

**National Advisory Council
For
Environmental Policy & Technology**

January 25, 2005

Administrator Michael O. Leavitt
U.S. Environmental Protection Agency
1200 Pennsylvania Avenue, N.W.
Washington, DC 20460

Dear Administrator Leavitt:

On behalf of the National Advisory Council for Environmental Policy and Technology (NACEPT), I am pleased to present to you the attached advice letter supplementing our commitment to provide EPA with comments and recommendations in response to the Draft Report on the Environment (ROE). This advice letter was developed by a NACEPT Work Group and endorsed by the full Council.

The NACEPT reinforces its previous commendation of EPA for the extensive work that resulted in the Draft ROE. The document is a necessary and valuable first step in identifying the critical indicators of the health of the nation's environment. We strongly support the Agency's efforts to engage policymakers and the interested public in discussing the ROE's findings and identifying next steps. Discussion amongst the Council members subsequent to our November 6, 2003 letter to you surfaced additional thoughts we wish to share with you and your staff on what EPA's role should be, what needs to be accomplished, and why.

The NACEPT strongly believes that EPA should provide the leadership for the development of an integrated national environmental indicator database. This would entail developing a strategy and action plan and facilitating implementation. EPA should allocate resources toward this end and should make it a priority. Such a database would serve multiple purposes. Two important ones are enabling "state of the environment" reporting and supporting policy development and assessment.

The data in the database should be unbiased & credible; it must be well managed (have contextual information/meta data, such as source and measurement method, have assurance processes, be systematically updated, etc.); and it should be appropriate for intended uses and accessible to decision makers.

Only with such a resource will government be able to inform policy and other decisions and convey the status of the environment to the public. Why is this EPA's role?

We believe EPA would be the natural leader for the creation of a national database on environmental indicators since it provides national environmental leadership, its staff is already networked with the multitude of other sources of environmental data, and EPA already has the responsibility for collecting and overseeing the collection of a large amount of the data.

The NACEPT recognizes the severity of the national budget deficit and its potential impact on EPA's funding. However, we feel that this issue is sufficiently important to bring to your attention at this time.

Thank you again for the opportunity to comment on the ROE. The NACEPT looks forward to assisting in the preparation and review of subsequent reports.

Yours very truly,

A handwritten signature in cursive script that reads "Dorothy Bowers".

Dorothy Bowers
Chair,
National Advisory Council for
Environmental Policy & Technology

Attachment

cc: Stephen L. Johnson, Deputy Administrator
Kimberly T. Nelson, Assistant Administrator, OEI
Daiva Balkus, Director, OCEM

National Advisory Council for Environmental Technology and Policy

Advice letter: Environmental Indicators Database

January 13, 2005

Background

In 2003, the EPA published the *Draft Report on the Environment 2003* (Report). This Report has been described as the first comprehensive national report on the environment ever published by the EPA. The Report was called a “draft” in order to stimulate dialogue and input on the development of environmental indicators. The Report, for example, indicated that there had been a substantial reduction nationally in air pollution over the past 30 years, but that no similar broad judgments on a national basis could be made about water pollution because of the lack of consistent data; the Report contained detailed comments about trends in land use, human health, and ecosystems but the data did not lend themselves to broad inferences about the state of the environment.

The Report was sent to members of NACEPT in 2003 and discussed at the July 2004 NACEPT meeting. It was also sent to the EPA’s Science Advisory Board (SAB) for extensive critique and review. Twenty scientists and EPA staff met for three and a half days in March, 2004 to discuss and critique the *Draft Report on the Environment 2003*. On 8/11/2004 the SAB issued a 67 page review of the Report. This SAB critique has been extensively reviewed by the NACEPT workgroup on the environmental indicators initiative and the members of the workgroup are in substantial agreement with the analysis, conclusions, and recommendations of the SAB report.

The Need For An Environmental Indicators Database

The EPA has become increasingly aware of the importance of a systematically collected environmental indicators database. In 2001 the previous Administrator, Christine Todd Whitman, indicated that a primary goal of her administration at the EPA would be the establishment of a systematic database on environmental indicators. The *2003-2008 EPA Strategic Plan: Direction for the Future* (July, 2003) contains numerous references to EPA goals for the improvement of data bases on environmental indicators and the need to measure results against baseline series. A private foundation, the Heinz Center, has already published *The State of the Nation's Ecosystems* (2002) and hopes to publish an update in 2007. Their 2002 report advances the hope that their publication "...will help to strengthen the empirical foundation for American environmental policymaking in the same way that the emergence of solid data about changes in GDP, employment, and inflation helped to strengthen the country's economic policymaking in the last century." It goes on to note, "The completion of [the Heinz report] shows that a sustained, multi-sector collaborative approach to environmental reporting can make inroads on many of the problems of parochialism, perceived bias, and variable quality that have plagued previous efforts.... However, we are well aware that this report is at best an early step on a long path toward realization of the comprehensive, mature, and well-grounded system of ecosystem and environmental reporting that the nation deserves." (p.viii). Organizations in addition to the EPA recognize the importance of an environmental indicators data base to policy discussions and may well try to establish themselves as primary sources on environmental data.

