

ASGM in the peruvian Amazon, environmental and gold trading challenges

Madre de Dios



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GENERAL CONTEXT

PERU, MINER COUNTRY



- *Second largest producer of silver, copper and zinc worldwide (Ministry of Energy and Mines)*
- *It's the leading producer of gold, zinc, tin, lead and molybdenum in Latin America (Ministry of Energy and Mines)*
- *First country in the world in silver reserves (US Geological Survey – USGS)*

WORLD GOLD PRODUCTION 2021

COUNTRY	VOLUME TN
CHINA	332
AUSTRALIA	315.1
RUSIA	330.9
CANADAD	192.9
USA	186.8
GHANA	129.2
PERU	127.3

World Gold council, 2022

MADRE DE DIOS DEPARTMENT



- *Surface: 8'530,100 ha = 21,069,347 acres*
- *40% of territory , Natural protected areas*

PERU GOLD PRODUCTION 2021

DEPARTMENT	VOLUME TN
LA LIBERTAD	31.08152
CAJAMARCA	20,241
AREQUIPA	18,029
AYACUCHO	10,195
CUSCO	4,398
PUNO	3,556
TACNA	2,277
PASCO	1,795
MADRE DE DIOS	1,617

Ministry of Energy and Mine, 2022

- *Several different types of land use in Madre de Dios, including mining, forestry, land belonging to native communities, ecotourism, conservation areas, agricultural land, concessions for Brazilian nut harvesting, and more.*

Madre de Dios

Capital of biodiversity of Peru





ASGM IN THE PERUVIAN AMAZON

LEGAL CONTEXT

- Formal, informal, and illegal land use exist in the region.
- There is a superposition of different land use types, resulting in conflicts.
- The formalization process is difficult and slow, with only 249 out of 9500 applications formalized.
- There are few incentives and benefits to become formal, but there is more control and oversight.
- There has been an increase in illegal mining.
- Since 2012, mining in rivers has been illegal.

REGULATION

- Regulations for mining in the Amazon are almost non-existent.
- Existing regulations for (ASGM) in the coastal, mountainous, and desert areas of Peru are "copied" for use in the Amazon.

TECHNICAL ASPECTS

- Rustic and inefficient technologies are used, resulting in only 30% to 40% gold recovery.
- There are two types of extraction machinery: heavy machinery and suction pumps.
- Operations are not well-planned and have considerable environmental impacts

MINING IN RIVERS

ASGM WORK ON WATER BODIES PROHIBITED (rivers, streams, beaches, “aguajales”, lakes, etc.) SINCE 2012 IN PERU

DS 1100- MINAM -2012



TYPES OF MACHINERY

HEAVY MACHINERY



SUCTION PUMPS





ENVIRONMENTAL IMPACTS



115 mil ha of degraded areas
(1984-2019) (**CINCIA, unpublished
data 2019**)

181 ton of mercury/year, Madre de
Dios (**Artisanal Gold Council, 2018**)



ASGM AMAZON MODEL

ASGM MODEL FOR THE PERUVIAN AMAZON

NECESSITY OF HAVE AN ASGM MODEL FOR THE AMAZON

THE MODEL CONSIDERS THESE PRINCIPAL ASPECTS:

1. Elimination of the use of mercury.
2. Restoration of degraded areas.
3. Improvement of the efficiency of the mining process to enhance recovery and reduce or prevent environmental impacts.

