

Eliminating **Worst Practices** and Reducing **Exposures** to Mercury from ASGM

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Convention Connections – Article 7

Paragraph 3.

- (a) Develop and Implement a national action plan in accordance with **Annex C**;
- (c) Provide a **review** every three years of the progress made in meeting its obligations... pursuant to article 21

Paragraph 4.

Parties may **cooperate** with each other and with relevant intergovernmental organizations and other entities, as appropriate, to achieve the objectives of this article...

- (a), (b), (c), (d), (e), (f)

NAP Obligations – Annex C

(b) Actions to eliminate: ***(Worst Practices)***

- (i) Whole ore amalgamation;
- (ii) Open burning of amalgam or processed amalgam;
- (iii) burning of Amalgam in residential areas; and
- (iv) Cyanide leaching in sediment, ore or tailings to which mercury has been added without first removing the mercury;

(e) Strategies for promoting the reduction of emissions and releases of emissions and releases of, and **exposure** to, mercury in artisanal and small-scale gold mining and processing, including mercury-free methods;

Summary and Sources

- Video, pictures and graphics to explain technical interventions to eliminate worst practices and reduce mercury exposures
- Sources – all publically available
 - Telmer K. and Stapper D. (2012) **Reducing Mercury Use in Artisanal and Small-scale Gold Mining: A Practical Guide** - A UNEP Global Mercury Partnership document produced in conjunction with Artisanal Gold Council; ISBN 978-92-807-3282-5
 - Richard M., Moher P., and Telmer K. (2014) **Health Issues in Artisanal and Small-Scale Gold Mining: Training for health professionals**, (Version 1.0), Artisanal Gold Council. Victoria, BC. ISBN: 978-0-9939459-0-8
 - Richard M., Moher P., Rossin R., and Telmer K. (2014) **Using Retorts to Reduce Mercury Use, Emissions and Exposures in Artisanal and Small Scale Gold Mining: A Practical Guide**, (Version 1.0), Artisanal Gold Council. Victoria, BC. ISBN 978-0-9939459-2-2
 - Artisanal Gold Council videos
 - Materials available at www.artisanalgold.org; youtube: Artisanal Gold Council channel; UNEP: www.unep.org

Highly Graphical Manuals and Guides



Health Issues in Artisanal and Small-Scale Gold Mining

Training for Health Professionals

Version 1.0



ARTISANAL
GOLD COUNCIL



Using Retorts to
Reduce Mercury Use,
Emissions, and
Exposures in Artisanal
and Small-Scale
Gold Mining

A PRACTICAL GUIDE

Version 1.0



ARTISANAL
GOLD COUNCIL

The “Tech Doc”



A PRACTICAL GUIDE

REDUCING MERCURY USE IN ARTISANAL AND SMALL-SCALE GOLD MINING



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Helping artisanal and small-scale gold miners to derive the greatest benefit from this development opportunity, while minimizing the environmental and social consequences is absolutely possible. All that is needed is understanding, innovation and will.

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Mining and Concentration



Processing



Refining

Unsafe excavation

Poor crushing and grinding

Poor manual sluicing

Poor & untargeted power sluicing

Poor planning

Whole ore amalgamation

Chemical leaching after mercury

Open-air amalgam burning

No process control

Little or no waste management

Lack of fume hoods

Poor chemical management

Poor purity assaying

**POOR
PRACTICE**

Excavation planning

Safe ore extraction

Efficient crushing and grinding

Improved and targeted sluicing

Improved panning

Established operational protocols

No whole ore amalgamation

Closed basin amalgamation

Use of retorts / fume hoods

Mercury reactivation

Basic process control

Basic waste management

Use of fume hood

Proper chemical management

Educated purity assaying

BETTER

Excavation planning

Safe ore extraction

Advanced crushing and grinding

Efficient sluicing

Enhanced concentration

Standardize operational protocols

Zero mercury methods

Washing and sorting concentrates

Direct smelting

Chemical leaching

Advanced process control

Advanced waste management

Use of fume hoods

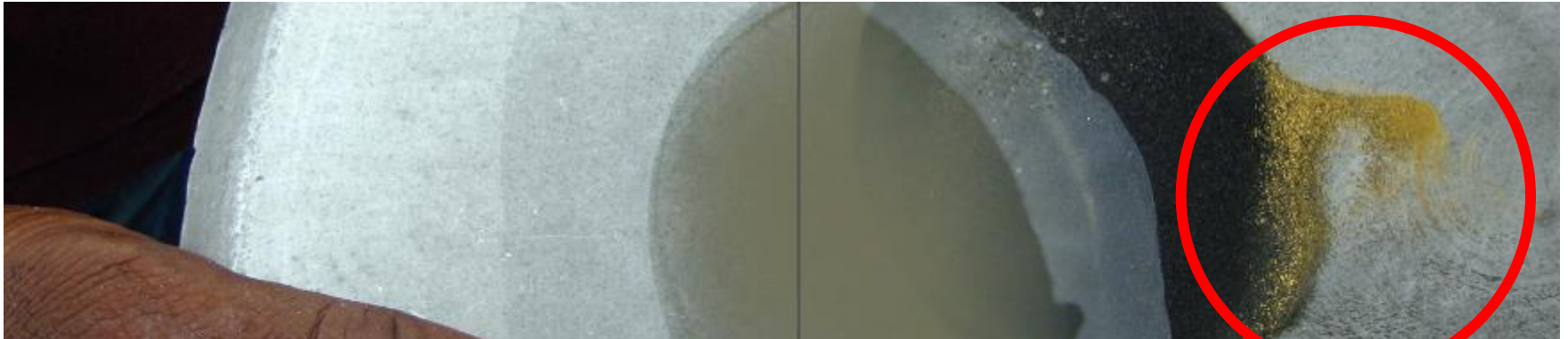
Best chemical management

Formal purity assaying

BEST

Instant mercury reduction

- Collect the coarse gold before amalgamation – reduces at least 10-20% of mercury use



预览已结束，完整报告链接和二维码如下：

https://www.yunbaogao.cn/report/index/report?reportId=5_14189

