ARM'S POSITION
MERCURY - JANUARY 2019

Transition plan for the elimination of the mercury use in artisanal and small-scale gold mining (ASM)

This position paper replaces the version of 2015

ARM AND MERCURY

A vast universe of scientific research exists that demonstrates the risks of inappropriate use of mercury for the health of human beings and the environment (United Nations Environment Programme, 2014). ARM, acting as a global initiative committed to the development of a socially and environmentally responsible artisanal and small scale mining (ASM) sector, recognises its obligation and drive to support **all efforts aimed at progressively reducing the use of mercury in order to achieve, when possible, its elimination.** This implies the technical and organisational support of ASM, and collaboration with companies and governments with educational tools and methodologies to promote good practices in the ASM sector. The progressive reduction in the use of mercury supported by ARM begins with the promotion of a responsible and efficient use of the substance in line with the recommendations of the Minamata Convention[1], paired with a transition process towards its elimination once this option becomes viable.

With the Minamata Convention entering into force in August 2017, and considering that the use of mercury within the ASM is one of the main sources of contamination on the planet, ARM deems it necessary to update its position on the use of mercury in the gold ASM sector.

[1] The **Minamata Convention on Mercury** is a global treaty to protect the health of human beings and the environment from the negative impact of mercury. The text of the Minamata Convention was adopted on the fifth session of the Intergovernmental Negotiating Committee on Mercury in Geneva, which took place in January 2013. The Convention was opened for signature during the Diplomatic Conference in Kumamoto, Japan, on th 10th of October 2013, and it entered into force in 2017.

ARM AND THE MINAMATA CONVENTION

ARM took part in the negotiations that led to the Minamata Convention as a civil society representative, and it supports and shares the Convention's spirit and values. ARM promotes and supports the implementation of the Convention in the countries that produce gold using the mercury amalgamation process, and it upholds the following positions, in line with those expressed by UNEP:

1. The progressive character of the elimination of mercury – by signing the Convention, the countries commit to fully engage in the effort to progressively reduce and, once viable, eliminate the use of mercury. ARM shares this vision and considers that the success of the implementation of the Convention in the ASM sector depends, to a large extent, on the reduction be tackled in a progressive manner, respecting the actual ability of ASM to change its production process and be paired with measures to facilitate said reduction, as outlined in the Convention's Annex C.

2. The importance of a design for the National Plans of Action – the general national plans for the reduction of mercury, as well as the specific plans for the progressive elimination of mercury in the ASM sector must be designed with the participation of all the involved and affected actors. In the case of the plans for the reduction of mercury in ASM, the main actors are the miners, the representatives of the mercury supply chain and the local and regional authorities, who are responsible for the implementation of the national policies in the territory. **These policies include the development of skills for miners**

and entities, technical and financial support, and the promotion of knowledge to achieve better practices environmental, technical, social and economic practices. One of the necessary conditions for the implementation of these policies is the legalization and formalisation of ASM.

3. ARM shares the idea that the process of progressive reduction must begin with **the implementation of the Priority Actions proposed by the Convention (Annex C of the Convention) without delay**, and not with a ban of mercury.

These actions are:

• **Avoiding whole ore amalgamation** – this means that a mercury-free process of concentration, and gravimetric re-concentration to the highest possible extent, must take place before amalgamation;

• **Avoiding the burning of amalgam or processed amalgam outdoors** – this means that it is mandatory to use adequate tools, like retorts, for the burning of amalgam and the subsequent recovery of mercury.

• **Avoiding the burning of amalgam in residential areas**.

• **Avoiding the cyanide lixiviation of sediments**, minerals or processing waste that contain mercury without first removing the mercury.

It is estimated that these actions will reduce a large part of the emissions of mercury that come from gold mining.

ASM AND MERCURY

The gold ASM is one of the world's economic sectors that consumes and emits the biggest amount of mercury in its production process – an average of 650 to 1000 tons of mercury per year (UNEP, 2014). Other sectors are: coal-fired electricity generation, cement production, battery manufacturing and industrial processes to produce chlorine. **Historically, small-scale mining has used mercury, as it was considered the best available technology.** Industrial mining used the same technology until the 20th century, when cyanide was introduced to capture gold. As of today, the ASM continues using mercury in mineral processing for a variety of reasons:

- It is a traditional gold separation method and the risks for human health and the environment are not widely known in mining communities;
- Miners do not know any other technology that would allow them to carry out the reduction process with the same productivity level, and mercury is their cheapest option;
- They do not possess the financial or technical abilities to achieve technological transformation of their production process, and they lack adequate institutional offer that promote training and technology transfer;
- Mercury allows the separation of gold in a variety of gold deposits;
- Mercury is particularly useful in the processing of low quantities produced by the miners, who separate the metals manually through gold panning;
- It suits the informality that prevails in the sector, allowing to separate gold in a very discreet manner, i.e. its use is not easily noticed;
- It allows precise transactions and immediate profit sharing within the work groups;
- It allows to recover a part of the gold contained in the mineral, and to minimize dependence on processing plants;
- Many workers cannot choose, since it is the owner who defines the processing methods;
- It depends on the gold buyers, who are often mercury suppliers for the miners.