Science Advisory Board Recommendations

NACEPT believes three key recommendations of the SAB 8/11/04 report were

- The EPA should institutionalize the environmental indicators data base and regular issuance of the Report by allocating regular staff and budget to the process.
- The Report should contain information on the environment and *not* the impact of government policies on the environment.
- The Report should have a more extensive introduction explaining the nature and purposes and conceptual framework of the document.

NACEPT Recommendations on the Draft Report on the Environment

Bearing in mind the extensive analysis already completed by the SAB, NACEPT makes the following additional recommendations:

- The EPA should assume leadership as the primary federal agency for the collection, organization, and dissemination of information on the state of the nation's environment. A model for EPA's role in reporting on environmental indicators data is the role of the Council of Economic Advisors' in economic statistics and policy.[1]
- The EPA should recognize the importance of creating, maintaining, and analyzing an adequate environmental data base in its internal allocation of staff and other resources.
- The collection and presentation of data on environmental indicators should, where possible, be based on time series, have cross-sectional data on regions,

and be maintained in an on-line accessible data base for policy makers, researchers, and the public. The data should be analyzed for the identification of trends in environmental indicators and should be published independently of reports on the effects of EPA policies and actions.

- Every effort should be made to secure the confidence of the scientific community and the general public that the methods of data collection represent a scientific consensus on the appropriateness of chosen indicators, their sampling methods, and their analysis. One criterion of appropriate methods should be their reproducibility by other researchers. Recognizing that consensus may not always be possible to attain, the EPA should, nevertheless, move ahead with the best support it can secure from interested parties. Regular Reports on the Environment should have accessible presentation for the general public but should avoid political “spin” or the perception of spin.

An Important Opportunity for the EPA

The Environmental Protection Agency could substantially improve the scientific basis for the analysis of environmental indicators and the effectiveness of environmental policy if it could improve the quality and availability of a data base on environmental indicators. The data base should be continuously and systematically updated so it is useful for understanding periodic changes and secular trends in the environment.

Conclusion

The EPA should take the lead in the development of a national data base on environmental indicators and make it a priority. This will cost money. Measurement and science are expensive. However, good policy depends upon good data and analysis.

Further, without a scientifically based national data base on environmental indicators, it will not be possible to communicate responsibly to the public on the state of the environment and the effectiveness of environmental protection. Therefore,

NACEPT recommends that the EPA should shoulder the responsibility of establishing a comprehensive and national data base on environmental indicators as one of its most important priorities.

[1] A model for an appropriate vehicle for an institutionalized annual report and data base comes from the annual **Economic Report of the President** which is coupled with the **Annual Report of the Council of Economic Advisors** and contains extensive statistical tables covering up to 40 years of data on such variables as national income, prices, employment, interest rates, exchange rates, government finances, corporation and international data. The primary data are transformed into all sorts of secondary data such as inflation, productivity, unemployment and participation rates for the labor force, and sectoral analysis. The responsibility for producing these annual reports was made by legislation in 1946. The Council of Economic Advisors has a small permanent staff (2 senior statisticians) and virtually all of the data included in the report are produced by other government departments and agencies (Agriculture, Commerce, HEW, Interior, Labor, Bureau of the Census, Federal Reserve, etc.). The EPA differs from the Council in that it is a primary source of data.

The development of any data base depends upon a conceptual basis for the identification and measurement of variables and statistical techniques for sampling and analysis. Decisions have to be made about inclusion and exclusion, aggregation, and indexing. Professionals will often differ on the construction of data bases but the development of a scientific understanding of the phenomena being analyzed depends upon an acceptance of the methods that are used for the construction of the data bases on which analysis is done. In economics, for example, there is continuing discussion about the appropriate measures for income and prices. The Federal Reserve and the Treasury

have different measures of saving; the Bureau of Labor Statistics and the Bureau of Economic Analysis have different ways of sampling employment. There is continuing disagreement about the construction of price indexes. Yet, discussions about appropriate economic policy and the behavior of various economic indicators by policy makers and economists rest on the same data base.
