



## **Part I: Project Information**

### **Name of Parent Program**

**Global Opportunities for Long-term Development of artisanal and small-scale gold mining (ASGM) Sector Plus - GEF GOLD +**

### **GEF ID**

**10604**

### **Project Type**

FSP

### **Type of Trust Fund**

GET

### **CBIT/NGI**

**CBIT No**

**NGI No**

### **Project Title**

GEF GOLD+ in Madagascar: Enhancing the formalization and mercury reduction in artisanal and small-scale gold mining in Madagascar

### **Countries**

Madagascar

### **Agency(ies)**

UNIDO

### **Other Executing Partner(s)**

Ministry of Environment and Sustainable Development - MEDD

### **Executing Partner Type**

Government

### **GEF Focal Area**

Chemicals and Waste

**Sector****Taxonomy**

Focal Areas, Chemicals and Waste, Sound Management of chemicals and waste, Best Available Technology / Best Environmental Practices, Mercury, Artisanal and Scale Gold Mining, Waste Management, Hazardous Waste Management, Influencing models, Transform policy and regulatory environments, Strengthen institutional capacity and decision-making, Deploy innovative financial instruments, Convene multi-stakeholder alliances, Demonstrate innovative approach, Stakeholders, Type of Engagement, Information Dissemination, Participation, Consultation, Partnership, Communications, Behavior change, Awareness Raising, Education, Private Sector, Financial intermediaries and market facilitators, Capital providers, SMEs, Individuals/Entrepreneurs, Beneficiaries, Civil Society, Non-Governmental Organization, Academia, Trade Unions and Workers Unions, Community Based Organization, Local Communities, Gender Equality, Gender results areas, Capacity Development, Knowledge Generation and Exchange, Access and control over natural resources, Access to benefits and services, Participation and leadership, Gender Mainstreaming, Sex-disaggregated indicators, Women groups, Gender-sensitive indicators, Capacity, Knowledge and Research, Knowledge Generation, Training, Knowledge Exchange, Conference, Learning, Indicators to measure change, Adaptive management, Theory of change, Innovation, Enabling Activities

**Rio Markers****Climate Change Mitigation**

No Contribution 0

**Climate Change Adaptation**

No Contribution 0

**Biodiversity**

No Contribution 0

**Land Degradation**

No Contribution 0

**Submission Date**

12/3/2021

**Expected Implementation Start**

2/1/2023

**Expected Completion Date**

6/1/2027

**Duration**

60In Months

**Agency Fee(\$)**

447,458.00

**A. FOCAL/NON-FOCAL AREA ELEMENTS**

<b>Objectives/Programs</b>	<b>Focal Area Outcomes</b>	<b>Trust Fund</b>	<b>GEF Amount(\$)</b>	<b>Co-Fin Amount(\$)</b>
CW-1-1	Reduction of anthropogenic releases/emissions of mercury from Artisanal and Small-Scale Gold mining into the environment	GET	4,971,750.00	31,296,986.00
<b>Total Project Cost(\$)</b>			<b>4,971,750.00</b>	<b>31,296,986.00</b>

## B. Project description summary

### Project Objective

To reduce the use of mercury and increase incomes in the ASGM sector in Madagascar through a holistic, multisectoral integrated formalization approach, and increasing access to finance leading to the adoption of sustainable mercury-free technologies and access to traceable gold supply chains

Project Component	Financing Type	Expected Outcomes	Expected Outputs	Trust Fund	GEF Project Financing(\$)	Confirmed Co-Financing(\$)
1. Enhancing ASGM formalization	Technical Assistance	OC1: Higher degree of formalization and integration across the ASGM sector	OP1A: Strengthened legal and regulatory framework for ASGM  OP1B: Stronger institutional capacities for supporting professionalisation and regulation of the ASGM sector within target jurisdictions	GET	1,315,000.00	5,592,012.00
2. Access to finance enhanced by financial inclusion and responsible supply chains	Technical Assistance	OC2: Increased financial inclusion for ASGM miners	OP2A: ASGM miners have a stronger capacity to access financial products  OP2B: Improved oversight and implementation of existing responsible supply chains within target jurisdictions	GET	1,325,000.00	7,298,831.00

Project Component	Financing Type	Expected Outcomes	Expected Outputs	Trust Fund	GEF Project Financing(\$)	Confirmed Co-Financing(\$)
3. Enhancing uptake of mercury-free technologies	Investment	OC3: Increased uptake of mercury-free technologies across the ASGM sector	OP3A: Appropriate, context-specific technologies and processes identified and demonstrated  OP3B: Miners gain technical skills in mercury-free technologies	GET	1,495,000.00	10,557,589.00
4. Knowledge sharing, communication and local capacity building support	Technical Assistance	OC4: All actors across the ASGM sector have improved knowledge of strategies, tools and processes for mercury elimination	OP4A: Programme of awareness-raising and capacity development delivered for ASGM actors  OP4B: Madagascar GOLD+ project contributes to ? and benefits from ? global planetGOLD knowledge management activity	GET	500,000.00	4,582,031.00
5. Monitoring, evaluation and learning	Technical Assistance	OC5: Stronger evidence base on effective mercury elimination strategies	OP5A: M&E and adaptive management applied to capture and share lessons learned	GET	100,000.00	2,300,000.00

Project Component	Financing Type	Expected Outcomes	Expected Outputs	Trust Fund	GEF Project Financing(\$)	Confirmed Co-Financing(\$)
				<b>Sub Total (\$)</b>	<b>4,735,000.00</b>	<b>30,330,463.00</b>

**Project Management Cost (PMC)**

	GET		236,750.00		966,523.00	
	<b>Sub Total(\$)</b>		<b>236,750.00</b>		<b>966,523.00</b>	
	<b>Total Project Cost(\$)</b>		<b>4,971,750.00</b>		<b>31,296,986.00</b>	

Please provide justification

**C. Sources of Co-financing for the Project by name and by type**

<b>Sources of Co-financing</b>	<b>Name of Co-financier</b>	<b>Type of Co-financing</b>	<b>Investment Mobilized</b>	<b>Amount(\$)</b>
Recipient Country Government	Ministry of Environment and Sustainable Development (MEDD)	In-kind	Recurrent expenditures	2,000,000.00
Recipient Country Government	Ministry of Mines and Strategic Resources (MMRS)	In-kind	Recurrent expenditures	4,000,000.00
Recipient Country Government	Ministry of Public Health (MSANP)	In-kind	Recurrent expenditures	2,000,000.00
Recipient Country Government	Ministry of Industrialization, Trade, and Consumption (MICC)	In-kind	Recurrent expenditures	1,000,000.00
Recipient Country Government	National Agency for the Gold Sector (ANOR)	In-kind	Recurrent expenditures	8,000,000.00
Private Sector	Vohitra Environnement	Grant	Investment mobilized	438,960.00
Civil Society Organization	Organization of Civil Society on Extractive Industries (OSCIE)	In-kind	Recurrent expenditures	58,026.00
Civil Society Organization	Voarisoa Observatoire	In-kind	Recurrent expenditures	1,000,000.00
Civil Society Organization	Women's National Platform for Sustainable Development and Food Security (PNFDDSA)	In-kind	Recurrent expenditures	500,000.00
Other	School of Information and Communication (SAMIS-ESIC)	In-kind	Recurrent expenditures	1,200,000.00
GEF Agency	UNIDO	Grant	Investment mobilized	100,000.00



Sources of Co-financing	Name of Co-financier	Type of Co-financing	Investment Mobilized	Amount(\$)
Private Sector	Argor Heraeus	Grant	Investment mobilized	10,000,000.00
Other	Central Bank of Madagascar (Banky Foiben'i Madagasikara)	Grant	Investment mobilized	1,000,000.00
<b>Total Co-Financing(\$)</b>				<b>31,296,986.00</b>

**Describe how any "Investment Mobilized" was identified**

During the project preparatory phase, relevant national stakeholders who work in the ASGM sector and have access to finance or research on new technologies to mitigate and eliminate mercury pollution have been mapped and mobilized by UNIDO and the MEDD to participate in the co-financing of this project through group meetings, bilateral meetings, workshops, phone calls, email exchanges. Notably, a stakeholder mobilization meeting took place in May 2021 with participants from the public and private sector, CSO, and academia. After that, a series of frequent bilateral meetings and communications with decision-makers in different ministerial departments, heads of public institutions and government bodies, NGOs and civil society, universities, and research institutes to finalize the modalities of co-financing and areas of collaboration. Finally, the validation workshop with the participation of these relevant stakeholders took place in November 2021 to confirm their commitment and ownership of the project.

**D. Trust Fund Resources Requested by Agency(ies), Country(ies), Focal Area and the Programming of Funds**

<b>Agency</b>	<b>Trust Fund</b>	<b>Country</b>	<b>Focal Area</b>	<b>Programming of Funds</b>	<b>Amount(\$)</b>	<b>Fee(\$)</b>	<b>Total(\$)</b>
UNIDO	GET	Madagascar	Chemicals and Waste	Mercury	4,971,750	447,458	5,419,208.00
<b>Total Grant Resources(\$)</b>					<b>4,971,750.00</b>	<b>447,458.00</b>	<b>5,419,208.00</b>

**E. Non Grant Instrument**

NON-GRANT INSTRUMENT at CEO Endorsement

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Includes Non grant instruments? **No**

Includes reflow to GEF? **No**

**F. Project Preparation Grant (PPG)**

PPG Required **true**

**PPG Amount (\$)**

150,000

**PPG Agency Fee (\$)**

13,500

<b>Agency</b>	<b>Trust Fund</b>	<b>Country</b>	<b>Focal Area</b>	<b>Programmin g of Funds</b>	<b>Amount(\$ )</b>	<b>Fee(\$)</b>	<b>Total(\$)</b>
UNIDO	GET	Madagasca r	Chemical s and Waste	Mercury	150,000	13,500	<b>163,500.0 0</b>
<b>Total Project Costs(\$)</b>					<b>150,000.0 0</b>	<b>13,500.0 0</b>	<b>163,500.0 0</b>

## Core Indicators

### Indicator 4 Area of landscapes under improved practices (hectares; excluding protected areas)

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)
0.00	75300.00	0.00	0.00

### Indicator 4.1 Area of landscapes under improved management to benefit biodiversity (hectares, qualitative assessment, non-certified)

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)
	75,300.00		

### Indicator 4.2 Area of landscapes under third-party certification incorporating biodiversity considerations

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)

#### Type/Name of Third Party Certification

### Indicator 4.3 Area of landscapes under sustainable land management in production systems

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)

### Indicator 4.4 Area of High Conservation Value or other forest loss avoided

Disaggregation Type	Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)

### Indicator 4.5 Terrestrial OECMs supported

Name of the OECMs	WDPA-ID	Total Ha (Expected at PIF)	Total Ha (Expected at CEO Endorsement)	Total Ha (Achieved at MTR)	Total Ha (Achieved at TE)

## Documents (Please upload document(s) that justifies the HCVF)

Title

Submitted

**Indicator 9 Chemicals of global concern and their waste reduced**

<b>Metric Tons (Expected at PIF)</b>	<b>Metric Tons (Expected at CEO Endorsement)</b>	<b>Metric Tons (Achieved at MTR)</b>	<b>Metric Tons (Achieved at TE)</b>
<b>0.00</b>	<b>20.00</b>	<b>0.00</b>	<b>0.00</b>

**Indicator 9.1 Solid and liquid Persistent Organic Pollutants (POPs) removed or disposed (POPs type)**

<b>POPs type</b>	<b>Metric Tons (Expected at PIF)</b>	<b>Metric Tons (Expected at CEO Endorsement)</b>	<b>Metric Tons (Achieved at MTR)</b>	<b>Metric Tons (Achieved at TE)</b>
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**Indicator 9.2 Quantity of mercury reduced (metric tons)**

<b>Metric Tons (Expected at PIF)</b>	<b>Metric Tons (Expected at CEO Endorsement)</b>	<b>Metric Tons (Achieved at MTR)</b>	<b>Metric Tons (Achieved at TE)</b>
	<b>20.00</b>		

**Indicator 9.3 Hydrochlorofluorocarbons (HCFC) Reduced/Phased out (metric tons)**

<b>Metric Tons (Expected at PIF)</b>	<b>Metric Tons (Expected at CEO Endorsement)</b>	<b>Metric Tons (Achieved at MTR)</b>	<b>Metric Tons (Achieved at TE)</b>
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**Indicator 9.4 Number of countries with legislation and policy implemented to control chemicals and waste (Use this sub-indicator in addition to one of the sub-indicators 9.1, 9.2 and 9.3 if applicable)**

<b>Number (Expected at PIF)</b>	<b>Number (Expected at CEO Endorsement)</b>	<b>Number (Achieved at MTR)</b>	<b>Number (Achieved at TE)</b>
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**Indicator 9.5 Number of low-chemical/non-chemical systems implemented, particularly in food production, manufacturing and cities (Use this sub-indicator in addition to one of the sub-indicators 9.1, 9.2 and 9.3 if applicable)**

<b>Number (Expected at PIF)</b>	<b>Number (Expected at CEO Endorsement)</b>	<b>Number (Achieved at MTR)</b>	<b>Number (Achieved at TE)</b>
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**Indicator 9.6 POPs/Mercury containing materials and products directly avoided**

<b>Metric Tons (Expected at PIF)</b>	<b>Metric Tons (Expected at CEO Endorsement)</b>	<b>Metric Tons (Achieved at MTR)</b>	<b>Metric Tons (Achieved at TE)</b>
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**Indicator 9.7 Highly Hazardous Pesticides eliminated**

Metric Tons (Expected at PIF)	Metric Tons (Expected at CEO Endorsement)	Metric Tons (Achieved at MTR)	Metric Tons (Achieved at TE)
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Indicator 9.8 Avoided residual plastic waste

Metric Tons (Expected at PIF)	Metric Tons (Expected at CEO Endorsement)	Metric Tons (Achieved at MTR)	Metric Tons (Achieved at TE)
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Indicator 11 People benefiting from GEF-financed investments

	Number (Expected at PIF)	Number (Expected at CEO Endorsement)	Number (Achieved at MTR)	Number (Achieved at TE)
<b>Female</b>		5,948		
<b>Male</b>		12,186		
<b>Total</b>	0	18134	0	0

Provide additional explanation on targets, other methodologies used, and other focal area specifics (i.e., Aichi targets in BD) including justification where core indicator targets are not provided

## **Part II. Project Justification**

### **1a. Project Description**

#### **Describe any changes in alignment with the project design and with the original PIF**

The GOLD+ project aligns its target with the original PIF in accordance with the National Action Plans, Minamata Initial Assessment (MIA), and the Global Mercury Assessment.

The sum of mercury reduced that will be achieved in Madagascar during the 5-years program for the project is 5 metric tons. The number of direct beneficiaries increased to 18,134 people as updated from the field visit to the four target sites.

### **A. PROBLEM, ROOT CAUSES AND BARRIERS**

#### **International context**

Artisanal and small-scale gold mining (ASGM) is the largest global source of anthropogenic mercury releases into the environment with about 38% of total releases from a multitude of sites in over 70 countries (UNEP Global Mercury Assessment, 2018), and accounts for about 15% of the world's annual gold production (Metal Focus, 2019). It occurs almost entirely in developing countries and countries with economies in transition. Mercury is often used in ASGM to help separate gold from sediments or ore using rudimentary processing methods. During mining and processing activities by ASGM, mercury losses to the environment occur at two stages, during the amalgamation process and the amalgam roasting process. Due to poor mining practices in ASGM, mercury is released directly into the environment, contaminating air, land, and water bodies. Children are the most susceptible to the negative developmental effects of mercury exposure. The uncontrolled loss of mercury, especially released from whole ore amalgamation in ASGM can travel long distances around the globe, contributing to global mercury pollution and contaminating the world's ecosystems and fisheries. Consumption of mercury-contaminated fish exposes communities to methyl-mercury, an organic form of mercury that bio-accumulates and bio-magnifies along the food chain. There are ongoing global efforts to reduce mercury use in the ASGM sector involving several multi-lateral, bilateral and private sector initiatives. In about 70 countries mercury is still the mainstream method ASGM uses to recover gold. A few successful mercury-free pilots have been carried out, though their upscaling has been limited in comparison to the scale of the global mercury release from the ASGM sector. It is estimated that nearly 100% of all mercury used in ASGM is released into the environment (Global Mercury Project, UNIDO 2007). The UNEP Global Mercury Partnership estimates that the amount of mercury used by the sector annually is conservatively evaluated at 1,500 tonnes, making the ASGM sector the largest emitter of mercury into the environment, accounting for 38% of total annual anthropogenic mercury emissions to air (UNEP Global Mercury Assessment, 2018). Experts estimate that 20 million people are currently involved in the ASGM sector, of which 4.5 million are women and 600,000 are children.



Efforts to reduce mercury use in ASGM have provided insight into the major barriers preventing the uptake of sustainable mining technologies and practices:

- *Informality:*

There appears to be a consensus that formalization is a process of which at the core is the issue of legalization. In the world of ASGM, formalization includes all processes by which the activities of this sector are brought into the mainstream through appropriate policy and legislative frameworks for regulation as well as institutional arrangements for support and promotion. Even though legalization is only part of the process, because of the highly regulated nature of the mining sector in all jurisdictions it is not possible to speak of formalization without considering the legal perspective. Most jurisdictions where ASGM takes place legally recognize ASM either explicitly or implicitly. In the jurisdictions where it is explicitly provided for, the mining law has a category of mining license or permit that targets the ASM sector. Some countries go as far as providing for a commodity-specific (i.e. gold) category for ASM. Experts argue that most problems associated with ASGM are, in many ways, expressions of its perpetual informality. As expressions of informality, most ASGM activities are unlicensed, unregulated, poorly monitored, and characterized by poor mining practices and little concern for the environment. Furthermore, informality and weak regulation keep the sector unbanked, limiting its access to formal and legitimate financing mechanisms to improve productivity and technology to achieve a transition towards mercury-free methods. Miners are forced to secure finances through informal means and without access to efficient equipment, and many are trapped in a vicious cycle of poverty.

- *Lack of Access to Finance in the ASGM Sector:*

The ASGM sector is undercapitalized, particularly in comparison to the formal/industrial-scale gold mining sector. This means that ASGM miners are unable to finance the initial investments that are needed to switch to low or no mercury alternative techniques and technologies. Coupled with the low access to finance, their awareness of mercury alternatives is also very low. The most salient barriers to increasing capitalization of informal gold mining operations are a lack of understanding of the sector within national and local financial institutions, a lack of data on the ASGM sector, a lack of formal business skills by ASGM miners, the scope of the finance required and the remoteness of the operations. Essentially, access to formal finance by a predominantly informal sector may be the most significant obstacle. Additionally, lack of education within the market means that local banks lack the understanding of the ASGM sector required to create financial products for it. This lack of understanding coupled with the negative perception of ASGM and its informality make financiers skeptical of the prospect of investing in the sector.

- *Low Technical Capacity in Countries to support Formalization and Mercury Reduction:*

Generally, there is weak technical capacity in many ASGM countries to help the sector professionalize, train on mercury-free techniques, and provide adequate support. Barriers to knowledge transfer and progress in mercury reduction include a poor capacity of actors at the local level and knowledge sharing. Despite the availability of mercury-free technologies, these are not widely used by miners. The reasons for lack of migration to mercury-free technologies include; (i) cost of the equipment, (ii) failure

to adapt technologies to the level appropriate for ASGM organizations, (iii) lack of adequate training to enhance capacity during the transfer of technology to miners, and (iv) lack of awareness on mercury-free alternatives.

- *Lack of a Holistic Approach and Regional Coordination:*

Despite country-level efforts, mercury flows, inter-country migration, and a lack of common purpose amongst neighbor countries present challenges to controlling mercury flows and ASGM formalization. The capacity of customs regulators and officers at the national and regional level to control undocumented and/or smuggled mercury flows is limited. Lack of regional coordination presents a challenge to achieving mercury reduction in ASGM. Research points to challenges with regional mercury flows, informal gold trading, and illicit financing as transboundary issues. Other challenges related to the transboundary nature of ASGM include migrant labor and informality, deforestation, lack of access to formal financing, and illegal gold exports.

UNIDO, Global Environment Facility (GEF) and other partners have in the past years supported several projects aimed at the reduction of mercury use. These initiatives have been scaled up to meet the requirements of the 2013 Minamata Convention. A description and analysis of these efforts follow to provide a global level baseline. During the years 2002-2006, the GEF, UNIDO, and UNDP stepped up the focus on addressing the mercury problem with an international project named the Global Mercury Project (GMP). The project focused on best practices and pollution prevention measures to limit mercury contamination of international waters from ASGM practices in six countries: Brazil, Lao PDR, Indonesia, Sudan, Tanzania, and Zimbabwe. The GMP introduced cleaner technologies, trained miners, developed regulatory mechanisms and capacities within government, conducted environmental and health assessments (E&HA), and built capacity within participating countries to continue monitoring mercury pollution after the project was completed. Lessons learned from the GMP informed the Minamata Convention journey, through the Intergovernmental Negotiation Committees (INC) to the point of signing in October 2013 and its coming into force in June 2017. Lessons from GMP and other ASGM actors and governments were key to the elaboration of the Convention and its Annexes relevant to ASGM.

Led by the National Resources Defense Council (NRDC), the United Nations Environment Program (UNEP), and UNIDO, the UNEP Global Mercury Partnership Area on ASGM was set up in 2007 as a voluntary platform to share knowledge and provide information on the sector and its needs. The Partnership Area brings together a wide range of partners from Governments, IGOs, NGOs, academia, and the private sector, who, together, can identify, design, and implement sustainable solutions for the sector. The objective of the Partnership Area is the continued minimization and elimination, where feasible, of mercury uses and releases in ASGM. The Partnership Area focuses on assisting governments to prepare to address ASGM related obligations, by creating guidance material for ASGM National Action Plan (NAP) development; assisting governments in the development of their own NAPs; and helping to identify and implement practical projects.

Furthermore, The Minamata Convention sets out the objective: "to protect human health and the environment from anthropogenic emissions and releases of mercury and mercury compounds". The ASGM sector is addressed in several of its articles and annexes, particularly in Article 7 and Annex C.

