

SUMMARY OF WORKSHOP: GEOGRAPHIC OR RESOURCE BASED COMPLIANCE AND ENFORCEMENT STRATEGIES

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GOALS

Discussions were to address the following issues:

- Where and when geographic or resource based strategies have been used, for example:
 - Prevent illegal logging or settlements on national forests or reserves.
 - Prevent poaching of wildlife.
 - Sensitive ecosystems (lakes, rivers, coastal resources).
- Particular challenges or problems posed by designing effective compliance strategies and enforcement responses.
- Institutional requirements and design requirements to help in:
 - Compliance promotion.
 - Compliance monitoring.
 - Enforcement responses.
- Training or inspection approaches useful in trying to detect violations or compliance problems.
- How those challenges might be overcome.

1 INTRODUCTION

Geographic or resource based compliance and enforcement regimes require an ecosystem approach and focused strategies to deal with the special challenges of downstream and cross-boundary impacts and protecting wilderness with limited resources.

2 PAPERS

The following papers in the proceedings relate to geographic or resource based compliance and enforcement strategies:

- Law Enforcement on Military Sites in the Netherlands, *Huisman, Fred*
- Waste Reuse: Legislation and Enforcement in China, *Wang, X.J.*
- The Overview of Water Pollution Control in the Huaihe River Basin, *Shi, Quichi*
- Achieving Ecosystem Protection Through Environmental Compliance and Enforcement, *Bircher, Nancy*

- Enforcement and Encouragement: An Investigation in the Brick and Roofingtile Industry, *Schoenmakers, John M.J.*

3 DISCUSSION SUMMARY

3.1 Challenges

In China, local governments generally own the factories and implement standards. Local governments are more concerned with economic development than with the effects of the pollution in downstream jurisdictions. Further, the local, provincial, and national governments all tend to interpret the standards differently.

In Brazil, multinational industries exercise influence over the government to establish polluting industries in formerly pristine areas with insufficient environmental protection measures. Once an industry is in place, it is difficult or impossible to restore the land and water quality. Once the harm has been done, it is difficult or impossible to restore the land and water quality.

Since 1990, the number of gold mining operations in Mongolia has undergone a ten fold increase to 149 operations, having a significant impact on 300 rivers and the adjacent lands. Rapid industrial expansion, dominated by foreign industry, has meant that government inspectors need to learn about new technologies and have not had the time or resources to obtain the necessary training.

All nations present experience the challenge of dealing with different standards in different states creating "pollution havens" and an unequal playing field for established industry.

Common training problems include, once inspectors are trained, they move to better paid jobs in the private sector and training being applied in an "ad hoc" manner to address single issues.

3.2 Solutions

Implementing environmental protection measures on a watershed basis involves attention to the entire system and not only the river itself. The Czech Republic employs an "Ecological Stability System" to ensure that all impacts and aspects of natural systems are considered when working to restore them. Austria has amended its legislation to redefine the meaning of the word "river" to include the riparian area as an aid to controlling impacts and maintaining the integrity of rivers systems.

To address the issue of downstream impacts across administrative boundaries, the Chinese central government sets national standards to which provinces must adhere. The watershed that provides drinking water for Beijing is protected from upstream pollution by paying compensation to upstream users so they will not have to depend on polluting industry for their survival. The Slovak Republic has installed "Alert Stations" along the Danube to detect hazardous materials spills. This measure facilitates timely notification of countries downstream and implementation of coordinated response activities in compliance with international emergency response agreements.

In Canada, the challenge of enforcing environmental law in remote areas is partially met by welcoming tips from the general public and undertaking covert operations where appropriate. Enforcement resources are targeted toward known offenders and successful prosecutions are publicized as a deterrent to others.

It is important to implement a comprehensive, structured training system with basic training and regular refreshers and updates. Case studies are very useful as training exercises. Training capacity can be improved in developing countries by sharing of training systems internationally, which may then be customized as needed for the region. Mongolia is sending selected inspectors to foreign countries to learn new technologies. Those inspectors then return to train their co-workers. Some training issues are addressed in the Czech Republic by assigning new inspectors to those with more experience for an "apprenticeship" period. Implementation of new legislation can be improved if government provides training to industry operators.

To provide a buffer against ecological destruction in the face of rapid industrial expansion, Mongolia has committed to increase protected areas from 6% to 30% of the land base by the year 2000.

4 CONCLUSION

The nations represented at the workshop shared the need to focus compliance and enforcement activities toward geographic areas of concern, particularly watersheds. There was recognition that an ecological approach must be employed when protecting drinking water sources due to the downstream impacts of upstream activities. Often, watercourses cross international or internal administrative boundaries, requiring complex and co-operative approaches to problem solving. Protection of resources in remote areas sometimes requires specialized enforcement responses such as covert investigations. Implementation of a system of protected areas can ensure that nature is protected while economic development continues on the remainder of the land base.

Industrial globalization has resulted in the presence of multinational industries developing nations that may not yet have the legislative or technical capacity to prevent pollution of formerly pristine areas. International assistance in development of training systems and also provision of direct training in the developed world can be used to overcome these issues.

