

Division of Technology, Industry and Economics



Work of UNEP on reducing mercury use in Artisanal and Small-scale gold mining

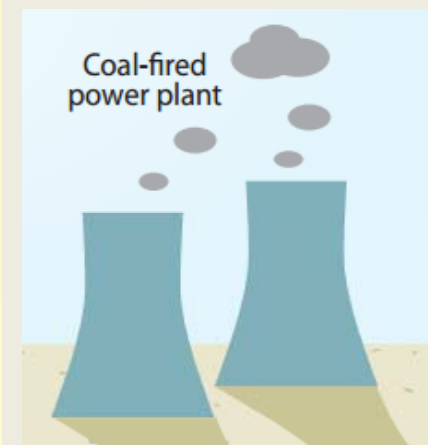
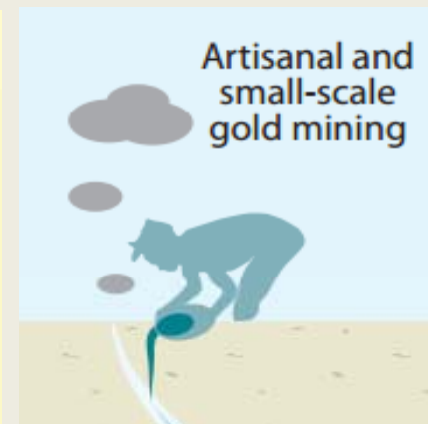
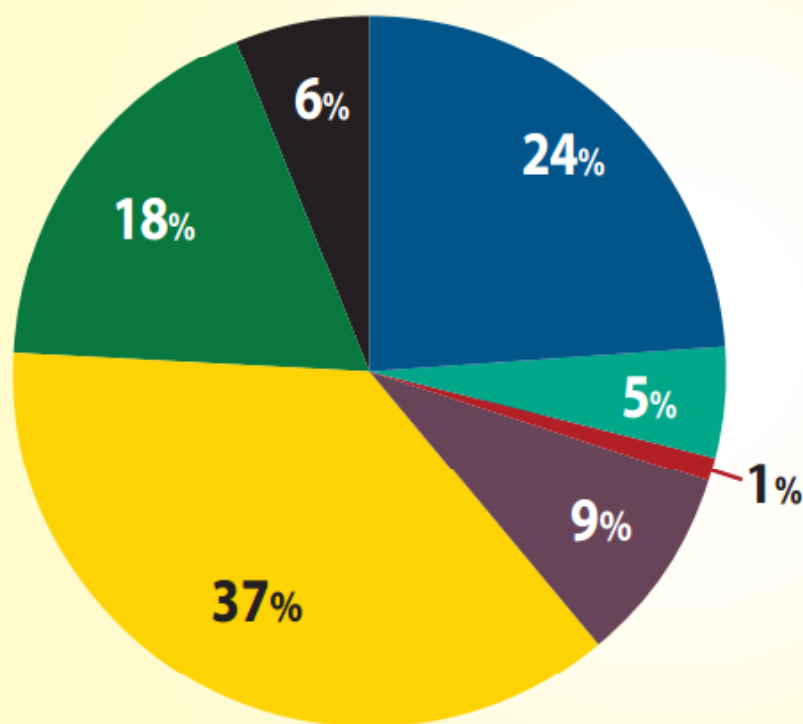
United Nations Environment Programme





Largest mercury emissions come from artisanal and small-scale gold mining.

Global anthropogenic mercury emissions in 2010





Largest source of mercury emissions, releases, and consumption in LAC

- Present in at least a dozen countries in the region
- At least 500,000 artisanal miners engaged
- According to UNEP estimates (2010):
 - 527 t mercury used (33% global ASGM consumption)
 - 208 t mercury emitted (29% global ASGM emissions)

Region	Emissions of mercury in tons		Sector % emissions of the total
	Sector	Total	
Caribe	0.225	1.55	14.5
Mesoamérica	6.525	28.09	23.2
América del Sur	201.6	262.56	76.8
Total ALC	208.35	292.2	71.3
Total Global	727	1960	37.1

Data source: AMAP/UNEP, 2013.



Artisanal and small-scale gold mining - definition (article 2) -



Gold mining conducted by individual miners or small enterprises with limited capital investment and production.

NOTE: Measures in the Minamata Convention apply to artisanal and small-scale gold mining and processing in which mercury amalgamation is used to extract gold from ore.



Artisanal and small-scale gold mining - obligations (article 7) -



Parties with artisanal & small-scale gold mining **shall**:

- take steps to reduce, and where feasible eliminate, the use of mercury in, and the emissions and releases to the environment of mercury from, such mining and processing.

Parties **with significant** artisanal & small-scale gold mining and processing **shall**:

- (a) Develop and implement a national action plan;
- (b) Submit its national action plan within three years of entry into force of the Convention; and
- (c) Provide a review of progress every three years thereafter.



