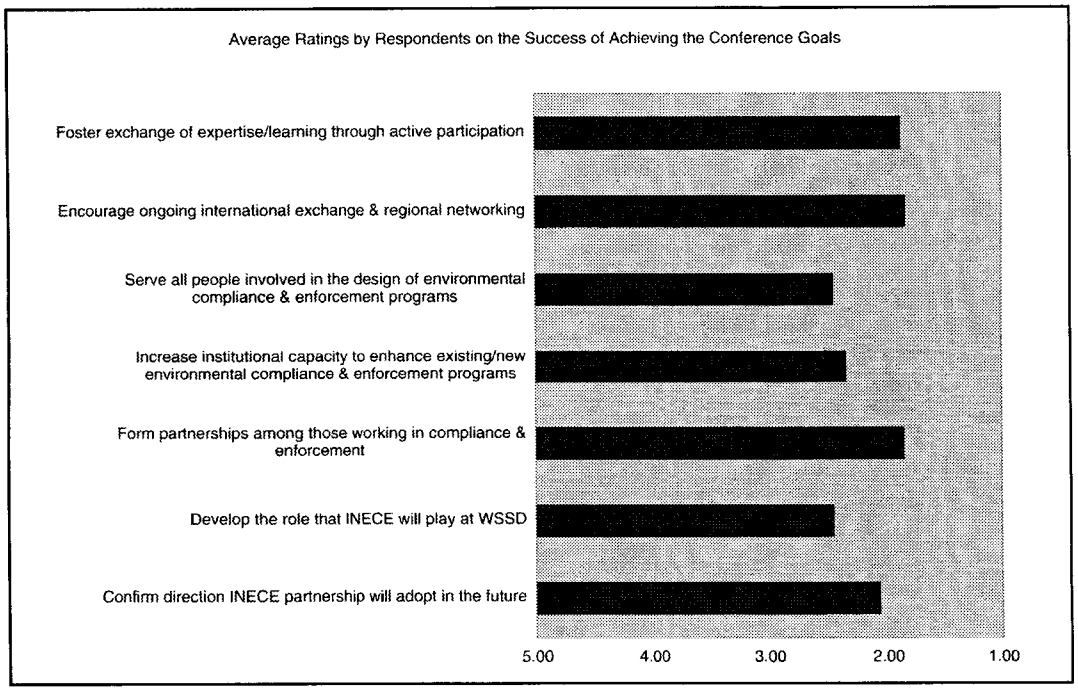
2.1 Appropriateness of the INECE Goals





2.2 Success in Achieving Conference Purposes





2.3 Participants

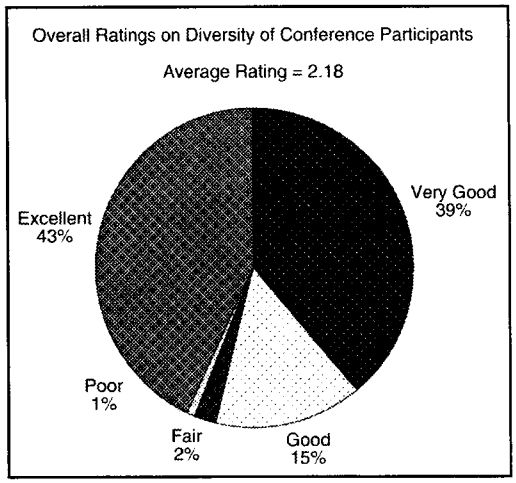
The 6th INECE Conference was attended by 170 environmental enforcement and compliance officials from over 80 countries and organizations. Table 1 shows the number of participants by geographic region and the number who responded to the questionnaire by region. Table 2 shows the number of participants who responded to the questionnaire according to the type of organization they represented.

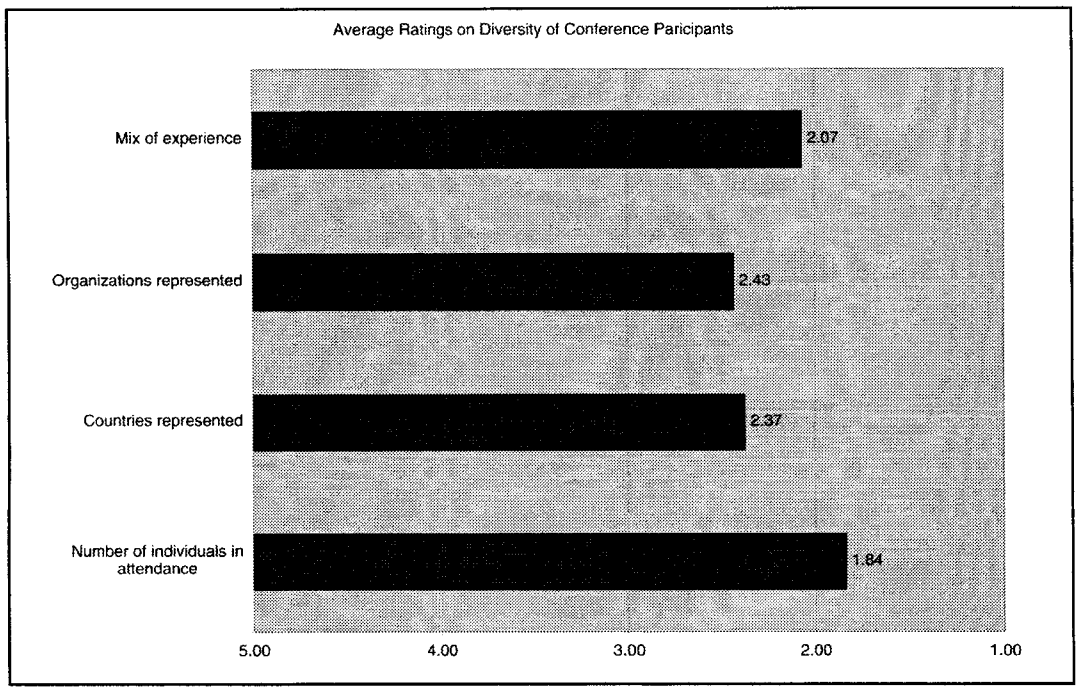
Table 1. Geographic Regions Represented

REGIONS	Participants		Respondents	
	No.	%	No.	%
Africa	7	4.1%	6	5.1%
Asia & Pacific	6	3.5%	5	4.3%
Caribbean	1	0.6%	0	0.0%
Central & Eastern Europe	14	8.2%	12	10.3%
Central America	37	21.8%	17	14.5%
International	21	12.4%	5	4.3%
North America	34	20.0%	27	23.1%
South America	11	6.5%	8	6.8%
South Asia	6	3.5%	5	4.3%
West Asia/Middle East	3	1.8%	3	2.6%
Western Europe	30	17.6%	21	17.9%
Unspecified	0	0.0%	8	6.8%
TOTAL:	170	100%	117	100%

Table 2. Organization Type

Type	No.	%
International NGO	8	6.8%
National Government	62	53.0%
State/Province/Region	4	3.4%
Municipal/Local Government	1	0.9%
Nongovernmental	10	8.5%
Other	9	7.7%
Unspecified	23	19.7%
TOTAL	117	100.0%





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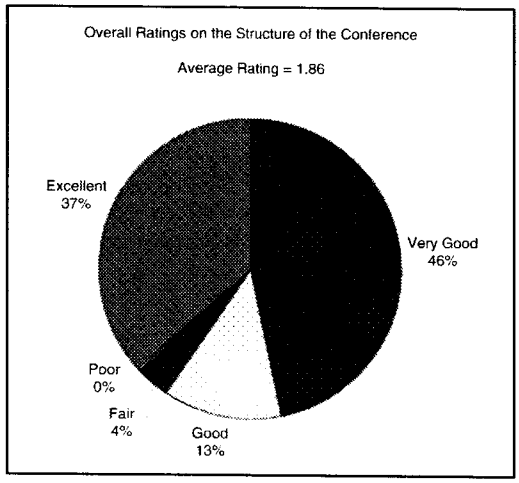
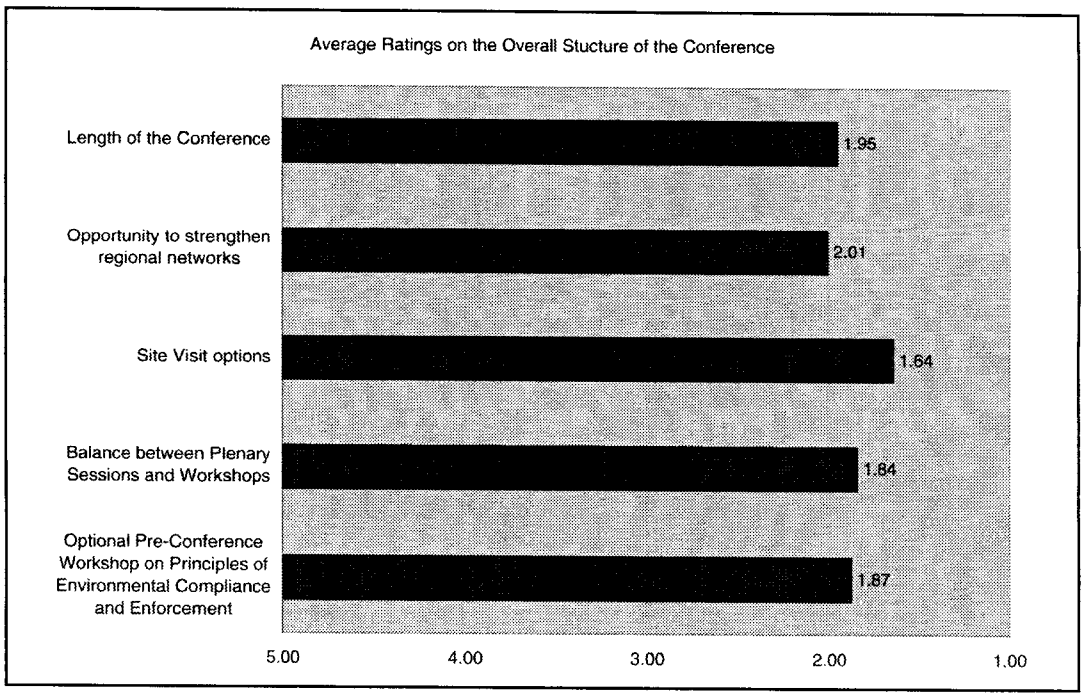
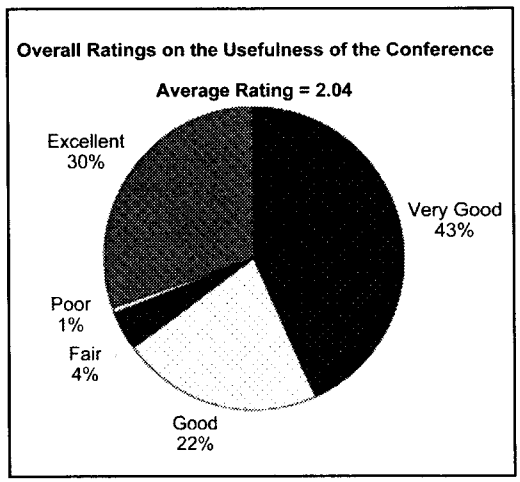
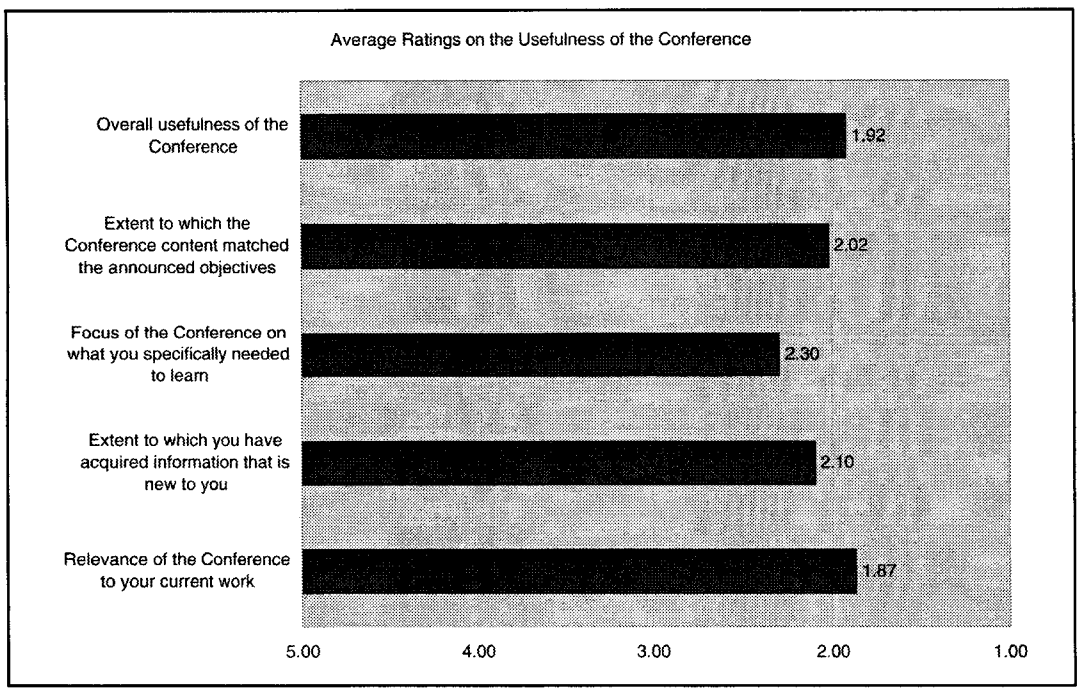
2.4 Structure of Conference





