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**United Nations  
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**Global Mercury Partnership  
Partnership Advisory Group  
Second meeting  
Geneva, 21-22 September 2010**

**Reporting of the mercury in artisanal and small-scale gold mining  
partnership area (January 2009 – May 2010)**

**UNEP Global Mercury Partnership**

**Note by the Secretariat**

Individual partnership area evaluations have been prepared by the partnership areas in response to Annex I Section 3.f.iv of the UNEP Global Mercury Partnership Overarching Framework. The mercury in artisanal and small-scale gold mining partnership area has a drafted partnership area evaluation. It is available in the annex to this document for information.

## Annex: Evaluation of the Artisanal and Small Scale Gold Mining partnership area

**TIMEFRAME: January 2009 – May 2010**

<b>1. GENERAL INFORMATION</b>	
<b>1.1 Individual partnership area:</b>	<b>Artisanal and Small Scale Gold Mining (ASGM)</b>
<b>1.2 Individual partnership area lead:</b>	<b>Ludovic Bernaudat, UNIDO Susan Keane, NRDC</b>
<b>1.3 Reporting year/period:</b>	<b>2009 to May 2010</b>
<b>1.4 How many meetings were held over the reporting period?</b>	<b>Number of face to face meetings: 0 Number of teleconferences: 4 with all the partners Other:</b>
<b>1.5 How many partners are parts of this partnership area?</b>	<b>30, a more than four fold increase (7 support letters at the end of 2008)</b>
<b>1.6 How much funding was raised through this partnership area? What about in-kind assistance?</b>	Financial Support from: Spain (100,000 USD), Norway, USA, Finland, UNIDO, UNEP.  2 SAICM Quick Start Projects: 500,000 USD  Significant in-kind support from all partners.
<b>1.7 What is the objective of the individual partnership area?</b>	
<p>The objective of this partnership is continued minimization and elimination of mercury uses and releases in artisanal and small scale gold mining. The Partnership aims to complement and supplement existing programmes in key, strategically selected ways that ensure that mercury reductions on the ground are globally significant. The Partnership will meet its objectives by:</p> <ol style="list-style-type: none"> <li>Providing assistance to developing countries and countries with economic in transition to formalize / regulate the ASGM sector.</li> <li>working with governments to address financial, policy and regulatory options which can improve the ability of mining communities to achieve significant reduction of mercury use and emissions.</li> <li>providing economic, technical, and educational information / guidance to miners and mining communities.</li> <li>working within supply chains to promote environmentally sound gold products.</li> </ol> <p>Target: The Partnership promotes a target of a 50 percent reduction in mercury demand in ASGM by the year 2017. To achieve this, the Partnership seeks to eliminate the practice of whole ore amalgamation. Additionally, the Partnership will work to promote other changes in ASGM mining and processing techniques to achieve measurable reductions in mercury releases.</p>	
<b>2. MONITORING PERFORMANCE</b>	
<i>(tracking partnership activities and partner contributions)</i>	
<b>2.1 Please provide a short overview of key partnership area efforts completed since the previous Governing Council (brief description, outcomes, costs, timeframe).</b>	
<p><b>Association for Responsible Mining – Standard Zero:</b> The Standard Zero of the Alliance for Responsible Mining (ARM) is a set of standards that cover social, economic, labor, environmental, and trading aspects of artisanal and small scale gold mining. Miners that adhere to the standards can be certified as Fair-trade and Fair-mined Certified gold. These standards underwent substantial public consultation, including input from several of the ASGM Partnership members. The Standards were recently approved by both the ARM and Fair Trade Labelling Organization (FLO) board of directors. FLOCERT is the third party certifier for compliance with the standards. <b>The standards are available at the ARM website <a href="http://www.communitymining.org">www.communitymining.org</a> and the FLO website <a href="http://www.fairtrade.net">www.fairtrade.net</a>.</b> Any Artisanal and small scale mining organization (ASMO) wanting to become certified under these standards, can now apply to FLO-CERT.</p> <p><b>US EPA Small-scale Gold Processing Project:</b> USEPA and the Argonne National Laboratory (ANL) continued to disseminate the low cost, easily constructible Gold Shop Mercury Capture System (MCS) for gold processing</p>	