Article 7 obligates parties to take steps to reduce and, where feasible, eliminate mercury use in, and emissions and releases from the ASGM sector. Parties that declare to the Secretariat that their ASGM sector is more than insignificant must develop and implement National Action Plans as part of their domestic efforts to address mercury-related problems and risks in this sector. In 2018, Madagascar submitted its NAP to the Minamata Secretariat.

The planetGOLD Program (2019-2024) program is currently being implemented in eight countries in three major global regions: Burkina Faso, Colombia, Ecuador, Guyana, Indonesia, Kenya, Mongolia, Peru, the Philippines, and a global programme component. These countries were selected based on their demonstrated interest in addressing the sector positively and on the amount of mercury reportedly used. The planetGOLD Program aims to support the eight countries to fulfill their commitments under the Minamata Convention on mercury by responding to the concrete target to contribute to the direct reduction of the emissions and release of 123 tons of mercury into the environment throughout implementation. The main objective is to reduce the amount of new anthropogenic mercury emissions and remediation of mercury-contaminated tailings in the nine participating countries. The Program aims to introduce 'planetGold' criteria to the market to improve market access for miners that manage not only mercury emissions, but also improve performance across a broader suite of social and environmental standards.

### **National context of Madagascar**

Artisanal and small-scale gold mining (ASGM) represents a means of livelihood and provides direct employment to approximately 600,000 Malagasy people, representing 2.3% of the nation population, of whom 37% are women and 20% are children, and indirect employment to 2.5 million people. Informal gold mining is practiced in 388 of Madagascar's 1,670 municipalities, with annual gold production across the ASGM sector estimated to be at least 14 tonnes.<sup>[1]</sup> Overall, Madagascar's annual gold production is believed to be worth about USD 450 million.<sup>[2]</sup>

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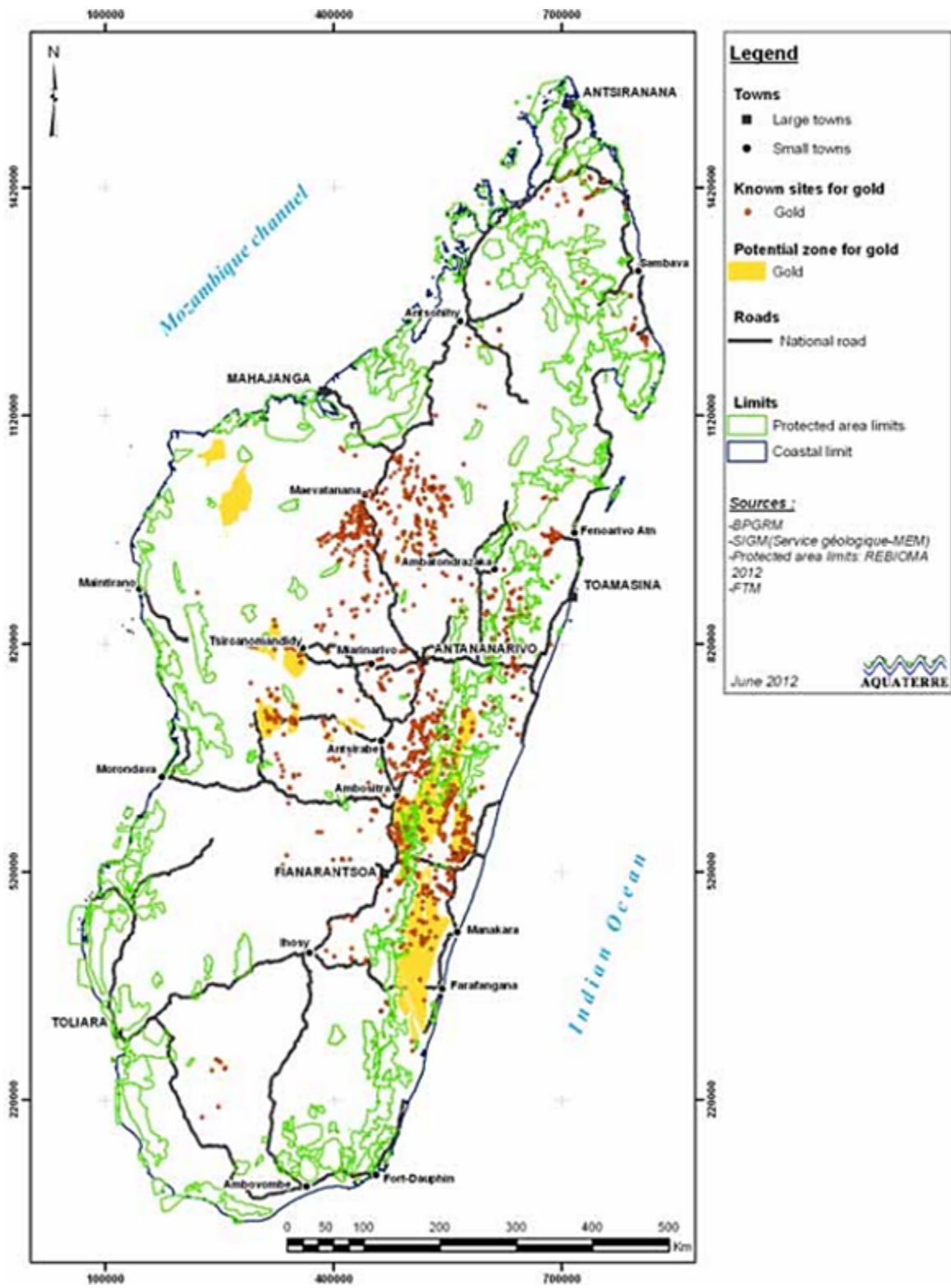


Figure 1: Gold sites and zones in Madagascar (known and potential sites)

However ? and despite existing regulation ? informal gold mining activities have caused widespread environmental degradation in Madagascar, including deforestation, land degradation, wetland destruction, loss of biodiversity, chemical pollution, and relevant induced impacts including greenhouse gases emissions. Figure 1 shows the density of the existing gold mines in the country, particularly around and even inside the protected areas. These environmental problems occur from the exploration stage to the closure stage of a mine?s operation.

Environmental problems associated with ASGM in Madagascar:

- *Deforestation and biodiversity loss*

Most of the mining sites are located in forests; hence, excavation activities in gold mining lead to deforestation. In most mining sites, large areas of land were cleared, consequently destroying the forest that many animal species depend on for food and habitation. Consequently, the balance in the ecosystem is disrupted. Many animal species known to inhabit this environment may have migrated away or worse, are exterminated, including protected or endangered species.

- *Soil erosion*

Excavation activities for exploration purposes are a common source of soil erosion, as observed in the mining sites. Further mining activities have caused considerable damage to land and the soil is exposed to erosion. Unfortunately, the majority of the gold mining sites are not restored after decommissioning of the mining activities.

- *Air pollution*

Air pollution is one of the consequences of ASGM activities (digging, milling, dry washing). The associated dust generated by mining has major impacts on the environment and workers? health. During the dry season, the level of dust emission is higher in comparison to the rainy season. Miners, being exposed to this dust without any personal protective equipment, such as masks and goggles, are highly likely to contract respiratory and eye infections/injuries.

- *Noise pollution*

Constant and loud noise generated from blasting/grinding/crushing/digging activities and heavy machinery/trucks could lead to noise-induced hearing loss.

- *Agricultural and water pollution*

Agriculture and water are crucially important to food security and life on Earth. Madagascar is an island nation whose crops are extensively water-dependent whereas the distribution of river waters and precipitation is not equal among all states. Mining activities have threatened the sustainability of agriculture and water resources. The agricultural sector in Madagascar is affected directly (low

productivity in crop farming) and indirectly (contaminated water from mining used by farmers for irrigation and daily life activities). In some cases, farmlands are destroyed where gold is found.

- *Use of mercury*

While mercury was not historically used within the ASGM sector, the substance and its associated processes were introduced by foreign miners about 10 years ago. Malagasy artisanal gold miners used the rest of gold mercury whole ore amalgamation collected from foreigners? exploitation. These two practices, which are gold mercury whole ore amalgamation and open burning, are considered the worst practices in ASGM activity. The subsequent uptake of mercury in parts of the ASGM sector has seen the national consumption of the substance rise to an estimated 18.4 tonnes per year in the sector, used across sites totaling 37.65 hectares. This mercury usage has introduced serious health risks and impacts to miners and mining communities, also resulting in widespread environmental pollution. Moreover, the nature of mercury processing techniques means that the chemical can be dispersed widely through air, watercourses, and food chains, introducing mercury pollution ? and the associated risks and impacts ? to a far larger area and population than the immediately affected sites.

Structural problems of ASGM in Madagascar include institutional weaknesses such as policies that do not spell out mechanisms and supporting systems for growth of the ASGM market (in terms of prompt and sufficient Returns on Investment (ROI), the viability of the gold supply chains, exports, etc.). Additionally, other problems are associated with poor and substandard practices on mining sites such as the use of mercury which results in anthropogenic releases and subsequent environmental degradation and adverse impacts.

- *Informality*

Informality is a root cause of many problems in the ASGM sector, where unlicensed, unregulated, and undercapitalized operations have little regard for the environment or human health protection. Informal mining activity is highly mobile, dispersed, widespread, small-scale and often very isolated, which introduces significant challenges for national authorities? ability to monitor and enforce existing regulation. In addition, informality and unstable revenues keep the sector unbanked and unserved by financial institutions. This limited access to finance prevents miners from investing in alternative processes that could reduce environmental impacts and improve productivity. In turn, this reduces the ability of miners to transition away from mercury and other environmentally harmful practices.

Informality also exposes the sector to corruption and criminal influence, while also leaving gold miners and their communities without legal protection. Informality and illegality in the ASGM sector constitute a more than considerable loss of revenue for the Malagasy State in terms of royalties. In 2012, following the State's ban on gold exports, Transparency International identified informal and illegal transactions worth USD \$18 million, equivalent to 600kg of gold[3]<sup>3</sup>. More recently, a **paper** by the OECD warns that reduced demand and lockdowns during the COVID-19 pandemic have

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compromised due diligence, resulting in *illicit actors* positioning themselves to claim an even larger market share through territorial gains and a reduction in formal supply chain activity. Of course, the importation of mercury is itself illegal.

- *Lack of awareness on mercury or limited human capital*

Another important barrier to mercury reduction is a lack of awareness around the negative impacts of mercury use and a lack of awareness of (and/or capacity to apply) mercury-free mining processes. Many miners and mining communities operate in isolated areas, with limited access to formal education and other knowledge channels. Even within better-connected mining communities, there has been limited deployment, promotion, or awareness-raising in Madagascar around mercury-free alternatives. Other than that, it is hard to detect the multitude of mercury importation routes, which could be aerial or maritime, knowing that all sources of mercury here in Madagascar are illegal.

- *Limited access to finance*

A lack of or limited opportunities for access to finance is a major factor contributing to ASGM operators seeking illegal and unregulated mining opportunities. The project preparatory phase has sent a survey on access to finance for gold miners and smallholders to 13 banks and microfinance institutes in the country and received not promising results. Only one bank responded to the questionnaire. In this bank, the gold counter, which is an indispensable entity for the formalization of the gold market, is not yet in place. Any form of partnerships or financial mechanisms for miners will only happen when the ASGM formalization process is completed. In short, most artisanal miners manage their lives outside the formal financial system. To fill the banking void, the majority of miners use the traditional, informal credit system. This typically involves borrowing money from a creditor or loan sharks whose repayment interest rates will usually be relatively high. Repayment is often made through gold, which is worth significantly more than the cash amount borrowed. Even where finance mechanisms might be available, information sharing is inadequate and the requirements for eligibility are farfetched.

The ASGM sector is undercapitalized, particularly in comparison to the formal/industrial/large-scale gold mining sector. This means that ASGM miners are unable to finance the initial investments that are needed to switch to low or no mercury alternative techniques and technologies, despite allowing increased gold recovery. Coupled with the low access to finance, their awareness of mercury alternatives is also very low. The most salient barriers to increasing capitalization of informal gold mining operations are lack of education (of the sector within local financial institutions), data, formal business skills, the scope of the finance required, and remoteness of the operations which create market access challenges as well as lack of collaterals, which are commonly required for most types of conventional finance (credit). Naturally, the formalization of ASGM also presents a significant hurdle. More so, lack of education within the market means that local banks lack the understanding of the ASGM sector required to create financial products for it. This lack of understanding coupled with the negative perception of ASGM and its informality make financiers bearish on the prospect of investing in the sector. ASGM operations often lack information on mineral resources and reserves and key historical data around the operation itself, which can be used to evaluate the viability of a loan. The data on operations is lacking because ASGM miners do not have formal business skills or systematic monitoring of their activities and progress. Without these formal management skills, again, a loan is

perceived as a higher risk. The remoteness of ASGM operations creates two key issues, namely access to markets and financing: which results in low gold prices and lack of opportunities. However, in comparison to other commodities such as agricultural products, miners receive a relatively higher value for the gold, even though the numerous intermediaries required to get the gold to market means that miners receive reduced revenues when compared to the international gold price. Secondly, where opportunities for miners to access support, financial services, and new markets do exist, the miners are often unable to access the information and the services due to the remoteness of their operations. This, therefore, implies that strengthening extension services is required, as well as tracking of mining activities and improved information sharing on financial mechanisms to support access to finance. Following an initial financial assessment carried out during project development, of the available financial mechanisms in-country to enable an increase in financing options for miners, some financial institutions were identified. Nonetheless, there was difficulty in getting information with regards to access to finance for ASGM from other financial institutions.

- *Exacerbation of main existing problems in the ASGM sector due to COVID-19*

Despite the fact that international gold price has skyrocketed in the last two years, the local prices have plummeted and become increasingly volatile.<sup>[4]</sup> These contradictory dynamics are the results of trade disruptions that have brought up lucrative opportunities for actors with the power to exploit. The clandestine gold trade has increased while illegal mining exploded. Interruptions in travel and trade have significantly lowered the number of buyers, giving those who remain the upper-hand position to dictate the local prices. Poorer miners who sell small amounts of gold, at less competitive prices, to meet their daily subsistence needs have been brutally affected. It is exceptionally challenging for them when the cost of basic foods, like rice, oil, sugar, have simultaneously increased by 50%. It has been reported that in some mining sites, the exceedingly low prices and national lockdowns led to an estimated 50% of all workers quitting the goldfields. Some have moved to the extraction of other natural resources, such as timber.

Disruption of trade and price volatility could lead to increased use of mercury among income-deprived communities as it is the easiest, fastest, and cheapest way to extract gold.

ASGM communities are highly vulnerable to COVID-19 outbreaks due to limited facilities for housing, sanitary, health care, and mobility. Though mining sites are often in remote areas, mining communities are frequently connected to other areas through migrant workers, goods and services supply chains, and the gold trade.

Furthermore, the restrictions on financial resources due to the deferral of interest payments on credits in the financial system due to the pandemic has worsened the access to credit in Madagascar.

**A. B. BASELINE SCENARIO**

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## FORMALISATION AND INSTITUTIONAL CONTEXT

In line with obligations under the Minamata Convention on Mercury, Madagascar completed a Minamata Initial Assessment (MIA) in 2017. Madagascar was subsequently the first country to complete a National Action Plan (NAP) on ASGM in 2019. The NAP establishes national objectives, strategies, and specific activities that guide the national effort to promote sustainable development and reduce mercury usage across the ASGM sector.

Madagascar's gold mining sector is regulated by the Mining Code (Law 99-022, amended by Law 2005-021) and the Gold Regime (Decree 2015-1035). The Gold Regime stipulates that all chemical processes are prohibited, with mercury use specifically prohibited through Ordinance 1453/2015. However, within this framework there are no texts or special regimes that are targeted specifically at the ASGM sector, rather the regulations represent a "one size fits all" approach.

In support of the Gold Regime, the National Gold Agency (ANOR - *Agence Nationale de la filière Or*) was established in 2015 under the technical supervision of the Ministry of Mines and Strategic Resources (MMRS), the budgetary supervision of the Ministry of Economy and Finance (MEF), and the accounting supervision of the Minister in charge of accounting. ANOR oversees the overall management of the gold sector, with responsibilities including:

- ? Selling and distributing the artisanal gold miners' cards
- ? Receiving and processing applications for collectors' cards, applications for approval of collection counters, smelting counters, gold processing and refining laboratories, as well as issuing the corresponding approvals;
- ? Managing, developing and disseminating information concerning the gold sector (Database)
- ? Publishing statistics related to the gold sector;
- ? Maintaining the list of gold miners and gold collectors in each municipality, as well as all the actors in the sector, and use the periodic activity reports of gold operators;
- ? Monitoring the implementation by the operators of the provisions of the specifications of the mining operators of the gold sector;
- ? Promoting the activity of the gold sector by supporting (administratively and technically) operators for their professionalization and to increase their production capacity by offering scientific and technical expertise;
- ? Supporting the actors of the sector (Civil Society Organizations and Decentralized Territorial Collectives) by providing them with the necessary information on all the decentralized structures for the development program;
- ? Monitoring the traceability of products and quality label, both at the national and international levels;
- ? Promoting gold transformation into jewelry, to create added value;

? Setting up the Mixed Company of Gold Treatment and Refining (SMTAO)/

ANOR is made up of a central agency located in Antananarivo and six Provincial Agencies of the Gold Sector (APORs) located in each of the *main town* of Madagascar's six provinces. Territorial Agencies can also be created as required (under the technical supervision of APORs), for example in response to areas with high or emerging gold activity.

While ANOR is the main entity overseeing management and monitoring of the gold supply chain, it works in close collaboration with other government entities:

? The Ministry of Mines and Strategic Resources and its branches, whose responsibilities include good governance of the extractive sector;

? The Ministry of the Environment and Sustainable Development (MEDD) and its branches, one of which is the National Minamata Office or Bureau National Minamata (BNM). The MEDD's mission is to "*protect and enhance our environment and unique natural resources for the well-being of the Malagasy population and the sustainable development of the country*". The MEDD, through the BNM and the National Focal Point of Minamata Convention, are leading the project GOLD+ in Madagascar.

<b>FORMALISATION AND INSTITUTIONAL BASELINE: KEY STRENGTHS AND BARRIERS</b>
<b>Strengths</b>
? Madagascar has made notable early progress against their Minamata Convention obligations, undertaking a Minamata Initial Assessment (MIA) shortly after ratification of the Convention, and was that first country to submit an ASGM National Action Plan (NAP).
? Gold mining regulations are already in place, including laws explicitly prohibiting the use of mercury, i.e. mercury use in gold processing is already illegal within Madagascar.
? The government have already established an institution (ANOR) that is exclusively focused on the oversight of gold mining activities.
? The ASGM NAP provides a highly detailed strategy and activity plan for mercury elimination, including institutional responsibilities and necessary legislative improvements.
? The MIA, the ASGM NAP and the studies conducted during the preparation of <u>this</u> project provide a detailed level of <u>recent</u> research and analysis of the ASGM sector, including relevant regulatory frameworks.
? Madagascar established a National Committee for the implementation of Minamata Convention in 2013 and the members of this committee are inter sectorial and multidisciplinary from different public, private, NGOs and Civil society working in the area of mercury and ASGM.
<b>Barriers</b>

? ANOR and other national institutions do not have sufficient resources or capacity to monitor or enforce existing legislation across the ASGM sector. Informal mining activity is highly mobile, dispersed, widespread, small-scale and often very isolated.

? ANOR and other national institutions do not have sufficient resources to promote alternative technologies, provide technical assistance or deliver capacity development for the large number of highly dispersed ASGM miners across the country. During the site inventory work undertaken as part of the ASGM NAP development process, none of the interviewed gold miners stated that they had ever received support from ANOR.

? While legislation is in place to govern gold mining, the regulatory frameworks cover all mining activity from highly centralised industrial mining, right through to the smallest ASGM activity. Despite the complexity and uniqueness of ASGM in Madagascar, there are no ASGM-targeted regulations.

? There is a lack of control over the (illegal) importation of mercury into the country, with insufficient capacity to detect mercury or products produced using mercury.

## SUPPLY CHAINS

In broad terms, the ASGM sector's gold production in Madagascar is covered by two categories of supply chain: the formal (regulated) supply chain, and informal (illicit) supply chains. There are no large-scale gold mines in Madagascar, rather gold mining is almost exclusively small-scale and artisanal.

The 2015 Gold Regime legislation defines the national formal supply chain, including within the ASGM sector. Individuals and/or groups are allocated formal licenses/authorizations that grant them the right to undertake designated roles within specific steps of the supply chain:

1. **Gold Miner:** accredited holder of a **gold miner card**, which is granted and renewed annually by the relevant geographical Municipality, subject to payment of the related duty. This card gives gold miners the right to mine and to respect the work organization, the gold mining rules and health, safety and environmental instructions.
2. **Category 1 (small-scale) Collector:** accredited holder of a **category 1 collector's card**, which is granted by the Mayor of the concerned Municipality. They are only allowed to do the activity of collecting (purchase and sale) inside the residential area. Category 1 Collectors can supply gold either to Category 2 Collectors or directly to Commercial Counters.
3. **Category 2 (medium to large-scale) Collector:** accredited holder of a **category 2 collector's card**, which is granted by ANOR and validated by the Mayor of the Municipality concerned. The collector is only authorized to operate inside the municipalities defined by the card,
4. **Commercial Counters:** legal entities under Malagasy law, resident in Madagascar, and holders of an **authorization** issued by ANOR.

The **export** process is the exclusive responsibility of the central authorities in Antananarivo. Exporting is managed by the **Guichet Unique**, a one-stop-shop based within the Directorate of Mines, but operated in partnership with several other government agencies including ANOR, the National Extractive Industry Laboratory, and the Ministry of Finance and Budget (export responsibilities and

requirements are well-defined within the Gold Regime legislation). The process performs relatively efficiently, with the full exporting process typically completed in less than two days.

The **traceability** of gold from source to the point of export is ensured by a certificate of origin. Certificates of origin are completed by the Collector, who is required to record the name of the supplier (Gold Miner): all suppliers (Gold Miners) must in turn be accredited holders of a gold miner card.