2.5 Usefulness of Conference





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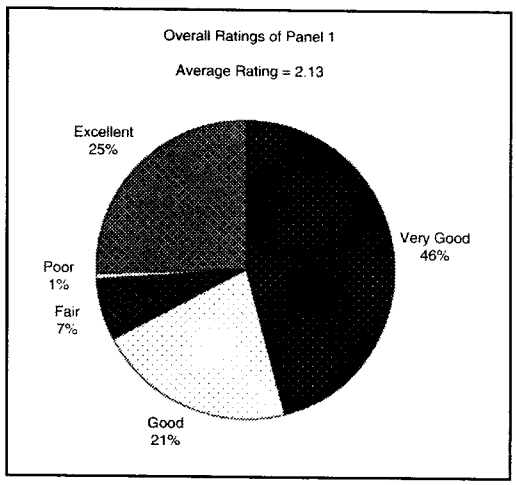
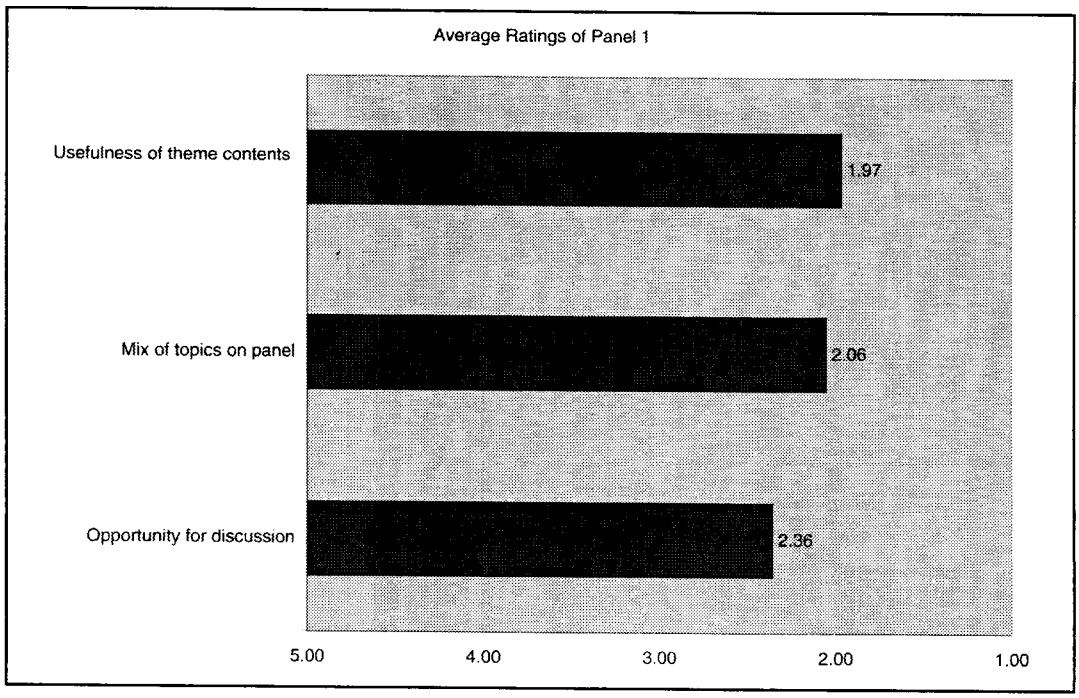
3 SPECIFIC CONFERENCE PLENARY THEMES AND TOPICS –MONDAY MORNING

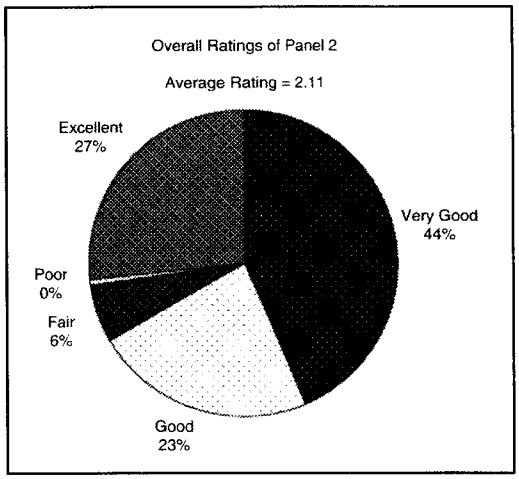
INECE hosted ten plenary sessions during the conference, each having two to four speakers and a moderator. Each speaker provided a presentation of 15-20 minutes, followed by discussion among all the Conference participants.

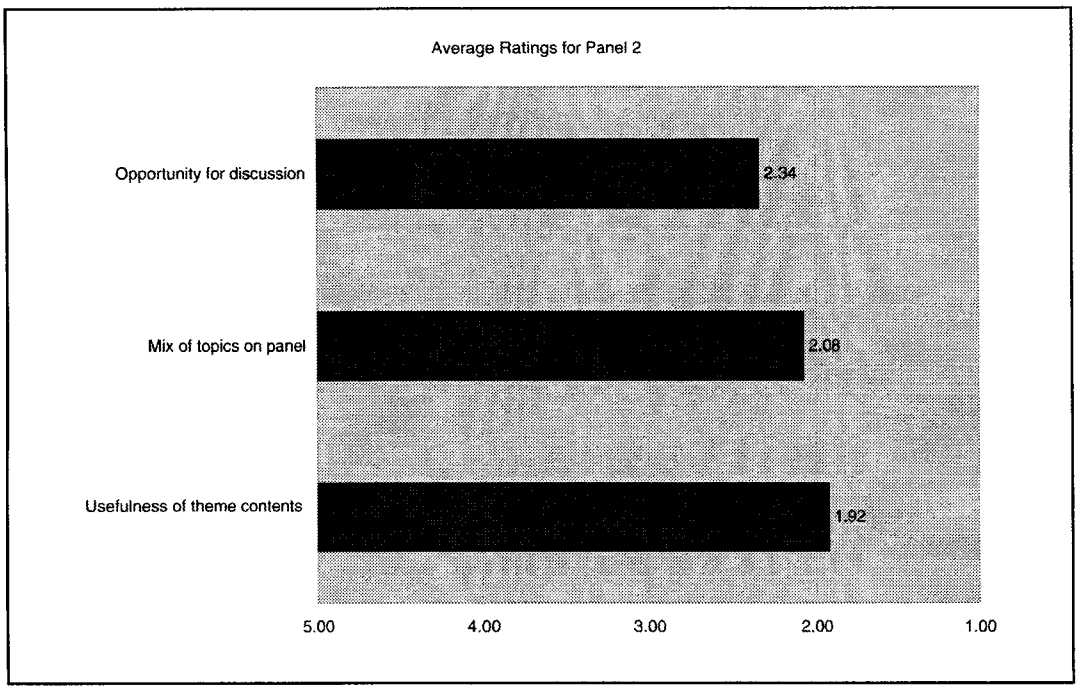
3.1 Panel 1 – The Role of Institutions and Networks in Environmental Enforcement





3.2 Panel 2 – The Regional Network Experience





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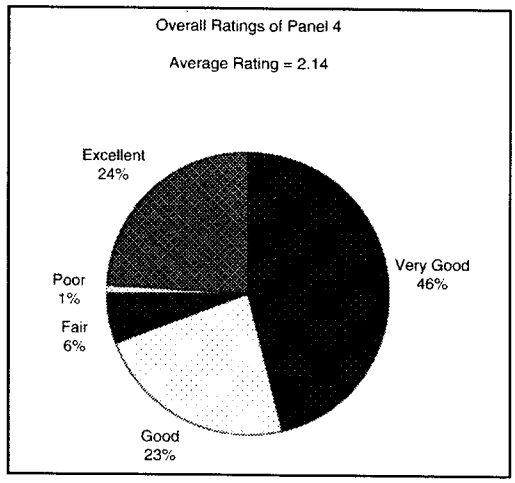
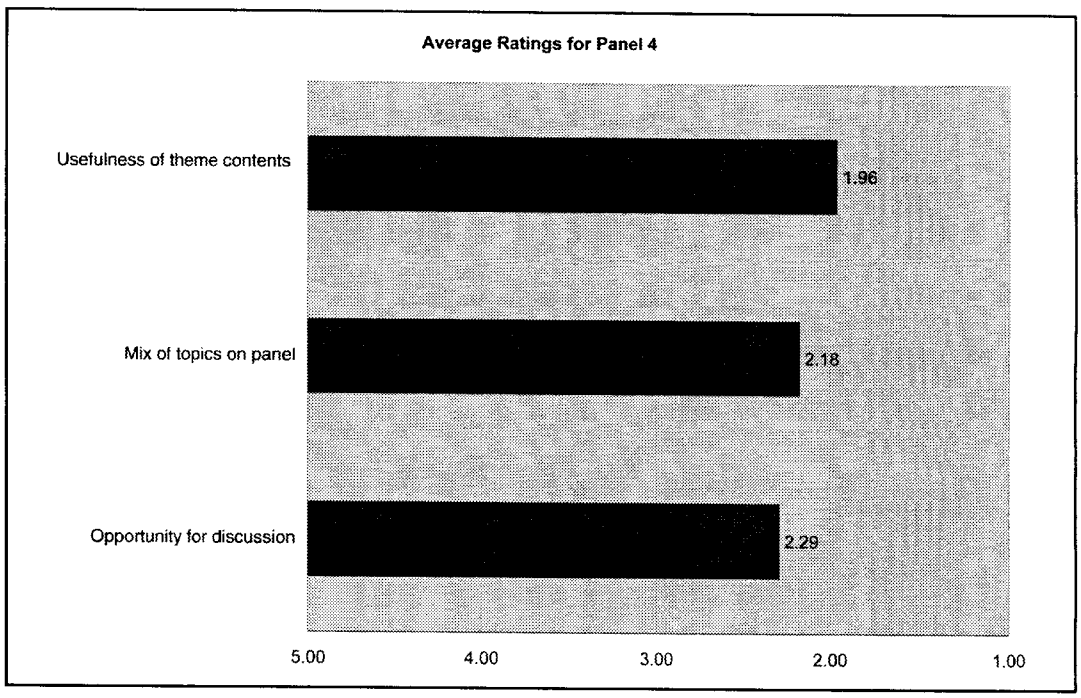
3.3 Panel 4 – Raising Awareness and Measuring Results





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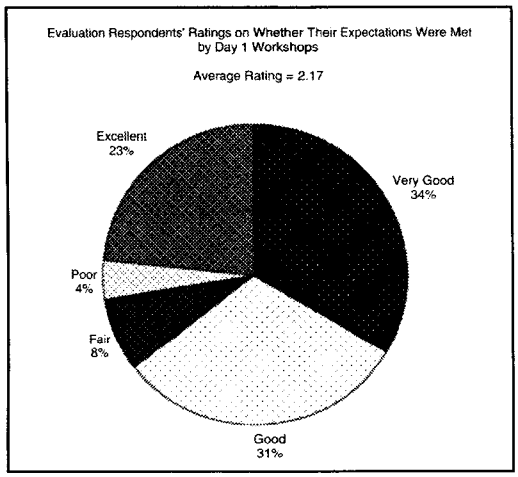
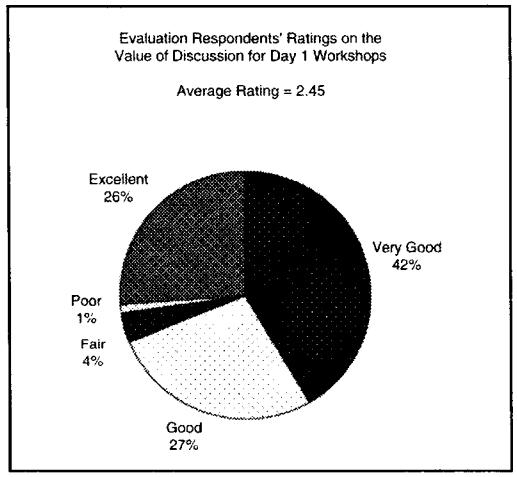
4 DAY ONE —WORKSHOPS – MONDAY AFTERNOON

Three groups of workshops were held on three separate days, the first group being held on Monday under Plenary Theme 2: Ensuring Effective Environmental Enforcement Through Institutional Capability and Performance Assessment. The second group of workshops was held on Tuesday under Plenary Theme 3: Raising Awareness: The Importance of Environmental Compliance and Enforcement (see Section 6). The third group of workshops was held on Thursday under Plenary Theme 5: Constructing Effective Interlocking Networks at the Country, Region and Global Levels (see Section 9). Each workshop had two facilitators to guide the discussion among Conference participants, and a rapporteur to record their progress.

