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Policy and Governance Measures to Prevent Mercury Pollution from Artisanal and Small-Scale Gold Mining



Abstract: The project activity aimed primarily to improve the underlying Policy and Governance mechanisms and capacity of participant countries relating to both mercury and the broader artisanal and small-scale mining (ASM) industry. Policy aimed at preventing mercury pollution of rivers and lakes is intricately tied to a multiplicity of other issues – rural poverty, legality of artisanal miners, alternative livelihoods, international trade etc. Several of the policy and governance initiatives, whether related to mercury trade, use or management, have started such change processes. An important outcome of the Policy and Governance strategy implementation has been the development of a series of useful tools for governments wishing to regulate mercury in ASM. The GMP worked best in countries where a high level civil servant and secondarily, a politician, were committed to action. Whilst education programs, awareness raising, and other interventions in direct contact with miners or millers are important, they cannot efficiently succeed without a solid regulatory backing.

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Policy and Governance Measures to Prevent Mercury Pollution from Artisanal and Small-Scale Gold Mining

Experience of the GEF - sponsored

GEF-UNDP-UNIDO: Removal of Barriers to the Introduction of Cleaner Artisanal Gold Mining and Extraction Technologies (Global Mercury Project)

GEFID: 1223

PROJECT DESCRIPTION

The Global Mercury Project (GMP) was implemented in order to begin a global response to address environmental impacts resulting from mercury released by the Artisanal and Small-scale Mining (ASM) sector. Six key transboundary river/lake basins in developing countries were selected: Brazil, Indonesia, the Lao People Democratic Republic (PDR), Sudan, Tanzania, and Zimbabwe. It is estimated that in these areas artisanal gold mining directly involves nearly 2 million people and supports more than 10 million others.

This project was implemented by the United Nations Development Programme (UNDP), with the United Nations Industrial Development Organisation (UNIDO) acting as the executive agency. The project was extended from its original timeline to run for a total of five years, ending in 2007. The project included seven objectives summarised as follows: a) assessing pollution from ASM; b) introducing cleaner technologies; c) regulatory development; d) environmental and health monitoring programmes; e) capacity building of local assessment laboratories; f) development of country policies for ASM; g) results dissemination and future funding.

This note does not address all activities within the project, but instead focuses on those related to Policy and Governance. For information on some other activities, please see the experience note on "Education, Awareness and Technology to Prevent Mercury Pollution from Artisanal and Small-Scale Gold Mining"

The project activities of concern aimed primarily to improve the underlying Policy and Governance mechanisms, and capacity of participant countries relating to both mercury and the broader ASM industry. Interventions related to Policy and Governance were based

upon, and complement alternative initiatives already completed within the GMP. Some of the key themes targeted relate to a) national and transboundary mercury trade; b) capacity building of government; c) guidelines on mercury management; d) national ASM policies. Assistance included the work and advice of policy experts within target countries, supporting host governments in all these areas. A number of community consultative processes also formed part of these activities.

THE EXPERIENCE

Issue

Artisanal and small-scale gold mining is largely driven by poverty and provides an important source of livelihood for between 10-15 million people. Yet it is also one of the major global sources of mercury contamination. Mercury is used to recover gold from ores in a process known as amalgamation. As well as losses to air and soils, ASM activities can contaminate rivers, lakes and their fish communities with mercury, both locally and on a global scale. The health of the miners and other people living within mining areas is adversely affected through inhalation of mercury vapour, direct contact with mercury, and the consumption of mercury contaminated fish. Critically, when mercury enters water streams, it is subject to oxidation and methylation, leading to its transformation to the highly poisonous methylmercury form. With the combined effects of water transport and bioaccumulation, mercury affects not only miners, but also distant communities.

Several features of current realities of mercury and ASM governance presented challenges for any potential intervention. The first is the very basic status of laws pertaining to ASM or mercury. Many governments in target countries remain unaware of such issues, or if they are,

have very little in the way of regulations or laws. Second is the commitment to action. Though our project took place at the invitation of host governments, real desire and commitment is often lacking beyond this expression of interest. Third is the complexity of governance issues. Policy aimed at preventing mercury pollution of rivers and lakes is intricately tied to a multiplicity of other issues – rural poverty, legality of artisanal miners, alternative livelihoods, international trade etc. It is impossible to separate policy and governance issues from other problems in these communities.

Addressing the Issue

A summary of major activity areas can be found in Table 1.

Table 1. Activities in Policy and Governance Initiative of Global Mercury Project

1. International Guidelines on Mercury Management

Development of UN International Guidelines on Mercury Management in Artisanal and Small-Scale Mining

2. Capacity-Building and Institutional Strengthening

Strengthening of Multi-Sector Cooperation with Government Agencies and other Organizations in Support of Capacity-Building, Training, Technology, Education, and Mobilization of Resources to Facilitate and Assist in Fulfilling the Aims of the GMP

3. Policies on Mercury and Artisanal and Small-Scale Gold Mining

3.1) National Mercury Use
Assistance to Governments in the Development of Appropriate National Policy, Legislation and Regulation on Mercury Management in ASM

3.2) Compliance Strategy
Reinforcement of Government Capacity to Promote Compliance with Regulations in ASM Communities through Education, Monitoring and Enforcement Strategies

3.3) National Mercury Trade
Development of Knowledge and Tools for the Reinforcement of National

Capacities to Monitor and Regulate the Domestic Trade and Distribution of Mercury Used in ASM

3.4) Transboundary Mercury Trade Assessment and Recommendations on the Transboundary Trade of Mercury with a View of Reinforcing Capacities for Regulating the Export and Import of Mercury Used in ASM