A second formal supply chain model is the **laissez-passer**, typically used by large-scale operators holding mining permits. The operator's laissez-passer documents include a certificate from the Ministry in charge of Mines, tax registration, and a statistical card, with authorizations renewed every year by ANOR. However, this model is very rarely used, with only one case in recent years.

Informal (illicit) supply chains come in two main forms:

1. An older system of multiple collectors that convey products from informal miners to long-established (albeit informal) exporters. To facilitate supply, these exporters often provide pre-financing to collectors and gold miners. The players that dominate this informal supply chain are powerful entrepreneurs established in Madagascar for a long time. Their trade in gold is linked to other economic activity, including the expatriation of income or the acquisition of foreign currency or property abroad. Given the relatively low margins obtained in this supply chain, most funds are ultimately repatriated, either in the form of foreign currency or in the form of goods imported for sale in Madagascar.
2. A more recent model (emerging during the last 10 years) comprises a closed vertical chain where predominantly foreign operators practice semi-mechanized exploitation using dredges, then export through channels that do not involve the established Malagasy exporters. Given the use of semi-mechanized means and limited participation of Malagasy miners, collectors and exporters, the profit generated within this chain is generally much higher. However, the model has resulted in significant tensions, due to the lack of benefits accruing to local communities and the non-compliance with mining and environmental standards (use of mercury, use of dredging).

By definition, traceability and control of these informal supply chains present a significant challenge. Gold is marketed from artisanal miners, to local collectors, to large collectors, and finally to businessmen who smuggle it out of Madagascar. The scale of the problem is considerable: for example, in 2018 three tonnes of artisanal gold were declared within Madagascar, but ten tonnes of Malagasy gold were declared by importing countries. The informal supply chain is particularly difficult to trace due to the multiple actors involved, the lack of an operational documentation and control system, and the fact that ? in addition to being a commodity ? gold is also used in lieu of cash as a medium-of-exchange for day-to-day transactions in the most remote areas.

When considering the formal and informal supply chains, the ASGM sector remains almost entirely informal. Out of an estimated 600,000 active gold miners, ANOR records demonstrate that only around 40,000 are in possession of a gold miner card. The pace of card allocation is also slowing, with only 2,544 new cards issued in 2020, compared to 3,264 cards in 2019. When it comes to interacting with other supply chain actors, informal miners also lack organisation and bargaining power: only around 10% (60,000 miners) of the workforce is organised into only around 500 miners' groups.

SUPPLY CHAINS BASELINE: KEY STRENGTHS AND BARRIERS
<b>Strengths</b>
<ul style="list-style-type: none"> <li>? A clear formal supply chain is in place, supported by regulation and accreditation processes that greatly facilitate traceability.</li> <li>? The formal supply chain can be used by small-scale artisanal miners, with decentralised authorizations helping to make accreditation more accessible throughout the country.</li> <li>? Export processes are efficient.</li> </ul>
<b>Barriers</b>
<ul style="list-style-type: none"> <li>? Limited institutional capacity and resources means that ? despite formal licensing and accreditation processes being in place ? very few miners have been integrated within the formal supply chain. The Malagasy ASGM sector is still predominantly informal (illicit).</li> <li>? Informal exports represent lost royalties for the Malagasy state.</li> <li>? There is a lack of awareness amongst ASGM actors of existing legislation and supply chain processes. Even where there is awareness, ASGM actors are not convinced of the value of traceable, regulated, responsible supply chains.</li> <li>? While the decentralised model of issuing gold miner cards broadens access to the formal supply chain, the system is exposed to corruption and bribery.</li> <li>? Informal value chains are dominated by comparatively few ? and hence powerful ? actors. Moreover, the highly dispersed, individualistic nature of the ASGM sector means that informal miners lack organisation and collective bargaining power. Taking these two factors together, informal miners are highly exposed to exploitation.</li> </ul>

## FINANCE AND INVESTMENT

There are few financial options or investment strategies available for Madagascar's ASGM miners, with most artisanal miners managing their lives outside the formal financial system. To fill the banking void, the majority of miners use the **traditional, informal credit system**. This typically involves borrowing money from a creditor, whose repayment interest rates will usually be relatively high. Repayment is often made through gold, which is worth significantly more than the cash amount borrowed. Loans are most often made between people of different socio-economic categories, most often between gold miners and traders, or between miners and collectors.

As discussed above, informal exporters sometimes provide **pre-financing** to ASGM miners and collectors, allowing for a degree of capital investment (although often pre-financing is used by miners for basic subsistence). Pre-financing creates a relationship between the investor and the miner/collector, with the investor typically governing the mining process and ultimately having full control of the price of gold at extraction.

When it comes to **formal banking options** (whether through microcredit agencies or larger institutions), savings are essentially the only formal service available to miners. Within Madagascar formal credit lines are only available to employees or self-employed workers that can demonstrate a stable source of income, conditions that cannot be met by gold miners due to the precariousness and variability of their livelihood. Bank loans require collateral and are associated with heavy and lengthy administrative procedures. Moreover, the geographical distance between gold mining areas and the location of formal financial institutions limits the availability ? and indeed miners? awareness ? of any potential products. Even where access is possible, the high risk of default and the industry?s poor reputation mitigate against any kind of formal financial service provision.

Madagascar?s ASGM NAP recognises the considerable gaps here, and identifies several activities targeted at improving financial inclusion and options across the sector.

<b>FINANCE AND INVESTMENT BASELINE: KEY STRENGTHS AND WEAKNESSES</b>
<b>Strengths</b>
? Strategies and specific activities to improve financial inclusion have been identified within the ASGM NAP.
? Some Microfinance and commercial bank have interest in supporting legally constituted cooperative miners (gold miners' cards and tax cards).
<b>Weaknesses</b>
? Beyond savings, no formal financial options are available to ASGM miners. Financial institutions perceive the sector to be high risk with limited returns, and with significant exposure to reputational risk. Even the accredited gold miners? card does not a guarantee acceptable to banks.
? ASGM miners often work in isolated regions, limiting access to ? and even awareness of ? any potentially available financial products.
? Miners? reliance on informal credit systems (including pre-financing) exposes them to exploitation.
? So far, there have been insufficient institutional resources and capacities allocated towards delivery of the financial inclusion-focused aspects of the ASGM NAP.

## TECHNOLOGY

Gold mining technologies and processes vary according to geographical region, historical practice, and geological profiles. In alluvial deposits, most miners are using rudimentary equipment to extract gold bearing ore before washing and panning it to concentrate the gold particles. In hard rock deposits, wells and galleries are dug before crushing the ore with hammers.

The majority of gold miners still do not use mercury or indeed any other chemicals during excavation or processing. However, mercury-based processes were introduced by foreign miners about 10 years ago and mercury usage ? although still not widespread ? has permeated to several regions in Madagascar, with both foreign and Malagasy ASGM miners now exposed to the substance.

Two mercury-based processes are dominant, with both being two of the worst practices to be eliminated according to the Minamata Convention:

? **Dredge-based processing:** A technique primarily undertaken by foreign miners, ores are processed on a dredge, whereby buckets dig a riverbed then transport sediment onto a sluice containing mercury bubbles for amalgamation. River water is pumped onto the sluice to wash the amalgamated product, with wastewater (including mercury) discharged directly into the river. The recovery of amalgamated gold pellets is carried out on the dredge itself, through open-air burning. The open-air burning constitutes another channel through which mercury escapes to the environment.

? **Processing of dredge waste:** Where dredge-based processing has been applied, wastewater often contains traces of gold-mercury amalgam. Miners collect the remains of the waste product, then burn the amalgam in a small metal plate to recover gold. However, the open-air burning also results in release of mercury to the environment. In contrast to the ?main? dredge-based process, this secondary technique is mostly undertaken by Malagasy miners.

These are two of worst practices to be eliminated according to the Minamata Convention Annex c 1.(b) (whole ore amalgamation and open burning).

As miners and mining communities are often based in isolated regions, there is limited awareness of the health and environmental risks and impacts caused by mercury usage, and indeed of the illegality of dredge and mercury-based processes. Similarly, there is a lack of awareness around alternative processing technologies and techniques, and limited or no opportunities for technical training in those processes.

<b>TECHNOLOGY BASELINE: KEY STRENGTHS AND BARRIERS</b>	
<b>Strengths</b>	
? The majority of technologies and processes applied by Malagasy artisanal gold miners still do not use mercury or indeed any other chemicals.	
<b>Barriers</b>	

- ? While mercury was not historically used within the ASGM sector, the substance and its associated processes are now used by both foreign and Malagasy ASGM miners.
- ? Miners typically lack awareness of mercury risks and impacts, and of alternative processing techniques and technologies.
- ? The socio-economic situation of miners prevents them from improving current practice or accessing new technologies.

## **ENVIRONMENTAL, SOCIAL AND GENDER CONTEXT**

As most of the recorded gold production are from illegal sources and as illegal activities do not consider site rehabilitation and environmental and social impacts, it is important to assess the environmental and social context.

Existing mining legislation incorporate clear requirements around environmental protection, including an obligation to rehabilitate closed / abandoned sites. However, the existing regulatory requirements are frequently not met within the informal sector, and ASGM sites often result in lasting pollution of the natural environment. Noticed that ASGM sector is mostly realized in illegal manner, without consideration of environmental and social context, many sites are abandoned afterwards, as artisanal-small scale gold miners are migrants. Environmental and social impacts are tremendous and critical. The environmental degradation is typically manifested through water and soil contamination, soil erosion, riverbed and riverbank destruction, dust pollution, and silting of previously productive land such as rice fields. Mercury usage exacerbates this situation, polluting and even sterilizing soil and rice fields. It is not just immediate sites that are affected: downstream rivers and soil are polluted by the washing of ore and are contaminated by the use of mercury. Miners are often unaware of the importance of environmental protection and of the legal obligations for rehabilitation work. Even where there is awareness, limited resources prevent the application of sufficient rehabilitation measures.

From a social perspective, poverty and a lack of alternative income streams are the primary drivers pushing individuals towards ASGM activity. The isolated nature of the work results in ASGM miners and mining communities having poor access to education, health services, potable water and sanitation. Working conditions are arduous and dangerous, and there is little if any monitoring or enforcement of labour or environmental regulations. As noted above, the informality of the sector means that there is a lack of organisation across the sector, with a very small proportion of miners being members of unions or even informal groups. In turn, this limits or excludes the possibility for artisanal gold miners to access financial services and effective cash flows.

From a gender perspective, Malagasy society is determined by norms and values that are based to a large extent on patriarchy. Women remain largely dependent on tradition and the rules laid down by society, with submission and subordination part of women's daily life. When it comes to family and community governance, control and final decision-making falls to men. Women participate in decision-making processes (especially concerning the household) but have no control or decision-making power. Even when women have access to family assets, it is most often household goods (e.g. kitchen utensils), while men control access to potentially productive assets. Women therefore remain limited in



their autonomy of action and decision-making. Due to low levels of ? and limited access to ? knowledge and skills, many women do not enjoy or exercise their rights.

Within the ASGM sector women are excluded from work requiring physical force such as digging or crushing minerals. Instead, they help their husbands in processing, particularly panning of minerals. But most time is spent on domestic duties, a non-paying activity. Married mining women therefore have a double workload: productive mining work and ?reproductive? work at home. On average, this results in women working for 5 more hours than men every day, with this longer workday reducing opportunities to participate in decision-making, and potentially leading to health and other vulnerabilities. Across the ASGM sector women also have limited decision-making power, few networking opportunities, and are underrepresented in positions of control: preparatory studies for this project found that 90% of ASGM site owners, collectors and local / traditional authority representatives are men. Regarding rights and access to land (ASGM sites), men and women have the same legal rights but in practice, at the local level, access to land and minerals is 80% controlled by men. Where mercury is concerned, women are also exposed to greater health risks than men. Women?s direct engagement in mining tends to be gold panning, which requires working in waist-deep, polluted water for several hours. More broadly, women?s exposure to waterborne mercury is also greater due to their primary responsibilities for rice cultivation and water collection.

Children of all ages are present on ASGM sites, with children accompanying their parents in the mines due to lack of resources from parents and local schools. Even where schools exist, provision tends to stop at primary school. If education options are available, families favour the education of boys over girls. Children aged 15-17 sometime serve as apprentices (digging, crushing, transporting minerals for the boys and transport, pan washing for the girls).

<b>ENVIRONMENTAL, SOCIAL AND GENDER BASELINE: KEY STRENGTHS AND BARRIERS</b>
<b>Strengths</b>
? As for mining, there are well-developed and relatively strong regulatory and legislative frameworks in place within Madagascar for environmental protection, human rights, and gender equality.
<b>Barriers</b>

- ? There are very limited institutional resources and capacities to monitor and enforce the various environmental and rights-focused frameworks.
- ? ASGM miners are generally unaware of site restoration obligations, and/or do not have resources to undertake sufficient rehabilitation measures.
- ? Environmental degradation is common, reducing the productive capacity of natural resources in the immediate vicinity of sites, and downstream of sites.
- ? Mercury residue not only pollutes watercourses and soil, but also introduces significant health risks to mining communities. Women are exposed to greater health risks associated with ASGM activities, including increased risk of exposure to waterborne mercury, and increased health risks associated with greater workloads.
- ? The isolated nature of the ASGM mining can create a poverty trap, with mining communities having poor access to education, health services, potable water and sanitation.
- ? Women and men have unequal decision-making power, and unequal access to ? and control over ? natural and productive resources.

## **OTHER RELEVANT INITIATIVES**

Between 2015 and 2020, the German Development Agency (GIZ) implemented the Environmental Management Support Programme (PAGE - Programme d'Appui ? la Gestion de l'Environnement), which aimed to protect the environment while supporting the sustainable and resilient use of natural resources in and around protected areas. The ?40 million programme had six components, including one dedicated to introducing practices that could lead to Fairtrade certification in ASGM pilot sites. Designed around a sectoral approach combined with cross-cutting themes such as land-use planning, governance and gender, the programme ultimately delivered a roadmap for responsible ASGM in Madagascar. The roadmap included an action plan for the professionalization of artisanal miners through the implementation of a ?Fairmined Malagasy? certification and traceability system.

PAGE also supported the Ministry of Mines and Strategic Resources to develop a five-year sustainable development strategy for the ASGM sector (SDDEMAPE), which was approved in May 2020. This strategy will serve as a benchmark for improving the environment of the ASGM sector in Madagascar. Its vision is to "promote a responsible, rational, sustainable ASGM sector that contributes to the socio-economic development of Madagascar, so that it becomes a reference on the governance of the sector in Africa". Its objective is ?to ensure the contribution of the ASGM sector to the sustainable development of Madagascar. This contribution can be translated through the promotion of better national and regional governance arrangements taking into account environmental and social concerns and the responsible use of resources?.

For its implementation, the operational strategies of the SDDEMAPE are focused on:

- ? Formalization of artisanal miners through ten priority areas
- ? Traceability of productions and populations as well as the operationalization of a traceability system

- ? Improvement of the organization of the mining administration
- ? Capacity building of actors in the sector (miners, decentralized territorial communities, mining administration and other ministerial departments, civil society)
- ? Undertaking various studies to inform improvements to the regulatory framework
- ? Professionalizing trades within the sector, focusing particularly on production and marketing
- ? The establishment of transparent governance through the operationalization of permanent dialogues at different levels
- ? The differentiated treatment of gold rushes according to their phase of development
- ? Increased financial resources for the management of the sector

However, the most consequential framework and initiative is the ASGM NAP, which establishes strategies and specific activities that define Madagascar's national effort to develop a sustainable, mercury-free ASGM sector (the above-mentioned SDDEMAPE can be conceived as a sub-strategy of the ASGM NAP, providing another level of detail around how the NAP can be implemented). In line with the guidance that is built into the Minamata Convention, the NAP presents strategies around:

- ? Measures to facilitate formalization and regulation of the sector
- ? Promoting the reduction of mercury emissions
- ? Managing trade and preventing importation of mercury
- ? Actions to eliminate the worst practices in the sector
- ? Involve stakeholders in the implementation and continuous improvement of the NAP
- ? Public health measures relating to the exposure of ASGM miners and their communities
- ? Communicating key messages that are tailored to ASGM miners
- ? Market-based mechanisms

While the ASGM NAP is a detailed document that provides clear direction around how a sustainable ASGM sector can be developed, only limited resources have been allocated towards its implementation so far.

**B. C. PROPOSED ALTERNATIVE SCENARIO**

As a child project of the planetGOLD initiative, the proposed GOLD+ Madagascar initiative proposes to apply planetGOLD's model within the Malagasy context. The GOLD+ model works to deliver five inter-related components:

1. Enhancing formalization in the ASGM sector
2. Access to finance enhanced by financial inclusion and responsible supply chains
3. Enhancing uptake of mercury-free technologies
4. Knowledge sharing, communication and local capacity building support
5. Monitoring, evaluation and learning

In line with the GOLD+ model, the Madagascar initiative will also test the feasibility of using a jurisdictional approach to structure the stakeholders interventions, negotiations and partnerships that are a pre-requisite for the project, and for the sustainable development of the ASGM sector more broadly.

Crucially, the GOLD+ model and hence this proposed project is tightly aligned with the national priorities, strategies and activities that are clearly articulated within Madagascar's ASGM NAP. The proposed project will help to address the financial and human resources, environmental and capacity gaps that have so far constrained delivery of the NAP, and will provide renewed impetus and momentum to Madagascar's efforts to reduce mercury use within the country.

From an environmental point of view, the implementation of the project will limit and restore the environmental degradation caused by the mercury spill and thus improve ecosystem services.

Support for gold miners and municipal authorities in financial management will help maximize the positive impact of this project on the environment and people. The implementation of mitigation measures contributes to the resolution of social conflicts.

## **PROJECT PREPARATION**

The proposed alternative scenario was closely informed by the GOLD+ model developed by the planetGOLD program. However the proposal also benefited from a GEF Project Preparation Grant (PPG), which supported a series of technical studies that were undertaken to deepen understanding of the current context and to support the development of the proposal and implementation plan. Studies were conducted against the following subject areas:

1. Formalisation and legislation

2. Financial inclusion and improving supply chains
3. Mercury-free mining technologies and techniques
4. Knowledge sharing, communication and capacity development
5. Gender
6. Environmental and social assessment
7. Site selection

Studies involved a combination of literature reviews, remote interviews and ? when COVID-19 restrictions allowed ? site visits, in-person interviews and focus groups.

In addition to analytical reports and action plans for the above subjects, the key material was also brought together in a main CEO document.

## **THEORY OF CHANGE AND EXPECTED RESULTS**

The project?s theory of change (TOC) describes the intervention?s overarching logic. It identifies the assumptions that underpin the project?s logic, the project?s drivers and inputs, the targeted results, and the pathways through which the project will work towards delivering those results. The GOLD+ Madagascar TOC is necessarily very closely aligned to the parent, global GOLD+ TOC: the core elements and impacts pathways are essentially the same. However, some additional detail helps to contextualise the TOC and GOLD+ logic to the Malagasy operating environment. Rather than restate the logic of the global GOLD+ project, the following identifies how the Madagascar TOC differs from the parent project.

Firstly, in addition to GEF-7 programming directions and the GEF-funded GOLD+ parent project, the project is driven by ? and tightly aligned with ? Madagascar?s response to the Minamata Convention. Based on their Minamata Initial Assessment (and as part of their commitments under the Convention) Madagascar developed their ASGM NAP. The NAP ? along with the national objectives and implementation actions that it defines ? has directly informed the GOLD+ project logic and design, to the extent that GOLD+ activities will directly support delivery of a considerable part of the NAP. Moreover, the GOLD+ project?s results framework and indicators have been developed so as to ensure project monitoring can feed directly into the Madagascar Government?s own monitoring of the NAP and of their broader Minamata strategy.

When it comes to delivery, the Madagascar project retains the four components of the parent GOLD+ project (formalization, finance & supply chains, technology, knowledge & capacity), but also introduces a fifth component for monitoring, evaluation and learning (MEL). The purpose of a dedicated MEL component is firstly to support adaptive management of the project, and secondly to ensure that sufficient attention and resources are allocated to generating and sharing globally-relevant

evidence and learning. Identifying learning for a broader audience (i.e. beyond Madagascar) is a critical element of the larger planetGOLD initiative, and is important for understanding how the Minamata Convention can be practically delivered. The Madagascar project has considerable potential for generating globally-relevant learning, not least due to the jurisdictional approach that will be tested.

In summary, the high-level logic of the project is:

**IF** a higher degree of formalization and integration across the ASGM sector is realized (including stronger government capacity to support the professionalisation and regulation of the ASGM sector)

**AND** artisanal gold miners have increased access to finance in order to improve their main activities, respecting environment and social concerns

**AND** there is increased adoption of mercury-free technologies permitting responsible ore exploitation

**THEN** there will be improved governance of the ASGM sector leading to environment protection, which will have positive impacts on human health and well-being. The increased income resulting from the use of appropriate non-mercury technologies will allow artisanal gold miners to improve their standard of living (both at household and community levels), and will improve their capacity to access basic needs and services in a sustainable way.

Finally, the Madagascar TOC identifies how the project's logic and delivery may interact with, or be affected by, (i) gender considerations and (ii) coronavirus responses.