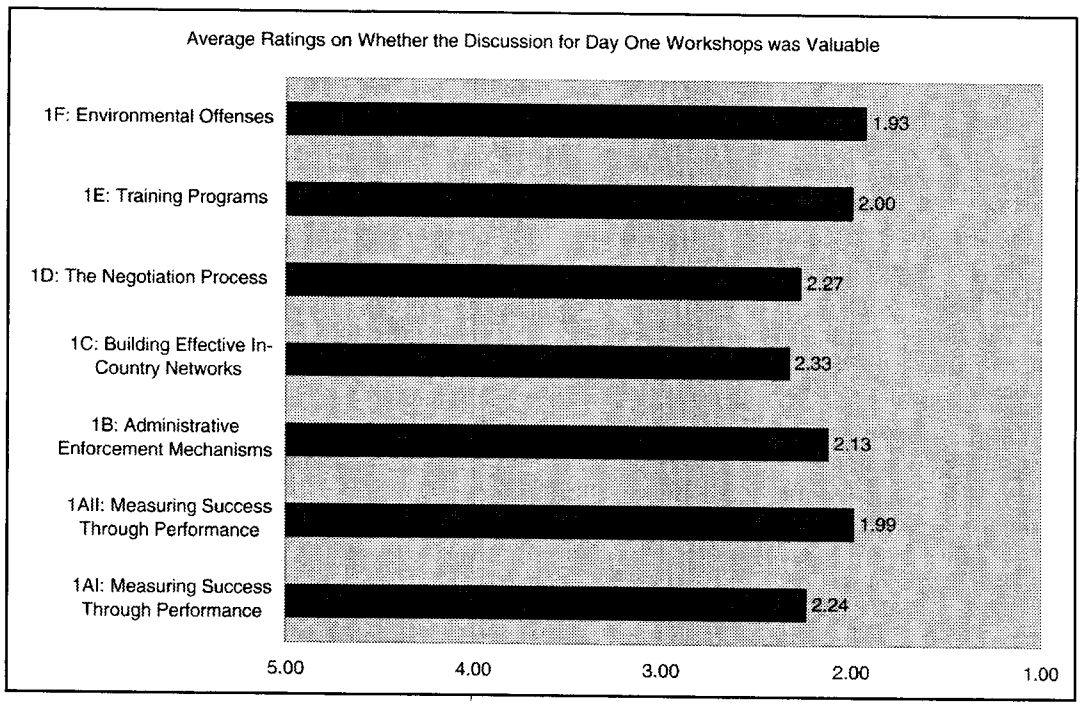
Participants gave very high ratings to the "value of the discussions" following Tuesday morning workshops: Encouraging the Public's Role in Compliance Monitoring; Government Programs to Encourage and Respond to Public Involvement in Enforcement; Promoting Voluntary Compliance; Self-Monitoring Data; Environmental Information Systems; and Information Management at the Working Level.





4.1 Under Day One, six workshops were held:

- 1F: Environmental Offenses
- 1E: Training Programs for Compliance Inspectors, Investigators and Legal Personnel
- 1D: The Negotiation Process Leading to Compliance
- 1C: Building Effective In-Country Networks for Environmental Compliance and Enforcement
- 1B: Administrative Enforcement Mechanisms: Getting Authority and Making It Work
- 1A: Measuring Success Through Performance: How to Define Enforcement Indicators?


Average Ratings on Whether the Discussion for Day One Workshops was Valuable
1F: Environmental Offenses
1.93
1E: Training Programs
2.00
1D: The Negotiation Process
2.27
1C: Building Effective In-Country Networks
2.33
1B: Administrative Enforcement Mechanisms
2.13
1AII: Measuring Success Through Performance
1.99
1AI: Measuring Success Through Performance
2.24
5.00
4.00
3.00
2.00
1.00
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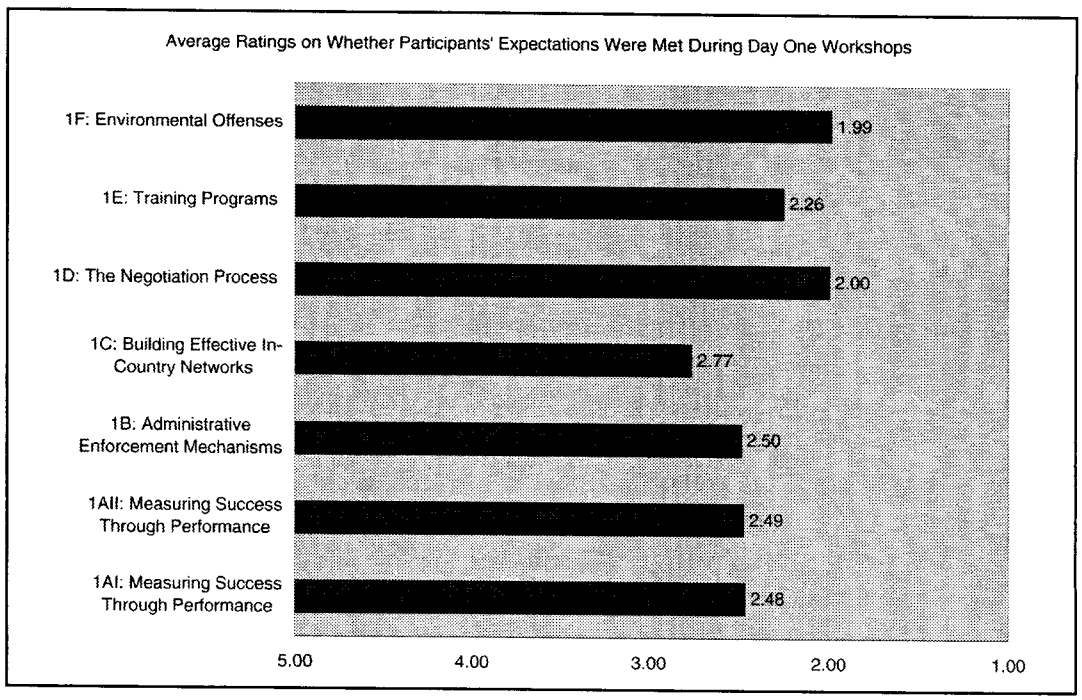
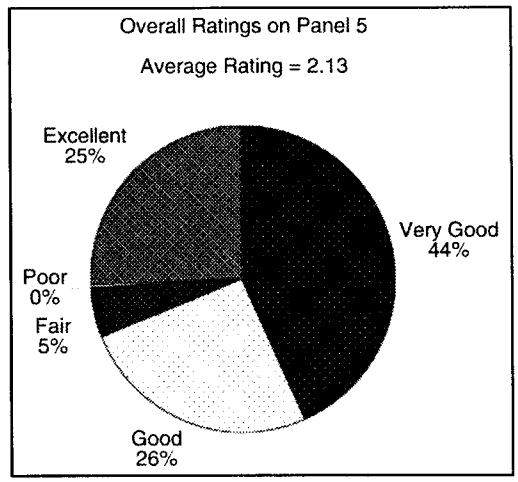
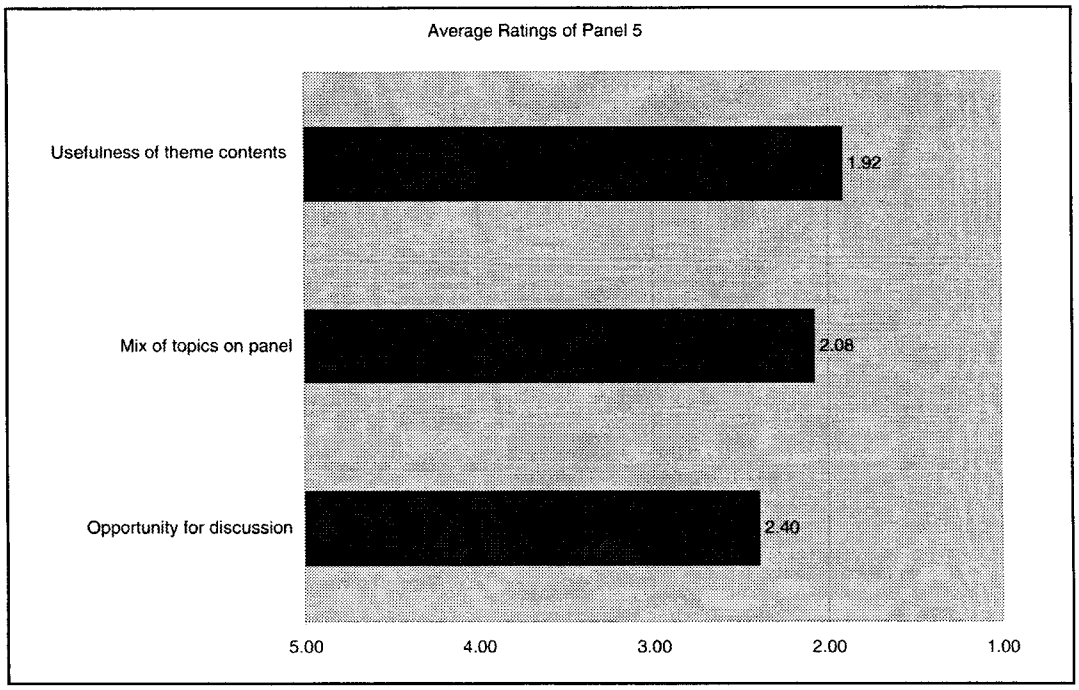

Average Ratings on Whether Participants' Expectations Were Met During Day One Workshops
1F: Environmental Offenses
1.99
1E: Training Programs
2.26
1D: The Negotiation Process
2.00
1C: Building Effective In-Country Networks
2.77
1B: Administrative Enforcement Mechanisms
2.50
1AII: Measuring Success Through Performance
2.49
1AI: Measuring Success Through Performance
2.48
5.00
4.00
3.00
2.00
1.00
POOR (5) FAIR (4) GOOD (3) VERY GOOD (2) EXCELLENT (1)