***ACTUALLY, WE HAVE EXAMPLES, PILOTS THAT SHOW THE MODEL.
TO HAVE A SUSTAINABLE MODEL WE NEED REAL INCENTIVES (RESPONSIBLE MARKETS)***

ELIMINATION OF HG

Context

- Environmental and health problem
- Native communities , amazon biodiversity and population affected and in danger
- Use of Hg in ASGM is legal
- Peru signed and ratified MINAMATA convention
- Technically possible, miners already know how to produce without mercury

Main constraints

- Local Market not accept free mercury gold, sometimes miners mix “clean gold” with mercury to sell it, only 02 gold shops in PEM accept it
- If gold shops accept to buy, they pay the same price
- You cannot transport gold from Madre de Dios by plane only by land, this produces expensive costs, there is no fiscal route
- There is a strong monopoly of mercury trade in Madre de Dios
- There are no incentives to stop using mercury

ELIMINATION OF HG

FIRST PURCHASES OF CLEAN GOLD IN MADRE DE DIOS



Shaking table production



Gold bought by a peruvian jeweler , Casa Collab, 2018



ELIMINATION OF HG

GOLD SHOP



MADRE DE DIOS AIRPORT

RESTORATION OF DEGRADED AREAS

Context

- The environmental impact of mining in the Amazon is enormous, and reforestation and restoration actions are necessary.
- There are existing pilots for reforestation, and restoration is technically possible.
- Restoring degraded areas should be the responsibility of the miner.

Main constraints

- The regulations for closure mining are not clear, and miners do not feel pressure to restore the land immediately.
- Restoring the largest areas of degradation is also the most expensive.
- Many miners work considering the possibility of returning to a reforested area if they can find more gold







GOLD TRADE IN MADRE DE DIOS

GOLD TRADE IN MADRE DE DIOS

Context

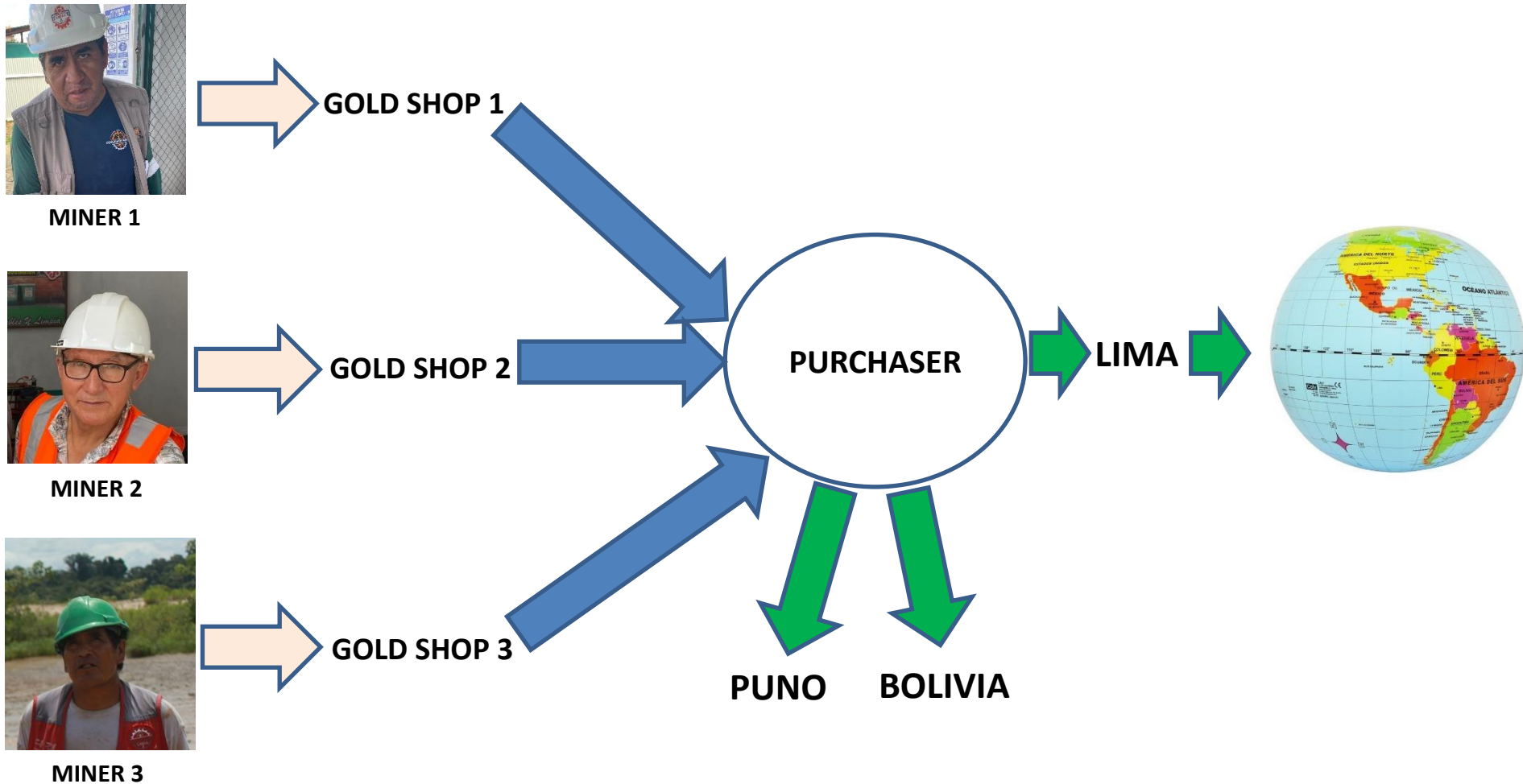
- Informal local commerce, there are no incentives to be formal
- There are many uncontrolled gold shops operating without permission
- There are few gold shops that buy with an invoice, only 2 in PEM
- If the miner issues an invoice, they must wait several days to receive a bank transfer. Miners pay their fixed costs on a daily basis
- The gold shop demands all the legal requirements to accredit be a formal miner to receive a bill from miners, they prefer to pay without an invoice.