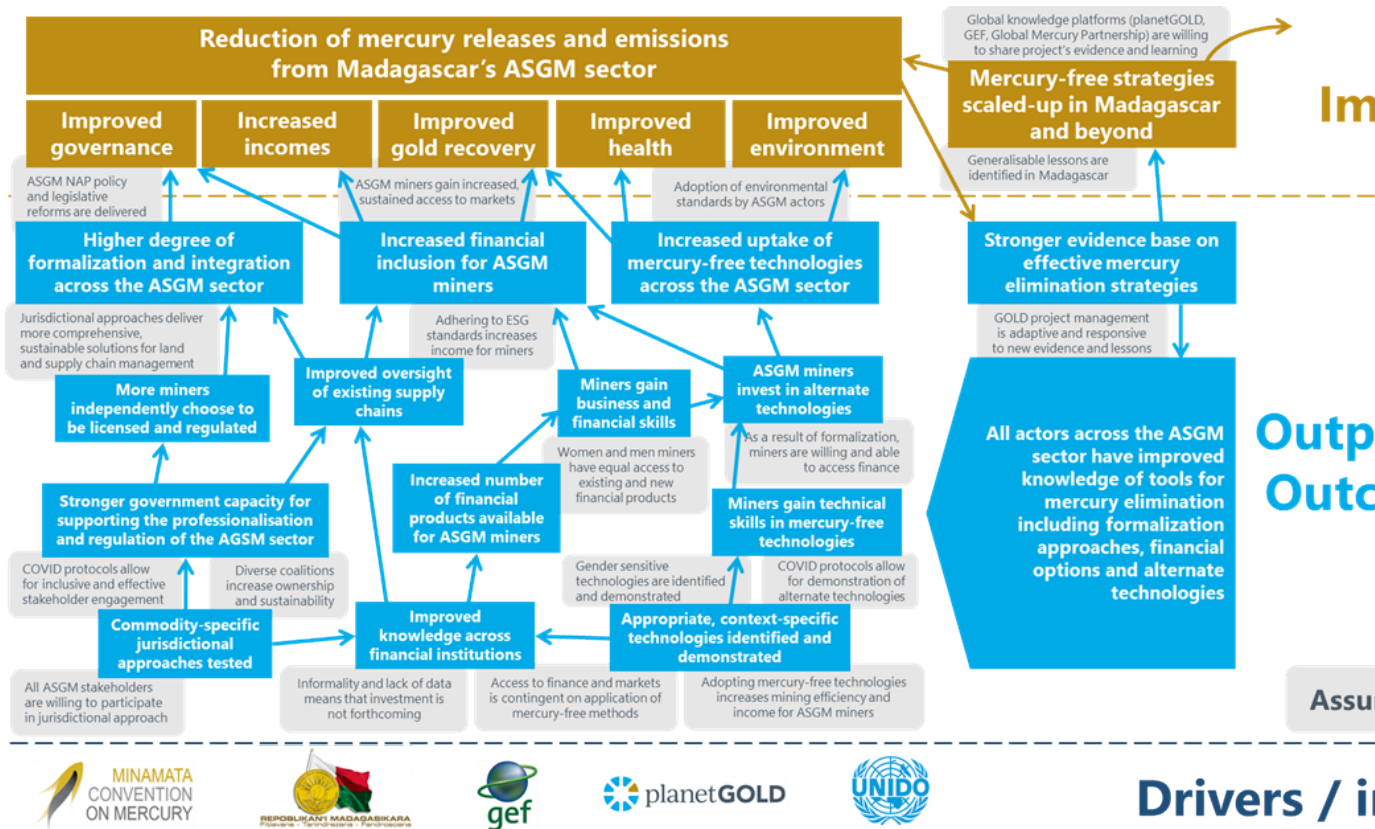


Figure 2: The Theory of Change

The TOC is in turn used to derive the project's results framework, which identifies the outputs, outcomes and ultimate impact that GOLD+ Madagascar will work towards. As with the TOC, the results framework is necessarily closely aligned with the parent GOLD+ project's results framework, but also takes into account the Malagasy context and the baseline scenario in the country. The summary framework is presented below (results only), with the full framework (including indicators and targets) presented in Annex A.

Table 7 : Project results framework, GOLD+ Madagascar

<b>IMPACT</b>	<b>Reduction of mercury releases and emissions from Madagascar's ASGM sector</b>		
<b>COMPONENT 1: Enhancing ASGM formalization</b>			
<b>OUTCOME 1</b>	Higher degree of formalization	<b>OUTPUT 1A</b>	Strengthened legal and regulatory framework for ASGM

	and integration across the ASGM sector	<b>OUTPUT 1B</b>	Stronger institutional capacities for supporting professionalization and regulation of the ASGM sector within target jurisdictions
<b>COMPONENT 2: Access to finance enhanced by financial inclusion and responsible supply chains</b>			
<b>OUTCOME 2</b>	Increased financial inclusion for ASGM miners	<b>OUTPUT 2A</b>	ASGM miners have stronger capacity to access financial products
		<b>OUTPUT 2B</b>	Improved oversight and implementation of existing responsible supply chains within target jurisdictions
<b>COMPONENT 3: Enhancing uptake of mercury-free technologies</b>			
<b>OUTCOME 3</b>	Increased uptake of mercury-free technologies across the ASGM sector	<b>OUTPUT 3A</b>	Appropriate, context-specific technologies and processes identified and demonstrated
		<b>OUTPUT 3B</b>	Miners gain technical skills in mercury-free technologies
<b>COMPONENT 4: Knowledge sharing, communication and local capacity building support</b>			
<b>OUTCOME 4</b>	All actors across the ASGM sector have improved knowledge of strategies, tools and processes for mercury reduction	<b>OUTPUT 4A</b>	Programme of awareness raising and capacity development delivered for all ASGM actors
		<b>OUTPUT 4B</b>	Madagascar GOLD+ project contributes to - and benefits from - global planetGOLD knowledge management activity
<b>COMPONENT 5: Monitoring, evaluation and learning</b>			
<b>OUTCOME 5</b>	Stronger evidence base on effective mercury reduction strategies	<b>OUTPUT 5A</b>	M&E and adaptive management applied to capture and share lessons learned

The action plan proposed by the project is based on the three (03) approaches below. The laid down interventions are made to provide solutions to the problems exposed above. In addition to the approaches, the benchmarking analysis done referring to the good practises in Peru, Democratic



Republic of Congo, Mongolia, Cambodia, Philippines, Ecuador and Sierra Leone, were added to the action plan.

**A human rights-based approach to Formalization**

This approach focuses on those who are discriminated against and/or are the most vulnerable in the ASGM sector. An analysis of gender norms and forms of discrimination and power imbalances is therefore crucial to ensure that interventions can benefit the most marginalised parts of the population.

The human rights-based approach involves the following factors

- ? Treating people as key participants in their own development and not just passive recipients;
- ? Encourage actors to participate freely, actively and appropriately and ensure that full participation is both a means and an end;
- ? Aiming for local ownership of the development process;
- ? Maximising government performance through independent evaluation.

*Table 8: Human rights-based approach to Formalization in the ASGM sector*

Strategic focus of Formalization	Means of Formalization
<b>Identification of vulnerable and marginalized actors in the ASGM sector</b>	
Gender-based approach	<p>The activities implemented in the framework of Formalization will have a gender mainstreaming approach</p> <p>In essence, the following criteria will be applied:</p> <ul style="list-style-type: none"> <li>- Develop gender-disaggregated data for each Formalization activity: identification and monitoring of the proportions of women and men</li> <li>- List direct and indirect discrimination against women that could disqualify them from enjoying the same rights as men</li> <li>- Pay particular attention to the forms of "gender-based violence" (GBV) suffered by women gold miners: economic, physical, moral and sexual violence and assess their rate for each exploitation zone and at all levels of the value chain</li> </ul>

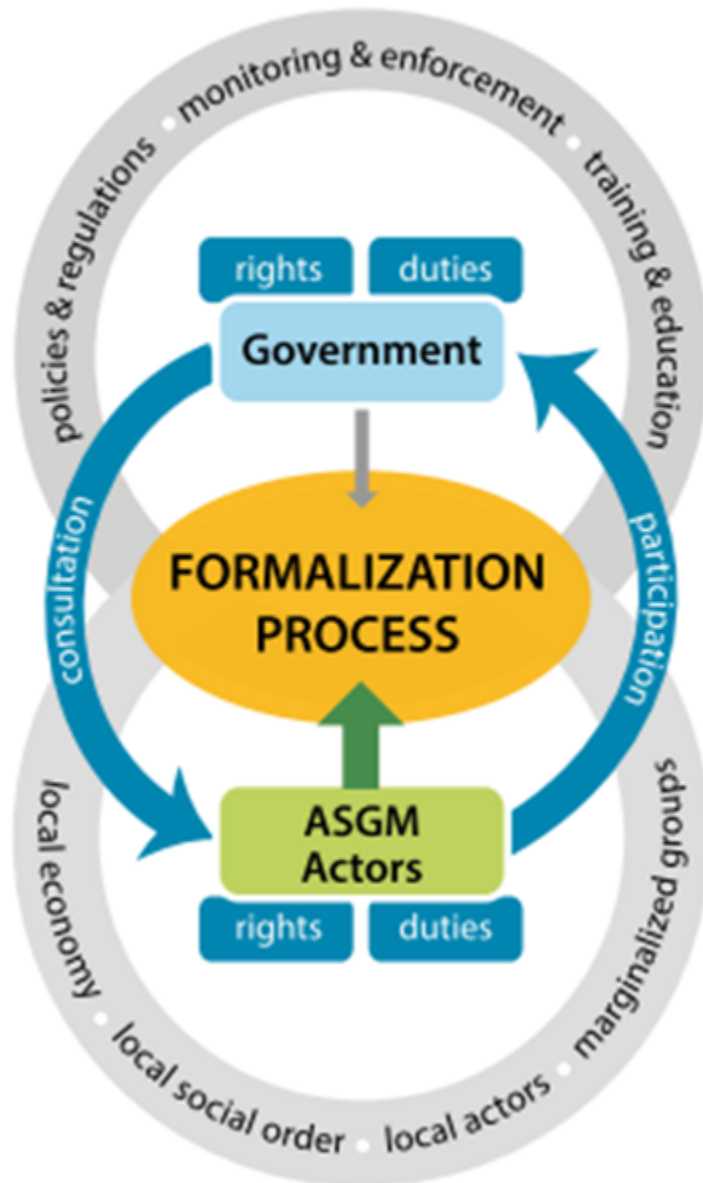
Combating child labor	<ul style="list-style-type: none"> <li>- Develop age-disaggregated data for each activity in the Formalization of children working in the areas of operation and along the chain</li> <li>- Develop special legal provisions for children working in exploitation areas and along the gold chain</li> <li>- Strengthen monitoring in the areas of operation: working conditions, respect of the legal age</li> <li>- Strengthen the presence of social services and civil society organisations in the areas of exploitation to support households</li> <li>- Providing basic health infrastructure in operating areas</li> <li>- Training children in at-risk areas/ ASGM areas in "Life Skills" (UNICEF and Ministry of Youth and Sports project). These trainings aim to inform children about their rights, the notion of consent, citizenship and other themes that can help them to have perspectives in life.</li> </ul>
Identification of other discrimination criteria in the context of the ASGM	<ul style="list-style-type: none"> <li>- Develop disaggregated data for each activity in the Formalization, highlighting the proportion of people with disabilities</li> <li>- Develop data for each site/area of operation highlighting internal migration and the locality of origin of the gold miners</li> <li>- List direct and indirect discrimination based on race and disability</li> <li>- Rigorously apply the "leave no one behind" commitment in the development of the ASGM sectorial policies and disseminate this principle to all actors</li> <li>- Recognizing the positive contributions of people with disabilities to local development through their involvement in the sector</li> </ul>
<b>Adopting a participatory and inclusive approach</b>	
Involvement of stakeholders along the entire value chain (Operation - Collection - Marketing - Transport - Export)	<ul style="list-style-type: none"> <li>- Include representatives of the ASGM sector in policy discussions so that they have ownership of decisions taken at the macro level and are motivated to implement them</li> <li>- Bring stakeholders to share their concerns in roundtables with other stakeholders or through dialogues with authorities at central/local level and participate in the Formalization process</li> </ul>
Participation of local residents and community members around gold mining sites	<ul style="list-style-type: none"> <li>- Include representatives of local residents living in the areas of exploitation so that they can share their experiences and concerns in round tables with other stakeholders or through dialogues with the authorities at central/local level and participate in the Formalization process</li> </ul>

Active and committed participation of authorities at central and local level	<p>The authorities must establish a relationship of trust with the actors of the ASGM as well as with the local residents of the exploitation zones through :</p> <ul style="list-style-type: none"> <li>- Proximity management: Deconcentration of the ASGM institutions to the local level</li> <li>- Accessibility of the authorities at local level so that local residents and/or gold miners automatically go to them without reservation for advice or support</li> <li>- Institutionalise a stakeholder dialogue mechanism to promote consultation between small-scale gold miners, medium and large-scale gold miners, local communities and other relevant stakeholders in the initial stages and throughout the Formalization process</li> </ul>	
Engagement of other private sector partners and partners at international level	<p>In order to maximise the management of the EXPORT process, private sector actors including banks as well as diplomatic and consular representatives of countries where gold smuggling activities are taking place should be involved in policy and strategic dialogues and discussions in the gold smuggling sector</p> <p>The collaboration of these partners and an effective communication strategy between them and the Malagasy state is crucial for an efficient Formalization of the sector.</p>	
<b>Approach based on the balance of rights and obligations for all actors</b>		
	<b>Rights</b>	<b>Obligations</b>
At the place of the gold diggers/miners	<p>Benefit from the provisions of the Labour Law:</p> <p>"Equal pay for equal work without discrimination on the basis of gender, age, race or disability</p> <p>Working conditions and decent and safe working environment</p> <p>freedom of association,</p> <p>right to collective bargaining</p> <p>protection against forced labour</p> <p>Benefit from specific legislation adapted to artisanal and small-scale mining, protecting them from practices that are detrimental to large-scale mining operations:</p> <p>Benefit from a formal, stable and equitable source of funding</p>	<p>Comply with labour, environmental, land and mining legislation</p> <p>Take responsibility for the negative impacts of their operations, especially environmental impacts, and participate in rehabilitation/restoration</p> <p>Respect local authorities and the public service infrastructure available to them</p> <p>Respect the traceability procedures for internal migration set up by the authorities (registration with the Fokontany, etc.)</p> <p>Respecting local people, their way of life and their culture</p>

For other actors in the value chain	Benefit from the protection of legislation and authorities against insecurity, pressure and corruption in gold operations	Comply with legislation including traceability and corruption (small/large) in gold operations along the value chain
At the level of central and local authorities	<ul style="list-style-type: none"> <li>- Strengthen surveillance and enforcement</li> <li>- Maintain a computerised and systematically updated database to improve the traceability and control of gold operations</li> <li>- Monitoring the rights and needs of minors and traders through periodic surveys</li> <li>- Providing access to finance, assistance (health, legal, social services) and markets through transparent policy (awareness raising, dialogue)</li> <li>- Create legislation and operationalise a specific and appropriate legal and regulatory status for artisanal and small-scale mining</li> <li>- Provide the ASGM sector with an adapted, inclusive and above all up-to-date sectoral policy that takes into account the changing real problems of the actors</li> <li>- Harmonise relations between the actors of the ASGM and the actors of the medium and large-scale farms:</li> <li>- Draw on the extensive experience and expertise of large-scale enterprises in facilitating the Formalization process</li> <li>- Consider relocation/reallocation to other areas or develop programs to reorient gold miners and their communities living and/or operating in concessions already exploited by large-scale miners towards alternative livelihoods.</li> </ul>	
At the level of local residents/community members in the vicinity of gold mining sites	Benefit from the protection of local legislation and authorities in the face of insecurity, rising living standards, pressure and corruption in the areas of operation	Adopt inclusive and respectful behavior towards gold miners

In conclusion, in the context of the ASGM, the adoption of a human rights-based approach emphasises the rights and duties of the ASGM actors as well as those of the government. This means that the rights of ASGM actors - including mining rights (e.g. mining permits, ecological permits, and concessions) and labour rights (e.g. freedom of association, right to collective bargaining, freedom from forced labour) - are respected, protected and honoured. In addition, the actors of the ASGM are made aware of their rights and how to claim them.<sup>[5]</sup>

This approach also implies that all actors and partners must be included in the design of local development planning and Formalization policies, and should be empowered to take a leading role in such processes. Key stakeholders in local communities must also be committed to sharing their concerns and participating in the formalization process.



*Figure 3: A human rights-based approach to Formalization*

**ANOR's approach to Formalization - One-stop shop and awareness campaign for behaviour change (example of Betsiaka)**

The Formalization approach adopted by ANOR, in the framework of the ASGM sector, aims at the following results

? To encourage gold operators to formalize their activities by providing them with a card according to their activities: gold miners or collectors or approval for exporters;

? Promote the activity of the gold sector by supporting (administrative and technical) operators in their professionalization and in increasing their production capacity by offering scientific and technical expertise.

Within this approach, the Agency has based its actions on two strategic axes:

? Proximity management through deconcentration at the level of the exploitation/extraction zones of the gold districts, called "Guichet unique" or one-stop shop. So far, the said one-stop shops have been only set up in Betsiaka.

The one-stop shop is a concept put in place to formalize over a very limited period of time and agreed upon in advance with the gold operators. It brings together the administrative services (Mines, Taxes) in one place to facilitate the formalization procedures of operators. This was the case in Betsiaka in 2016 and in Vavatenina. Its duplication is based on various parameters.

NB: The one-stop shops already established in Betsiaka were a pilot project and are no longer operational. From this, the authorities noticed the absolute necessity of local management for the effective Formalization of the ASGM sector.

? Behavioural change through awareness campaigns: in fact, in order to establish a relationship of trust and to encourage the actors of the ASGM, in particular the gold miners, to adopt good practices in the framework of their operations, ANOR has invested, with the close collaboration of the local authorities, in actions aiming at communicating and raising the awareness of the gold miners as well as of the local residents

### **Jurisdictional approaches (JA): integrated land use planning**

The global GOLD+ model encourages child projects to adopt and develop Jurisdictional Approaches (JAs) during project implementation. Rather than expect governments and companies to stop doing what they do to meet the needs of people, or to stop doing it in just a few places and often for a time-bounded period, approaches are needed that that can achieve systemic changes that reward sustainable production across entire landscapes. This is the promise of integrated landscape management (ILM), and more specifically, jurisdictional approaches (JAs) that operate in politically defined subnational units.

Jurisdictional approaches unite the full complement of stakeholders from government, business, local communities, and civil society groups to forge a vision, action plans and financing plans so that a

balance can be struck between production and protection. Within the landscape, areas that house irreplaceable biodiversity or that provide essential regulatory services, such as water provision or carbon storage, are set aside, managed, and restored. Areas where production with manageable impacts is possible are dedicated to meeting people's needs while applying best environmental and socially responsibility standards. Importantly, jurisdictional approaches appeal to supply chain managers and investors that seek to source products from places that have explicit, integrated, long-term visions and partnerships to drive implementation of the landscape action plan.

In the ASGM sector, few productive activities are as entwined with other ecosystems and sectors as artisanal and small-scale gold mining. The effluents and contaminants for ASGM easily permeate into surrounding ecosystems and eventually food systems. The money that flows from ASGM fuels other activities and the contaminants can have substantial impact on human health. As an internationally traded commodity, gold is directly linked to global supply chains. As such, ASGM is an ideal candidate for taking advantage of the integrated nature of the jurisdictional approach. In short, if a given jurisdiction can implement best mining practices within the framework of a broader plan to achieve landscape-scale sustainability that harmonizes production and protection, the jurisdiction will be well-placed to take advantage of unreasonably vigilant companies and investors who are keen to protect their brand's reputation and do good for the communities in which their operations take place. The Madagascar project is a logical platform through which to test JAs, given that it is one of the country's first ever sector-level interventions that aims to build and formalise relationships between all ASGM actors.

While the integrated nature of the jurisdictional approach is its strength, it also puts substantial demands on those interested in putting it into practice due to the diverse components and skillsets required. While there are a variety of frameworks and process guidance for each, most have certain commonalities that constitute the essential elements for successful implementation. The themes that will be included in this project jurisdictional approach curriculum and global expert group in charge of each are:

1. Underlying drivers assessments: Analyses of policy and economics that identify the root causes and levers that must be changed to facilitate systemic transformation to sustainability (Conservation International);
2. Governance assessments: Evaluation for how decisions are made and implemented so that improvements can be made to ensure full stakeholder participation, transparency and accountability in the pursuit of a sustainability vision (EcoAgriculture Partners);
3. Impact assessments and ecosystem service valuation: Understanding the dependencies between productive activities and the surrounding environment in order to fully cost, and in some cases, compensate for negative environmental impacts (Conservation Strategy Fund);

4. Multistakeholder coalition creation and function: Building an inclusive, well-informed, cooperative body of all relevant stakeholders to build a vision for sustainability and roadmap to pursue it (EcoAgriculture Partners);
5. Negotiation training: Empowering marginalized groups, often local communities, indigenous people, women and youth to be able to play a proactive role in defining their future (Conservation International);
6. Landscape action plans: Building out the specific interventions required to strike a balance between production and protection in a way that allows people to meet their needs without cashing out natural life support systems (EcoAgriculture Partners);
7. Landscape finance plans: Identifying scalable revenue streams that can be knit together in blended financial mechanism to bear the cost of transitioning to a sustainable system (EcoAgriculture Partners), and;
8. Comprehensive monitoring and evaluation frameworks: A system of tracking progress across the key dimensions of sustainability, including human wellbeing, ecosystem health, governance, and sustainable production (Rainforest Alliance).

These themes will be bundled into a three-tiered curriculum made available to all fifteen country child projects, including Madagascar. Global landscape experts from the '1000 Landscapes for a Billion People' partnership will deliver the curriculum as follows:

1. Tier 1: All fifteen country teams will receive eight 90-minute sessions, one for each of the above themes. During these sessions, global experts will provide 45-minute presentations on each theme and answer questions that help each country team determine whether the additional expert support on each theme and associated tools will be relevant to their ASGM program of work and would be helpful in beginning to build the foundations for embedding their work in a jurisdictional approach. Tier 1 trainings will take place between January-April 2022.
2. Tier 2: Each country program will have the opportunity take deep dives into the themes and tools of greatest interest to them. Tier 2 trainings will involve advance interviews and surveys by global landscape experts to identify priority interests, needs and opportunities so a tailored curricula can be developed. Trainings will take place over 4-6 hours using virtual platforms. Following these trainings, experts will prepare reports with recommendations for each country program regarding how to advance on the respective theme. Tier 2 trainings will take place between April 2022-2023.
3. Tier 3: For country programs that decide a particular theme and associated tool fits their needs, global experts will conduct assessments, assist in building coalitions, and plans and implementing M&E frameworks. Tier 3 implementation will take place between August 2021 and beyond (TBD pending each country's specific context and needs).



The Jurisdictional Approach (JA) in the ASGM framework is essentially based on the following principles:

- ? Collaboration at the sub-national level to find solutions to the problems associated with the illegal mercury trade;
- ? Harmonisation of tax regimes and policy frameworks, taking account of climate change in the ASGM;
- ? Setting policy targets for mercury reduction and supporting a transparent supply of gold that meets the criteria for responsible practices and good governance.

