

## SUMMARY OF WORKSHOPS

### TRACK A: STRATEGIC MANAGEMENT OF ENVIRONMENTAL COMPLIANCE AND ENFORCEMENT PROGRAMS

During the workshops in Track A, facilitators and participants explored approaches to strategic management of environmental enforcement and compliance programs in different countries and discussed challenges of ensuring the accountability of governmental institutions for the results of these programs.

#### 1A DOING WHAT'S IMPORTANT: FOCUSING ENVIRONMENTAL COMPLIANCE AND ENFORCEMENT PROGRAMS ON THE RIGHT PROBLEMS AND PRIORITIES

Facilitators: Michael Stahl, Environmental Protection Agency, United States

Eugene Mazur, Organisation for Economic Co-operation and Development

Wijarn Simachaya, Pollution Control Department, Thailand

Rapporteur: Susan Bromm, Environmental Protection Agency, United States

#### BACKGROUND

Three questions framed the workshop discussion:

- How can an enforcement and compliance agency establish priorities?
- What are the barriers to doing so?
- How does an agency maintain a cadre of well-trained inspectors who are experts on the types of facilities they inspect?

#### THE WORKSHOP DISCUSSION

The following key points emerged from the discussion. First, resource constraints require countries to establish priorities. Second, many bases exist for the establishment of priorities, including sector specific, compliance history, geographic area, environmental impact and risk assessment. Third, some

countries have highly sophisticated scoring systems for establishing priorities (e.g., the United Kingdom), while others use less formal criteria (e.g., Japan).

Pertinent sub-issues were also discussed. Participants observed that although there are various means to establishing priorities, it is unclear whether one method leads to better results than others. Moreover, barriers to establishing priorities include: institutional resistance (people are often tied to old ways) and lack of information (e.g., in order to do comparative risk assessments).

Participants acknowledged the challenges to maintaining a well-trained cadre of inspectors. For example, in some countries, there is high turnover (due to industry drawing experienced staff away from government jobs) and, in others, retirements result in a loss of institutional knowledge. Countries are taking various steps to deal with this challenge. The Netherlands, for example, encourages retiring staff to transfer their knowledge and experience, while other countries and to provide training to inspectors to develop and maintain expertise.

## **THE OUTCOMES**

1. The benefits of establishing priorities include the better, more focused use of resources and better environmental gain from actions taken.
2. Countries currently employ a variety of approaches to establishing priorities although there is no agreement as to a clearly preferable approach. Approaches range from sophisticated scoring systems to considerations such as history of noncompliance, environmental impacts of the violations (or benefits to be gained by achieving compliance), environmental effects on the facility, geographic area, affected population, etc.
3. Different problems have different solutions. Strategies should be written to define types of tools to be used in setting priorities. OECD may come out with a recommendation on how best to set priorities by this November.
4. The greatest benefit occurs when using the priority focus as a basis for describing accomplishments in terms of environmental benefits and improvements to human health.

## **2A MORE EFFECTIVE REGULATION – IMPROVING EFFICIENCY AND CUTTING RED TAPE**

Facilitators: Elisea Gozun, Asian Environmental Compliance and Enforcement Network

Catherine Wright, Environment Agency of England and Wales

Joe Woodward, Department of Environment and Climate Change, New South Wales, Australia

Rapporteur: Ross Galbraith, Environment Canada

## **BACKGROUND**

The facilitators of this workshop sought to create an understanding of the terminology and principles of effective and efficient regulation through discussion and case studies. Specifically, the workshop goals included:

- Identifying how more efficient regulation could help deliver improvements for people and the environment.
- Reaching consensus on how INECE could further advance and disseminate concepts of better regulation.

## **THE WORKSHOP DISCUSSION**

At the outset, participants made several general observations, including that environmental regulation is an evolving process. Further, compliance with environmental requirements can be achieved through a whole range of tools and techniques. In order to best tailor the most appropriate approach, decisions on the extent to which alternative approaches to inspection and/or enforcement are appropriate should be taken locally to take account of the environmental priorities, the maturity of the regulatory systems, and available resources.