5 DAY TWO—SPECIFIC CONFERENCE PLENARY THEMES AND TOPICS – TUESDAY MORNING AND AFTERNOON

5.1 Panel 5 – Economic Instruments and Voluntary Measures





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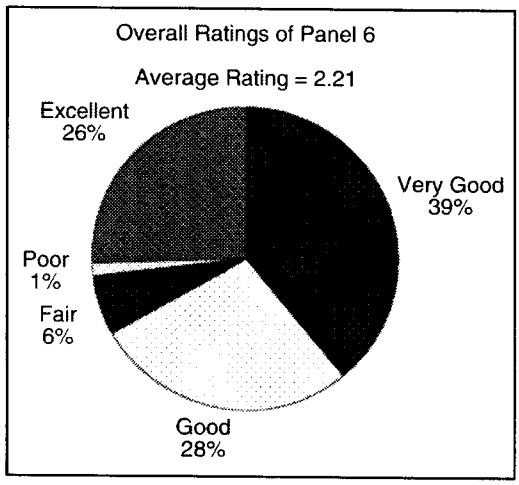
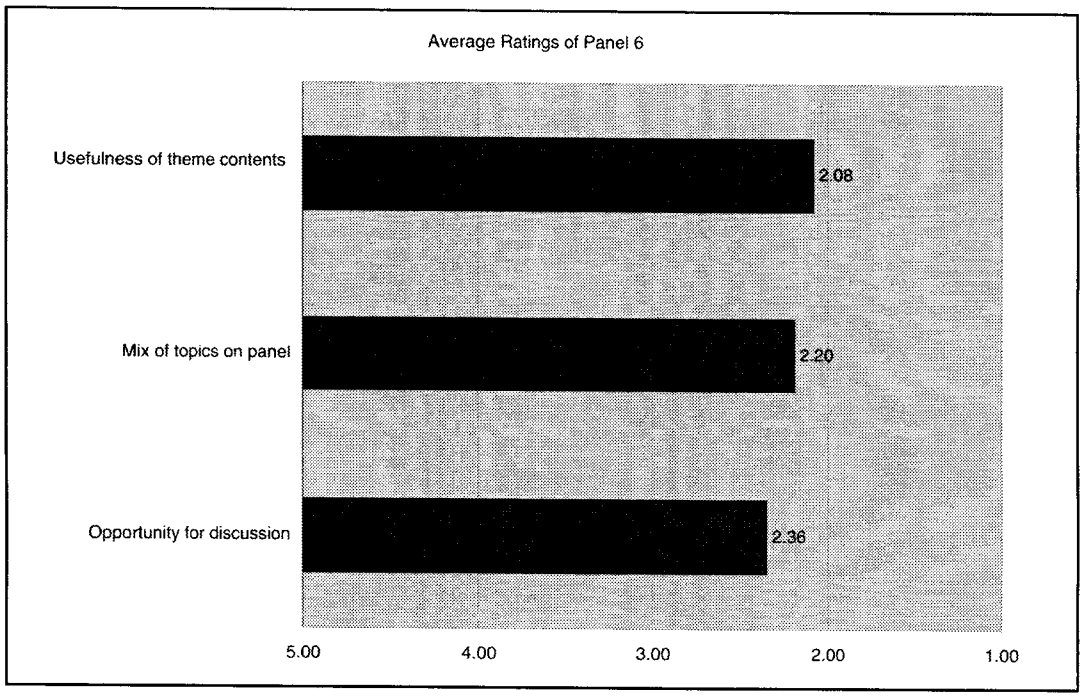
5.2 Panel 6 – Information: Collection, Standards, Sharing, Access, Credibility and Use





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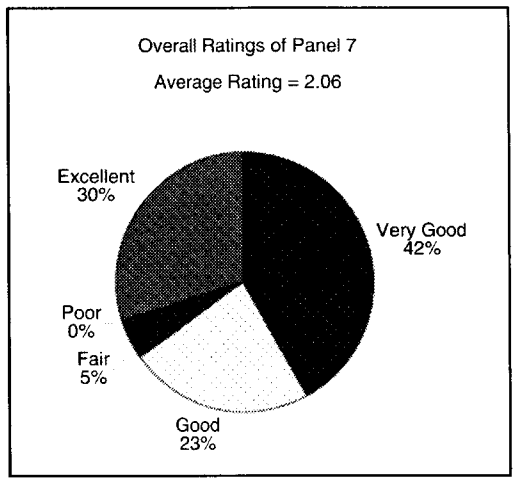
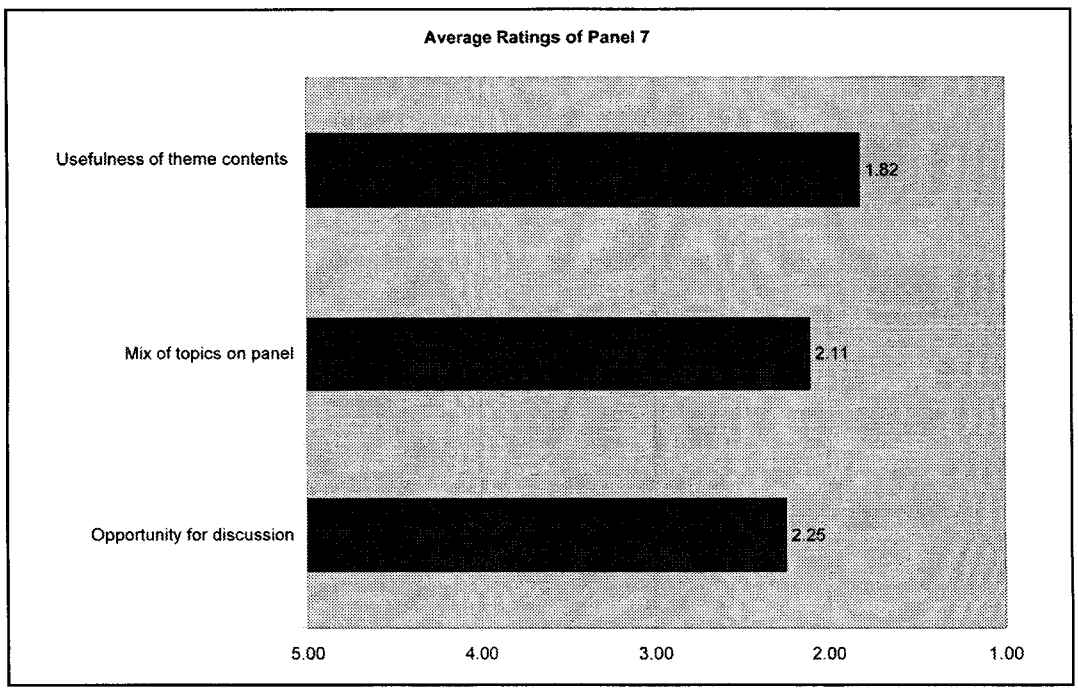
5.3 Panel 7 – The Evolving Role of the Judiciary in Environmental Compliance and Enforcement





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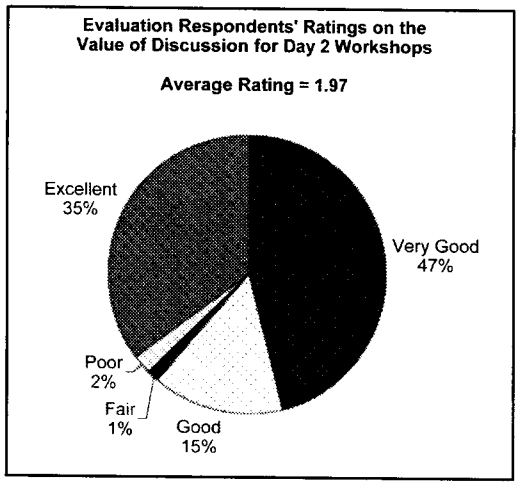
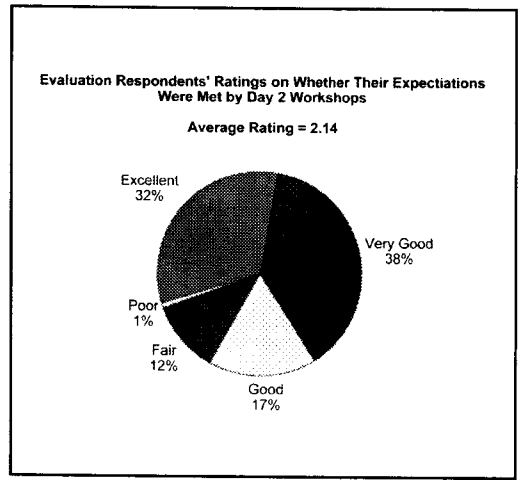
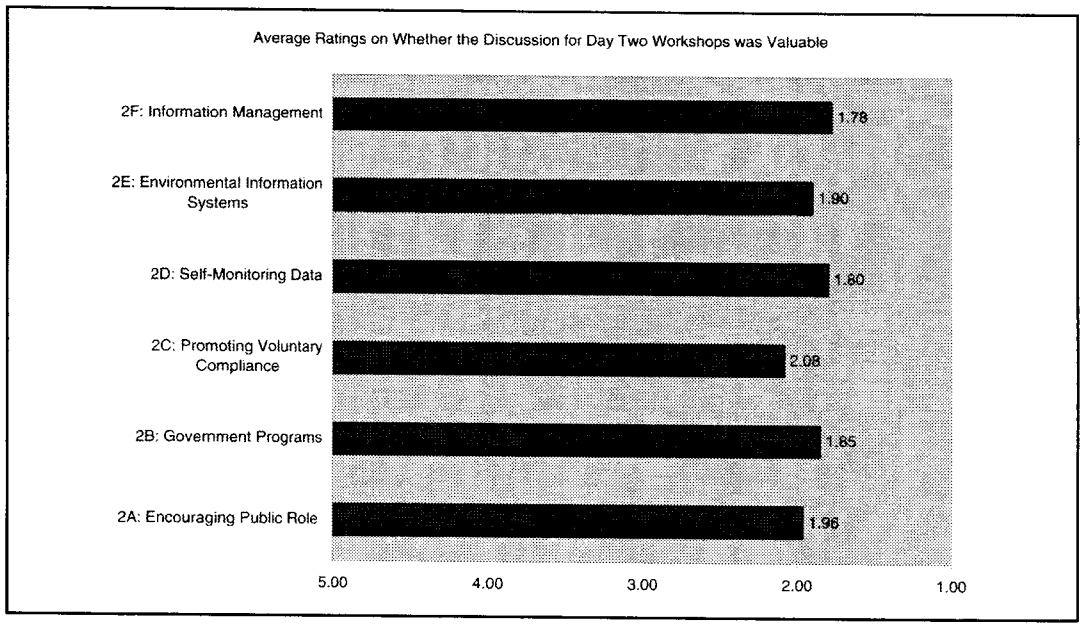
6 DAY TWO —WORKSHOPS – TUESDAY MORNING

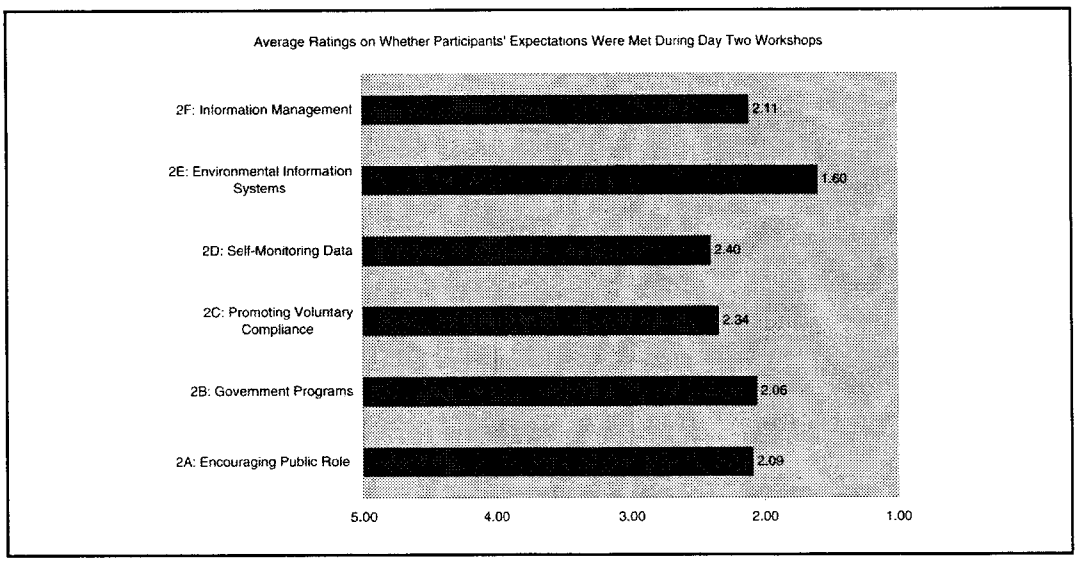




6.1 Under Day Two, six workshops were held:

- 2F: Information Management
- 2E: Environmental Information Systems
- 2D: Self-Monitoring Data: How to Ensure Accuracy and Integrity
- 2C: Promoting Voluntary Compliance: Environmental Auditing and Outreach and Incentives for Private Sector Compliance
- 2B: Government Programs to Encourage and Respond to Public Involvement in Enforcement
- 2A: Encouraging Public Role in Compliance Monitoring