Instead of implementing JAs from the outset, the project will initially focus on establishing the foundations for a JA. Several project activities will be important here, notably the mapping / GIS exercises to be undertaken through component 1, and the project's core work around miner capacity development, most significantly the establishment of mining groups and cooperatives. The project's basic work on bringing ASGM stakeholders together will also help to build ? and in many cases initiate ? the understandings and relationships that are a prerequisite for JA (in many instances, ASGM actors within Madagascar are not even aware of other critical actors in the ASGM supply chain).

Following this initial foundation-building work, the project's Mid-Term Review will be used as an opportunity to assess the potential for initiating JAs within the second half of the project. A central question for this review will be: are the necessary foundations in place for testing Jurisdictional Approaches within Madagascar? If the review finds good potential for JAs, the review will also be tasked with identifying which regions (whether single, several or all) should be targeted for testing JAs. At this later point, it will also be possible to access lessons and experiences from other GOLD+ projects, which can in turn be used to inform the development and implementation of JAs within the Malagasy context.

Through this jurisdictional approach, priorities and initiatives will be identified with the potential to provide leverage through collaboration and common goals, thereby institutionalising interventions at sub-national and national levels.

*Table 9: Potential benefits of the Jurisdictional Approach*

Benefits	Explanations for the ASGM
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Reducing the risk of "leakage?"	<p>For activities where emissions that may lead to deforestation, forest or land degradation extend to areas outside the boundaries of the activity.</p> <p>The AJ then allows emissions to be controlled at the scale of the whole jurisdictional area and taking into account different types of land use and stakeholders.</p>
Significant contribution to the reduction of forest-related emissions in the long term and on a large scale	AJ aims to cover a large area because of its inclusive and participatory approach and promotes long-term projects/activities as opposed to individual projects to protect forests, reduce emissions and improve livelihoods which are less effective.
Obtaining and integrating a wide variety of financial flows	<i>The financial resources in the implementation of AJ are mainly from carbon finance in order to achieve more sustainable results.</i>
More effective incentive for both gold miners and companies to engage in the Formalization process	These commitments include stopping deforestation in commodity supply chains.
Creating a relationship of trust and a space for dialogue	<p><i>The AJ, through its advisory strategy,</i></p> <p>Promotes partnerships and the tangible participation of indigenous/riparian peoples and local communities in the Formalization process and especially in environmental conservation.</p>

Table10: Standard steps in implementing JA

Steps	Descriptions
1. Preparation phase	Effective stakeholder participation in the form of a global forum with representatives from communities, government, civil society, the private sector, academia and the media.
2. Mobilizing funding for community-based initiatives	In comparison with the ANOR approach, the AJ recommends proximity management of the Institutions in the framework of the activities. Consequently, these proximity management activities, notably through the deconcentration of the Institutions in the zones/sites of ASGM, should be the object of consistent and sustainable funding.

3. Government ownership and leadership of the strategy	The Government, being the central and lead authority in the establishment and implementation of the AJ, should demonstrate its political commitments through the initiation of a national policy for the management of the ASGM sector. These commitments should then be appropriated by all government/public institutions and agencies and integrated into sectoral or multi-sectoral policies.
4. Effective decentralization of the implementation of activities/projects	The AJ advocates a decentralization strategy to enable the main targets, in this case the ASGM actors, to fulfil their responsibilities and benefit from the positive spin-offs.
5. <i>Implementation of</i> periodic multiparty consultations	As an inclusive and participatory approach, AJ is essentially based on the principle that actors from a given geographical area should plan, promote and encourage a policy of results based on the sharing of experiences and good practices.

Recommendations and good practices in the implementation of AJ in other African countries include

- ? Ensure that sub-national AJs are consistent with national strategies, FRLs (forest reference levels) and safeguards;
- ? Minimise risk by ensuring effective coordination between stakeholders who are also involved in the design and implementation of land use planning.
- ? Designate the most appropriate jurisdiction and scale to achieve national objectives and generate maximum benefits

## COMPONENT 1: ENHANCING ASGM FORMALIZATION

<b>OUTCOME 1</b>	Higher degree of formalization and integration across the ASGM sector
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The component will work towards a more formalised, integrated ASGM sector through a combination of strengthened legal and regulatory frameworks, and strengthened capacities to promote, implement, monitor and enforce those regulations. The work will necessarily involve multiple ASGM actors from policymakers, to regulators, to monitoring / enforcement agencies, to miners, collectors and investors. All actors will have valuable, necessary contributions to make during ? for example ? the identification of policy and legislative gaps, and the development and application of any new regulations. Similarly, all actors are likely to require some form of capacity support to strengthen their ability to fulfil their current obligations, and to meet any new obligations that arise from emerging regulatory developments.

Given the multi-stakeholder approach and the competing interests of the various actors, this work will aim to apply a jurisdictional approach as a means to address differences, and to build consensus around ? and ultimately apply ? the most appropriate, sustainable solution for formalising and professionalising the ASGM sector within target regions.

**Output 1A: Strengthened legal and regulatory framework for ASGM**

Precise developments will be determined during multi-stakeholder discussions, but PPG analysis indicates that new legislation will likely include a framework to facilitate ASGM trade union formation, establishment of a conflict management and resolution platform, and strengthening of environmental rehabilitation laws.

**Output 1B: Stronger institutional capacities for supporting professionalization and regulation of the ASGM sector within target jurisdictions**

A formalised, professionalised sector will require both strengthened government capacity, and strengthened miner capacity. Activities will target institutional capacity to develop, monitor and enforce legislation, but also institutional capacity to deliver technical support and advice to miners. The project will also support ASGM miners to form cooperatives and unions, and to build miner awareness of ? and capacity to comply with ? existing legislation.

The component, outcome and outputs are well aligned with the following NAP national objectives, and will support delivery of their underlying activities:

*Table 11 : Alignment of outcome 1 and outputs with NAP ASGM*

NAP category	National objective	
Mining practices and processing	05	ASGM entities (associations, cooperatives, etc.) are established and receive training on good governance and administration of mine management

Legal and regulatory aspects, policies and formalization	19	The administrative capacity officers from the 15 gold-rich regions are reinforced to apply and enforce regulatory texts
Social aspects	28	A community of 15 gold-rich regions is formed and sensitized for a change of behaviour and development culture
	29	The administrative and customs authorities of the gold-rich regions are trained, sensitized
Trade aspects: demand and supply of mercury	47	Transactions are required in a designated place where the artisanal miners, the administrators of the common and buyers meet periodically in the 15 municipalities rich in gold

## COMPONENT 2: ACCESS TO FINANCE ENHANCED BY FINANCIAL INCLUSION AND RESPONSIBLE SUPPLY CHAINS

<b>OUTCOME 2</b>	Increased financial inclusion for ASGM miners
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With wider access to more financial options and commercial opportunities, miners will be in a better position to invest in mercury-free mining technologies. The preparatory phase of this project has conducted a survey collecting information from commercial banks and microfinance institutes, indicating limited awareness of the ASGM sector potential and demonstrating very limited access to financing for miners. Therefore, a detailed and complementary need-based assessment will take place during the inception phase to identify the financing gaps and confirm the needs and wants of miners as well as of financial entities. Through this, the component will support the assessment of potential commercial schemes, development of new financial products (and/or improve access to existing services) that are accessible and closer to informal miners.

In the first instance, the project will focus on the mobilization of collective savings across mining communities. This work will build on analogous approaches within other sectors in Madagascar, and on similar approaches in ASGM sectors in other countries. Depending on the community-level context,

groups may need to be relatively informal at first, but once trust and confidence is built, the project will eventually support these groups to become formal cooperatives. Aside from mobilizing collective savings, the approach will also be used as the basis for the development of financial and business competencies at both the group and individual level. Thus, the process aims to not just increase the availability of financing, but also to build individual and collective capacities to manage finance. In doing so, the approach builds a stronger foundation for miners to access formal finance, and ? where formal cooperatives are established ? an ?easier? channel through which formal financial institutions can provide support.

In parallel to the work with miners to mobilize savings, the project will work closely with financial institutions that can potentially provide permanent formal support to participating miners. Several financial mechanisms and investors may be available to service small-scale miners. The preparatory phase of this project approached microfinance institutions, commercial banks, and the Central Bank for possible collaboration and synergies at a later stage. Based on that initial mapping, the project will develop an information / communication campaign targeted at those identified financial institutions. Communications will elaborate the benefits of value chains based on ESG standards (particularly the greatly improved financial certainty), the financing gaps that ASGM miners currently face, and the stronger business case for investing in ESG-compliant miners and value chains. This communications effort is likely to be a two-way, iterative process, with the project needing to respond to new, previously unidentified concerns and questions from the financial institutions. At the same time, these initial interactions will also be used by the project to assess the capacities and suitability of available lenders or partners in the country who understand and can effectively cater to the specific needs of artisanal miners. The project needs to ensure that the financial sector is well-informed about the ASGM sector's needs, but equally the project needs to ensure that miners have access to appropriate, fair (non-exploitative) products from the financial sector. This process of identifying appropriate, fair products will require the project to develop and deliver targeted capacity development inputs for *financial institutions*, not just miners.

Further to the need-based assessment, the project will work with local stakeholders to identify suitable individuals and/or organizations who can deliver financial and business capacity building training to miners, at both the group and individual level. Financial institutions, particularly microfinance institutions who are willing to join the financial mechanisms, will receive training on the specific needs of ASG miners. Where relationships between miners (whether groups or individuals) and formal financial institutions, especially ones providing microfinance services, are eventually developed, the project will explore whether and how to support these financial institutions to extend their services to mining communities, including their own business training services. If models can be developed whereby the financial institutions are also able to provide business development / mentoring for miners, this will greatly increase the long-term sustainability of the relationships and processes being introduced and promoted by the project.

Besides, this component will also build financial inclusion by improving miners' capacity to access and participate in Madagascar's existing responsible supply chains and ? in parallel ? strengthen government capacity to oversee and manage those supply chains. Again, the project will also work with financial institutions here, building awareness of how responsible supply chains work and are governed, and where specific financial support is most needed along those chains.

As with component 1 (formalisation) a jurisdictional approach offers clear advantages to the delivery of this component, given its focus on strengthening supply chains. A jurisdictional approach could be used to build trust amongst the multiple actors operating within supply chains, and to strengthen shared understanding around the processes involved in traceability. While the project will initially focus on development of community-level collective savings, a jurisdictional approach could also be used to increase formal financial institutions' awareness of ? and willingness to extend services to ? the ASGM sector.

#### **Output 2A: ASGM miners have stronger capacity to access financial products**

Working in combination with the formalisation and group formation activities undertaken through component 1, the project will support mining communities that choose to mobilize collective savings to establish/manage savings clubs and receive training on financial literacy and business management skills. Capital gathered within the community will provide a stable source of financing for miners, and will address the barriers miners face in accessing formal finance. This work will be underpinned by a program of financial education and business management training. As miner groups mature, strengthen and professionalise, the project will eventually facilitate access to formal banking and microfinance institutions.

Equally, the output will work with financial institutions to build awareness of business opportunities within the ASGM sector and the financial requirements of ASGM miners. Where financial institutions face specific capacity gaps, the project will provide targeted capacity development and/or advisory support to those institutions. Ultimately, the project aims to build the competence, confidence and trust of actors on *both* ?sides? of the financing fence: the miners *and* the financial institutions.

#### **Output 2B: Improved oversight and implementation of existing responsible supply chains within target jurisdictions**

The project will support ANOR in their efforts to apply existing supply chain processes, including monitoring and enforcement of traceability, and to strengthen their collaboration with the Central Bank and its buying scheme, as well as private international gold buyers. This will require some institutional

strengthening and capacity development for ANOR, but will also entail awareness raising and training for miners, collectors and other supply chain participants.

The component, outcome and outputs are well aligned with the following NAP national objectives, and will support delivery of their underlying activities.

*Table 12 : Alignment of outcome 2 and outputs with NAP ASGM*

<b>NAP category</b>	<b>National objective</b>	
Mining practices and processing	06	Exports of gold registered by Customs and taxed by the Ministry of Mines increases by 10% and 50% of these exports are obtained by mercury-free processes
Legal and regulatory aspects, policies and formalization	26	30% of ASGM entities have access to credit and are equipped with skills in financial management
Economic aspects	35	90% of taxes and royalties on gold are secured by the state structures of the 15 gold-rich regions
	36	An efficient system to gather income from the sale of gold and payment of fees will be set up in the 15 gold-rich regions
	38	The Ministry in charge of finance encourages financial institutions to set up a favourable mechanism for granting credit to gold miners
Options for technical and financial assistance	41	The populations of 50% of ASGM sites in the 15 gold-rich regions are made aware of tax compliance and the sound management of income and loans
Trade aspects: demand and supply of mercury	43	A certification system for gold mining processes that do not use mercury is put in place
	44	All existing gold Counters are recorded and monitored regularly by the administrative entities that authorize their operations

### **COMPONENT 3: ENHANCING UPTAKE OF MERCURY-FREE TECHNOLOGIES**



**OUTCOME 3**

Increased uptake of mercury-free technologies across the ASGM sector

Malagasy ASGM miners typically lack awareness of mercury risks and impacts, and of alternative processing techniques and technologies. Alternative, cost-efficient technologies are available that not only eliminate the need for mercury, but also improve productivity and gold recovery when compared to existing and/or traditional processes. This component will therefore focus on identifying the most appropriate alternatives for each social, economic and geographic context, and will promote those alternatives on the basis of both mercury avoidance and increased income potential. A program of regular capacity development opportunities will be developed and applied in the project sites to stimulate miners' uptake of ? and investment in ? mercury-free alternatives. The component will target miners and groups that are engaged through components 1 and 2, but will not restrict participation to those groups.

**Output 3A: Appropriate, context-specific technologies and processes identified and demonstrated**

Preliminary research undertaken during the preparation of this project indicate that gravity-based processes offer the clearest potential for deployment, as they are cost-efficient, relatively simple, and can be based on technologies (e.g. centrifuges, sluices) that are well-suited to the geographic and geological conditions in the target sites. However, final technology selection will be dependent on closer engagement with miners and communities in target sites, local authorities, and analysis of the available technology supply chains / markets in the target sites. Once technologies are selected, central demonstration facilities will be established in each of the project areas.

**Output 3B: Miners gain technical skills in mercury-free technologies**

Based on the selected technologies, a program of training will be developed for target miners and groups. Capacity development will predominantly be undertaken within the central demonstration facilities, although ? as the project develops ? options will be explored for on-site (decentralised) training, and training-of-trainers. To support training follow-up and strengthen uptake of the demonstrated technologies, the project will also establish Monitoring Committees within each project area. These committees will support miners that have adopted alternative technologies through on-site monitoring and training (including maintenance training). Committees will be comprised of trainers, technical experts, and ANOR officials.

The component, outcome and outputs are well aligned with the following NAP national objectives, and will support delivery of their underlying activities:

Table 13 : Alignment of outcome 3 and outputs with NAP ASGM

NAP category	National objective	
Mining practices and processing	04	A training program periodical on mercury-free gold mining techniques is set up and applied for all miners without exceptions at national level
	61	All gold miners within the 11 regions using mercury receive training on the use of alternatives to preserve their health and the environment
Legal and regulatory aspects, policies and formalization	27	Artisanal miners in the 15 gold-rich regions receive periodic training on the use of mercury-free extraction techniques with improved yields
Options for technical and financial assistance	39	15 pilot units of production and refining of mercury-free gold are established in each of the 15 gold-rich regions for the continuing practical training of miners

#### COMPONENT 4: KNOWLEDGE SHARING, COMMUNICATION AND LOCAL CAPACITY BUILDING

<b>OUTCOME 4</b>	All actors across the ASGM sector have improved knowledge of strategies, tools and processes for mercury reduction
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All project components are highly dependent on the building of awareness, knowledge and capacities across the ASGM sector. There are critical knowledge and capacity gaps amongst gold miners, but also amongst the national institutions that oversee ASGM activity in the country. Moreover, these gaps are diverse, with limited awareness around ? for example ? mercury?s health and environmental impacts, Malagasy legislation and legal obligations, alternative technologies, and the available financing options. This component will provide central direction and support to all of the project?s knowledge and capacity work, ensuring that all activity is well-coordinated across all project interventions. While individual components will lead the development of (for example) technical training materials, component 4 will provide quality assurance, ensuring that ? regardless of subject area - the project consistently applies pedagogical approaches that are appropriate to the knowledge needs and learning requirements of each stakeholder group. The component will also act as the knowledge ?bridge? between GOLD+ Madagascar and the global planetGOLD initiative.

#### **Output 4A: Programme of awareness raising and capacity development delivered for all ASGM actors**

Initial activity will include the development of a communication and training strategy, taking into account the various needs and gaps identified by the project's technical components. Support will then be provided to the technical components during the development of their approaches to awareness raising, training materials and capacity development processes. A central, detailed capacity development programme will then be developed to ensure the coherent, efficient delivery of training and other capacity-related activity. Core principles of the programme will be to prevent duplication of knowledge and capacity-related activity, and to ensure specific groups are engaged as efficiently as possible (i.e. participants face minimum time and resource demands). Awareness raising campaigns and or social behaviour change communication will take into account both the environmental and health aspects. As mentioned above, artisanal gold miners and their communities are not aware on the importance of site rehabilitation and how it is related to their well-being and economic activities if it is not well-done.

The duality between environmental protection and profit is one of the factors that demotivate economic actors to invest in environmental protection. However, such a mentality leads to the non-achievement of the objectives of sustainable development, which is why it is important to strengthen awareness actions. Moreover, different training related to the new mercury free technologies, access to finance, formalization of the ASGM sector, environment protection and restoration, gender dimension and improvement of social and health aspect will be organised and realized during the implementation of the GOLD+ project in Madagascar.

#### **Output 4B: Madagascar GOLD+ project contributes to - and benefits from - global planetGOLD knowledge management activity**

GOLD+ Madagascar will have much to gain from the knowledge and learning generated through the broader planetGOLD program, but will also be in a position to share learning from the Malagasy experience of implementing GOLD+. The component will ensure that global learning is fed into GOLD+ Madagascar decision-making processes, and will act as the conduit through which Malagasy learning is fed into the global knowledge base. To facilitate this learning exchange, two representatives from GOLD+ Madagascar will attend each of planetGOLD's Annual Program Meeting and ? in those years when planetGOLD's Global Forum is being held in tandem with the Annual Program Meeting ? the GOLD+ Madagascar Communications Manager will also attend. The component will also coordinate more frequent remote engagement with the planetGOLD program through (for example) planetGOLD's quarterly knowledge exchange meetings on specific technical subjects.

The component, outcome and outputs are well aligned with the following NAP national objectives, and will support delivery of their underlying activities:

Table 14 : Alignment of outcome 4 and outputs with NAP ASGM

NAP category	National objective	
Mining practices and processing	03	Gold miners will adopt behaviours favourable to the protection of their health in relation to the gold mining trade
	09	Communities in the 15 gold-rich regions are made aware of the impacts of mercury and other hazardous chemicals on human health and the environment
Legal and regulatory aspects, policies and formalization	24	Appropriate means of communication are identified so that messages reach communities, miners and entrepreneurs engaged in gold processing
Social aspects	31	An awareness-raising plan is designed for communities in the 15 gold-rich regions concerning health, safety at work, safety of children, and the culture of social and economic development

## COMPONENT 5: MONITORING, EVALUATION AND LEARNING

<b>OUTCOME 5</b>	Stronger evidence base on effective mercury reduction strategies
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The monitoring, evaluation and learning (MEL) component will ensure project accountability (how is the project performing against agreed results?) and will capture, share and apply any learning that arises during project delivery (how can project management and delivery be improved?). The component establishes the monitoring and measurement approaches to be applied across all project activities, and will provide technical support to project personnel in order to ensure consistent, rigorous application of MEL processes. The component will also lead the organisation of the project's independent mid-term and terminal evaluations.

The full, budgeted MEL plan is presented in section 9 below.





		Activity 1.1.4 Organize community awareness raising and conduct workshops/ meetings on dissemination and enforcement of regulations						X		X										
		Activity 1.1.5 Conduct geo-prospecting and land allocation in accordance with EMAPE gold.				X					X									
		Activity 1.1.6 Conduct an Environmental and Social Assessment on the sites							X											
		Activity 1.1.7 Develop and implement a closure plan for EMAPE sites							X			X								





		Activity 1.2.4 Organize community awareness raising of social contracting										X	X													
		Activity 1.2.5 Train the children of the golden EMAPE zones in "life skills".					X	X	X	X																
		Activity 1.2.6 Mobilize stakeholders to supply drinking water, sanitation and hygiene infrastructure in EMAPE sites					X	X					X	X				X	X							
		Activity 1.2.7 Train artisanal and small gold miners and the community in environmental preservation and restoration				X	X						X	X												

		Activity 1.2.8 Establish and enforce the "dina" (social contract) for environmental preservation and social protection on gold mining sites.																				
<b>Outcome 2.</b>  Increased financial inclusion for ASGM miners.	OP2A : ASGM miners have stronger capacity to access financial products	Activity 2.1.1 Assess the capacity of financial institutions to facilitate access to finance for artisanal and small gold miners		X	X																	
		Activity 2.1.2 Organize advocacy sessions with local and regional financial institutions				X	X	X														
		Activity 2.1.3 Develop and apply procedures for traceability and control of the value chain				X	X			X	X			X	X				X	X		



		Activity 2.2.2 Train the community to create income-generating activities																			
		Activity 2.2.3 Train groups of artisanal and small gold miners on revenue management						X	X				X	X							
		Activity 2.2.4 Train municipal staff in financial management						X	X												
		Activity 2.2.5 Train the family of artisanal and small gold miners in financial management																			
		Activity 2.2.6 Train artisanal and small gold miners and supply chain actors in taxation																			

		Activity 2.2.7 Mobilize financial institutions to work with cooperatives																										
<b>Outcome 3.</b> Increased uptake of mercury-free technologies across the ASGM sector	OP3A : Appropriate, context-specific technologies and processes identified and demonstrated	Activity 3.1.1 Organize community awareness raising of the risks associated with mercury use.																										
		Activity 3.1.2 Realize awareness raising among artisanal and small gold miners of the benefits of using mercury-free technology																										
		Activity 3.1.3 Conduct applied research on mercury-free extraction methods and disseminate results.																										