The discussion honed in on better regulation principles, including:

- Holding business accountable for meeting their environmental responsibilities.
- Using a range of tools to bring about environmental compliance from command and control to alternative approaches to compliance and enforcement.
- Targeting the level of effort based on what works best for the particular issue.
- Employing approaches that are able to bring about the desired change quickly and to effectively respond to mounting environmental pressures, especially climate change.
- Promoting transparency in dealings with business and communities.
- Encouraging community involvement through consultation, education, media, public disclosure, and inclusion in monitoring and/or reporting.
- Using of performance indicators to assess the effectiveness of regulatory measures;
- Tackling poor environmental performance through the supply chain.

- Exempting businesses from regulation as appropriate, e.g., where there is no environmental benefit.
- Re-enforcing and rewarding good performance.

Facilitators discussed specific cases demonstrating alternative approaches to regulation. For example, public disclosure of environmental performance and compliance assistance was provided to hog farmers in the Philippines, and in Botswana, the community was engaged in enforcement. The United Kingdom promotes simplified environmental permitting regulations and reporting on business performance, while in Australia, CEOs are made accountable for their self-monitoring and audit returns. In South Africa, self-reporting by industry is under consideration.

Other participants stated the need for laws and regulations to be drafted in a manner such that they are capable of being adapted according to changing conditions. It was also observed that consultation with CEOs of regulated sectors during the drafting stage of regulation may have the effect of producing more effective regulatory processes that balance market-based incentives with command and control instruments.

Similarly, consultation with the public can assist regulators in determining their priorities in relation to optimizing risk-based responses to environmental problems. This approach may be effective in creating optimal synergies between national priorities and local issues by promoting public support for the given regulatory approach.

Regulations must support best industry practices and regulatory processes must be open and transparent. This approach will strengthen the extent to which the regulations help support continuous environmental improvement

In order for continuous improvements to occur, regulators may need to develop performance indicators in order to ensure that regulations are, in fact, producing the desired outcomes. Some countries have moved to a system to rate the regulated community. A rating system may provide efficiency in terms of incentivizing industry to improve their performance (e.g. fewer inspections, more opportunities for self-monitoring). Self-monitoring may be an approach that is appropriate in certain circumstances, but the framework for such activities must be correctly designed and should incorporate sufficient checks and balances. Similarly, positive reinforcement mechanisms should recognize those regulated parties that perform at superior levels.

Finally, where possible, regulators should attempt to use multi-media/agency approaches that minimize the perceived or real degree of interference to industry and should ensure that regulations are flexible enough to adapt to advances in technologies, processes, and procedures.

## THE OUTCOMES

The workshop participants recommended areas for further work and collaboration within INECE. The top priority was to develop a program focused on alternative tools to inspection and enforcement, including identifying the alternative tools, assessing how and when to use these alternative approaches, and sharing global best practices. Two specific approaches identified for further consideration were: (1) self-monitoring and (2) promoting environmental compliance across the supply chain. It was further suggested that the first steps should be sharing information between network members and highlighting relevant documentation.

### 3A USING PERFORMANCE INDICATORS TO LEAD ENVIRONMENTAL COMPLIANCE AND ENFORCEMENT PROGRAMS

Facilitators: José Pablo González, Environmental Prosecutor's Office, Costa Rica

Elisea Gozun, Asian Environmental Compliance and Enforcement Network

Michael Stahl, Environmental Protection Agency, United States

Rapporteur: Davis Jones, Environmental Protection Agency, United States

## BACKGROUND

Mr. Stahl distributed copies of the INECE document, *Performance Measurement Guidance for Compliance and Enforcement Practitioners, Second Edition* as background for the workshop. The *Guidance* presents common definitions and best practices for identifying, designing, and using environmental compliance and enforcement indicators (see <http://inece.org/indicators/>). Mr. González discussed work in Central America to develop model indicators for the region using the *Guidance* methodology to achieve common measures. Mrs. Gozun shared her experience in the Philippines and with AECEN in developing and promoting indicators in Asia.