3.5) National ASM Sector Policy
Development of Recommendations to Governments on Policy to Enhance Coordination, Pro-Poor Empowerment and Rights in the ASM Sector

3.6) Micro-Finance Initiative
Development of Pilot Programs Enabling ASM Communities to Access Credit and Finances to Support Technology Transfer

3.7) Fair Trade Gold
Development of Global Certification Criteria and Equitable Market Policies and Processes for Fair Trade ASM Gold

4. Global Partnerships for Development

Strengthening and Expansion of Global Partnerships for Development - Joint Activities, Regional Network Capacity-Building, Global Awareness and Resource Mobilization

RESULTS AND LEARNING

Though not without some clear successes, many of the achievements of this part of the GMP are difficult to observe in the short term. Such is the nature of regulatory and legal change through government, that the enactment of laws takes place long after the intervention takes place. Several of the policy and governance initiatives, whether related to mercury trade, use or management, have started such change processes. Work with community stakeholders and government policymakers has spurred the drafting of new laws, though it may be years before they become fully realized, the community becomes aware of them, or they are properly implemented.

An important outcome of the Policy and Governance strategy implementation has been

the development of a series of useful tools for governments wishing to regulate mercury in ASM. This part of the GMP included the creation of “International Guidelines on Mercury Management in Artisanal Mining and Small-Scale Gold Mining”. These guidelines were created through a combination of review and consultative process. They were used extensively to guide the drafting of new laws in target countries and with wider dissemination, should prove to be a valuable resource for other countries looking at regulating this field.

Some interesting learning points came out of initiatives related to the transboundary trade in mercury. Initially, the aim was to develop national capacities to monitor and control the mercury supply chain. This failed in part, as project work led us to discover the wide extent of the illegal mercury trade. Specifically, such trading systems were so entrenched, significant change would have to take place on timescales well beyond the life of this project. However, some target governments, such as Brazil, Indonesia and Zimbabwe, have, as part of the project at least begun this process. Importantly, this aspect of the project did have an unexpected side effect in that it has influenced global attitudes to the mercury trade, especially in key exporting areas – namely USA and Europe. The GMP has been cited several times as justification for increased legal restrictions put into effect in such developed countries, such as the European Union Council decision to cease all trade by 2011.

Although control of mercury to combat transboundary water contamination was the focus on this project, the value of the GMP can be seen in the wider topic of ASM governance. The failure to control mercury use is often symptomatic of a greater failure to regulate, or even acknowledge ASM as an industry in many countries. As a result of this project’s interventions to prevent mercury pollution of waterways, most target country governments have consequently been obligated to consider more general management of ASM. Though we clearly cannot say ASM in all project recipient countries is now well regulated, awareness of its many issues amongst government is increasing. There is also a better understanding about the need for integration. Issues of mercury use in ASM and subsequent pollution of waterways cannot be considered in isolation. Policy and governance of the whole sector must be

considered for any effective change to take place.

REPLICATION

A point already noted in above responses is the expanded timescale of interventions in this area of Policy and Governance. We learned, perhaps a little too late, firstly that regulatory changes were needed to be implemented to make other parts of the GMP more successful, and secondly that these changes take a long time. Several of the above-mentioned strategies have initiated government action, but their results will not be seen for some time. Others considering similar intervention should take heed of this, as are we with regards future projects. It is our intention to build upon what we have learnt to begin a second GMP. But before this takes place, we hope to implement interim projects to foster supportive regulatory environments.

Though hardly unique to this field of development, we consider it imperative to have a few key supporters of action within host governments. Though UNIDO has been asked by many governments to help them with issues of mercury pollution from ASM, this intent really needs to be backed up by a champion within government. The GMP worked best in countries where a high level civil servant and secondarily, a politician, were committed to action.

Strategies on Policy and Governance were just one part of a wider project on mercury in ASM. However, it was our experience that this particular component commanded a huge percentage of our time and effort. This is compared to other areas such as education, awareness and technology transfer field work with regards time/cost considerations. Any other group seeking to make an impact must remember that this avenue of work requires infinitely more time and energy.

It is clearly not worth discounting the possibility of working in a country, just because they are behind others in regulation. That being said, our results clearly showed that much greater success occurred in countries where at least some level of consideration of ASM or mercury issues already existed. Effectively we found it easier to build upon a small base, and much more difficult to create change in countries where no prior consideration had really been given to these issues.

SIGNIFICANCE

ASM is a major cause of environmental pollution, particularly with regards extraction chemicals such as mercury. Its application in proximity to significant transboundary water resources, right across the developing world, makes it a threat. The propensity for water transport of mercury, chemical transformation and bioaccumulation make it a threat not only to the physical and long-term environmental health of miners and their surroundings, but the health and environments of the global community. In short, the issue is significant because of its global reach and ability to affect future generations.

This project and the specific activities outlined in this experience note associated with Policy and Governance are significant in that they highlight the important role they have to play in the overall mitigation of waterway mercury pollution from ASM. Whilst education programs, awareness raising, and other interventions in direct contact with miners or millers are important, they cannot efficiently succeed without a solid regulatory backing. Mercury is a tradeable commodity and in many countries worldwide a highly regulated metal because of its environmental and health dangers. Approaches that therefore look at such supply chain issues, guidelines for its application, or any other government controls, are not only welcome but logical.

REFERENCES

Further information and a number of useful documents can be obtained from the project website (<http://www.globalmercuryproject.org/>).

Alternatively contact can be made with UNIDO programme manager:

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