There are approximately 40 million artisanal miners in the world, and half of them work in gold extraction. However, more than 100 million people depend on artisanal and small-scale mining (Pact & ARM, 2018). The gold ASM sector is a vulnerable one, with low income and low training levels. ARM shares the international community's worry about the consequences of the indiscriminate use of mercury. At the same time, however, we recognize the socio-economic vulnerability of the communities whose livelihood depends on gold ASM. For this reason, **ARM advocates for a strong and direct support to legitimate miners in the gold ASM sector, in order to help them in the transition to reduce and eventually, if viable, eliminate the use of mercury.**

WHAT DO THE ARTISANAL AND SMALL-SCALE MINERS NEED TO ELIMINATE MERCURY?

At ARM we recognise that **the reduction and eventual elimination of the use of mercury requires a realistic transition plan oriented at raising awareness and training miners in environmental, social and economic sustainable practices, and, above all, aimed at the formalization** of a sector that is almost inexistent from a legal point of view, and operates outside the formal economy. Formalization ultimately guarantees the permanence of the changes oriented at the sustainability of good practices, under a new mind-set of conscious mining activity.

ARM identified that miners need support to implement the measures for the reduction of the use of mercury established in the Annex C of the Minamata Convention. Simultaneously, they need support to adopt mercury-free alternative technologies that allow a metal recovery comparable to that of mercury and adapted to the miners' organisational set-ups, within a framework of formalization and continuous improvement.

RISKS ASSOCIATED WITH A RADICAL BAN OF MERCURY

The progressive reduction of the use of mercury in the ASM sector is ARM's main strategy. Yet, it is important to highlight the social, economic, environmental and legal risks associated with a radical and immediate ban on its use, which brings us to question all policies oriented in that direction. The risks are:

- The development of an illegal mercury market controlled by armed and/or criminal groups and its subsequent increase in price for the small-scale miners, associated with the impossibility of legally selling gold extracted with the use of prohibited chemical agent.

- The activities of ASM miners will be considered illegal by the authorities and the miners will therefore be subject to manipulation by illegal networks that manage the financing, and the trade of mining supplies (including mercury) and precious metals.;

- Being pushed into illegality, miners will be cut off from training in practices that would reduce the use of mercury, as defined in Annex C of the Minamata Convention, which will lead to grave consequences for human health and the environment in the mining communities;

- Artisanal and small-scale miners that do not have any other options will be forced to use mercury in secret, using, for instance, domestic kitchens and houses, without the possibility of establishing a proper mercury handling plan while working towards elimination.

ARM PROPOSES

The reduction of mercury use **requires strategies agreed with the miners** that combine the recognition of rights and support towards formalisation. Some of those strategies are:

1. Raising awareness and training artisanal and small-scale miners, formal or informal, **on the effects of mercury and on the best practices** to protect their health and the environment;