## THE WORKSHOP DISCUSSION

The INECE indicators methodology, developed by practitioners, presents a menu of different indicators that may work or could be adapted to work in a variety of situations. However, there is a need to balance the importance of the indicator and the feasibility of measuring it. As Albert Einstein famously observed, "Not everything that is important can be measured... Not everything that can be measured is important." For example, development of a statistically valid compliance rate would require inspections of 80% of the facilities, or to randomly select a target number of facilities. However, inspectors resisted the indicator because they did not see value of inspecting facilities where they did not suspect problems.

In the Philippines, most indicators were purely input and output indicators with very few that showed outcomes. However, one advanced program, managed by the Laguna Lake Development Authority, implemented a system of user fees for water services and assessed how compliance with the fees resulted in changes to the water quality of the lake. Input indicators included staff assigned, the funds allocated to the program, as well as equipment and vehicles assigned. The output indicators included the number of permits issued, the fees collected, and the number of inspections conducted. The intermediate outcomes expected are reductions in: (1) the pollutant load, (2) the percentage of wastewater discharged instead of recycled, (3) water use and (4) amount of company investments in wastewater treatment plants or pollution prevention. The final environmental outcome will be measured by changes in the level of biological oxygen demand and other common water quality indicators.

Indicators can help manage program resources and the efficiency of operations. In Finland, inspectors have to review complaints within a certain time period and determine the validity of the report and what else should happen as a result. They are expected to meet the response time limits in 97% of the cases. Managers can review the individual inspector's compliance with the timeliness as part of their periodic job evaluation, and managers can report on performance of the unit. This provides accountability within the agency and ability for headquarters to evaluate regional offices.

Some measures can drive odd behavior. For example, a measure that sets a target for the minimum number of enforcement cases in a given year may lead to prosecution of marginal cases solely to meet the target. The US Environmental Protection Agency (USEPA) no longer sets targets on number of cases, but does require targets for inspections in a year. In some cases, USEPA is relating pollution reductions that stem from enforcement actions directly to health effects. For example, USEPA took the total pounds of pollution reduced by enforcement actions against coal fired power plants and used a risk model to equate pollutant levels with health impacts. This brought significantly increased publicity of the enforcement cases, but is only possible for certain types of cases.

## **THE OUTCOMES**

Several individuals in the group requested specific support from INECE:

1. Uganda, Kenya, South Africa, and Tanzania all asked for specific assistance with the development and review of their measures.
2. China would like expert INECE participation in a pending upcoming meeting on enforcement measures.
3. INECE could develop and share a very short list of intermediate outcomes that could be implemented and tracked at the country and/or regional level.

#### 4A IDENTIFYING TRAINING NEEDS AT A STRATEGIC LEVEL

Facilitators: Machteld Brokerhof, Ministry of Housing, Spatial Planning and the Environment, The Netherlands

Angela Bularga, Organisation for Economic Co-operation and Development

Marcia Mulkey, Environmental Protection Agency, United States

Grant Pink, Department of the Environment, Water, Heritage and the Arts, Australia

Angelique van der Schraaf, Ministry of Housing, Spatial Planning and the Environment, The Netherlands

Rapporteurs: Machteld Brokerhof, Ministry of Housing, Spatial Planning and the Environment, The Netherlands

Grant Pink, Department of the Environment, Water, Heritage and the Arts, Australia

#### BACKGROUND

The workshop was designed to highlight the importance of designing and operating sound training programs with an emphasis on conducting training needs analysis. The workshop goals were:

- Review training vocabulary.
- Significantly improve understanding of the conceptual framework for good training programs and gain new ideas and tools for developing their own training strategy.
- Present detailed approach for conducting a Training Needs Analysis and apply the Training Needs Analysis process as a workshop exercise.
- Present strategic overview of the factors that influence training needs, including economic, demographic, cultural and technological factors, as well as environmental and governmental legislation.
- Develop a lasting product from the workshop, which could be used as part of further training.