Artisanal and small-scale gold mining - cooperation (article 7) -



Cooperation amongst Parties, intergovernmental organizations and others to achieve the objectives of article 7 is **encouraged**, including for:

- (a) Development of strategies to prevent the diversion of mercury for use in artisanal and small-scale gold mining and processing;
- (b) Education, outreach and capacity-building initiatives;
- (c) Promotion of research into sustainable non-mercury alternatives;
- (d) Provision of technical and financial assistance;
- (e) Partnerships to assist in implementation; and
- (f) Use of existing information exchange mechanisms to promote knowledge, best environmental practices and alternative technologies.



Artisanal and small-scale gold mining - National Action Plans (Annex C) -



Shall include:

- National objectives and reduction targets;
- Actions to eliminate worst practices;
- Steps to facilitate formalization or regulation;
- Baseline estimates of mercury used & practices employed;
- Strategies to reduce emissions and releases of mercury, manage trade;
- Strategies to involve stakeholders;
- Public health strategy on exposure of miners & communities;
- Strategies to prevent exposure of vulnerable populations and provide information to miners and communities; &
- A schedule for the implementation of the action plan.

National Action Plans

- Development of NAPs requires working with ASM communities to ensure they can break the cycle that they are now in and create an enabling opportunity for them to receive a fair income that can be reinvested locally.
- Governments are encouraged to get started on this process as soon as possible.
- UNEP and UN system stand ready to support in this process.
- Many of the governments have experience in addressing small-scale mining.



Global Mercury Partnership



- Jointly led by UNIDO and NRDC.
- Focused on technical and formalization solutions, providing guidance and generating information that is useful for decision-makers.
- Coordinating network of experts supporting efforts.

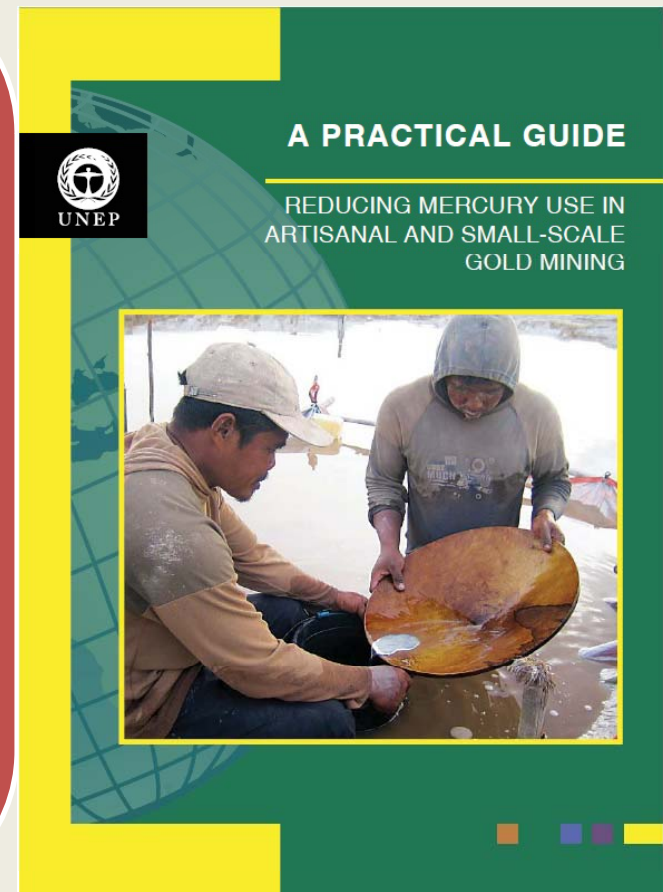
Partnership Priority Actions

- Support government efforts in setting national objectives/reduction targets for ASGM.
- Eliminate the worst practices in ASGM.
- Explore innovative market-based approaches to enable the transition away from mercury

Guidance is available through the Global Mercury Partnership



- Practical Guide for Reducing Mercury (technical).
- National Action Plan Guidance.
- Analysis of Formalization Approaches.
- Environment for Development Perspectives.





Experiences in developing national action plans

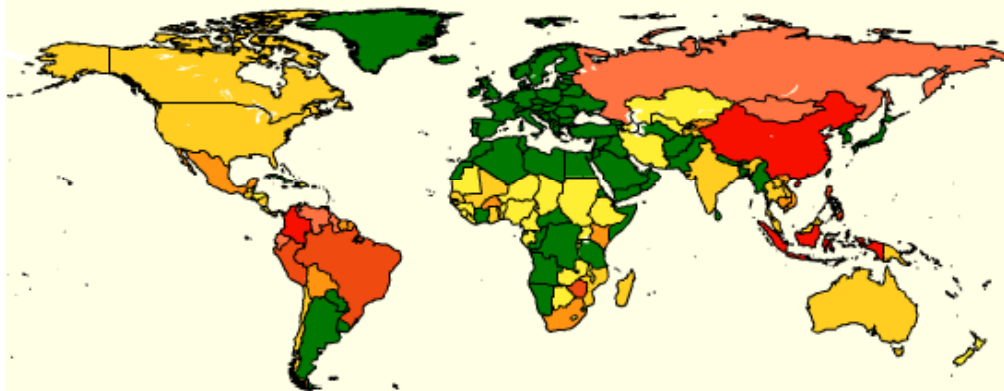


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Mercury Hg Watch

Charting the improvement of artisanal small-scale gold mining



Mean AGSM Hg Per Year

Mercury Emission from ASGM (tons/a)

- no estimate made
- 0 to 1
- 1 to 5
- 5 to 10
- 10 to 25
- 25 to 50
- 50 to 500

**Latin America
and the
Caribbean:**

Peru & Bolivia
Colombia

Africa:

Cote d'Ivoire, Senegal,
Burkina Faso, Mali, Niger,
Nigeria and Guinea.