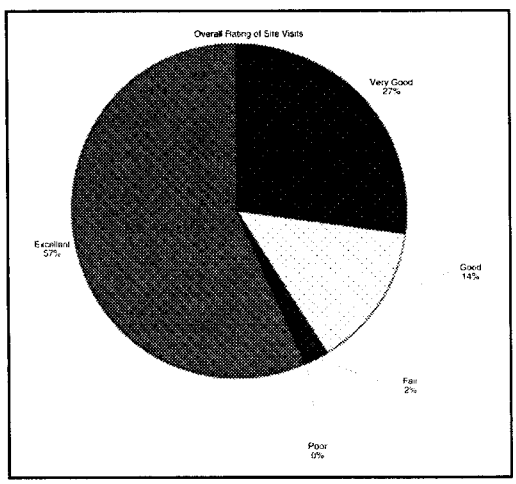


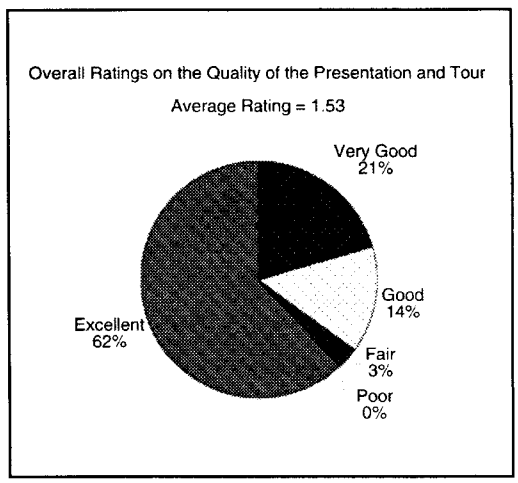
POOR (5) FAIR (4) GOOD (3) VERY GOOD (2) EXCELLENT (1)

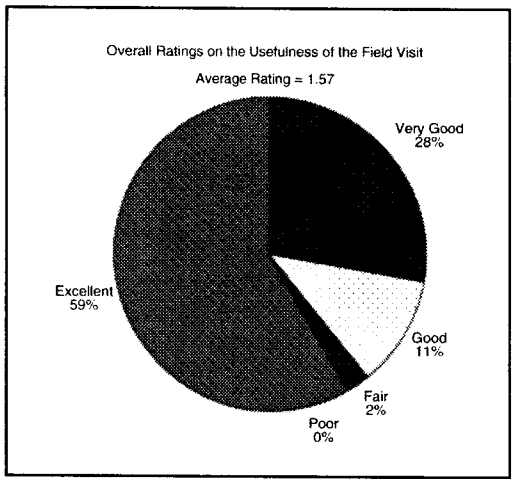
Additionally, the following workshops received especially high ratings for their value and meeting participant's expectations, ranking consistently in every aspect between Excellent and Very Good: Environmental Information Systems; Government Programs to Encourage and Respond to Public Involvement in Enforcement; and Information Management: Ensuring Effective Application at the Working Level.

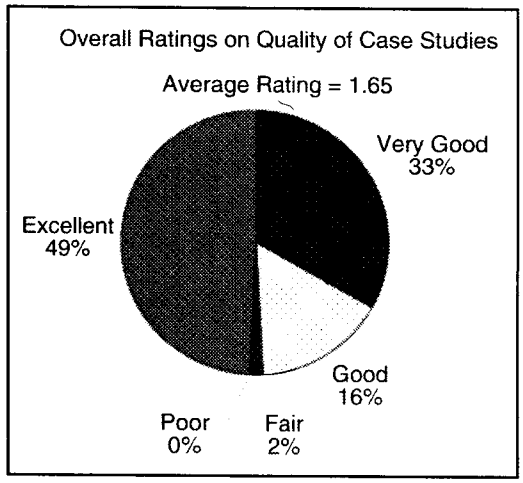
7 DAY THREE —SITE VISITS -- WEDNESDAY

For the first time, INECE offered participants the opportunity to spend a full day in the field learning about different enforcement related projects of the host country. The Site Visits were all well received (average rating=1.59), as were the case studies. The highest ranked Site Visit was the Conservation Easement (1.35), followed by the Coffee Cooperative (1.56), the National Biodiversity Institute (1.51), the Ecotourism site (1.63), and the Market-Based Conservation Project (1.70).



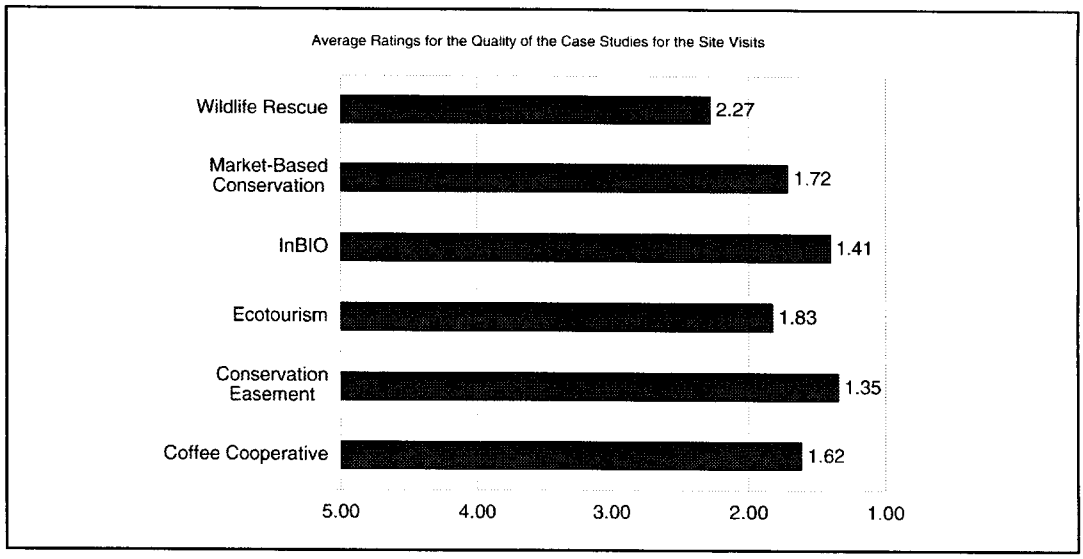


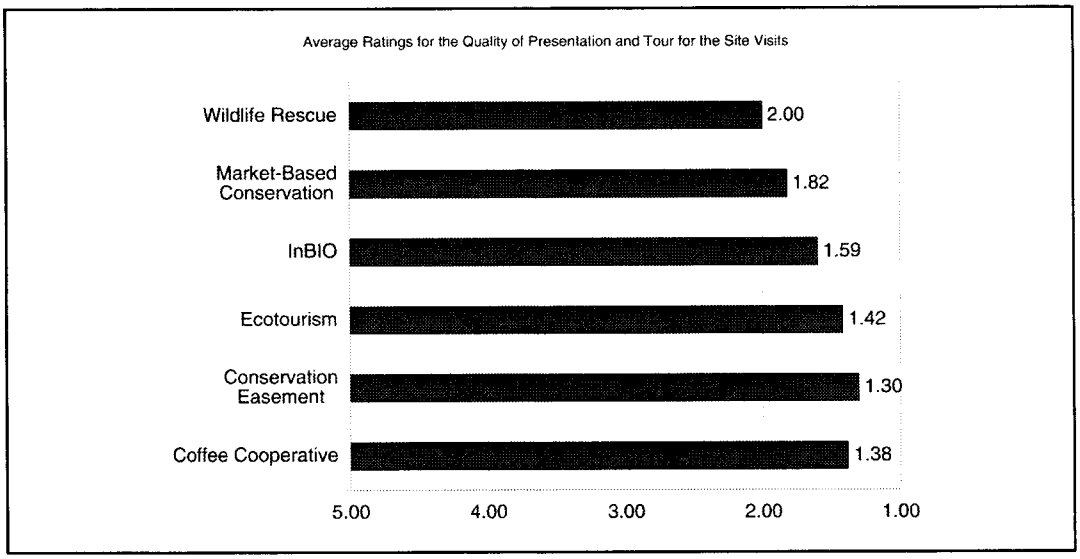


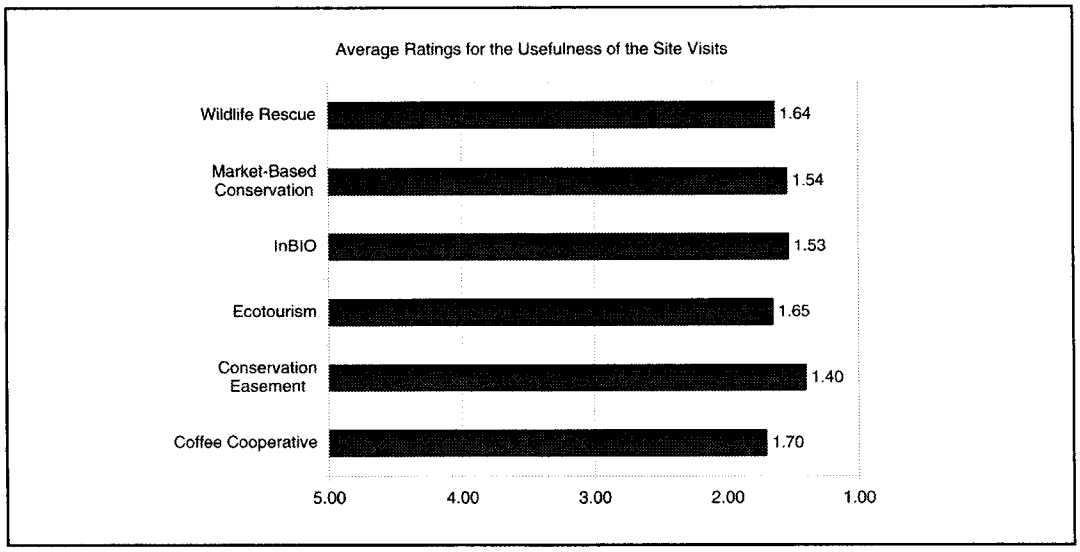


7.1 Under Day Three, participants were given the opportunity to go on one of six field visits:

- Wildlife Rescue Center
- Market-based Conservation
- National Biodiversity Institute
- Ecotourism
- Conservation Easements
- Coffee Cooperative in San Ramon

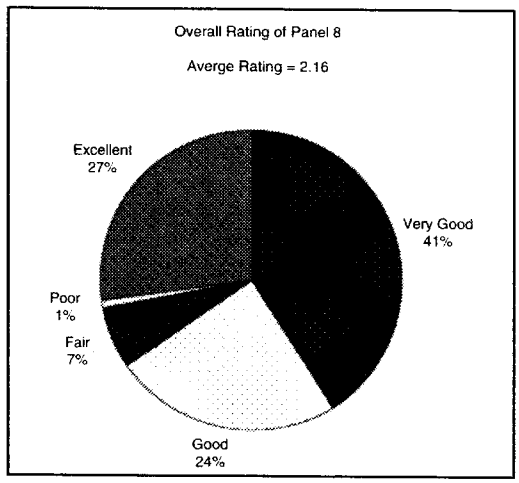


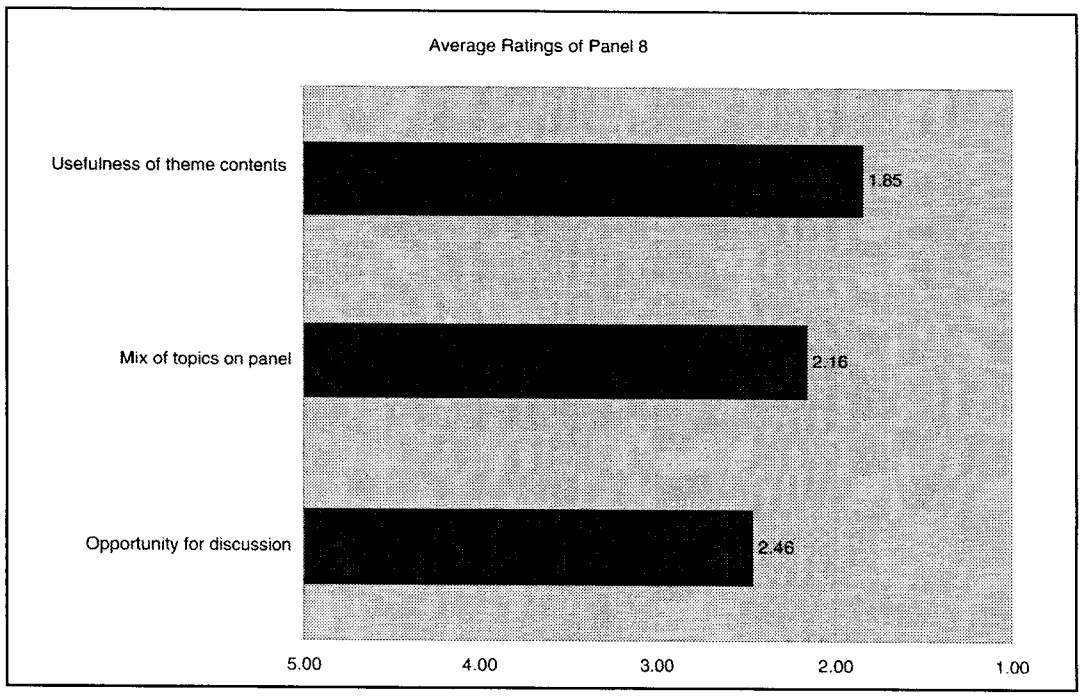

Average Ratings for the Quality of Presentation and Tour for the Site Visits
Wildlife Rescue
2.00
Market-Based Conservation
1.82
InBIO
1.59
Ecotourism
1.42
Conservation Easement
1.30
Coffee Cooperative
1.38
5.00
4.00
3.00
2.00
1.00
POOR (5) FAIR (4) GOOD (3) VERY GOOD (2) EXCELLENT (1)