Main constraints

- There are a lot of complications to trade formally
- There is no government control
- Gold shop fixes the final price (it always wins)
- You cannot transport gold from Madre de Dios by plane only by land, this produces expensive costs, there is no fiscal route
- Once the gold arrives at the gold shop, the traceability is complicated to follow

GOLD TRADE IN MADRE DE DIOS

LOCAL MARKET



THIS HAPPENS IN THE DIFFERENTS MINING SITES (LABERINTO, HUEPETUHE, MAZUKO, COLORADO, LA PAMPA, ETC)

KEY POINTS

KEY POINTS

- The production of gold in Madre de Dios is enormous, but it must be accompanied by good practices, incentives, responsible markets, and tangible improvements in the quality of life of the population
- Mining formalization does not have attractive incentives for miners. On the contrary, it often discourages them
- Mercury-free gold production is possible. However, it receives minimal attention from the government to promote a responsible market that values this product and facilitates its commercialization
- We must stop seeing miners as "the problem" and differentiate between illegal, and formal mining. For Madre de Dios, working with them is part of the solution
- We need to bring final buyers to the producers, create a parallel market to gold shops, and provide facilities for the transportation and commercialization of responsible gold.
- It's possibly to create a gold purchasing office that pays a better price for mercury-free gold
- Having traceability tools can help and can be very useful, but we must ensure the accuracy of their information. We need to shorten the distance between responsible markets and miners
- To implement efficient traceability systems, we need to facilitate direct sales from miners to responsible buyers (avoiding gold shops), create incentives for them to adopt this system, and allow reliable and transparent air commerce from Madre de Dios
- A good traceability system can work if there is quality information, if formality is accompanied by incentives for miners, and if responsible markets exist and reward formality and good mining practices

MET GALA, en vivo: Todos los detalles del gran evento aquí

Joyas de oro peruano triunfan en la Semana de la Joyería de Nueva York

“De la fuente a tus manos” es el lema de la exhibición que resalta lo mejor de la joyería artesanal peruana.



Conferencia a los contenidos de The Trust Project



PUBLICIDAD

Las joyas expuestas fueron fabricadas con oro 100% peruano libre de mercurio y con trazabilidad en su producción. (Foto: Promperu)

The Guardian



Gold standard: Peru miners phase out mercury in bid to clean up industry





GRACIAS/THANK YOU/MERCI