shops. The MCS was first piloted and tested in the Amazonian gold producing region of Brazil. Since the last reporting period, we have supported pilots in several areas of Peru, in both Amazonian and Andean regions. Field tests in Puerto Maldonado and Laberinto, located in the Amazon, in Madre de Dios, a major ASGM gold producing region of Peru, showed that mercury levels were reduced about 80%. Similar results were shown at high altitude in Puno, in the Peruvian Andes. The technology is now being disseminated through a series of workshops and demonstrations around the country, hosted by the Ministry of Energy and Mines of the Government of Peru. Informational materials in Spanish were developed by Peruvian partners and are available. The total number of systems installed in Brazil and Peru as a result of this pilot is 24. The construction manual and informational brochure for the MCS has been translated into Portuguese, Spanish and French.

**Senegal Improved Artisanal Mining Technology and Training Project:** Senegal partnered with the United States, UNIDO, the Blacksmith Institute, and local NGOs to reduce the use, emissions, and health effects of widespread mercury use in the gold mining region of eastern Senegal, near Tambacounda. Beginning with a baseline assessment of mercury use by field miners, partners developed and implemented a plan to train community-based NGOs and health workers on appropriate technologies for mercury capture and reuse, and safe mercury management techniques. The work resulted in the construction and purchase by miners of 985 retorts, adapted by the local communities for their use. Over 3000 people in mining communities in Senegal have been trained on mercury risks and best practices through the project.

**Artminers, Institute for Sustainable Mining. Introduction of Cleangold (mercury free) mining products to ASM communities:** In 2009, while funding for new initiatives grew scarce, Cleangold experienced its largest expansion to date, selling directly to hard rock and placer miners, with greatest growth occurring in South and Central America. Cleangold is now in 32 countries and new distributors in South and Central America have emerged. More information can be found at <http://www.artminers.org> and <http://www.cleangold.com>

**EARTHWORKS -- No Dirty Gold Comparison of Responsible ASM Initiatives:** EARTHWORKS conducted a comparison of standards of several leading initiatives working on responsible Artisanal and Small-scale Mining of gold. This publicly-available report, "The Quest for Responsible Small-scale Gold Mining," included a comparison of initiatives' standards on mercury use in small-scale gold mining. This report is available on [www.nodirtygold.org](http://www.nodirtygold.org)

**AGENDA for Environment and Responsible Development (AGENDA) of Tanzania** is implementing a project "Training of Trainers on alternatives of mercury and Best Available Techniques (BATs) and Best Environmental Practices (BEPs) in Artisanal and Small Scale Mining in Tanzania (Phase III)" as from, February 2010 to June 2010. The objective of the project is to ensure that important information on available alternatives of mercury as well as Best Available Techniques (BATs) and Best Environmental Practices (BEPs) is shared and passed on to artisanal and small scale miners through their regional associations as well as zonal mining officers (representatives of the Ministry of Energy and Minerals) and hence feed into government policy planning system for effective and efficient mercury phase out on mining activities in Tanzania. The project build upon the outcome of the scoping first phase that based on to analyzing the extent of use and impacts of mercury pollution from artisanal gold mining activities in Tanzania. Furthermore, the project also liase with the World Bank funded project 'Tanzania Sustainable Management of Mineral Resources Project' which has one component (Component A) aimed at helping artisanal and small scale miners, including gold miners. Part of this work will entail helping the miners improve environmental practices, including improving mercury management.