Average Ratings for the Usefulness of the Site Visits
Wildlife Rescue
1.64
Market-Based Conservation
1.54
InBIO
1.53
Ecotourism
1.65
Conservation Easement
1.40
Coffee Cooperative
1.70
5.00
4.00
3.00
2.00
1.00
POOR (5) FAIR (4) GOOD (3) VERY GOOD (2) EXCELLENT (1)

8 DAY FOUR --SPECIFIC CONFERENCE PLENARY THEMES AND TOPICS — THURSDAY MORNING AND AFTERNOON

8.1 Panel 8 - Implementation of International Environmental Agreements

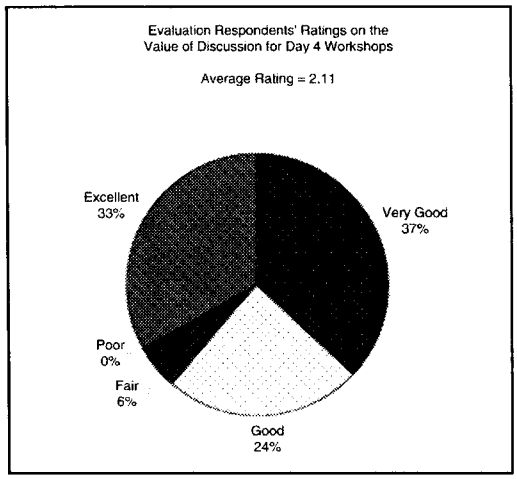


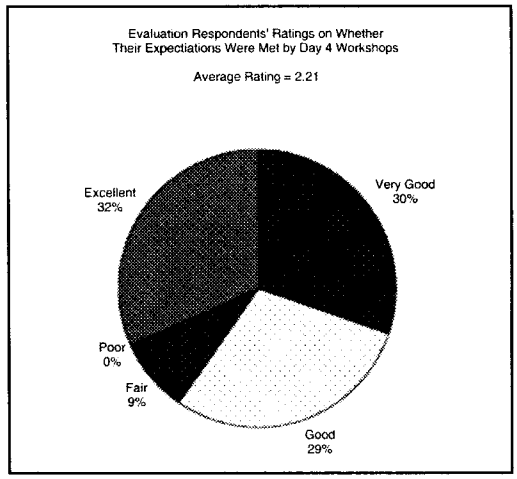


9 DAY FOUR WORKSHOPS – THURSDAY MORNING

During the Thursday mid-day workshops, participants gave high marks to "the value of the discussion" and "whether the participant's expectations were met." The following workshops in particular stood out: The Role of Police as Environmental Enforcers; Development of Sustainable Regional Networks; and Designing a Pesticide Forum. One Conference participant went on to say that he has "almost never been in such a well-moderated workshop" as the Role of Police as Enforcers.

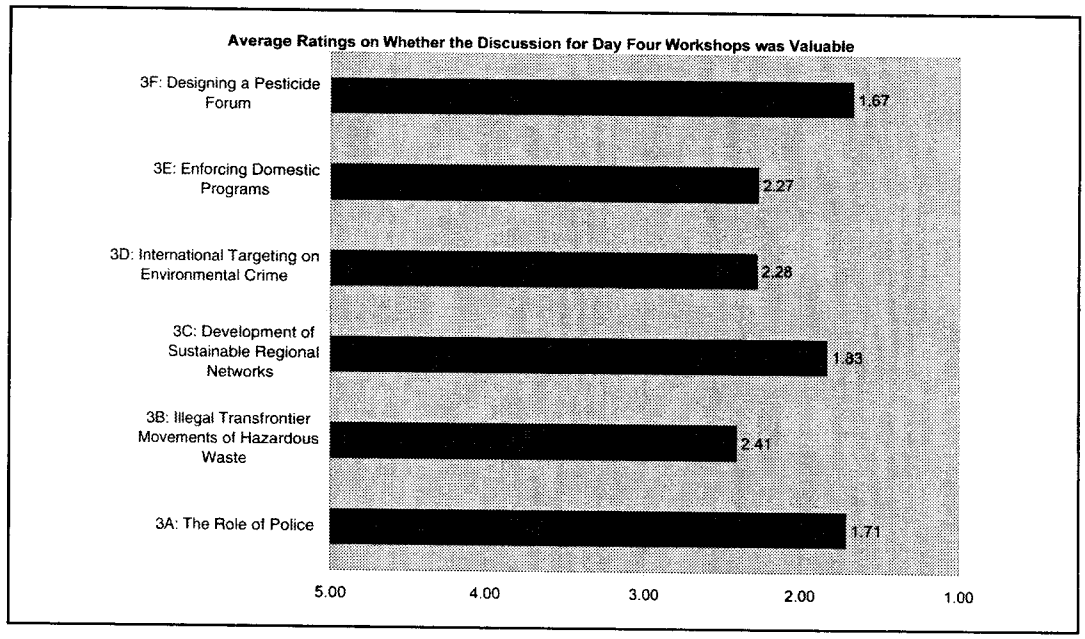
The following Workshops received especially high ratings for their value and meeting participants expectations, ranking consistently in every aspect between Excellent and Very Good: The Role of Police as Environmental Enforcers; Development of Sustainable Regional Networks; and Designing a Pesticide Forum.

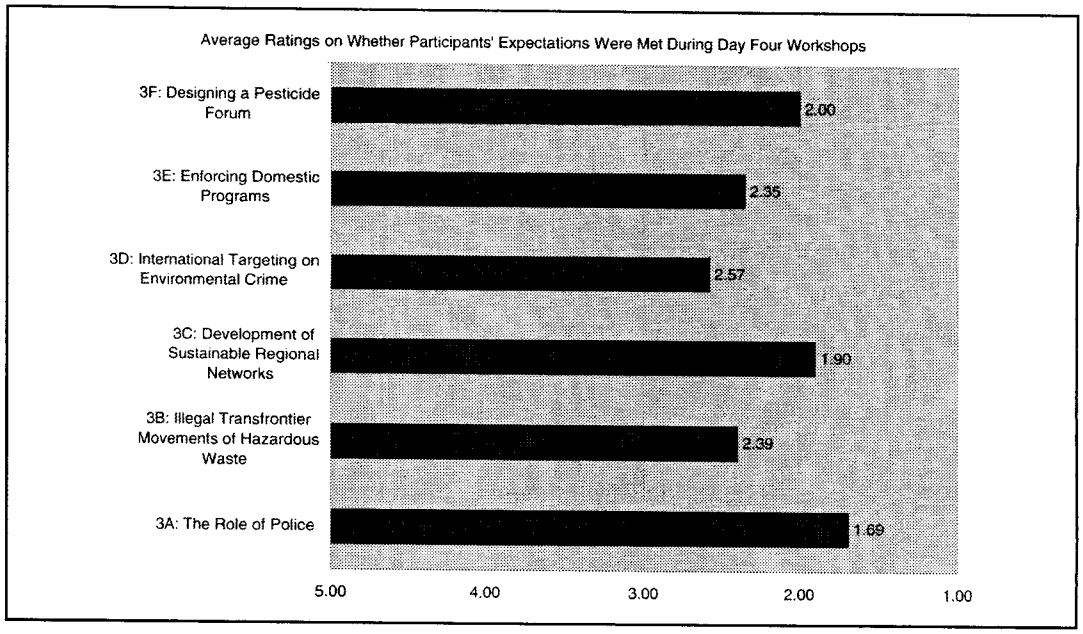




9.1 Under Day Four, six workshops were held:

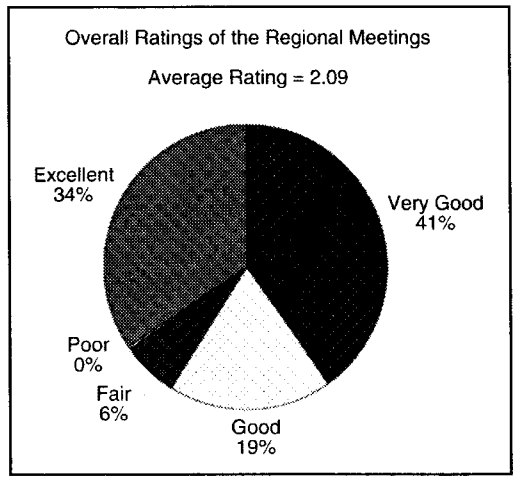
- 3F: Designing a Pesticide Forum
- 3E: Enforcing Domestic Programs
- 3D: International Targeting on Environmental Crime
- 3C: Development of Sustainable Regional Networks
- 3B; Illegal Transfrontier Movements of Hazardous Waste
- 3A: The Role of Police as Environmental Enforcers

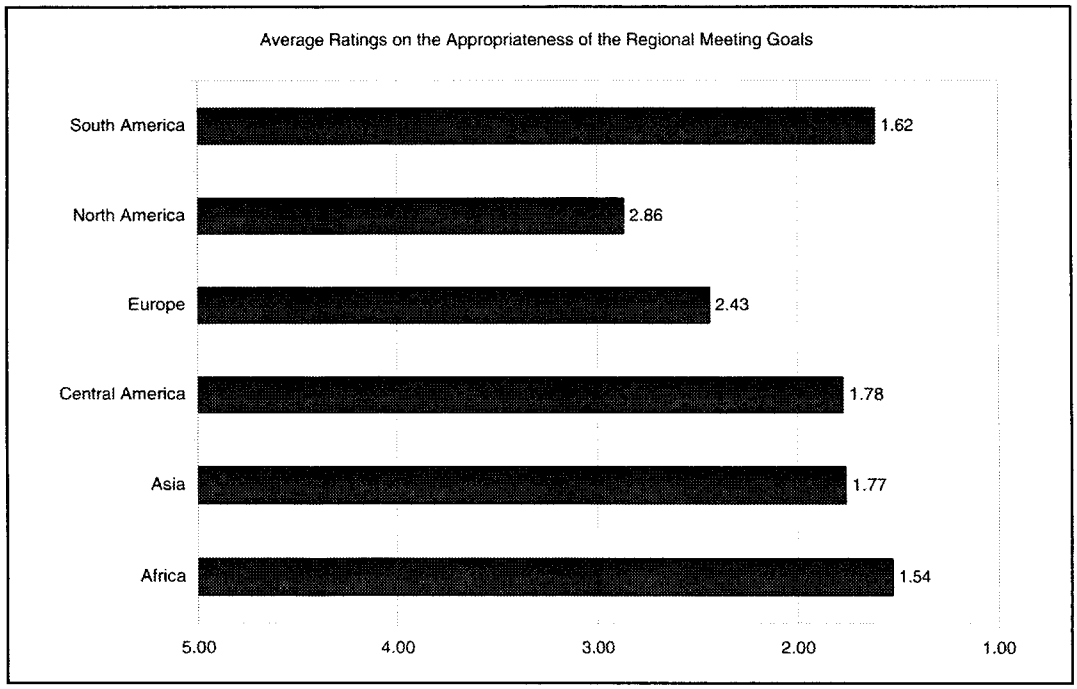

Average Ratings on Whether the Discussion for Day Four Workshops was Valuable
3F: Designing a Pesticide Forum
1.67
3E: Enforcing Domestic Programs
2.27
3D: International Targeting on Environmental Crime
2.28
3C: Development of Sustainable Regional Networks
1.83
3B: Illegal Transfrontier Movements of Hazardous Waste
2.41
3A: The Role of Police
1.71
5.00
4.00
3.00
2.00
1.00
POOR (5) FAIR (4) GOOD (3) VERY GOOD (2) EXCELLENT (1)

