

GOLD-ISMIA LESSON LEARNED ON PERMITTING A COMMUNITY MINING AREA (WILAYAH PERTAMBANGAN RAKYAT - WPR)

The potential gold reserves at Boliyohuto Mountain (2,065m), located in Hulawa Village, Sumalata Timur District, North Gorontalo Regency has attracted legal and illegal mining attention for over 150 years. Local miners first exploited the resource in 1865 and then in 1885 the Bauermann family from the Netherlands began mining operations. In 1896, a mining permit was granted by the Dutch Government to NV. Mijnbouw Maatschappij "Soemalata".

Introduction

There was a resurgence of mining interest in the 1970s community mining restarted using traditional panning methods, and mining interest continued to expand in the 1990s (Technical review document by ESDM Gorontalo, 2020). Nearly 1000 miners today recover gold using the amalgamation method (with mercury) powered by wind/diesel turbines. Mining is focused on Hulawa Village and is spread over four clusters covering approximately 100 Ha of land, including the old mining site (Tambang Tua).

In September 2020, the local government of Gorontalo with support of GOLD-ISMIA Project as part of component 3 conducted an assessment of mercury use across Huluwa Village as shown on table 1 below.



Fig. 1 Landscape of Hulawa Village

Location	Province : Gorontalo District: North Gorontalo Sub-district: East Sumalata Village: Hulawa
Legality	No
Type of ore	Primary ore
Gold recovery method	Amalgamation
Numbers of tunnel	96
Numbers of tunnel owner	75
Dept of tunnels	10-100 meter
Tunnel size	80 x 80 cm
Numbers of Miner	933
Numbers of tromol	238 (192 run by diesel + 46 run by water turbine)
Gold production per tromol/day	1 gram
Gold production per year	238 tromols x 1 gram x 300 days = 71.4 kg
Mercury added per tromol/day	300 gram
Mercury loss per tromol/day (assumption: minimum 5% rate loss)	15 gram
Mercury annual emission	238 tromols x 15 grams x 300 days = 1.071 kg
Health and environment impact	Research had been done in this area for determining the impact of ASGM on water quality
Accessibility to location	Asphalt road to Hulawa village
Women and children	Women is part of the mining activity
Type of miners	Permanent artisanal mining (full time, yearly round activity. For the involved people mining is frequently the only economic activity or sometimes accompanied by other activities like farming, herding or other extractive tasks of local community).

Hulawa Village has been selected as a GOLD-ISMIA project site, however Hulawa Village has no active Community Mining Area Permit (*Wilayah Pertambangan Rakyat-WPR*). In collaboration with the local government of Gorontalo, GOLD-ISMIA has developed a Technical Review Report for establishing WPR. Of GOLD-ISMIA's 6 project sites, Hulawa is the only location with no WPR and the project-team's experience of working with this village provides for a case study of lessons-learned from formalizing small-scale gold mining.

The WPR Process

The processes that underpin the assessment and issuance of a WPR are often partially understood, relevant data are often incomplete, and knowledge and expertise in the various discipline areas may be limited or difficult to bring together for the purpose of an assessment. Most of ASGM project involve a top-down policy means the ministries or agencies decide on the programs or actions and would be implemented in decided locations. Nevertheless, it is necessary to identify and estimate the scale of uncertainties that arise in the assessment and compare the results with other studies; and to discuss the implications of the results assessment for national policy.

Based on the assessment result, project could set a strategy to implement a priority activity in this site, particularly there are four challenges that hamper the effort to reduce/eliminate mercury used in Hulawa:

1. Institutional barriers

The local government has limited capacity to control and monitor ASGM activities and this is due to a lack of human resources to monitor and implement the relevant regulations. The review identified a lack of funding to educate, monitor and supervise the miners and this was a key limitation to advancing programs related to ASGM. In the opinion of government staff, controls over ASGM fail due to a combination of lack of government infrastructure and political willingness to deal with the situation. Some local government staff were vocal in explaining that that they cannot be

involved in training illegal people, since miners do not have their permits. In their opinion, miners should legalize first, in order to be trained later. This gap between policy and reality indicates that new institutional perspective is necessary.

Miners are generally unfamiliar with the administration process required to gain a mining permit, with only very few seeking help from NGOs to obtain legal status. The process to gain a permit requires documents such as a mineral exploration report, environmental impact assessments, and other supporting documents like maps, property titles. The cost associated with these documents is a major barrier to miners engaging with the formalization process. The time taken by government officials to review documents is another major barrier to gaining a permit. In summary: the lengthy processes associated with excessive paperwork, costly procedures, and extended waiting periods, combined with the complexity of administrative procedures effectively restricts miners from formalizing their operations.

2. Policy barriers

Complex bureaucracy across central, province, and local government hinder the progress of formalization of the ASGM sector. Hernandi (2017) described that a lack of regulations and standards to control the usage of mercury in ASGM also contribute to policy barriers. Many regions have no regulations for managing artisanal and small-scale mining activities. Even where there is a regulation regarding ASGM, there is a possibility that the mandate to enforce regulations will overlap between agencies creating tension and inaction. Conflict between large-scale miners and artisanal small-scale gold miners working in the same area are also common where there are where one or more parties have incomplete permits. Current legislation and mining policies have been inadequate to address the problems generated by ASGM.

3. Technical barriers

Limited or broken government infrastructure such as a system for laboratory assays, processing equipment and road access to ASGM area is a constraint on formalization of the sector. Poor infrastructure also constrains the effectiveness of environmental mercury monitoring and the audited extent of ASGM activity in remote areas, and also limits the distribution of ASGM information to at risk communities. New 'Hg-free' processing technologies exist but these can be different from one site to another, depending on the geological conditions and also ore type, and poor infrastructure can create delays on the delivery of viable processing alternatives. As a consequence, miners keep using mercury.

4. Socio-economic barriers

Most ASGM in Indonesia is located in remote areas. The locations are difficult to be accessed by government or NGO staff, and this slows the delivery of technical, financial and legal assistance. Most miners working illegally and without legal status, miners do not own a property right to mine. Without owning a property right to access and control the mining area, there is no security in the long-term sustainability of their mining activities, and this restricts the miners from adopting the interventions proposed by GOLD-ISMIA. Poor safety and a lack of environmental awareness have become a part of the miners' culture and this hamper efforts to educate miners, due to their cultural resistance. From a financial perspective, many formal microfinance institutions are not willing to provide loans to miners who do not have a legal license to operate from the government.

Lessons Learned

The Ministry of Energy, Mineral and Resources of Republic Indonesia (MoEMR) as the administrator on the issuance of WPR will return the application documents to be revised by the Provincial Government with some notes that the designated WPR: (i) are either part of national forest area, forest production area,

mining concession area, community area or on river bank area, and, (ii) have no information of gold deposit. This situation will double the project budget allocated for the formalization process due to field activities and meetings carried out to fulfil the WPR requirements. It also leads to lengthy extra time to pursue the project target. It is, therefore, necessary to appoint a resource person with capability to guide and assist the development of WPR document from beginning till submission to MoMER.



Fig. 2 ASGM pit in Hulawa

Reference:

Hernandi Albeto Octaviano , 2017. *Mercury elimination in artisanal and small scale gold mining: progress and barriers in implementing national action plan to eliminate mercury in indonesia (case study: Banyumas Regency)*. Master Thesis in Environmental Management at Massey University, Manawatū, New Zealand.

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