## THE WORKSHOP DISCUSSION

Ms. Mulkey's presentation started with the screening of an 11-minute DVD titled "The Cycle of Environmental Enforcement Training," (see <http://inece.org/trainersnetwork/>) containing the training lifecycle methodology as used by US EPA's National Enforcement Training Institute. The training lifecycle is comprised of six parts: Analyze, Design and Develop, Deliver, Evaluate, Revise, and Review. The Analyze phase includes several types of analysis, namely: Needs, Task, Gap, and Resource.

The importance of Knowledge, Skills, and Abilities in training programs was highlighted and its relevance at a micro level was demonstrated by a provision of training designed and developed for field officers who were required to inspect refineries. Ms. Mulkey also made reference to the principle of thirds when designing training programs: a third of the time should be spent on delivery, a third on discussion, and a third on evaluation and feedback by participants. Often evaluation and feedback are overlooked in a rush to get to the next topic. This is problematic as it does not enable participants to consolidate their learning nor does it allow trainers to pick up on nuances of the participant group and make necessary modifications to the course. In closing, Ms. Mulkey mentioned that the new International Network for Environmental Compliance Training Professionals should be seen as a resource to participants as this Network may assist with information and advice in respect of generic and specific training packages, together with coordinating such assistance.

Ms. van der Schraaf then presented an interactive PowerPoint presentation entitled "Needs Analysis." The presentation incorporated theoretical underpinnings of training programs while continually reinforcing the practicality and ultimate usability of customized training programs. The presentation detailed the process of using a Strategic Knowledge Map. This Map assisted participants to more strategically identify important themes that tend to influence environmental compliance and enforcement in their countries. The Map was also used for an exercise involving participants who were placed into three groups and required to individually identify five to seven themes that they felt should be considered as part of a departmental training program. Participants then placed their themes/issues into one of the four quadrants in the Map based on matters of current and future importance. This exercise demonstrated that irrespective of the size, structure, or commodity regulated by individual agencies, there were common themes in the types of courses needed, including legislation, generalist courses, specialist courses, capacity building, and raising awareness.

Ms. van der Schraaf also outlined a second practical tool: the "Individual Knowledge Chart." The Chart was presented to the participants to use to assess the existing level of knowledge in their organization. By then combining the Map and the Chart, participants were able to identify their organization's knowledge

gap, enabling progress towards development of a tailor-made curriculum for the practitioners in the three years to follow.

## THE OUTCOMES

There was much discussion around the clear benefits associated with taking a more strategic and planned approach to designing training programs. It is recommended that these concrete action items generated by the workshop be used as the catalyst to put learning into practice:

1. There was substantial interest, stemming from the exercise, in receiving further assistance with respect to analysis, evaluation and prioritization, with a number of participants seeking templates/forms or documents that could assist them in this regard.
2. With reference to the Strategic Knowledge Map, there is recognition that training may not be able to solve all of our problems, but is able to assist us in identifying many of them and on a more strategic level.
3. With respect to the Individual Knowledge Chart, it is critical that training programs address the needs of the individual, and therefore content and delivery should be primarily driven by the needs of the participant, not to suit the convenience of training providers.

## 5A PERFORMANCE-BASED MANAGEMENT FOR ENVIRONMENTAL AND ENFORCEMENT PROGRAMS

Facilitators: Mihail Dimovski, Regional Environmental Center for Central and Eastern Europe

Réjean de Ladurantaye, Environment Canada

Michael Stahl, Environmental Protection Agency, United States

Rapporteur: Marcia Mulkey, Environmental Protection Agency, United States

## BACKGROUND

The workshop presented a framework for identifying important environmental problems and priorities, developing strategies to address those priorities, and measuring and evaluating effectiveness. In discussing these broad concepts, the workshop participants assessed the possibility of establishing an INECE internet forum for discussion of strategic management (using the INECE Indicators internet forum as a model) as well as a potential guidance document.

