

Minutes
Mercury and ASGM: The Path Forward
IFC Meeting
June 9, 2009

Key Points:

- Members of the UNEP Governing Council recently decided to begin negotiations on a treaty to control global mercury pollution, of which Artisanal and Small Scale Mining is an important source. The treaty will not necessarily ban mercury, but will consider a host of approaches to control and minimize emissions from major sources like ASGM.
- Immediate actions are needed, while the treaty negotiations are underway, to investigate how to stimulate miners to transition to low-mercury technologies, and where feasible to non-mercury technologies, while still supporting economic development.
- The heightened international interest in addressing global mercury pollution should lead to more donor countries and institutions to support for work on mercury in ASGM. Specific mechanisms for financing this work must be identified.

Purpose: In the context of the recent UNEP decision to begin international mercury treaty negotiations, this meeting aimed to inform some of the main DC-based donors on mercury use in artisanal and small scale gold mining (ASGM), to collect initial ideas on critical near-term activities, and to identify potential funding mechanisms. The meeting consisted of two presentations followed by a group discussion.

For participants, see attached list

Presentation 1: Susan Egan Keane [Natural Resources Defense Council, UNEP Mercury Program ASGM Partnership] [*Towards an international treaty on mercury reduction, consequences for artisanal gold mining.*](#)

Susan's presentation provided general background on the role of mercury in artisanal and small scale gold mining. In addition to describing ASGM's role in the global mercury problem and identifying particular high-risk practices, the presentation highlighted many of the efforts and partnerships that have been created to reduce the role of mercury in the sector. Of particular importance is the recent agreement at the February UNEP General Council Meeting to begin work on an international treaty to control mercury. The presentation addresses the implications the treaty will have on ASGM, some of the realities of trying to reduce mercury in ASGM and questions to think about on the path forward.

Presentation 2: Dr. Kevin Telmer [Artisanal Gold Council, University of Victoria]
Mercury use in Artisanal and Small Scale Mining: existing solutions and international experiences in reduction efforts.

Kevin's presentation went into great detail outlining the background of mercury in ASGM, several case studies looking at possible strategies for reduction and identified several recommendations at the local, regional, and global scales. ASGM is an enormous sector that involves over 70 countries, *10 to 20 million gold miners and 10 billion US\$* industry. As such, it is the largest contributor of global mercury emissions after coal burning. Miners use mercury because it is cheap, independent, quick and widely accessible; therefore, any efforts to reduce mercury use must be incentive driven and easily implemented on the local level. Two case studies in Indonesia highlight two of the processes for mining gold, the associated problems and some of the potential solutions. The presentation also takes an in-depth look at several specific recommendations for action and outlines the roles of industry, NGO's, governments, banks and scientists in each scenario.

Group Discussion: The final section of the meeting was a discussion of next steps guided by several key questions:

1. Are there current efforts to reduce mercury within mining sector projects? Do these provide models (technical, financial) for future projects?
2. What are possible funding sources?
3. What are the priority countries that should receive the initial focus?

Where identified, speakers name and affiliation are in brackets.

Are there current efforts to reduce mercury within mining sector projects? Do these provide models (technical, financial) for future projects?

- [Chris Sheldon – World Bank] There is \$50 million project in Tanzania now, about \$12 million of which is going into ASM. In terms of mercury, the project will involve, among many other topics, training government staff and educating miners on how to reduce mercury. This includes setting up demonstration mines run by miners that will be used as training centers (“centers for excellence”). In addition, there are twelve mobile units that will go out into communities to educate miners. The Association for Responsible Mining (ARM) will be going to Tanzania to see how fair trade policies can be adopted and to help set up a system where miners will get a premium for their gold produced in a sustainable way, including gold produced without mercury. On the gemstone side of the project, the money is also going towards building an accredited institution that will help develop new technologies, some of which can be used for gold miners. CASM can be used to help disseminate new information.
- About 4 million dollars will go into small grants program (grants of \$5/10 thousand for individual miners) to help develop new technology, encourage environmental improvements, and to buy new equipment. For this to succeed