**Communities and Artisanal & Small Scale Mining (CASM) conference workshop on use of mercury in artisanal and small scale mining.** At the annual meeting held in Mozambique in 2009, several of the ASGM Partnership members organized a workshop on reducing the use of mercury in small scale mining. About 30 participants representing a cross-section of miners and mining associations, government officials, academics attended. In addition to the workshop, the Artisanal Gold Council also presented a half-day hands-on demonstration of mercury capture and gold refining for small scale gold miners. They also invited local miners to come to the conference venue and demonstrate their mining techniques. The meeting report, including video clips of this demonstration, are available at: [http://www.artisanalmining.org/index.cfm?page=page\\_disp&pid=9053](http://www.artisanalmining.org/index.cfm?page=page_disp&pid=9053)

**Commission for Sustainable Development(CSD) Learning Center and Training:** USEPA, with help of UNIDO, and Partnership member Sam Spiegel, organized a "Learning Center" at the U.N. Commission for

Sustainable Development, May 2010, on the topic of mercury use and mercury reduction in ASGM, The Learning Center provided three hours of training to participants from all over the world on best practices and strategic planning to address mercury use in the sector. Also, the Partnership co-lead presented information about the Partnership during a UNEP training session at CSD.

**2.2 Please provide a short overview of the key current partnership area efforts (brief description, expected outcomes, budget, timeframe).**

**Three regional strategic planning projects related to ASGM are underway:**

**i) A regional strategic planning project for Francophone West Africa kicked off in December 2009.** The project was funded by UNIDO, US EPA (through UNEP) and Finland. Six countries (Burkina Faso, Mali, Senegal, Guinea, Cote D'Ivoire and Niger) participated. The objective of the kick off meeting was to collect data and raise awareness among stakeholders about the problems related ASGM in their countries. Countries are now in the process of preparing national action plans and identifying priority actions in their countries. US EPA may fund further activities based on country plans.

**ii) A SAICM- Quick Start Program (QSP) funded program in Asia started in January 2010..** The focus countries are Cambodia and the Philippines. The primary expected outcome of the project is the development of multi-stakeholder national strategic plans for Cambodia and the Philippines, and enhancement of regional collaboration and coordination through exchange of experiences and lessons learned on a regional level.

**iii) Described in section 2.3**

**Communities and Small-scale Mining (CASM) Mercury Webpage:** CASM maintains an informational page on mercury as part of its website and has offered to allow the ASGM partnership to use this space to share information. Partners are invited to post reports, presentation and any other information related to mercury use reduction in ASGM at this site.

**Expansion of Standard Zero.** As described in section 2.1, ARM recently completed work on Standard Zero. The standards were developed based on experience in Latin America. Currently ARM is expanding work into Africa (esp Tanzania, Uganda, Ghana and possibly Kenya). Although the standards are currently considered final, there will be opportunities for refinement/adjustment in the future, especially based on local experience gained in Africa (and elsewhere).

**Mercury use in Colombia.** UNIDO is currently implementing a project in the Colombian province of Antioquia. The project, finance by the state of Antioquia, aims at raising awareness of the mining communities on the risks involved with the use of mercury amalgamation and at introducing mercury recycling and alternative methods. UNIDO is working with University of British Colombia (Marcello Veiga) on this initiative. The expected results will be the replication to other regions with potential inclusion in the second phase of the Global Mercury Project currently under development.

**2.3 Please provide a short overview of any key upcoming, planned partnership area efforts (brief description, expected outcomes, budget, timeframe).**

**A SAICM- Quick Start Program (QSP) funded program in Latin America will start in June 2010.** The focus countries are Peru and Bolivia. Modeled on the project in Asia, the primary expected outcome of the project is the development of multi-stakeholder national strategic plans for Peru and Bolivia, and enhancement of regional collaboration and coordination through exchange of experiences and lessons learned on a regional level.

**Mercury Releases from Gold Shops:** US EPA will continue to provide information to enable other ASGM projects to incorporate Mercury Capture Systems in their outreach and implementation efforts, including the UNEP regional projects. In a related effort, USEPA will be conducting speciated monitoring and assessment around gold shops in a variety of settings to provide comprehensive characterization of airborne mercury emissions from small-scale gold processing shops based on a longitudinal study of the mercury aerosol and vapor releases of gold shops, data on the ambient mercury concentrations in the study communities, and qualitative estimates of human health risk from the gold shops to adjacent populations. In addition, this project will provide an inventory of mercury inhalation health effect reference values.