**Asian and the
Pacific:**

Cambodia &
Philippines
Indonesia

of this, a global database of the distribution of

sector - safer, socio-economically up-
less detrimental to the environment. Me



Example: GMP project in Indonesia



- The project focused on
 - Encouraging the development of National Action Plan (several workshops on various levels)
 - Developing baseline inventory for mercury
 - Technical interventions: Improved processing techniques and training miners
[estimated reduction in mercury releases: 3 t/yr]
 - Health awareness raising events



Information exchange



- 2ND Global Forum on ASGM (Lima, Sep 2013)
- Andean Regional Forum on ASGM (Medellin, Nov 2013)

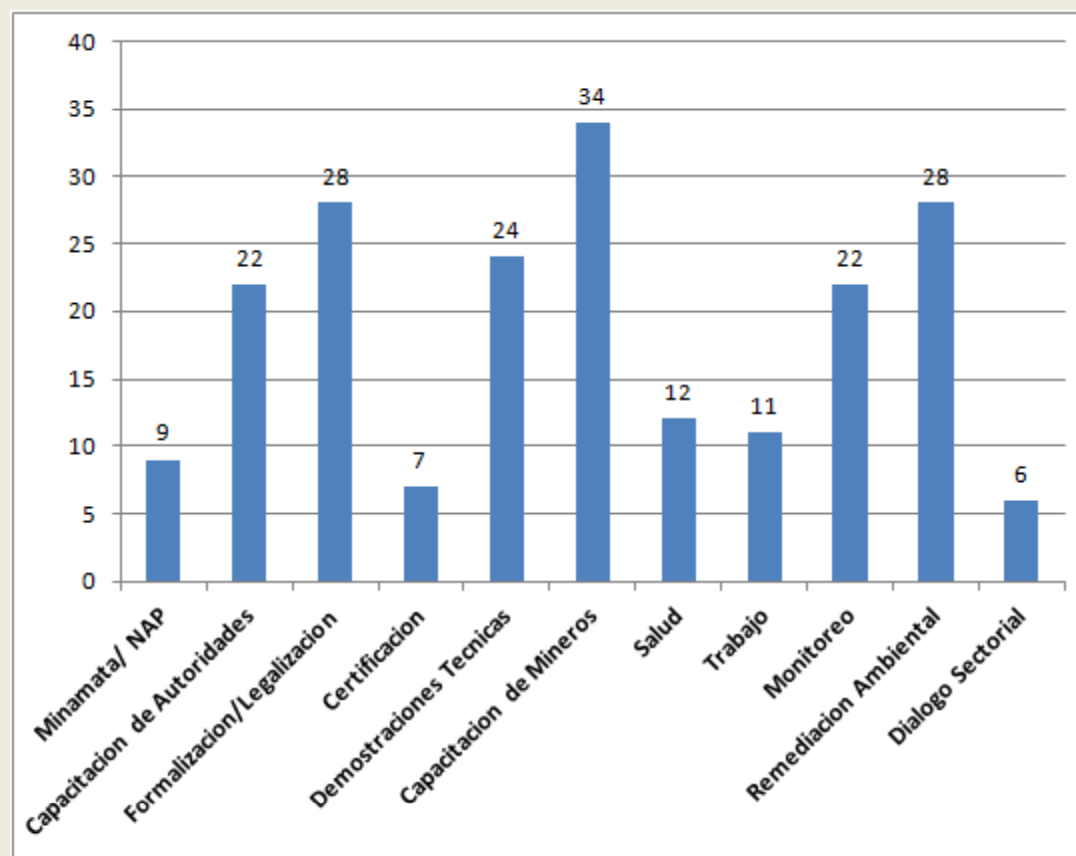




Information exchange



- Andean Forum on ASGM - cataloguing exercise: 60 different projects identified in the sub-region!



<http://www.unep.org/chemicalsandwaste/Mercury/PrioritiesforAction/ArtisanalandSmall-ScaleGoldMining/Andeanforum/tabid/130815/Default.aspx>



Looking at the future!



- Promoting exchange of good practices through establishing regional platforms (enforced by the ministerial decision of the XIX meeting of the forum of ministers of LAC)
- Establishing market incentives for miners e.g. formal credit markets, fair trade gold, model financing schemes
- More coordination with other stakeholders especially IGOs like WHO, UNDP etc. for concerted efforts to further the work of the partnership