		Activity 3.2.4 Organize a self-assessment of artisanal and small gold miners on their knowledge and ability to support the elimination of mercury in gold mining.																		X	X				
<b>Outcome 4.</b> All actors across the ASGM sector have improved knowledge of strategies, tools and processes for mercury reduction.	OP4A : Programme of awareness raising and capacity development delivered for all ASGM actors	Activity 4.1.1 Official project launch workshop	X																						
		Activity 4.1.2 Project Coordination Unit meeting	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
		Activity 4.1.3 Project Steering Committee meeting		X		X		X		X	X		X		X		X		X		X		X		X
		Activity 4.1.4 Develop national communication and training strategies.		X																					









<b>Outcome 5.</b> Stronger evidence base on effective mercury reduction strategies	OP5 : M&E and adaptive management applied to capture and share lessons learned	Activity 5.1.1 Development of monitoring tools	X																	
		Activity 5.1.2 Baseline setting		X																
		Activity 5.1.3 Annual surveys				X			X			X			X					X
		Activity 5.1.4 Annual stakeholder learning workshops (premises facilitation travel expenses)				X			X			X			X					X
		Activity 5.1.5 National travel for MEL Coordinator (site visits training & supervising colleagues)				X			X			X			X					X
		Activity 5.1.6 Mid-term review										X								X
		Activity 5.1.7 Terminal evaluation																		X

**Outcome 1:** Higher degree of formalization and integration across the ASGM sector

## **OP1A: Strengthened legal and regulatory framework for ASGM**

Apart from its lack of enforcement, the Mining Code has often been singled out for its grey areas and loopholes, providing an increased risk of misinterpretation of its provisions as well as a loophole for perpetrators. Stakeholders agree that some definitions are too vague and imprecise. The texts are then in some cases difficult to put into practice. This output aims to set up a better legal environment for the ASGM sector and to Obtain an appropriate and understandable legal and regulatory framework for ASGM.

Moreover, it has been noted that there are practices of direct or indirect discrimination against vulnerable actors in ASGM, namely women, children and people with disabilities, this output aim to solve this problem through the *Rights Based Approach recommended by planetGOLD+*.

### **Activity 1.1.1 Assess the application of the regional approach for the identified ASGM areas and identify the appropriate approach**

A consultant will be hired to evaluate the existing approach in the four sites and determine the appropriate approach to be taken in these sites. The results of this assessment are validated by the Technical Committees.

### **Activity 1.1.2 Establish partnerships with decentralized communities, artisanal and small gold miners, civil society organizations and the private sector to expand the deployment of mercury-free technologies and put in place local consultation structure**

The objective of this activity is to clarify the roles of stakeholders in the project, and to establish a permanent local consultation structure (LCS) in the four sites. This structure will act as a facilitator for the development of the commune and the GOLD+ project. It will continue to work even if the GOLD+ project is completed. The leaders in the communes of the four sites (mayors, mining artisans, local administrators, traditional and religious leaders) will first be trained at the central level on the theme of sustainable development, including the GOLD+ project, and then accompanied by the project team for the implementation of the SLC in their respective zones.

### **Activity 1.1.3 Elaborate and conduct workshops/meetings on validation of regulatory texts related to the ASGM sector**

The update of the regulatory texts concerning the EMAPE sector will be elaborated by a consultant and validated by the Technical Committees. The texts will then be multiplied and disseminated in the four sites.

#### **Activity 1.1.4 Organize community awareness raising and conduct workshops/meetings on dissemination and enforcement of regulations**

Community sensitization in the four zones will be organized to raise awareness and enforce existing regulations, with the help of the SLC.

#### **Activity 1.1.5 Conduct geo-prospecting and land allocation in accordance with EMAPE gold.**

The main objective of the activity is that lands suitable for ASGM are reserved and allocated by the responsible entities (Ministry of Mines, including ANOR, Ministry of Environment) and identified in an updated database. This activity will:

- Identify and categorize the area of the plots;
- Identify the surface area of deposits suitable for different types of mining operations;
- Identify areas exclusively allocated to artisanal and small-scale mining

#### **Activity 1.1.6 Conduct an Environmental and Social Assessment on the sites**

This assessment will be conducted by a consultant in the four sites. It will provide clear data on the environmental and social aspects of the community, including health and hygiene, the roles of women and children, customs and practices, and the area contaminated. The strategy adopted by the GOLD+ project will depend on the data collected.

#### **Activity 1.1.7 Develop and implement a closure plan for EMAPE sites**

In case a new site will be allocated by the responsible entities and before abandoning the old site, a procedure for closing the site must be developed and validated by the Technical Committees and the SLC. The project team, with the help of the SLC, will enforce this procedure by the actors of the EMAPE site.

### **OP1B : Stronger institutional capacities for supporting professionalization and regulation of the ASGM sector within target jurisdictions**

The main goal of this output is to Strengthen the rule of law and existence of an effective institutional framework to make the gold mining sector a real lever for economic development in Madagascar.

The specific goals to reach the main one are the following:

- Proximity management: Deconcentrating the ASGM institutions to the local level
- Accessibility of the authorities at local level so that local residents and/or artisanal and small gold miners automatically go to them without reservation for advice or support
- Institutionalize a stakeholder dialogue mechanism to promote consultation between small-scale artisanal and small gold miners, medium and large-scale artisanal and small gold miners, local communities and other relevant stakeholders in the initial stages and throughout the Formalization process

The following incremental activities will be carried out to achieve this output:

**Activity 1.2.1 Evaluate the capacities of the ASGM sector institutions (MEDD, MMRS, MEAH, MICA REGIONAL DIRECTIONS) to achieve the GOLD+ project objectives and identify their needs**

This activity will be conducted in the first year by a consultant. It will define the missions and activities of the different institutions that will contribute to the success of the project. Their capacity building needs to support the project in the long term will also be identified. The consultant's work will be validated by the Technical Committees.

**Activity 1.2.2 Organize awareness raising among artisanal and small gold miners and/or groups of artisanal and small gold miners on the formation of a cooperative**

A sensitization of minor and small artisans will be organized by the project team in the four sites on the formation of a cooperative. Leaflets, posters will be distributed for this purpose on the benefits of the formation of a cooperative, as well as the legislation and regulations relating thereto.

**Activity 1.2.3 Train and support the creation of the cooperative to regularize the status of this entity**

Leaders among the artisanal miners identified by the SLC will be trained at the central level on the creation and development of a cooperative to be trainers. The training will then be continued at each site and the miners will be accompanied and monitored for four years until a legal and functional cooperative is created.

**Activity 1.2.4 Organize community awareness raising of social contracting**

This community sensitization in the four zones will be led by the SLC, with the help of the project team. It will focus on the elaboration of a social contract for the sustainable development of the commune.

**Activity 1.2.5 Train children of the golden EMAPE zones in "life skills".**

To prevent violence against children in mines, it is essential to equip them with psychosocial and interpersonal skills. Specific training topics will be developed by a consultant and validated by the Technical Committees. Women leaders will be identified by the SLC and trained centrally to become trainers. The training at the four sites will be monitored and accompanied by the project team during field visits.

**Activity 1.2.6 Mobilize stakeholders to supply drinking water, sanitation and hygiene infrastructure in EMAPE sites**

This activity consists of sensitizing and mobilizing the rural community to set up hygiene infrastructures by their own means. This activity is led by the SLC, with the support of the project team. Training of local technicians will be carried out in this sense, including techniques for setting up infrastructures (masonry and others), water sanitization techniques, hand washing techniques.

**Activity 1.2.7 Train artisanal and small gold miners and the community in environmental preservation and restoration**

To carry out this activity, it would be necessary to recruit an expert to train the community for the preservation and restoration of the environment and the project team assure the monitoring and the evaluation.

**Activity 1.2.8 Establish and enforce the "dina" (social contract) for environmental preservation and social protection on gold panning sites**

In Madagascar, the "dina" is a social contract, a community convention that the rural population applies before the actual regulatory texts. The "dina" is directed by the traditional leader. The content of the "dina" will be elaborated by a consultant before being validated by the community. The validation will be done in the presence of the administrative authorities in order to legislate the "dina" in a way that it does not diverge from existing laws and regulations. This validation will be carried out according to the habits and customs of each zone. In general, an ox is slaughtered and the meat is distributed to the community. This activity is managed by the SLC.



## **Outcome 2. Increased financial inclusion for ASGM miners**

### **Output 2A: ASG miners have stronger capacity to access financial products**

This output is part of the process towards change that aims to reduce or eliminate the use of mercury in the gold ASGM sector. By making possible the acquisition of alternative means of production that do not use mercury through improving ASGM's ability to access financial products that will become a sustainable source of funding.

The following activities will be carried out to achieve output 2-A:

#### **Activity 2.1.1. Assess the capacity of financial institutions to facilitate access to finance for artisanal and small gold miners.**

It is important to conduct a need-based assessment with financial institutions to identify what they can actually offer in the market and particularly for the ASGM sector.

#### **Activity 2.1.2 Organize advocacy sessions with local and regional financial institutions**

The objective of this activity is to convince financial institutions to take part in the achievement of the project's results, in particular the financial inclusion of the ASGM.

#### **Activity 2.1.3. Develop and implement procedures for traceability and control of the value chain**

The project should establish a monitoring system with well-defined procedures to facilitate control of the gold supply chain. These procedures will be developed by a consultant and validated by the Technical Committees. The validated procedures will be presented to the supply chain actors during a workshop at the central level.

With the support of the project, ANOR and the Decentralized Territorial Collectivities or Rural Commune will be the bodies responsible for the development and application of these procedures.

A second workshop of the supply chain actors will be organized to present the evaluations of the application of the procedures and to collect observations to improve the procedures.

**Activity 2.1.4. Provide technical assistance to decentralized communities for the adoption of responsible mining practices.**

It is important to provide technical assistance to the decentralized communities to adopt responsible mining practices so that the impacts of the project continue even after its closure. Mentors identified by the Commune, with the support of ANOR, will carry out this task.

**Activity 2.1.5. Train and mobilize groups of artisanal and small gold miners on savings clubs and financial management.**

In order to improve the current situation of ASGM towards financial inclusion, the solution is first to establish a collective savings group of artisans and small-scale gold miners, since financing providers require strict economic (income stability) and legal (formalization of ASGM) conditions from applicants. This activity aims to establish savings groups of artisans and small-scale gold miners and provide various trainings on financial literacy (personal financial management, savings, loan management, etc.) which would be given by local facilitators. The training materials will draw from results of a need-based assessment of miners and take into account the environmental and social impacts of the economic activities of the local communities. As mining and small businesses around mining sites are dependent on natural resources, it is indispensable to ensure that their usage is sustainable as much as possible.

This activity will be carried out in conjunction with the activity related to the creation of cooperatives (activity 1.2.3) and adopts the same principle of approach, i.e., training of trainers at the central level and accompaniment at the four sites by the project team.

**Activity 2.1.6. Train women in leadership**

Leadership training for women is crucial because women are as important as men in community decision making. Women leaders, identified by the SLC, will be trained at the central level to become relay trainers. Training and accompaniment on site will be provided by the project team.

**Output-2B: Improved oversight and implementation of existing responsible supply chains within target jurisdictions**

This output aims to improve gold supply chains through awareness raising and training of actors working in the small-scale gold sector. The objective of this output is also to optimize ANOR's work in the management of the gold sector.

The activities to achieve this result are as follows:

**Activity 2.2.1. Strengthen the technical and material capacities of ANOR and the Rural Communes to assist artisanal and small gold miners.**

An assessment of ANOR and the rural communes in the four sites will be conducted to identify their capacity building needs in order to accomplish their mission of accompanying artisanal gold miners towards formalization and maintaining this formalization. The results of this assessment will help determine the types of support to be provided to these two entities.

**Activity 2.2.2. Train the community to create income-generating activities**

In order for ASGMs to have sources of income other than gold panning, the project must train the community to create income-generating activities. This will increase the savings capacity of small-scale artisanal miners and gold miners. The principle of skills transfer is still the training of trainers at the central level. The people who are to be trainers will be identified by the SLC. The accompaniment and monitoring of the training at the four sites will be provided by the project team.

**Activity 2.2.3. Train groups of artisanal and small gold miners in revenue management**

It is important to note that each training topic specifically addresses the project objective of financial inclusion of ASGMs. This activity will be carried out in conjunction with activities 1.2.3. and 2.1.5. and will adopt the same principle of training of trainers.

**Activity 2.2.4. Train municipal staff in financial management**

The role of municipal staff in overseeing gold marketing makes them one of the target actors who must be competent in financial management. This activity is part of the capacity building of the communes in the four target sites (see Activity 2.2.1.).

**Activity 2.2.5. Train the family of artisanal and small gold miners in financial management**

The project should extend the target of training to the family of artisanal and small-scale gold miners once the miners are able to manage their income. This activity will be carried out in conjunction with Activity 2.2.2.

**Activity 2.2.6. Train artisanal and small gold miners and supply chain actors on taxation.**

All actors in the gold supply chain must be aware of the fiscal obligations related to gold mining. Involving these actors in meeting these obligations is a hallmark of a responsible supply chain. This activity will take place in the regions where the sites are located and will involve all actors in the supply chain, including the communes and districts.

#### **Activity 2.2.7. Mobilize financial institutions to work with cooperatives**

The mobilizing of financial institutions to work with small-scale artisanal and small gold miners' cooperatives is a last but not least step before these miners can benefit from the services of financial institutions.

**Outcome 3:** Increased uptake of mercury-free technologies across the ASGM sector

#### **OP3A : Appropriate, context-specific technologies and processes**

Mercury-free gold mining processes and techniques are identified and appropriate to the context of each area. Artisanal and small-scale miners are aware of the negative impact on their health and environment associated with the use of mercury.

#### **Activity 3.1.1 Organize community awareness raising of the risks associated with mercury use.**

Awareness sessions on the risks associated with the use of mercury will be conducted at the four sites by the project team. Materials validated in Activity 4.1.7. will be used for outreach.

#### **Activity 3.1.2 Realize awareness raising among artisanal and small gold miners of the benefits of using mercury-free technology.**

This activity will be conducted with Activity 3.1.1.

#### **Activity 3.1.3 Conduct applied research on mercury-free extraction methods and disseminate results.**

A contract will be established with a research center to conduct a study on mercury-free extraction technologies adapted to the local context and that can be replicated at the national level. The results

will be validated by the technical committees and disseminated to the four project sites in the first instance, and at the national level and shared for the GOLD+ projects.

**Activity 3.1.4 Identify appropriate processing and extraction methods and validate them with artisanal and small-scale gold miners.**

The identification of an extraction process and methods will be carried out by a consultant. After validation by the technical committees, the extraction process and methods will be validated by the artisanal miners and small-scale operators at each site.

**Activity 3.1.5 Carry out an Environmental and Social Assessment of the implementation of the new technology**

The environmental and social assessment of the implementation of the new technology will be conducted by a consultant and validated by the community.

**Activity 3.1.6 Acquire equipment for mercury-free technology.**

The equipment validated for the new technology is imported.

**Activity 3.1.7 Develop and validate an extraction equipment ownership contract**

**OP3B : Miners gain technical skills in mercury-free technologies**

Small-scale miners and small-scale operators are familiar with the new mercury-free technology and are increasing their gold yield.

**Activity 3.2.1 Conduct a study on the distribution of mercury in the environment at the beginning and at the end of the project**

This activity is used to determine the distribution of mercury in the environment throughout the project at the four sites. This activity requires the importation of portable mercury analysis equipment.

### **Activity 3.2.2 Demonstrate mercury-free technology at target sites**

The demonstration of the new mercury-free technology will take place in the four sites in the presence of administrative authorities.

### **Activity 3.2.3 Train groups of artisanal and small gold miners on the application of technology and maintenance of equipment**

Training will be conducted at all four sites by a consultant.

### **Activity 3.2.4 Organize a self-assessment of artisanal and small gold miners on their knowledge and capacity to support the elimination of mercury in gold mining**

The self-assessment forms will be developed by a consultant. During a meeting with the cooperatives in each zone, the artisanal miners and small-scale miners will fill out the validated forms.

**Outcome 4:** All actors across the ASGM sector have improved knowledge of strategies, tools and processes for mercury reduction.

### **OP4A: Programme of awareness raising and capacity development delivered for all ASGM actors**

Consultants will be hired to develop strategies, reference manuals, guides, training curricula and awareness tools.

Meetings and workshops will be organized to validate these documents.

Thus, the documents developed will be multiplied, distributed and used during the implementation of the project.

### **Activity 4.1.1 Official project launch workshop**

The members of the project coordination unit will meet to prepare the project launch workshop (preparation and issuance of the invitation, presentations to be made and the launch workshop agenda).

The inception workshop will be held in the first quarter of the project.

The official project launch workshop introduces the context and content of the Gold Plus Project, the Project Steering Committee (PSC), the Technical Committee (TC) and the National Project Implementation Committee (NPC), and the stakeholders to be involved during the implementation of the project.

#### **Activity 4.1.2 Project Coordination Unit meeting**

The members of the coordination unit will meet once a quarter. They will elaborate the Operational Plans of the project, the drafting of the Steering Committee and the technical and financial reports of the project progress. Thus, they will prepare all the workshops and meetings and all the other activities carried out in the framework of the project during the meetings.

#### **Activity 4.1.3 Project Steering Committee Meeting**

Under the co-chairmanship of MEDD and UNIDO, the Steering Committee meetings will be held every six months throughout the project.

The BNM will assure the Secretariat of the meetings. The members of the Steering Committee are in charge of validating all programs of activities during the projects. They will also provide advice to the project coordination unit.

#### **Activity 4.1.4 Develop national communication and training strategies**

Consultants will be hired to develop national communication and training strategies.

Meetings and workshops will be held to validate these strategies. These strategies will then be multiplied and used during the implementation of the project.

#### **Activity 4.1.5 Update the public health strategy for ASGM**

During the development of the EMAPE NAP, Madagascar developed a public health strategy document for ASGM without considering an official template to elaborate this document. Currently, an official guide for developing this document is available on the Minamata Convention website. Therefore, the updating of this document is necessary.

To develop this document, it would be necessary to:

- recruit a public health expert;

- develop public health strategies;
- organize meetings to validate the document
- multiply, disseminate and use the public health strategy manual.

#### **Activity 4.1.6 Develop and expand training manuals**

To develop this document, it would be necessary to:

- recruit experts to develop and multiply the training manuals
- develop and increase the number of training manuals
- organize meetings to validate this document
- multiply, disseminate and use strategic manuals.

#### **Activity 4.1.7 Develop and multiply advocacy, awareness and training tools for all project components in national and local languages**

To develop these documents, it would be necessary to:

- recruit an expert to develop advocacy, awareness and training tools for all project components in national and local languages;
- develop and multiply training manuals;
- organize meetings to validate these documents
- multiply, disseminate and use advocacy, awareness and training manuals and tools.

#### **Activity 4.1.8 Establish networks and communication on good practices in the 4 target sites of the project**

To develop this project, an expert is recruited to set up the communication network.

The field visit will be necessary to establish networks and communication on good practices in the 4 target sites of the project.



#### **Activity 4.1.9 Project closing workshop**

The members of the project coordination unit will meet to prepare the project closing workshop (preparation and issuance of the invitation, presentations to be made and agenda for the project closing workshop).

The project closing workshop will be held in the last quarter of the last year of the project.

#### **OP4B: The Madagascar GOLD+ project contributes to - and benefits from - the global knowledge management activity planetGOLD**

All actors in the mercury-free gold supply chain are aware of the negative impacts of mercury use through the GOLD+ project. They are involved and voluntarily follow the laws and regulations. They care about their health, the health of their children, the environment and economic development. Communication channels are identified to implement the GOLD+ project guidelines and to share lessons learned during project implementation.

#### **Activity 4.2.1 Organize and conduct advocacy sessions on the implementation of the project at central, regional and communal levels and at EMAPE sites**

Advocacy sessions will be organized by the project team at the central and regional levels for the implementation of the project using the validated documents from Activity 4.1.7.

#### **Activity 4.2.2 Sensitize the community and health workers to facilitate access to health services for artisanal and small gold miners**

This activity is undertaken with Activity 4.1.9.

#### **Activity 4.2.3 Organize awareness raising for the community on the environmental preservation and restoration, social welfare improvement**

The sensitization of the community for the preservation of the environment is carried out by the project team by using the documents validated in activity 4.1.7. It will be done before activity 4.2.2.

#### **Activity 4.2.4 Participate in international training workshops and meetings with other countries and other Gold Project stakeholders.**

The project team will participate in international training workshops and meetings with other countries and other Gold Project stakeholders for exchange experiences and lessons learned during the implementation of the child projects.

#### **Activity 4.2.5 Participate in international forums to share project results and lessons learned.**

The project team will participate in international forums to share project results and lessons learned.

**Activity 4.2.6 Manage the knowledge repository and expand knowledge sharing via the PlanetGOLD website, electronic document mailing list and other dissemination channels**

All documents, tools, strategies and reports during the implementation of the child project will share via the PlanetGOLD website.

**Activity 4.2.7 Dissemination of Project Report**

The MEDD will assure the dissemination of technical and financial reports of the project, and the lessons learned from the project every six months.

**C. D. ALIGNMENT WITH GEF FOCAL AREA**

This project is directly aligned with the Chemicals and Waste Focal area, Industrial Chemicals Program which seeks to eliminate or significantly reduce chemicals subject to better management, in this case of Mercury in the framework of the Minamata Convention. The relevant focal area element is CW-1-1: Strengthen the sound management of industrial chemicals and their waste through better control, and reduction and/or elimination. A specific objective within the Chemicals and Waste Focal Area is the reduction and elimination of Mercury from the Artisanal and Small-Scale Gold Mining Sector. The GOLD+ Child Project will contribute directly to this objective.

The project will monitor and directly contribute to GEF Core Indicator 9 (Reduction, disposal/destruction, phase out, elimination, and avoidance of chemicals of global concern and their waste in the environment and in processes, materials, and products), and sub-indicators 9.2 (Quantity of mercury reduced). Looking beyond the Chemicals and Waste strategy, the project will also monitor and contribute to GEF Core Indicator 11 (Number of direct beneficiaries disaggregated by gender as co-benefit of GEF investment).