**Subregional workshop for Anglophone West Africa on mercury use in ASGM:** Similar to the Francophone West Africa Strategic Planning Project, US EPA will support an Anglophone West Africa Strategic Planning Project. The workshop is intended to catalyze national action plans, based on data and information collected on

the ASGM situation in participating countries, and on stakeholder outreach. USEPA will also support a limited number of follow-up actions in one participating country. The workshop is expected to take place in late 2010.

**Technical and Formalization Guidance Documents:** As called for by the last Partnership Advisory Group meeting, UNEP has identified funds for the development of two critical guidance documents: a technical document that describes successful field approaches for lower-mercury/.non-mercury alternatives for ASGM; and a document describing issues and case studies related to the legalization and formalization of ASGM.

**Demonstration Project in Peru.** The US State Department is planning to fund a project in Peru to demonstrate small scale, mercury-free gold mining (using cyanide). Some of the partners are likely to apply for the implementation for that project.

**Global Forum – UNEP has announced** a global meeting to engage stakeholders from multiple countries to discuss potential approaches and to find common goals to dealing with mercury use in the ASGM sector.

#### **2.4 Identify the priority actions for the forthcoming reporting cycle (2 years).**

**Hosting global forum:** The global meeting is a priority in order to facilitate dialogue and begin to find common policy ground among multiple stakeholders on approaching to ASGM question globally.

**Completion of technical and formalization guidance documents:** The technical and formalization guidance documents will provide much needed guidance to new projects being designed and formulated around the work to address ASGM.

**Completion of strategic planning in all regions:** The intent of the regional strategic planning projects was to develop common regional approaches and share regional resources in addressing mercury in ASGM, and to identify key strategic projects that would both address regional problems but also contribute to global reductions of mercury. Completing these plans is the first step to having a portfolio of strategic projects in each major ASGM region of the world.

**Development of Global Mercury Project II.** UNIDO is currently developing, a follow-up project to the first GMP, which was completed in 2007. The new project would fund primarily field level work in 4 to 6 countries in each of the three major regions. The project will also include a strong communication component to ensure that lessons learned are shared. UNIDO will solicit inputs from the Partnership on the project. The project development cycle is expected to take about 24 months.

### **3. TRACKING PERFORMANCE RELATED TO UNEP GOVERNING COUNCIL PRIORITIES**

#### **3.1 In response to Governing Council Decision 25/5, paragraph 34/c:**

Please summarize the key results achieved to date by the partnership area in terms of the following areas (as applicable).

- i) Providing information on best available techniques and best environmental practices and on the conversion of mercury-based processes to non-mercury based processes;

Several activities of the Partners have been directed to providing information on best practices, including: the CASM workshop, EPA's Mercury Capture System work; work in Senegal on use of retorts, Artminers' promotion of Cleangold technology, in Colombia, the partners have initiated the transfer of mercury recycling techniques and non-mercury alternative. In Ecuador, an innovative cyanidation plant has been set up and is now being operated by a group of local investors.

- ii) Enhancing development of national inventories on mercury;

As part of the regional strategic planning meetings, one of the tasks of each country was to gather national information as per a questionnaire developed by the partnership,,including information on mercury use in ASGM  
The Artisanal Gold Council has created a website called "Mercury watch" which tracks the use of mercury in ASGM worldwide. It also provides documents and other resources related to ASGM, and also allows mapping various views of ASGM in relation to poverty or other socioeconomic indicators by country.

- iii) Raising public awareness and supporting risk communication;

ARM's Standard Zero for Fair trade and Fair Mined Gold in part is directed at raising public awareness among gold buyers, including jewelry consumers, about ASGM.

The CSD activities were also largely exercises in raising public awareness among a broad international audience.

Earthwork's report "'The Quest for Responsible Small-scale Gold Mining," also raised public awareness about ASGM.

iii) Providing information on sound management of mercury;  
Large scale mercury management and storage, while influential on ASGM mercury use, is not a direct topic of engagement of our partners.