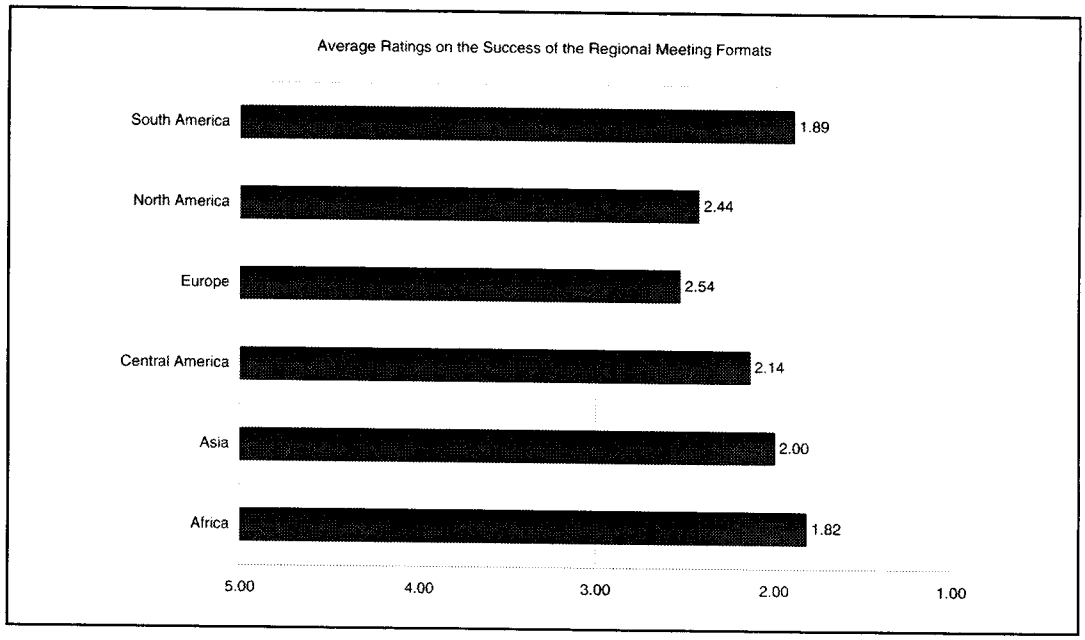

Average Ratings on Whether Participants' Expectations Were Met During Day Four Workshops
3F: Designing a Pesticide Forum
2.00
3E: Enforcing Domestic Programs
2.35
3D: International Targeting on Environmental Crime
2.57
3C: Development of Sustainable Regional Networks
1.90
3B: Illegal Transfrontier Movements of Hazardous Waste
2.39
3A: The Role of Police
1.69
5.00
4.00
3.00
2.00
1.00
POOR (5) FAIR (4) GOOD (3) VERY GOOD (2) EXCELLENT (1)

10 REGIONAL MEETINGS – THURSDAY AFTERNOON AND FRIDAY MORNING

The Regional Networks are an area in which many Conference participants feel INECE can and should be involved: "I think supporting development of regional networks should be an INECE priority." Another participant said, "Very important is the focus on regional networks/activities and on developing country needs."







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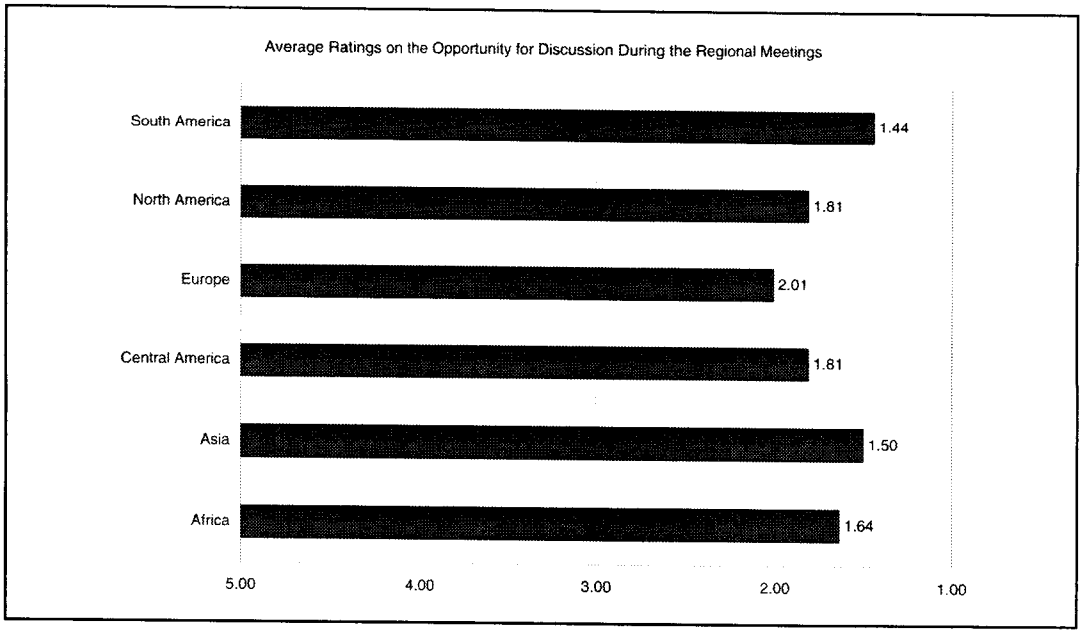
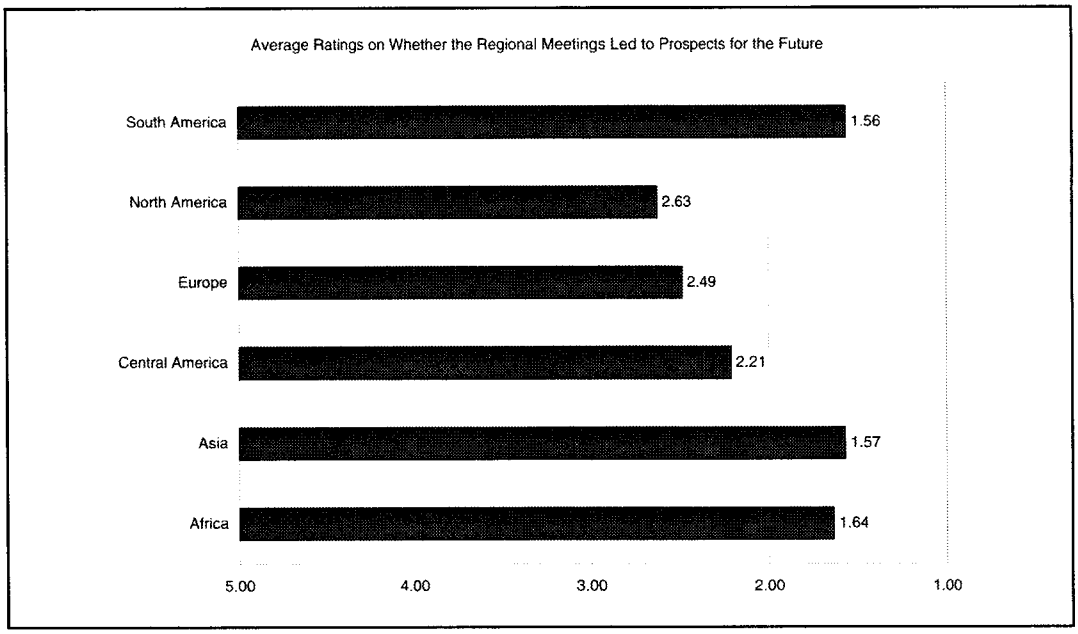


POOR (5) FAIR (4) GOOD (3) VERY GOOD (2) EXCELLENT (1)

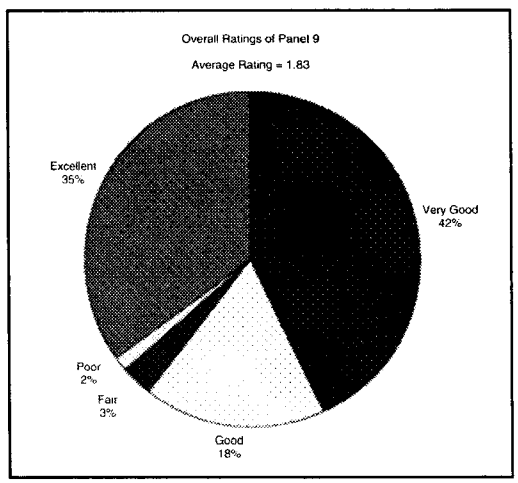


POOR (5) FAIR (4) GOOD (3) VERY GOOD (2) EXCELLENT (1)

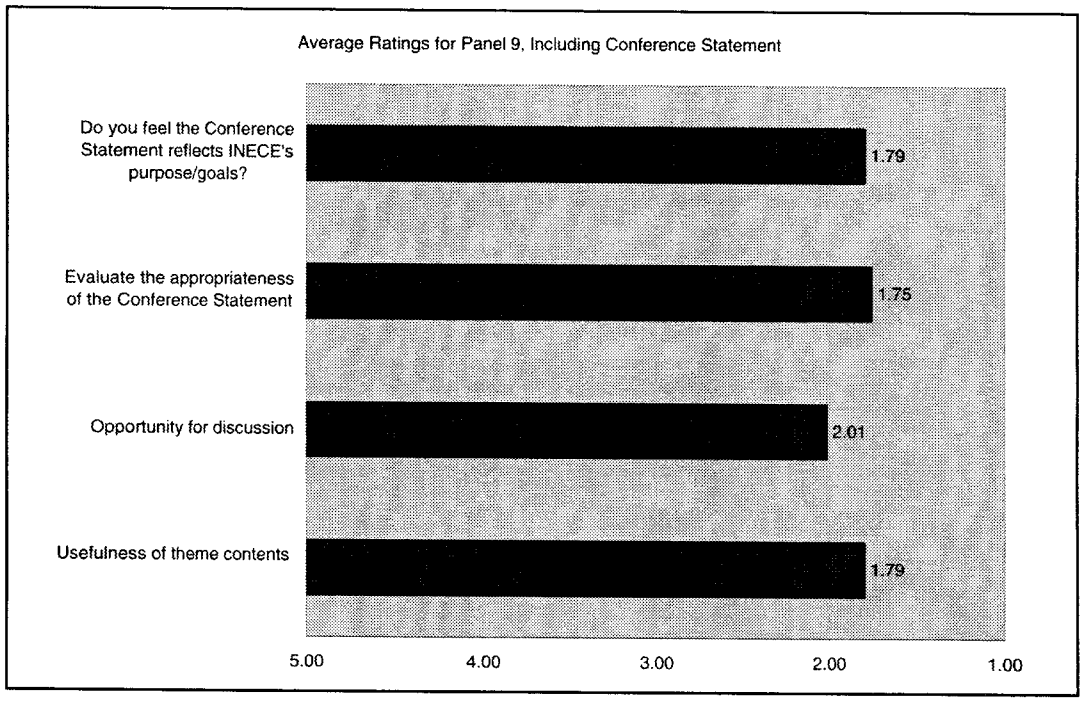
11 DAY FIVE -- PLENARY SESSIONS– FRIDAY

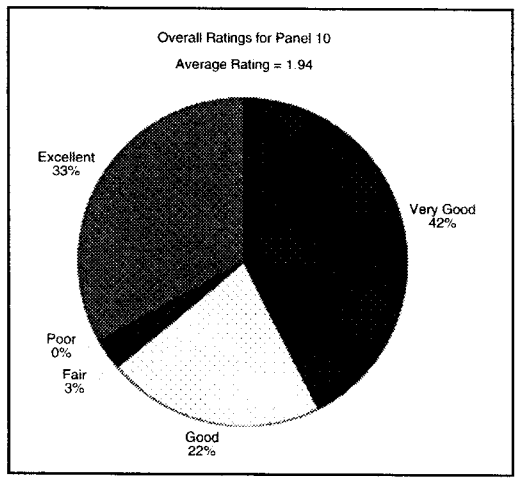
11.1 Reports of Regional Meetings and Workshops, and Presentation of Conference Statement

