

## SUMMARY OF PANEL 4: ENVIRONMENTAL COMPLIANCE AND ENFORCEMENT INDICATORS: MEASURING PERFORMANCE, MANAGING RESOURCES

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Panelists: Myriam Linster, Organisation for Economic Co-operation and Development  
Michael Stahl, Environmental Protection Agency, United States  
Maria Eugenia Di Paola, Fundación Ambiente y Recursos Naturales, Argentina

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### 1 INTRODUCTION

Presentations on environmental compliance and enforcement (ECE) indicators were delivered from three organizations (OECD, the Fundación Ambiente y Recursos Naturales (FARN) from Argentina, and the U.S. Environmental Protection Agency). The panel then opened into a group discussion involving all participants. Discussions demonstrated that there is always a need for several indicators, but there is no universal set of indicators. The appropriate set of indicators depends on the specific circumstances of a given situation and must be tailored to the purpose of the exercise. Lessons learned from various countries emphasize the need for flexibility and continuity, as well as the need for pragmatism (the need to learn from pilot projects). Exchange of information and international cooperation are therefore key elements for success. The panel also demonstrated that both developing countries and developed countries face challenges in identifying, developing, and using ECE indicators. However, the nature of these challenges may be different.

This panel culminated in various recommendations for INECE. It was recommended that a Community of Practice be built among ECE programs conducting indicators projects in order to compile accomplishments and lessons learned. Participants also identified the need for

training in this area. It was suggested that the *Performance Measurement Guidance for Compliance and Enforcement Practitioners* document be used as a starting point to develop training tools.

### 2 PRESENTATIONS

The session started with presentations on environmental compliance and enforcement (ECE) indicators from three organizations (OECD, the U.S. EPA, and FARN).

The first presentation was given by Ms. Myriam Linster and was entitled "*Environmental Indicators: Development, Measurement, and Use*". This presentation outlined the OECD's experience with environmental indicators. The PSR model (Pressure-State-Response) is the conceptual framework used by the OECD to develop environmental indicators. In this model, ECE indicators are examples of "Response" indicators. This model has proven useful for the OECD in the development and use of environmental indicators. Since 1992, the OECD has developed a set of 40-50 core environmental indicators to review the environmental performance of 47 countries. Environmental indicators have proven their usefulness for a broad range of purposes. It has become clear that a universal set of indicators does not exist. Decision on which indicators to use must be made in accordance with the objectives

and circumstances of each situation. The development and use of environmental indicators is a dynamic process that needs flexibility, continuity, and pragmatism. The only possible way is to learn by doing. It was pointed out that there is much to learn from exchange of experiences, which emphasizes the interdependency between international and national progress and the importance of international cooperation.

Mr. Michael Stahl followed with a presentation on "*Performance Indicators for Environmental Compliance and Enforcement Programs*". The presentation outlined a three-stage model for identifying (stage 1), developing (stage 2), and using (stage 3) performance indicators. Evidence suggests that most countries are in the identification and development stages. Best Practices for each stage of this model are identified and discussed in a report produced by the INECE Expert Working Group on ECE Indicators (*Performance Measurement Guidance for Compliance and Enforcement Practitioners*). Discussions within the international community have shown that indicators projects are tailored to the unique circumstances and settings of individual countries. It is also noted that the challenges facing developing countries in their indicators projects are different from those experienced by developed countries. Developing countries are often faced with compliance cultures in formative or very early stages, environmental laws not fully implemented, immature environmental agencies, and a system lacking data collection. For developed countries, challenges are mainly associated with the duration of implementation of projects, lack of interpretive skills, misuse and/or misinterpretation of results by external audiences, and the inherent limitations of indicators. ECE performance indicators are being used for various management purposes in certain countries. Such uses include the monitoring of performance through regular reports, review of performance of organizational units, evaluation of the effectiveness of specific programs, or the reporting of results to multiple audiences.

The last presentation was entitled

"*Pilot Project on ECE Indicators in Latin America – The case of Argentina*" and was delivered by Ms. Maria Eugenia Di Paola from the Fundación Ambiente y Recursos Naturales, describing a pilot project on ECE indicators associated with air and water quality. The pilot project was developed by FARN in Argentina, in the framework of an initiative of the World Bank Institute in Latin America, with other institutions from Brazil (Lawyers for a Green Planet) and Mexico (Ceiba), with the support of the Economic Commission for Latin America and the Caribbean (ECLAC) and INECE. The project was carried out in the Municipality of Morón, Province of Buenos Aires, and involved three levels of government, with major support and involvement from the Mayor of Morón. The methodology described in the INECE Expert Group document (*Performance Measurement Guidance for Compliance and Enforcement Practitioners*) was used as a starting point for this project and was refined. A large number of indicators were identified, both for water and air quality. Overall, there were many more indicators for inputs and outputs, compared to intermediate and final outcomes. This pilot project demonstrated that NGOs have an important role to play in such projects, particularly in stimulating and increasing interest within governments. The project also clearly demonstrated that a single indicator is not enough, and that one needs an interrelated system of various indicators in order to tell a story.

### 3 DISCUSSION

The presentations were followed by exchanges between panelists and the audience. A summary of the discussions is presented below, by major topics.

#### 3.1 Perception Issues

There was a discussion on the perception issues that may arise when indicators are used to provide information to the public. Panelists acknowledged that this is indeed a potential problem. Members of the public can be scared by what they see

and/or may not interpret the indicators the way they should. It was suggested that this risk may be reduced if information is given to the public using a set of various indicators, with some context to help interpretation. The choice of indicators is critical as well. Developers of indicators must always keep in mind the possibility of misinterpretation or misuse of indicators by others.

### 3.2 Funding Allocations Based On Indicators

A question was asked with respect to a hypothetical situation in which funding would be allocated based on benefits to the environment. Panelists were asked how they would proceed to measure such benefits. It was pointed out that such a situation would emphasize the need for the development of more indicators. It was suggested that in such situations the focus should be on the development of a set of two or three outcome measures that are readily usable. The importance of consulting with stakeholders on the choice of indicators in such cases was also emphasized.

### 3.3 Training

There was a suggestion that developing countries need to learn from those countries where ECE indicators have already been developed and used. It was pointed out that formal training is needed and that lessons learned need to be shared. There seemed to be consensus on this topic among the participants.

### 3.4 Challenges

Several questions focused on the various challenges associated with the development of ECE indicators. Those challenges may be related to the interactions of compliance and enforcement personnel with their policy development counterparts in government. Other challenges are related to the development of indicators for criminal prosecution programs. The specific challenges of developing ECE indicators in federally-oriented countries were also discussed. In the latter case, one panelist suggested that the main challenge in federal countries is related to data collection and management (the need for timely and accurate data).

## 4 RECOMMENDATIONS FOR INECE

This panel culminated in various recommendations for INECE:

- A Community of Practice should be built among ECE programs conducting indicators projects in order to compile accomplishments and lessons learned;
- Indicators should be used to establish a culture of performance (promote indicators as a management tool to improve performance and increase effectiveness);
- Training should be developed and made available. It was suggested that the *Performance Measurement Guidance for Compliance and Enforcement Practitioners* document be used as a starting point to develop training tools.