3.2 (a) Please specify whether the promotion of non-mercury technologies (where suitable economically feasible alternatives do not exist) is relevant to the partnership area. **Yes or No**  
(b) If it is relevant, how is the partnership area specifically addressing the promotion of non-mercury technologies? Although much of the work of the Partners focuses on dramatically reducing, rather than eliminating, mercury, some of the partners do focus on mercury-free technologies. For example, the work of Artminers specifically promotes a mercury-free technology. The ARM Standard Zero contains an additional price premium for miners who produce gold without mercury or cyanide. Finally, the new project by the US State Department will also examine mercury-free small scale gold production. In Ecuador, Partners have been successful in replacing mercury amalgamation by a more efficient and locally owned cyanide processing plant.

#### **4. ASSESSING EFFECTIVENESS**

(measuring the impact of partnership activities on target beneficiaries)

##### **4.1 What are the partnership area indicators of progress? If no indicators, please specify why.**

- Mercury purchased and used in the communities and target countries where technical activities are carried out (baseline is the 2005 data from the 2006 UNEP Trade Report).
- Mercury release reductions.
- Where available and where feasible, number of kilogram of gold produced by ASM for one kilogram of mercury used in the sector.

##### **4.2 Please report on progress in terms of each of the partnership area indicators outlined within the partnership area business plan.**

There is currently limited data for the first two measures. However, some mercury release reductions have been and can be documented on a project basis, such as the EPA Mercury Capture System work in gold shops.

The third indicator is also very difficult to assess. It can be documented on a project basis, where a particular technology reduces the use of mercury at a given site per unit of gold produced. It is recommended that in addition to these indicators which are more appropriate at a project level, additional indicators be created at a global level.

##### **4.3 What are the strengths of the partnership area?**

The strength of this partnership area comes from the diversity of the partners (intergovernmental organizations, NGOs, representative of the private sector, government, academics) who all bring about their particular experiences, expertise and solutions. There is potential here to be highly productive, collaborative and successful. The increased number of activities this year attests to that potential.

##### **4.4 What are the weaknesses and/or major challenges for this the partnership area?**

i. Fund raising is the most significant challenge. The most urgent need is for on-the ground field projects that demonstrate immediate reductions but also provide models for global reductions.

ii. Dissemination of information is critical to expanding ASGM activities worldwide.

iii. The involvement of large scale mining in the partnership area is a challenge. Linking of large scale initiatives with ASGM standards is an important element to consider.

<p><b>4.5 Can the weaknesses or major challenges be addressed through the partnership? If yes, what is the best strategy to address such weaknesses / major challenges in moving forward?</b></p>
<p>The partnership can be helpful in increasing collaboration and identifying opportunities for fund raising. Further, both donor and beneficiary countries can be encouraged to join the partnership and increase their active participation. Regarding dissemination, the creation of the technical and legalization/formalization documents will support better dissemination, as will sharing of information through the CASM webpage or other internet fora.</p>
<p><b>4.6 In view of above, how should the partnership area be modifying its approach in the coming two year cycle? Should the objective and indicators of the partnership area be revised in moving forward?</b></p>
<p>As the Partnership identifies more projects and sources of funding, more frequent communication will be necessary to ensure that all partners have a chance to participate, benefit and add their inputs. More emphasis is also needed on sharing available information through web resources.</p>
<p><b>5. FUTURE COLLABORATION</b></p>
<p><b>5.1 Please identify whether there are potential areas of effort for the partnership that would benefit from enhanced collaboration within the overall UNEP Global Mercury Partnership.</b></p>
<p>The Partnership should keep abreast of developments regarding trade and storage of mercury, as this affects the supply available to the ASGM sector.</p>
<p><b>6. OTHER</b></p>
<p><b>6.1 Please outline how this report was drafted and who was consulted with in doing so.</b></p>
<p>The report was drafted by the area co-leads (UNIDO and NRDC) with inputs received from several of the ASGM Partnership members regarding their past, current and future activities.</p>
<p><b>6.2 This section is intended for other relevant comments.</b></p>
<p> </p>