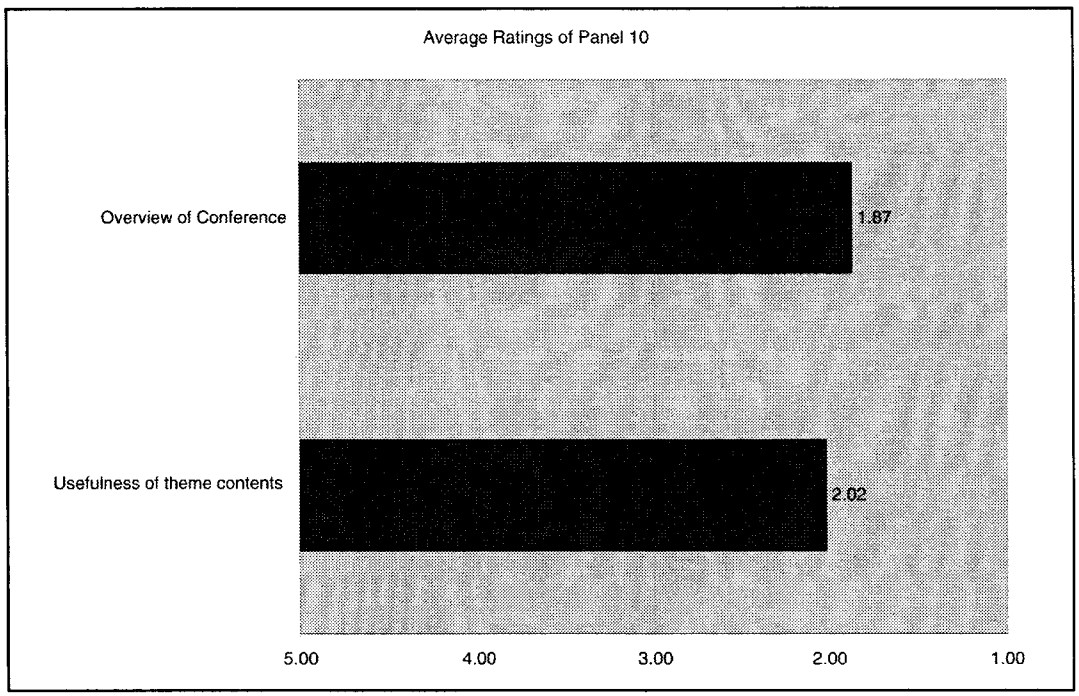
The day five plenary sessions covering the reports of Regional Meetings and the presentation of the Conference Statement, were commended for: the usefulness of the Meeting & Workshop Reports; the opportunity available for discussion; the appropriateness of the Conference Statement, and the consistency with which the Conference Statement reflected the purpose and goals of INECE.



11.2 Closing Plenary Session







12 EXHIBITS

VROM and the USEPA were given high marks for their exhibits, in terms of the value of topics displayed, whether the exchange of information was useful, the quality of the exhibit material, and the availability of those materials.

Table 3: Average Ratings in four categories for the exhibits provided by various organizations

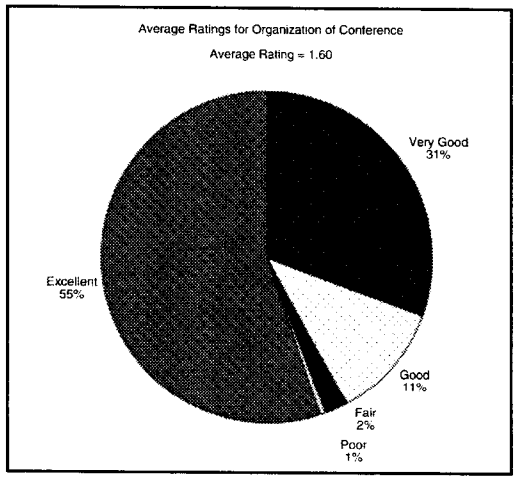
Table 3: Average Ratings in four categories for the exhibits provided by various organizations

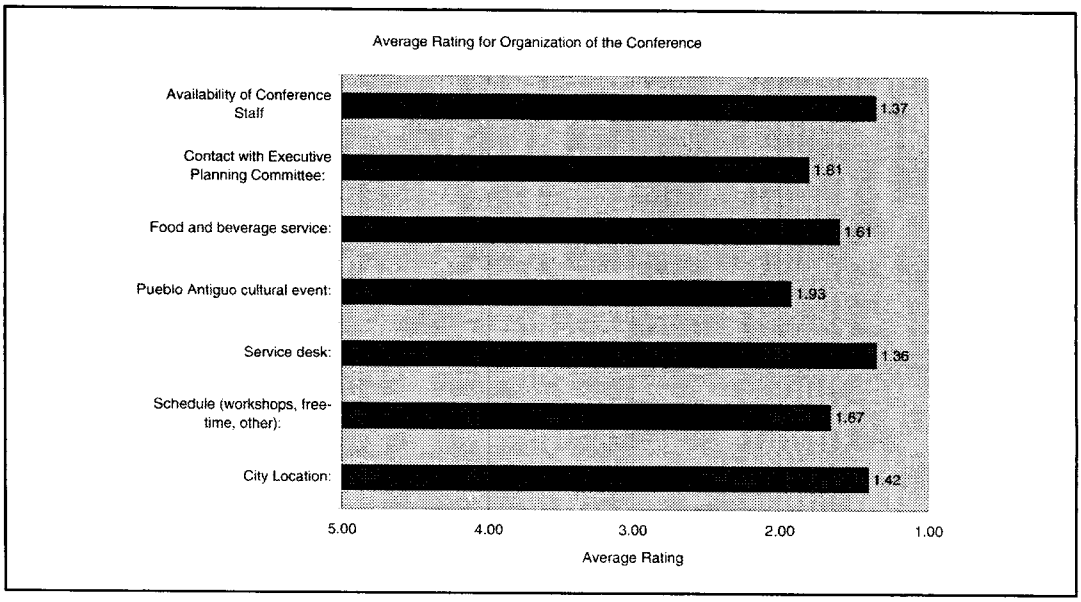
	Were the topics of interest to you	Productive exchange of information	Quality of the exhibit material	Availability of materials
UNEP	2.05	2.12	2.06	2.15
CEC	2.17	2.36	1.94	2.15
IFAW	2.27	2.19	2.09	2.12
VROM	1.95	1.92	1.76	1.80
USEPA	1.72	1.82	1.69	1.84
World Resources Institute	2.02	2.16	1.92	2.20
Regional Tables	2.24	2.40	2.27	2.28

13 ORGANIZATION OF THE CONFERENCE

In terms of Conference logistics and organization, participants gave great marks to the Conference site in San Jose, Costa Rica (1.44), the schedule (1.70), the Conference staff availability and service (1.40), the cultural event (1.96), the food (1.64), and having contact with the EPC (1.83). In particular, participants remarked that the Conference was a "triumph organizationally" and "very well managed." Others described the Secretariat staff as "super," "outstanding," "excellent and kind." One participant commented, "In general it was warm and welcoming, serious and hardworking without being humorless or cranky."

The Internet Cafe offered computers with Internet access and helped participants to stay in touch with their home countries. One person commented, "Having a room full of terminals was absolutely critical to my comfort and ease here."





POOR (5) FAIR (4) GOOD (3) VERY GOOD (2) EXCELLENT (1)

14 SECRETARIAT RECOMMENDATIONS

Participants showed their optimism and support for INECE through their detailed comments on how to make the next Conference even better. Based on the results from the questionnaires and the narrative comments, the Secretariat makes the following recommendations.

14.1 Greater Representation from Africa, Asia, and the Middle East.

Regional diversity is critically important to the success of a truly international conference. INECE has learned from the participants that there is room to improve the number of countries represented and how INECE can better service "all people" involved in the design of environmental compliance and enforcement programs. Various participants commented on the need to have more participants from Africa, Asia, and the Middle East. In general, there was substantial support in the comments section for increasing the focus on developing countries:

"Fill in what the developing countries need. Do not present 'best practice' but 'good practice' or minimum criteria."

"It is important for INECE to understand the REAL limitations of 3rd world countries and share information on instruments and enforcement tools that are affordable and sustainable in smaller, poor countries."

One recommendation for increasing diversity in future events is to provide a separate budget for travel funds and seek donor funding earlier in the planning process and to coordinate VISA issues in advance with the host country. While the visa issues were very challenging for Costa Rica, every participant ultimately succeeded in reaching the Conference. Furthermore, the Secretariat suggests revising the participant nominations selection process to rely more heavily on the Regional Networks.

14.2 Tailor Regional Meetings Toward Level of Network Development.

The format of the European regional meeting received a 2.69 rating, and the appropriateness of the goals and the prospects for future collaboration of the North American regional meeting received a 2.88 and 2.63 rating respectively. These lower ratings for these meetings may have resulted from trying to impose a similar format over all the regional meetings, without adequate consideration to the current level of development of an enforcement network within the regions. The secretariat suggests having each region plan its own meeting for the next Conference.

14.3 Consider Regional and Topical Conferences in the Future.

Many participants commented in favor of greater emphasis on regional and topical conferences in the future. Specifically, regional meetings could focus on items of specific interest, could emphasize alternative or region-specific modes of compliance, and would allow greater participation from others in the region. Similarly, topical conferences could serve to network enforcement practitioners and build capacity among persons allied by a specific enforcement component such as prosecution or a subject matter such as wildlife enforcement.

14.4 Next International Conference in Two Years.

Most participants favored having another International Conference in two years rather than four. One participant recommended holding the regional meetings earlier in the Conference to allow for more regional networking. Of the participants who provided comment on the subject, 67% prefer another Conference in two

years, whereas 23% suggested the next Conference be held in four years and 1% suggested three years.

14.5 Limit Number of Participants to Fewer than 200.

Several persons remarked that they felt the size of this year's conference (approximately 170) created a more intimate atmosphere that allowed for meaningful networking and knowledge sharing.

14.6 Include More Time and Clearer Guidelines for Discussion.

Many participants requested more time for discussion. Some participants remarked that establishing clearer guidelines for discussion could lead to stronger conclusions and recommendations in the workshops. Others requested that the Conference offer more in terms of practical experiences, case studies, and "what works vs. what does not" scenarios.

14.7 Greater Involvement of NGOs and Civil Society.

Numerous participants also suggested broader participation by NGOs and civil society groups.

15 CONCLUSION

In conclusion, the participants expressed strong support for the organization and outcomes of the 6th International Conference on Environmental Compliance and Enforcement. The meetings were useful, well conducted and relevant to real work. Participants expressed optimism that the relationships formed and strengthened in San Jose will lead to significant enforcement and compliance results through enforcement cooperation, such as the Prosecutor's Network, Asian Regional Network and the Indicators working group that were formed. These evaluations demonstrate a strong interest in expanding the INECE network and continuing to reinforce the broad spectrum of participants. Notably, the participants strongly supported the INECE goals and the experience led most participants to request additional conferences with regional and thematic focus. These and other recommendations are being incorporated into the INECE Strategic Planning process.

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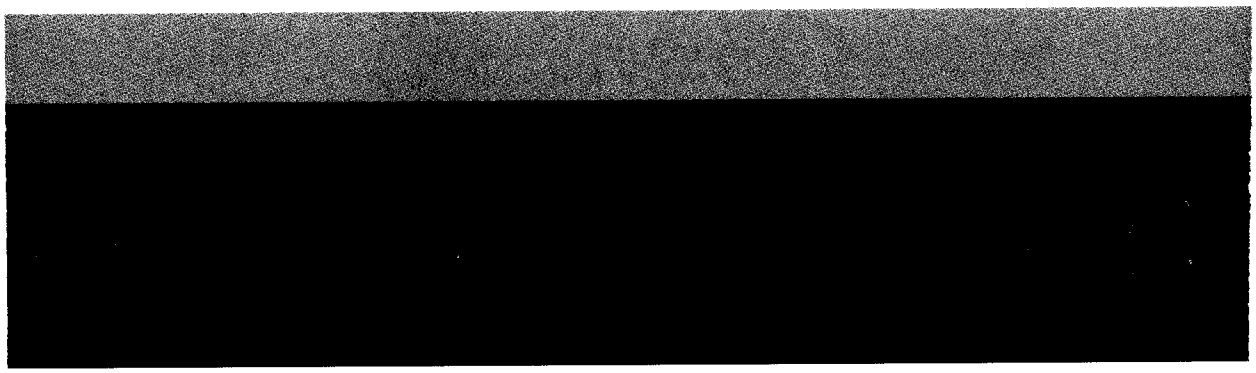

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