

Artisanal and Small Scale Gold Mining National Strategic Planning

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**Ad hoc open-ended working group to prepare for the
intergovernmental negotiating committee on
mercury**

**Information session
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Strategic Planning in ASGM

- Strategic Planning is one of the priority actions of the ASGM Partnership
- Objective in strategic planning is to:
 - Provide assistance to developing countries and countries with economic in transition to formalize / regulate the ASGM sector.
 - Work 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.

Current Projects

- 2 regional SAICM Quick Start Projects initiated:
 - South East Asia (focus in Cambodia and the Philippines)
 - South America (focus in Peru and Bolivia*)
- 1 regional project in Africa by Finland, USEPA and UNIDO.
 - Focus in French speaking countries.

*complementary funds for Ecuador and Colombia under finalization.

Project Objectives

- i) National government commitment in addressing ASGM is secured.
- ii) Multi-stakeholder strategic plans for mercury reductions in ASGM developed, building upon on-going activities.
 - Results expected by end of 2010.
- iii) Regional collaboration and coordination is enhanced.

Guidance Document

- A draft guidance document has been developed to support national governments in the development of a national strategic plan.
 - Aims to assist in uniting various levels of Government, miners, civil society and the public in a common mission to improve the quality of life in artisanal and small scale gold mining communities.
 - Available in English, French and Spanish at the following web address:
 - [http://www.chem.unep.ch/mercury/Sector-Specific-Information/Artisanal-small-scale-mining\(2\).htm](http://www.chem.unep.ch/mercury/Sector-Specific-Information/Artisanal-small-scale-mining(2).htm)
 - Will be revised based on experiences with these project.

Guidance document outlines a 6 step process

STEP 1: Establishing a coordinating mechanism

STEP 2: Gathering baseline information and
developing the National Overview

STEP 3: Setting a Goal and Objectives

STEP 4: Formulating the Implementation Strategy

STEP 5: Evaluation Mechanism

STEP 6: Endorsing the National Strategic Plan

ASGM in Peru

- Mining communities located in remote rural areas
- Weak formal government presence
- Informality and in some cases conflict with dealers
- Legal uncertainty and insecurity
- Temporary situation that leads to an irrational exploitation of resources
- Messy and crowded towns without basic services or adequate housing conditions

ASGM in Peru (cont.)

- Work and housing areas superposed
- Lack of education and environmental awareness of the population
- ASGM involvement of the whole family
- Incorrect use of mercury (amalgamation and the Refog)
- Lack of technical alternatives
- Improper handling of inputs

ASGM in Peru (cont.)



Around 100,000 workers !

Peru – National experience

- GAMA Project
- EPA Project
- PERCAN Project

GAMA Project

Gestión Ambiental en Minería Artesanal

Agencia Suiza para la Cooperación y el Desarrollo (COSUDE)

Objective

Improve environmental conditions of ASGM sector in the project areas

Duration

1st Phase: 2001- 2002

2nd Phase: 2003- 2005

3rd Phase : 2006- 2008

Stakeholders:

**Gobierno Regional Ica
Gobierno Regional Ayacucho
Gobierno Regional Arequipa
Gobierno Regional Puno
Ente rector del Sector: MEM**

Gama Project: Results

- Poverty reduction
- Employment generation
- Formalization and business development - Law No. 27,561
- Sound environmental and social management
- ASGM is part of the Peruvian mining sector
- Gama project: facilitator of the process between the ASGM sector and the MEM.

EPA Project

Reducción de Emisiones de Mercurio en el aire en la Minería de Oro Artesanal

Objective

Demonstrate technically reduction of emissions of mercury in small gold refineries.

Phases

Phase 1 - Develop a system to capture mercury

Phase 2 - Promote the use of the gold stores in Latin America

Scope

2003 - 2008 Brazil - Itaituba and Creporizao

2008 Peru (only in Phase 2) – Madre de Dios

Use of mercury in the gold mining sector

Gold shops (Amalgam from 5 to 15 to 50% Hg)

- Points for gold production
- Located in regional shopping malls and downtown centres.
- They burn the Hg-Au amalgam to remove the mercury before the sale
- Most mercury is emitted into the atmosphere and to the environment

EPA Project: results

- Mercury levels were at high levels
- Most shops did not have control of mercury emissions
- Inside most gold shops were found high levels of Hg
- Most owners said they wanted a mercury control system
- Reasons for not having one: Too expensive (U.S. \$ 4000 - \$ 25,000)
- There was no affordable technology for community
- The measured values outside burning amalgam sector yielded values exceeding the reference value of WHO of 1 mcg/m³

Performance test results

- Mercury concentrations:

Escape without treatment: 1580 mg/m³

After treatment: 330 mg/m³

80% capture efficiency

Cost - labor and materials: ~ U.S. \$ 450 (local construction)

- Some pollution prevention figures:

If each store processes 100 kg of amalgam per year (usually 5 - 40% of mercury)

Assuming an average of 10% mercury, then the emissions per store = 10 kg mercury / year

With the installation of a collector of mercury with 80% of efficiency of capture in this unique store of gold is: 10 kg / year of mercury emissions prevented.

PERCAN Project: Reforma del Sector de los recursos minerales del Perú

Objective

Provide technical assistance to the Ministry of Energy and Mines in Peru on policy issues and legal reforms related to mining and metallurgy sectors by:

- Improving compliance with environmental and health standards in the mining sector
- Decentralizing services to the regions and,
- in general, mitigating the impact of mining on local communities through training in conflict prevention, among other measures.

The consortium comprises executing Roche Limitée, Golder Associates and the Association of Canadian Community Colleges (ACCC). Websites: www.percan.ca
www.minem.gob.pe.

Duration: 2003 to 2008.

CIDA Contribution: CAD U.S. \$ 9.6 million.

Final remarks

- All projects aimed at reducing emissions from mercury used in artisanal mining and its impacts on the environment (air, soil and water), as well as to strengthen management systems in the ASGM sector.
- While it achieved the enactment of Law No. 27,561 for the formalization of the ASGM sector, few miners are now legal.
- ASGM has spread throughout the whole country and the projects just addressed pilots cities which did not represent a real solution for the whole sector.
- Monitoring have been conducted in air, soil and water but has not assess has been done on health of the miners, their wives and children, as well as workers in the gold shops.
- The projects did not include the participation of the health sector, a key player in addressing this problem
- The results suggested the need for an international agreement to help the government tackle the problem of health impacts and the environment posed by mercury.

j..... Thank you very much for your
attention !

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