## THE WORKSHOP DISCUSSION

The facilitators presented a series of materials:

Mr. Stahl discussed USEPA's Concepts and Principles of Strategic Management. His presentation covered definitions, rationales, best practices, and the importance of the evolution of performance indicators. The main pillars of strategic management are 1) focusing on important problems; 2) focusing on use of effective tools; and 3) providing for assessment of effectiveness.

Mr. de Ladurantaye described Canada's project on Inspections, which focuses on improving understanding of the organization's effectiveness and productivity using the "three stage" INECE indicators methodology. This project involved a large geographic area, many inspections, and hundreds of laws; inconsistency and non-uniformity were major concerns. A significant initial challenge was data quality, with considerable data incompleteness and variability among regions. Performance comparisons among regions were considered separately for each regulatory area and significant differences were identified among the regions. Examples of data collected by the program include a comparison of the nature of inspections (field vs. other) and the percentage of inspections detecting violations. The program also observed differences in violator performance after initial, second, and third inspections. The lessons from this project, particularly with regards to data collection, were useful for participants to understand the high quality of information necessary to support the types of indicators that can help improve program performance.

Mr. Dimovski described the Regional Environmental Center for Central and Eastern Europe Indicator Project. This project developed indicators to evaluate the performance of these ten countries and to benchmark based on best performances. The project started with budget/investment parameters and moved on to other indicators including: the time invested in certain types of inspections, efforts in identified prevention systems, inspection prioritizations, incidents, appealed cases and several others. After considering a very long list of potential indicators, some were selected to assess inspectorate performance and some to assess legislative implementation. Challenges included a lack of common understanding about the interpretation of results (e.g., do a large number of inspections indicate success or failure?). Efforts are being made to move beyond activity measures. The results so far have been very helpful to individual countries in budget deliberations, especially by comparing to similar countries.

The group discussions probed the idea of an INECE Web-based forum on Strategic Management and Priority Setting, as well as Guidelines on the subject. The group was supportive of the project. Mr. Dimovski felt that such guidelines would be very useful in Central and Eastern Europe and encouraged the development of guidelines on prioritization and problem identification that are simple and usable. Mr. Stahl believes that the guidelines could rely heavily on examples, particularly

examples in actual implementation around the world. Ms. Mulkey and Mr. Stahl described the ways in which the strategic management forum could be integrated with the existing INECE forum on indicators.

The group asked questions about the reasons behind USEPA's choice to develop and use a number of outcome indicators for enforcement work. Mr. Stahl and Ms. Walker Smith identified a range of reasons, including the Agency's desire to better understand and communicate its impact, national legislation requiring Government Results and Performance, and management's need for appropriate incentives for smart, effective work.

Mr. Hietamäki of Finland discussed efforts in Europe to develop comparisons across Europe of the differences and inconsistencies in definitions of and implementation of best available technology, applying the approaches described for enforcement to permitting and standard setting.

## **THE OUTCOMES**

Through presentations and discussions, this workshop demonstrated a rapidly developing consensus that strategic management of enforcement and compliance programs is both desirable and necessary in an era of multitudes of statutes, regulated activities, competing expectations, and real and frequently severe limits on governmental resources. Focusing on problem solving, analysis of relevant data, and setting of priorities based on urgency of problems, strategic management allows governments to maximize their efforts and demonstrate their effectiveness. This kind of approach can be applied broadly, as USEPA has done for much of its overall enforcement program, or in a more focused way, as Canada has done for comparing and managing its regional inspection activities. This use for comparison and benchmarking, evident among the Central and Eastern European countries, can be relevant within and among national systems.

This workshop is expected to lead to development of:

1. An INECE internet-based forum on strategic management with a related interest in some kind of standing internet-based opportunity for practitioners to pose open questions in a forum.
2. Guidelines on strategic management of environmental compliance and enforcement programs.

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