- there needs to be good screening mechanisms and involvement of local government or local entities. Initially there was talk of setting up a revolving fund, but it was recognized that there may not ever be money coming back from the miners, so a grant system was implemented instead. As a compromise, grants may go to communities who themselves set up a small loan/ credit system, so there will be some revolving money within the community.
- [Rafik Hirji – World Bank] The World Bank is working in Tanzania on water issues as well. Tanzania has many important water resources (many biodiversity hot spots) such as Lake Victoria, which supports a \$.5 billion fishing export industry. It is important to expand the scope of mining projects to include larger environmental issues, such as water. The community should come up with a creative way to integrate water sector work with the mining industry projects.
 - [Mark Schlagenhauf – USAID] USAID has a public and private partnership with mining, but more in terms of development and not necessarily with artisanal mining. There is no formal program to deal with ASGM, but programs could be developed in specific target countries.
 - [Ashton Carter - PACT]- PACT and USAID are working together in D.R.C. with small scale miners to develop a microfinance system. Mercury reduction is not specifically a component, but if there were the right technology/system, it could be integrated.
 - [Marilyn Engle - USEPA] EPA has a program to put fume hoods in gold shops in Latin America to capture mercury emissions. In Brazil the program was “bottom up,” that is, it was demanded by local and regional government rather than national government. At the local level they were thinking about making a permit system where gold shops are required to have mercury reduction measures, but nothing from the federal government. In Peru it is more on the effort of the national government. Every gold shop wants to be the pilot. The fact that the fume hoods are cheap and quick, and that local metal workers can construct one in several hours, adds to their success. Peru is about to have a series of 12 workshops, they are trying to replicate the program on their own. Ecuador is already asking to be a part of it and there is some interest from Chile. There has been a lot of networking but there needs to be the outreach.
 - [Jeffrey Davidson and Marcelle Shoop - RioTinto] Although Rio Tinto does not mine a lot of gold, as a responsible mining company it is very interested in the issue. RioTinto participates in a number of initiatives that are focused on improving practice and promoting positive change , both socio-economic and environmental, in ASM. There is scope and opportunity for promoting positive change in a variety of ways, including within the supply chain. Rio Tinto is a partner in the WalMart initiative to market conflict free diamond jewelry. Within the industry, there is a general understanding that large scale and small scale mining are in many places and for certain commodities often intertwined. The International Council on Mining and Metals (ICMM) has, for example, set up a working group on large-scale and small-scale mining relationships and is collaborating with CASM and the IFC CommDev on the development of a good practice toolkit to support constructive engagement between the two. RioTinto produces gold as a by-product of some its copper operations and is not now

directly involved in gold mining and cannot presume to speak or represent the interests and approaches of the gold mining companies. What is known generally is that a number of gold mining companies have tried during the past 10-15 years to work constructively with artisanal miners operating on their concessions, sometimes with good success. There are also examples of situations where relationships have been conflicted and the mine developer/operator has been at a loss as to how it might reach an outcome that is beneficial for both the company and the miners, or simply transferred responsibility to government authorities. JD provides some additional information on the Placer Dome experience in southern Venezuela where the company was able to develop a working relationship with the community based artisanal miners, and provided technical and organizational assistance to the miners to improve mining and milling practices that improved gold recoveries, income generated, and reduced mercury use and emissions.

What are possible funding sources?

- One possible structure is something along the lines of the x-prize where groups compete to develop the best technologies. It is important that the miners are consulted to find out what actually works for them.
- UNEP, USEPA and UNIDO are funding three sub-regional efforts to develop a multi-stakeholder action plan on mercury and ASGM. These plans will hopefully lead to changes in these regions, but will also help when countries come to the table during negotiations; they will have some awareness of the problem and will have thought through what needs to be in the treaty and the associated financial mechanism in order to address this problem. Furthermore, if the structure is being created by international negotiators, there needs to be confidence that they have the ground-level knowledge that will ensure implementation is successful.
- The Earthfund, under the GEF, is one way to work with private sector actors more efficiently. People tend to see Earthfund as climate/energy focused, but it could be pushed more towards chemicals. The GEF also played around with the idea of the x-prize.
- Donors are typically very reluctant to give money to artisanal mining projects, but when money has been given, mercury has often been the largest endpoint of that funding. It is not entirely clear why people are so reluctant, but it will be important to figure out ways to get more donors involved.
- The pitch to donors should now be very focused on the treaty process. Much like the process leading up to the POPs treaty, the community needs to identify to donors the need for inventories and other pre-treaty activities that fill in the gaps so that there are as few holes as possible when negotiations begin on the treaty. An international agreement on mercury will be passed to sovereign governments to implement, which is still very far away from actually seeing a change in behavior at the local level. Early in the process people need to start thinking about how to take things from the global level to the national level, but then also from national to local. The key message is mercury use in ASGM is very incentive driven. It is critical that any policy is able to deal with these incentives on the ground.

In terms of success story, one important question is, what is needed to scale up from 35 gold shops to 100,000? This needs to be a focus of donors."

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What are the priority countries that should receive the initial focus?

- Countries that have a lot of ASGM and mercury use should be top priority.
- Activities should also be driven by what the government's priorities are. ASM is a national priority in Tanzania because there are so many miners (similar in much of Africa).
- It is important to work with countries that are aware of the issues and to seize the opportunity for willing participation and move in. If the country is aware of the problem, they have probably already taken steps to address the issue.
- The status of miners in societies should also be looked at (e.g., look at proportion of population that is small scale miners). Guyana is 5% small scale miners so the government has been forced to deal with them because they are a large group of voters. At the same time you also want to target places that are using immense amounts of mercury (China). There needs to be a balance between ease of implementation and significance of the source. CASM is already in China and has done some outreach there. USEPA also has some experience in China, but had difficulties because the government does not acknowledge the presence of mercury use in ASGM because it is illegal.
- Instead of developing a list of the highest priority countries, maybe the focus should be on developing the three or so categories of countries that are most important (level of awareness, previous activities, use of mercury, etc.) and then prioritize within those categories.
- There needs to be the right balance between strategic and opportunistic activities.
- The treaty process can be very helpful because it will force people to really think about how willing they are and how much they want to commit to solve this problem.