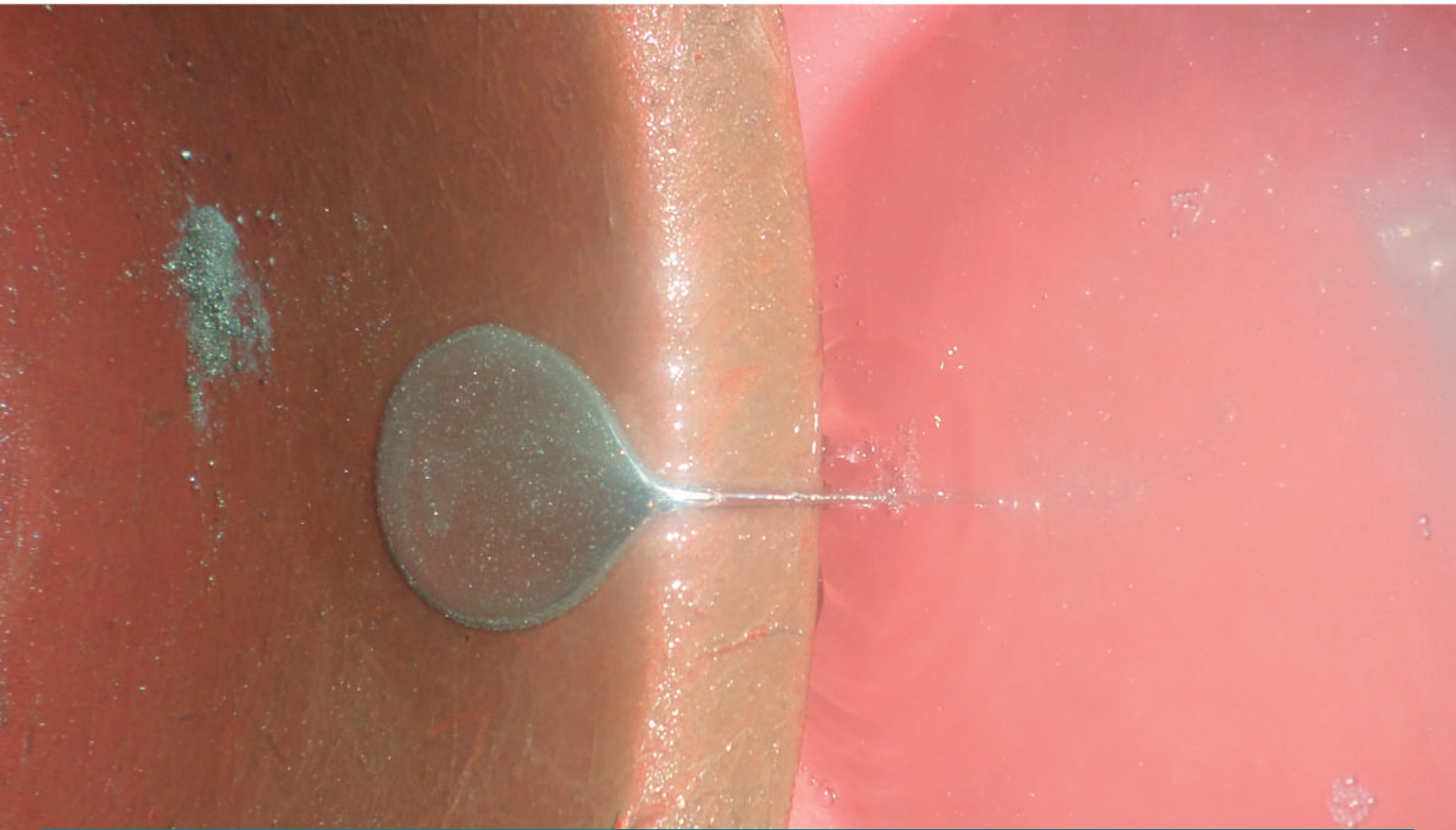
2. Training and supporting the miners to implement the priority actions regarding the reduction of the amalgamation practice;

3. Offering viable mercury-free technological alternatives that are more efficient in the recovery of metals;

4. Creating financial mechanisms, including access to credit, that facilitate the change towards efficient technologies to reduce the use of mercury in the ASM sector;

5. Facilitating access to legal markets, linked to a progressive improvement program that prioritizes the elimination of mercury;

6. Promoting adequate public policies for the formalisation of ASM and its sustainable development.



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ABOUT US

The **Alliance for Responsible Mining** is a global organisation with over 15 years´ experience that works on the design and implementation of responsibility standards for artisanal and small-scale mining (ASM) of gold. We work to improve miners' quality of life, increase competitiveness of the sector and re-define the role of ASM as a source of inclusive and proper work. In this respect, ARM defined a vision of what a responsible ASM should be:

"ASM is a formalized, organized and profitable activity that uses efficient technologies and is socially and environmentally responsible. It progressively develops within a framework of good governance, legality, participation and respect for diversity and contributes to a generation of decent work, local development, poverty reduction, wealth creation and social peace in our nations driven by a growing consumer demand for sustainable minerals, ethical jewelry and responsibly sourced gold in general." (**The Fairmined Standard**, 2014).

In this regard, ARM demonstrated that market and productivity incentives are more effective for promoting change in the ASM sector than criminalisation and penalisation. For example, the CRAFT code has been an effective tool for the improvement of mining practices, and a passport to enter the legal market; the Fairmined Standard is another tool, whose entry criteria include the responsible handling of mercury until its eventual elimination. To promote the elimination and stricter environmental rules, the Fairmined Standard also offers an Ecological Premium: 6000 USD for every kilo of Fairmined certified gold put onto the market; this acknowledges the extra efforts of the miners and increases their ability to invest in improving the best mining practices. **Market incentives underline the importance of building legal and stable supply chains with the aim of guaranteeing the sustainability of good mining practices.**