**E. INCREMENTAL COST REASONING**

The baseline scenario developed during this project's preparation confirms that Madagascar's ASGM sector is covered by a relatively well-developed legislative and regulatory framework, with a national institution recently established to manage and monitor responsible gold supply chains. The national policy framework includes clear provisions that prohibit mercury use. Moreover, Madagascar was an early mover in its efforts to meet Minamata Convention obligations, completing an MIA shortly after the Convention's ratification, then becoming the first country to submit an ASGM NAP to the Convention Secretariat. That NAP is a detailed document that articulates clear strategies and activity plans against which the country can work towards the elimination of mercury from gold mining.

However, the baseline scenario also confirms that ? despite the existence of legislative and institutional frameworks ? there is no evidence of a decrease in mercury usage or of substantive shifts from informal (illicit) mining to formal mining. National institutions lack the resources and capacities required to deliver the NAP, to comprehensively monitor supply chains, to enforce legislation, or to substantively engage with mining communities. As a result, there are low levels of awareness of mercury-associated risks and of mercury-free alternatives. Even where there is awareness, formal financial services are not available to miners, so there are little or no opportunities for miners to invest in alternative technologies and processes. Given severe resource constraints within Madagascar, it is improbable that this baseline scenario can fundamentally change without external assistance in the form of financial resources, technical inputs and renewed impetus to deliver the NAP.

Madagascar?s clear desire to shift the baseline scenario is evident in the speed with which initial Minamata Convention obligations have been met, the thorough detail within the ASGM NAP, and the commitment to provide co-financing of \$xm to the GOLD+ project. Alongside the potential GEF funding. By financing the incremental costs identified within this proposal, GEF?s support will in the first instance provide Madagascar with much-needed support to build momentum behind an existing framework (the NAP) that already establishes a clear path to mercury removal, and hence the delivery of tangible global environmental benefits. However, funding the incremental costs will also inherently strengthen the long-term sustainability of Madagascar?s mercury reduction efforts. By focusing on formalisation of the ASGM sector, the GOLD+ project (and the broader NAP) aims to bring substantially more miners into the formal economy and responsible gold supply chains. In doing so, this will result in a parallel shifting of gold exports from illicit to formal channels. Increased formalisation of mining activity, supply chains and exports will in turn expand the tax base and increase royalties for the Malagasy state. These additional resources could then develop into a virtuous circle whereby increased national income from gold mining can be used to finance increased resources and capacities to monitor and further strengthen ASGM sector governance.

The project?s tight link with the global planetGOLD initiative will also ensure that learning generated through the Malagasy experience can be shared with as wide an audience as possible. In turn, this will contribute to mercury reduction efforts (and hence global environmental benefits) within different countries and contexts.

The table below explains how the baseline activities are linked with the co-financing provided to the project.

<b>Project components/activities</b>	<b>Confirmed co-financing</b>	<b>Comments</b>
1. Improve formalization of ASGM	ANOR	formalizes the ASGM sector
	MMRS	formalizes and the inspect the offenses carried out in the field of ASGM

	VOARISOA	Plans to work in the ASGM sites in collaboration with other stakeholders to raise awareness on the preservation of the environment, the advantages of mercury free mining to the in the project sites in order to promote the implementation of the Minamata Convention.
	Vohitra Environment	Deals with waste treatment from operators and industrials, recently included among its activities the treatment of electrical and electronic waste likely to contain mercury as waste in ASGM sector, in order to formalize this sector for sustainable development and environmental protection.
	MEDD	Deals with the protection of environment by the formalization of the ASGM sector, including coverage of costs for travel and security.
2. Access to finance improved through financial inclusion and responsible supply chains	ANOR	Continues to apply existing supply chain processes, including monitoring and enforcement of traceability, and to strengthen their collaboration with the Central Bank and its buying scheme, as well as private international gold buyers.
	MMRS and ANOR	Help and train artisanal and small gold miners to produce to have better production of gold by adopting environmentally safe technologies
	MEDD	Seek financial partners to help miners access funding for their work ; Help artisanal and small gold miners to have financing support to improve their gold production; Establish partnerships between miners' groups and financial institutions in order to help artisanal and small gold miners to have funding to improve their production.
	OSCIE	The main objectives of this platform is to improve the social and economic benefits generated by extractive projects in Madagascar
3. Improve adoption of mercury-free technologies	ANOR and MMRS	Reduce or eliminate the use of mercury in Artisanal and Small-scale Gold Mining (ASGM), adopt the mercury-free technologies and introducing these new technologies specific to the ASGM sector
	MEDD	Help ANOR and MMRS to introduce mercury-free technologies in order to protect the environment from the mercury pollution, including coverage of costs for travel and security.
	VOARISOA	Contribute to the prevent the use of mercury
	OSCIE	The main objectives of this platform are respect for the environment, human rights and equity in extractive projects in Madagascar is improved

4. Knowledge sharing, communication and Support for local capacity building	OSCIE	The activities of this platform are sensitize, train artisanal and small gold miners to respect the environment, human rights and equity in extractive projects in Madagascar and to improve the social and economic benefits generated by extractive projects in Madagascar,
	PNFDDSA	Main objectives of this platform are to (1) strengthen and develop the intellectual capacities of women, (2) mobilize women to commit to Sustainable Development in Madagascar, (3) Contribute to the integration of the "Sustainable Development" dimension in their daily life, (4) contribute to the improvement of the Green Planet of the Country contribute to the promotion of the Green Economy and (8) contribute to Food Security in Madagascar
	Ministry of Public Health	Awareness raising and sensitization on occupational health issues for workers
	SAMIS / ESIC	Contributes to the awareness sessions, knowledge sharing and communication for the preservation of environmental and the fight against the use of mercury in ASGM
	VOARISOA	Will work in the ASGM sites with other stakeholders to raise awareness on the negative impacts of mercury pollution and share knowledge about different aspects of chemicals safety.
	MEDD	contribute to the sensitization and share knowledge for the preservation of the environment, fight against the use of mercury in ASGM, and the formalization of the ASGM sector by restoring the environment, including coverage of costs for travel and security.
	MMRS	Raising awareness on the formalization of the ASGM sector

## E. F. GLOBAL ENVIRONMENTAL BENEFITS

### Core indicator 4: Area of landscapes under improved practices

This indicator captures the landscape area that is in production (i.e., mining, agriculture, and other productive sectors) and whose soil, air and water are managed in a sustainable manner.

The area of landscapes would benefit from improved practices (excluding protected areas) at the end of the project by carrying out the following main activities:

? Activity 2.2.2 Train the community to create income-generating activities

? Activity 4.2.2 Train artisanal and small gold miners and the community in environmental preservation and restoration

? Activity 4.2.4 Raise community awareness of environmental preservation and restoration, social welfare improvement.

The below table details the land area of the mining regions selected by the project: Vatovavy Fitovinany, Diana, Atsimo Andrefana, and Betsiboka, and their mining sites.

Region	Mining Site	Surface area (hectares) of the region[6] <sup>6</sup>	Surface area (hectares) of the mining site[7] <sup>7</sup>
Vatovavy Fitovinany	Ambalamanasa	19,605 km <sup>2</sup>	228 km <sup>2</sup>
Diana	Andrafiava	19,226 km <sup>2</sup>	201 km <sup>2</sup>
Atsimo Andrefana	Farezy	66,236 km <sup>2</sup>	739 km <sup>2</sup>
Betsiboka	Antanimbary	30,025 km <sup>2</sup>	339 km <sup>2</sup>
	<b>Total</b>	<b>135,092 km<sup>2</sup></b>	<b>1,507 km<sup>2</sup></b>

From the accurate prospecting and deposit identification performed per site, we assume that 50% of the area will be under improved practice by the end of the project implementation. Thus, approximately 753 km<sup>2</sup> (75,300 ha) of landscape will be under improved practice by the end of the project implementation.

It is plausible that the project will also contribute to Land Degradation GEBs, specifically *?conservation and sustainable use of biodiversity in productive landscapes?* and *?reduced pollution and siltation of international waters?*, and to the Sustainable Forest Management GEB of *?reduction in forest loss and forest degradation?*. Project interventions with gold miners will include awareness raising around the environmental impacts of mercury usage, and will draw attention to existing legal obligations around the rehabilitation of abandoned mining sites. Depending on the outcome of the project's Stakeholders consultations, support may also be provided to strengthen existing legislation around rehabilitation measures and environmental management across the ASGM sector.

**Core indicator 9: Reduction and elimination of mercury use**

The project explicitly targets the Chemicals and Waste global environmental benefit (GEB) of *?Protected human health and environment through the reduction and elimination of mercury use and prevention of anthropogenic emissions and releases of mercury and mercury compounds?*. Indeed, all

project activities are ultimately geared towards delivering this benefit. The work aims to deliver significant mercury reductions during the project's 5-year implementation period. However, the project's work on formalisation, finance, technology and capacity also aims to establish a strong foundation for sustained mercury reductions beyond the immediate project period.

Further from the NAP and field visits, the total mercury emitted per year per region are estimated in the below table with the average Hg:Au ratio of 3.

Region	Site	Mercury used per year (metric tons)	Number of miners per site
Vatovavy Fitovinany	Ambalamanasa	3.44	328
Diana	Andrafiava	1.24	292
Atsimo Andrefana	Farezy	2.52	563
Betsiboka	Antanimbary	1.72	312
<b>Total</b>		<b>8.92</b>	<b>1,495</b>

The project will work with approximately 150 miners on mercury-free technology transfer, corresponding to 10% of the mercury used per year. Thus, the approximate amount of mercury to be reduced in five (5) years of the project implementation is estimated at five (5) metric tons (averagely one metric tons per year). Through the establishment of enabling framework conditions, the financial mechanism to be designed and the awareness and dissemination efforts, it is expected that the mercury reduction target will be replicated after the project is finalized. A replication factor of 3 is expected over the 10 years following completion of the project. This results in an overall amount of 20 metric tons of mercury reduction after 15 years.

#### **Core indicator 11: Number of direct beneficiaries**

75% of the Malagasy population is of rural origin. Their sources of income are generally agriculture, livestock and fishing, apart from artisanal gold mining. The GOLD+ project will improve the community's livelihoods by instilling new values of forest preservation, biodiversity conservation and sustainable agriculture. These values, once appropriated by the community, will contribute to climate change mitigation.

Waste management at the sites will reduce the pollution load of the surrounding waters. Community mobilization will contribute to improving this management (Activity 1.2.6 Mobilize stakeholders to supply drinking water, sanitation and hygiene infrastructure in EMAPE sites).

The number of direct beneficiaries is 18,134 people of which 5,948 are women and 12,186 are men living in the four mining sites. These numbers are based on the 2020 projection of total population in gold mining sites of the General census of population and habitat.

Region	Site	Number of total population in gold mining sites (RGPH 2020 projection)		
		Total	Male	Female
Vatovavy Fitovinany	Ambalamanasa	3,849	1,898	1,951
Diana	Andrafialava	2,758	1,356	1,402
Atsimo Andrefana	Farezy	740	368	372
Betsiboka	Antanimbary	10,787	8,564	2,223
<b>Total</b>		<b>18,134</b>	<b>12,186</b>	<b>5,958</b>

**F. G. INNOVATIVENESS, SUSTAINABILITY, POTENTIAL FOR SCALING UP**

**Innovativeness**

Much of the core project activity can be considered innovative as it will introduce technical processes and financial options into new contexts and will expose gold miners to new solutions. The project's logic maintains that the combination of demonstration, education, and improved access to finance will result in miners investing in and adopting alternative, mercury-free and more productive processes. When miners do invest time and capital in those processes, a degree of sustainability is implied (or even assured): investment implies that miners recognise the long-term value of adopting new technologies and/or processes. The project's logic also maintains that scaling-up of these innovations will be achieved when project participants share their knowledge with colleagues, and those colleagues proceed to switch towards the alternative processes.

The project's potential testing of jurisdiction approaches can also be considered innovative, as this landscape management strategy has never been applied before in the context of ASGM (although other GOLD+ projects will also be testing jurisdiction approaches in tandem with the Madagascar initiative). If conditions allow for the application of jurisdictional approaches ? and if those approaches are successful ? then this will by definition establish strong grounds for sustainability. Any learning generated through the testing of the process will also help potential scaling up of the approach within other (non-project) Madagascan regions.

During the project inception, specific sites (mining operation(s)/cooperative(s)) will be selected to apply concrete actions and measures to promote greater formalization, adoption of new technologies, and reduction in the use of mercury, among others.



The gender analysis showed a high degree of ignorance and invisibility on women miners. The fact that the project is targeting women throughout all its components will also be innovative in the context of Madagascar as no initiative of this magnitude has emphasized gender equality and women empowerment (GEWE) in ASGM before.

The project will formally measure whether and how any scaling up has been achieved. This will be undertaken via qualitative indicator OC5.1 within the project results framework: *‘extent to which project-generated knowledge is applied in non-project areas’*. The project’s independent mid-term and terminal evaluations will formally report on progress against this indicator, with any results and learning to be shared with planetGOLD.

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### **Sustainability**

The jurisdictional approach also provides the basis for sustainability in the selected territory as the local authorities and productive actors present in the territory will be engaged via a multi-stakeholder platform that should allow for consolidating the positive changes envisaged.

Additionally, the sustainability of the results will be achieved through the strengthened regulatory framework, the financial mechanism, and the knowledge management put in place by the project which would go beyond the project’s lifecycle.

Furthermore, the economic benefits of mercury-free technology in ASGM cannot be overemphasized and this will ensure sustainability. These benefits will be achieved through the adaptation of efficient

mercury-free technologies and consequent higher gold recovery and responsible supply chains that will ensure access to formal markets and better prices.

Mercury-free technologies such as the gravitational, cyanidation, and direct smelting technique do not use any mercury; instead, it utilizes non-toxic, cheap chemicals like borax, sodium carbonate, and silica sand. The process is cheap, quick, suitable for processing small batches of concentrate and the input materials are accessible. It can be used for all types of ores and it has a recovery rate of 99.9 percent thereby giving a higher yield at a cheaper financial input.

Human health consequences from mercury pollution manifest in not only the loss of well-being, pain, and suffering, but also privately-captured medical expenses, and loss in worker productivity which in turn has important economic consequences. Increased health benefits from mercury reduction through the use of mercury-free technology as well as better mercury management can result in lower costs for hospitals or wider health care operations, not to mention avoided productivity losses attributable to mercury poisoning.

When considered a source of resources, an investment with positive returns, a flow of vital goods and services, the environment can be considered as natural capital that generates valuable goods and services that not only support human life, but also productive livelihoods. An environmental asset base is constructed of healthy, productive ecosystems which generate economically important goods such as timber, fisheries, minerals, etc., and services.

In many cases, mercury-containing tailings from ASGM activities are dumped into or besides bodies of water, and this results in the contamination of soil, rivers, stream, ponds, and lakes for long periods, posing a threat to water quality, forestry and biodiversity, and ecosystem functioning. The conflict between miners and other non-mining community members because of incompatibilities in land use between polluting mining activities and other natural-based livelihoods, such as agriculture or aquaculture production. This level of contamination can impact negatively livelihoods from agriculture and aquaculture within the community. This loss can simply be avoided by the application of mercury-free technology.

Importantly, the intervention is designed to constantly engage with stakeholders to ensure transfer of technologies and knowledge, commitment and ownership, increasing thus the sustainability of the project outcomes beyond project completion.

## **Potential for scaling up**

Out of 15 Madagascan regions where there is active ASGM, the NAP identified 4 regions where mercury is used in informal gold mining, and 11 specific sites where mercury use is prevalent. This project analysed all 11 of those sites plus one additional, newly identified site (Antanimbary) which has a high population of artisanal miners that use a high quantity of mercury during gold extraction. Given that following site shortlisting and selection the project only focuses on 4 sites, there is clear potential for scaling-up the project to other areas in the country, including any 'new' areas where mercury use may be emerging. This project can serve as a test-bed and offers an opportunity to learn, refine and improve approaches prior to any wider roll-out across the rest of the country. Similarly, the project provides a space to develop and bed-in institutional capacities and processes, thereby ensuring a stronger foundation is in place to support any scaling-up.

The project will formally measure whether and how any scaling up has been achieved. This will be undertaken via qualitative indicator OC5.1 within the project results framework: *'extent to which project-generated knowledge is applied in non-project areas'*. The project's independent mid-term and terminal evaluations will formally report on progress against this indicator, with any results and learning to be shared with planetGOLD.

The results, particularly the successful demonstration of Mercury-free technologies, will be documented and compiled in the project platform allowing beneficiaries and other relevant stakeholders, including other countries, to benefit from the knowledge produced and experiences generated.

The extensive capacity-building and awareness-raising activities are also designed to contribute to scaling up. In particular, the development and inclusion of training materials/toolkits in national and local languages will ensure further uptake of new tech and knowledge.

Ideally, the jurisdictional approach could be applied in other identified jurisdictions or landscapes, allowing for replication of experiences incorporating the lessons learned.

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[1] Ministry of Environment, Ecology and Forests Madagascar, ASGM National Action Plan Madagascar, year 2018

[2] [The Guardian, 2016](#)

[3] <http://www.midi-madagasikara.mg/economie/2016/01/23/revelations-des-nations-unies-600-kg-dor-exportes-illegalement/>

[4] Edge Effects, 2021, Available [here](#).

[5] Manual for developing strategies for formalising the ASGM, within the framework of the National Action Plans - UNIDO/Global Mercury Partnership/UNITAR

[6] WFP, 2006, Available [here](#).

[7] Based on field visits of the sites

### **1b. Project Map and Coordinates**

**Please provide geo-referenced information and map where the project interventions will take place.**

A critical task during the PPG process was the shortlisting, assessment and selection of project sites. As noted above, the ASGM NAP identified 4 regions where mercury is used, and 11 specific sites within those regions where mercury use is prevalent. These 11 sites (plus the newly identified Antanimbary site) provided the shortlist for the project, from which only 4 sites were to be selected, given the project's resource window. In the first instance a desk-based analysis compiled relevant technical, environmental, socio-economic and organisational data. Fortunately, the lifting of COVID-19 restrictions then enabled site visits to take place, whereby secondary data was validated and additional primary data was gathered. This included direct consultations with miners, mining communities and relevant authorities in each location.

Sites were then characterised and prioritised according to the following selection criteria:

- ? Economic component:
- ? Economic potential of the site;
- ? Priority sectors and other opportunities;
- ? Market research;
- ? Economic profitability study;
- ? The issues and criteria for the implementation and development of mercury-free technology;
- ? Strategies for developing the use of mercury-free technology;

- ? List of tools and processes for supporting and selecting sites.
  
- ? Technical section
- ? Technical potential of the selected sites;
- ? Characterization of the site;
- ? Description of the environmental aspect and list of issues;
- ? Description of the socio-economic aspect and list of issues;
- ? Quantitative and qualitative description of artisanal miners while offering mercury-free technology;
- ? Identification of the needs of the selected sites.
  
- ? Organizational component
- ? Management mode of the selected sites;
- ? Institutional model for the management of selected sites if possible.

In addition to these, the GEF's exclusions criteria were also used, which are:

- Encroachment on the protection of critical habitats and biodiversity
- Involvement in involuntary resettlement
- Alteration, damage or removal of any cultural heritage and / or site
- Use of forced labor, trafficking or children
- Operation in areas where there are violations of humanitarian law
- Operating in areas where there is support for groups involved in corruption, money laundering or terrorist financing;
- Operation in areas where there is torture / human rights violations;
- Proximity to a conflict-affected and high-risk area (Annex II risk via the OECD DDG which requires immediate disengagement if identified)

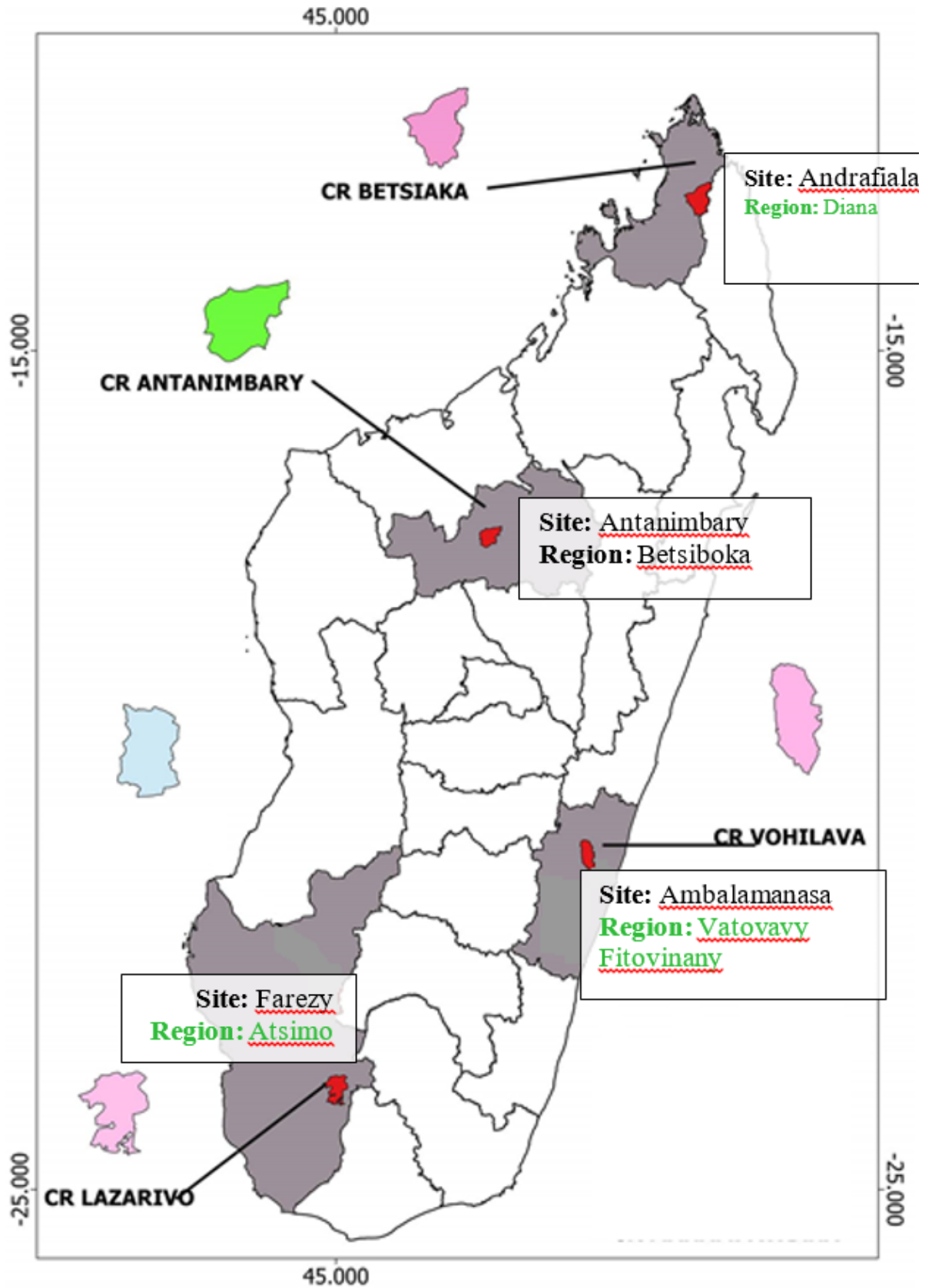
Links to war crimes, crimes against humanity or genocide (same reference as above).

Based on the above selection criteria ? and following validation that no sites failed the GEF exclusion criteria ? the following sites were selected:

*Table 16 : Characteristics of selected sites*

Region	Site	Geolocation ID	Gold produced per year (kg)		Mercury used per year (t)	No. gold miners	Population density (people/km <sup>2</sup> )
			Formal	Informal			
Vatovavy Fitovinany	Ambalamanasa	11941369	1,120	26.24	3.44	328	106.92
Diana	Andrafiava	11942103	400	11.84	1.24	292	1.99
Atsimo Andrefana	Farezy	11933184	840	22.80	2.52	563	26.00
Betsiboka	Antanimbary	11935117	560	12.62	1.72	312	1.55

Source: based on General Population and Housing Census 3 (2018), ASGM synopsis 2018



Source: [FTM, BD500](#)

Figure 4: Gold+ Madagascar Sites localisation

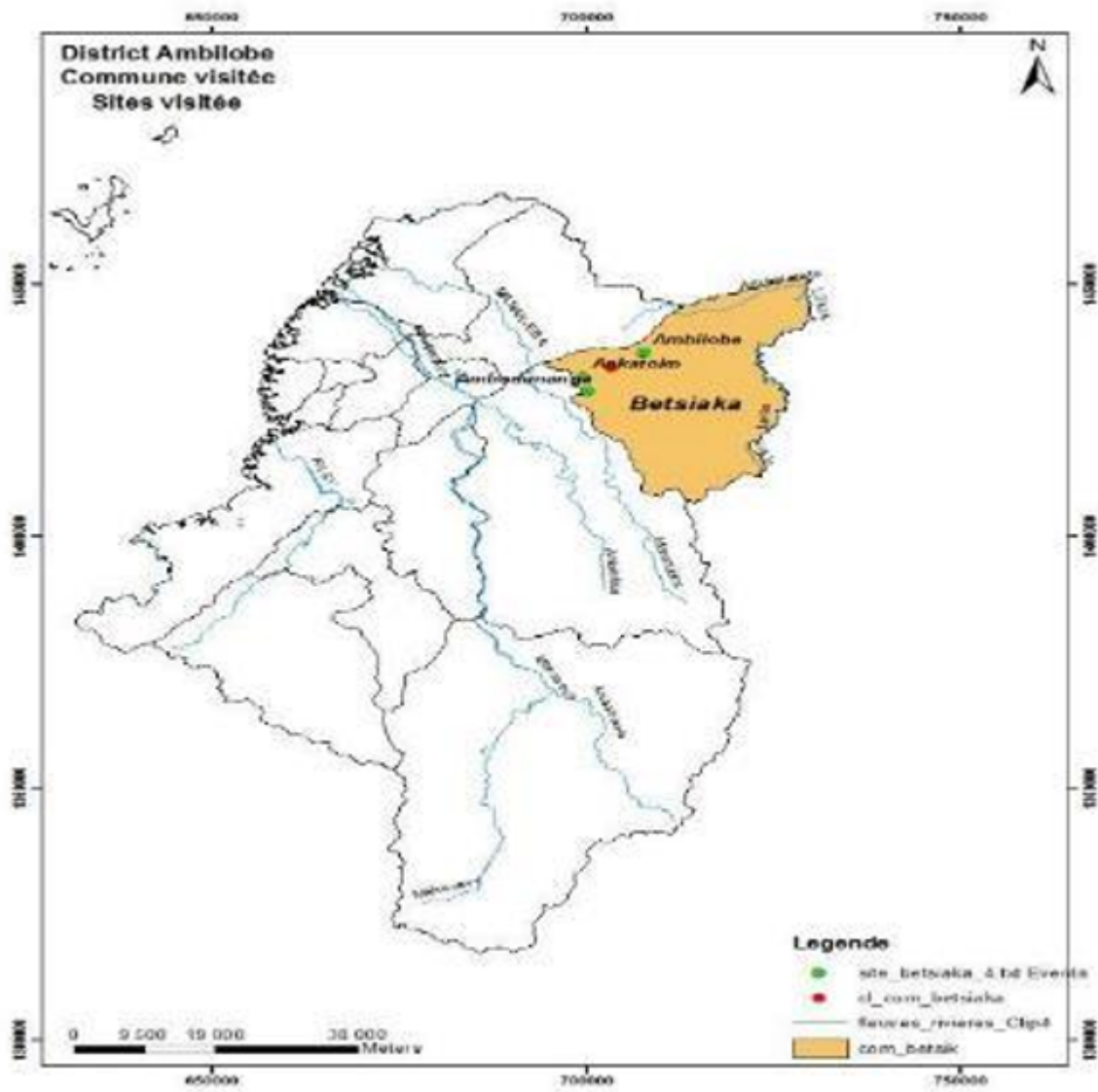


Figure 5: Location of Betsiaka in the district d'Ambilobe of DIANA region



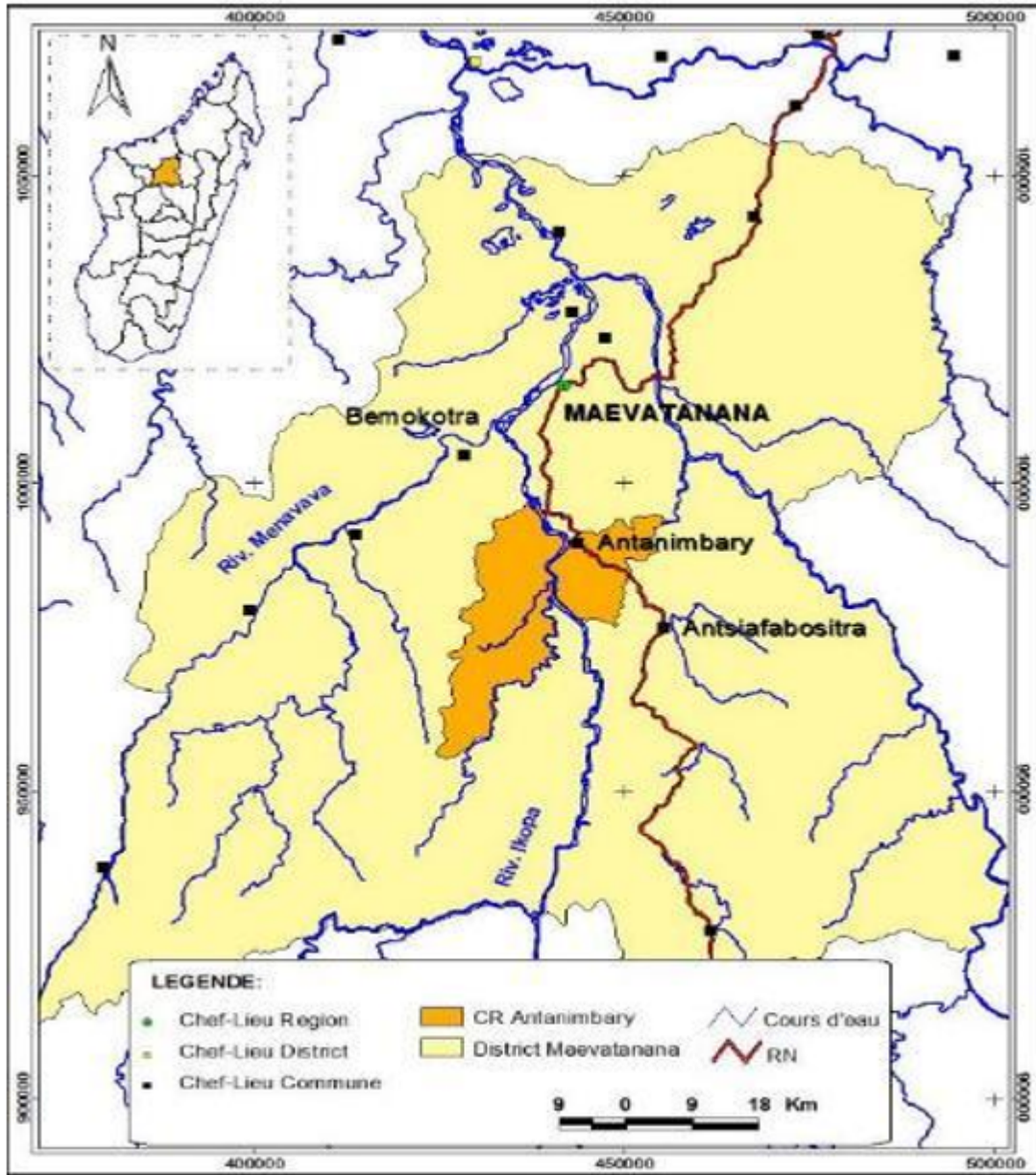


Figure 6: Location of Antanimbary in the district of Maevatanana in the Betsiboka region



Figure 7: Location of Antanjona, Ambaladara, Ambalamanasa, Ambodisaina (District of Mananjary - Vatovavy Fitovinany region)

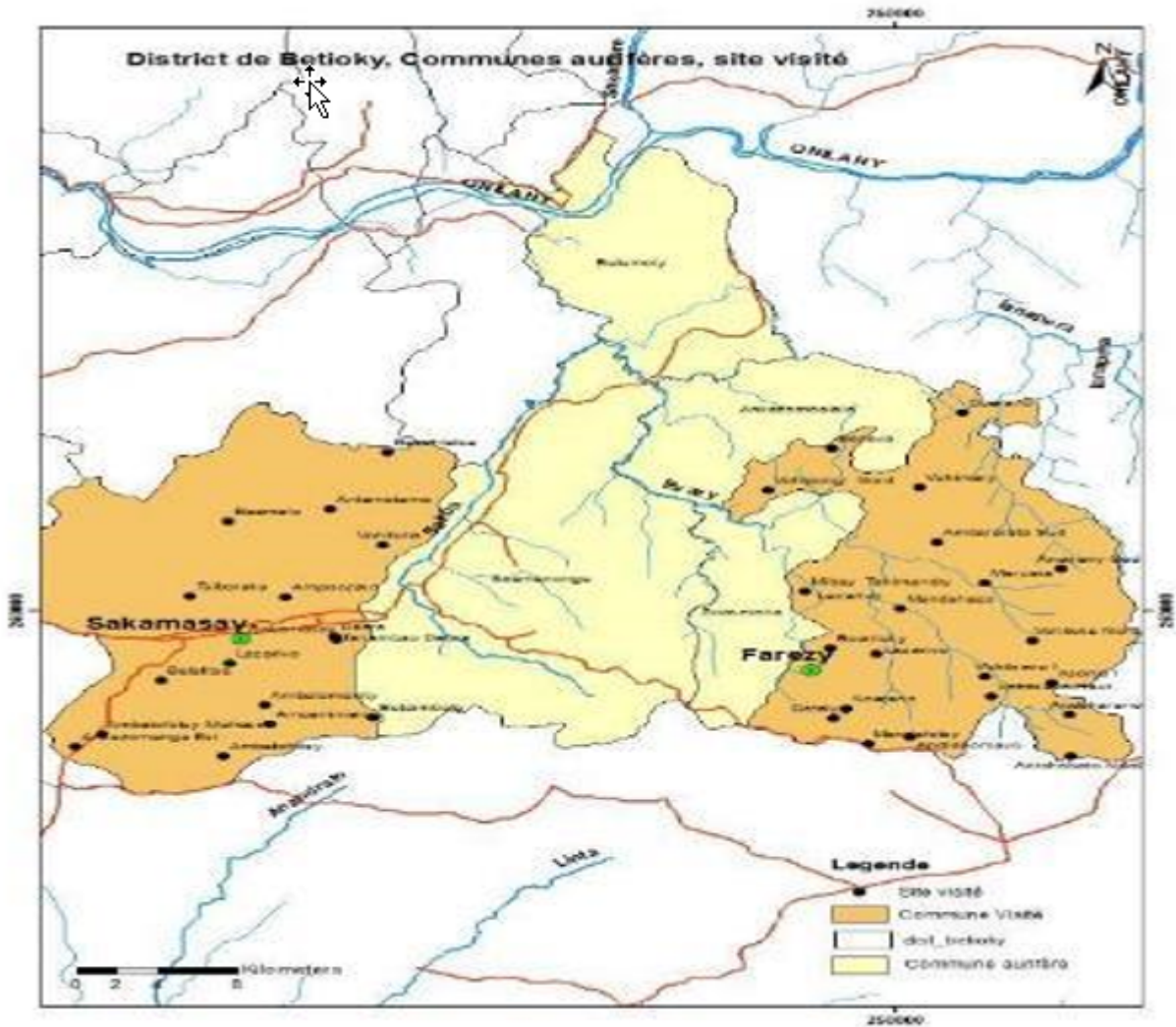


Figure 8: Location of Farezy in the district of Betioky of the region Atsimo Andrefana

### 1c. Child Project?

**If this is a child project under a program, describe how the components contribute to the overall program impact.**

The Madagascar project is firmly based on the parent GOLD+ model, applying the same overarching logic and the same core components of (i) enhancing formalisation, (ii) enhancing access to finance through financial inclusion and responsible supply chains, (iii) enhancing uptake of mercury-free technologies, and (iv) knowledge sharing, communication and local capacity building support. This headline structure has been contextualised to Malagasy conditions, in particular taking into account the highly detailed NAP and the clear, extensive opportunities for aligning project components, outcomes, outputs and activities with NAP priorities and strategies.

The project results framework ensures that GOLD+ Madagascar will be able to monitor and report against mandatory GOLD+ and planetGOLD program indicators, as follows:

*Table 17: Aligement GOLD+ Madagascar indicators with planetGOLD / GOLD+ program indicators*

planetGOLD / GOLD+ program indicators		GOLD+ Madagascar indicators
Tons of mercury avoided	>>>	IM1: Quantity of mercury reduced (disaggregated by reduced, avoided)
# of miners supported in their formalization processes	>>>	IM2: Number of direct beneficiaries (disaggregated by sex) OC1.1: Number of formal gold miner supported in the formalization process (sex-disaggregated)
Amount of gold produced without mercury	>>>	OC2.4: Amount of gold produced without mercury (kg)
Amount of mercury responsible gold sold to formal market		
\$ made available to ASGM through financial mechanisms	>>>	OC2.3: Amount of funds (in USD) made available to targeted ASGM through financial mechanisms
# of trainings (and # of participants) on jurisdictional and landscape approaches to strengthen formalization in ASGM	>>>	OP1B.1 Number of capacity building activities to support professionalization and regulation of the ASGM sector

## 2. Stakeholders

**Select the stakeholders that have participated in consultations during the project identification phase:**

**Civil Society Organizations** Yes

**Indigenous Peoples and Local Communities** Yes

**Private Sector Entities** Yes

**If none of the above, please explain why:**

Stakeholders are institutions, groups and individuals with a direct or indirect **interest** in the project and/or the ability to **influence** project outcomes, either positively or negatively.

The successful implementation of the GOLD+ project in Madagascar requires the collaboration and commitment of all stakeholders working in the artisanal and small-scale gold mining (ASGM) sector and mercury pollution control.

A large number of stakeholders/partners are identified to participate in the implementation of this project. They are the executive and legislative authorities, public and private institutions working in the field of EMAPE and mercury, international organizations, NGOs, civil society, groups, associations (women, gold miners, etc.) and individuals with a direct or indirect interest in the project who have the capacity to influence the results of the project, either positively or negatively

Indeed, significant and systematic efforts are needed to manage information in stakeholder coordination and make it available to potential users such as the Gold+ program.

Gaps can be filled through the establishment of stakeholder coordination that encourages the creation, sharing and effective application of knowledge to improve the Gold Project.

To coordinate these stakeholders to contribute and interact in the implementation of the GOLD+ project, a cross-sectoral and multidisciplinary committee will be created at the central level. This committee will guide, advise and validate the work plan of the stakeholders during the implementation of the project. Subsequently, the establishment of regional stakeholder representatives (CTDs, ANOR, technical services related to EMAPE, NGOs and civil society) is necessary to provide technical support and advice to gold miners and small-scale gold miners at the site level and the EMAPE community.

National experts are responsible for developing training, communication and awareness strategies as well as training of trainers for regional representatives.

*Table 18: Project GOLD+ stakeholder's roles*

**Stakeholder expectations and concerns**

The following interests, expectations and concerns were identified during stakeholder consultations held throughout the PPG phase.

*Table 19: Stakeholder expectations and concerns*

TYPE	GROUP	STAKEHOLDER	ROLE IN GOLD+ PROJECT
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Public entities	National Government	MEDD AND ITS REGIONAL BRANCHES	<ul style="list-style-type: none"> <li>- Ensure the coordination and the Management Unit of the Gold project during the implementation through the Minamata National Office (MNO)</li> <li>- Guide the development of the various strategies and regulatory texts</li> <li>- Oversee capacity building activities of all stakeholders to achieve project objectives</li> <li>- Facilitate the participation of stakeholders in the implementation of the project</li> </ul>
		MMRS AND ITS REGIONAL BRANCHES	<ul style="list-style-type: none"> <li>- Support and accompany gold miners and small-scale miners towards their formalization</li> <li>- Ensure the application of laws and regulations on the sites</li> </ul>
		MICA AND ITS REGIONAL BRANCHES	<ul style="list-style-type: none"> <li>- Support and accompany gold miners and smallholders in the formalization of groups and cooperatives</li> </ul>
		MTEFPLS AND ITS REGIONAL BRANCHES	<ul style="list-style-type: none"> <li>- Support and accompany gold miners and small-scale miners in the application of laws and regulations relating to social aspects and safety at work</li> </ul>
		MPPSPF AND ITS REGIONAL BRANCHES	<ul style="list-style-type: none"> <li>- Design various tools for the promotion of gender equality</li> <li>- To support and accompany gold miners and smallholders in the implementation of social protection measures (mutual health insurance, pension fund, etc.)</li> </ul>
		MEF AND ITS REGIONAL BRANCHES	<ul style="list-style-type: none"> <li>- Guide the development of the EMAPE sector's financial inclusion strategy</li> <li>- Support and accompany gold miners and smallholders in financial education and taxation</li> </ul>

		MSANP AND ITS REGIONAL BRANCHES	<ul style="list-style-type: none"> <li>- Supervise and mobilize deconcentrated technical services for health monitoring and health education in the project's target sites</li> <li>- Support the design of strategy and implementation of communication tools on health risks and measures to be taken to eliminate them</li> </ul>
		MESRES Ecole Sup <sup>?</sup> rieure Polytechnique et Facult <sup>?</sup> des Sciences d <sup>?</sup> Antananarivo	<ul style="list-style-type: none"> <li>- Conduct research on technologies suitable for mercury-free gold mining techniques</li> <li>- Support the popularization of research results</li> </ul>
		MEAH AND ITS REGIONAL BRANCHES	<ul style="list-style-type: none"> <li>- Improve access to clean water and latrine facilities for gold miners</li> </ul>
		MID AND ITS REGIONAL BRANCHES	<ul style="list-style-type: none"> <li>- Supervise and mobilize the deconcentrated technical services for the implementation of the project (CTD)</li> </ul>
	Public Agencies	ANOR (National Agency for the Gold sector)	<ul style="list-style-type: none"> <li>- Supporting and coaching gold miners and small-scale miners in formalization</li> <li>- Support the popularization of regulatory texts</li> </ul>
		Central Bank of Madagascar	<ul style="list-style-type: none"> <li>- Coordinate in the area of gold purchase from the ASGM sector</li> <li>- Can support the formalization of ASGM</li> </ul>

International Organizations	Cooperation Agencies	UNIDO	<ul style="list-style-type: none"> <li>- Accountable to the funding partner (GEF) for the achievement of project outputs and outcomes.</li> <li>- Establish the contractual arrangement with the Implementing Agency</li> <li>- Responsible for the disbursement of GEF funds to the Implementing Agency (BNM) in accordance with the contractual agreement.</li> <li>- Provide technical support upon specific request from the Implementing Agency approved by the GEF, including international expertise.</li> <li>- Lead the implementation of project monitoring and evaluation</li> <li>- Ensure that knowledge and learning from planetGOLD informs the management of the GOLD+ Madagascar project; ensure that knowledge and learning generated by GOLD+ Madagascar is shared with planetGOLD</li> <li>- Member of the project steering committee</li> </ul>
		Conservation International	- Overall coordination of the GOLD+ program, supervision, monitoring and evaluation, reporting on progress (Uganda, Republic of Congo, Suriname, Honduras, Ghana, Bolivia, Nigeria, Madagascar)
		WHO	- Support the development of a public health strategy for the EMAPE sector
		USDOL/UNDP	- Coordinate MICA project and share lesson learn in particular in the area access to finance
		GIZ	- Transfer its experience on the formalization of the EMAPE sector
Private Sector	Mining Companies		



	Financiers	Local financial institutions and microfinance	- Financially support small-scale gold mining operations in the future if these financiers have a vision for gold mining with mercury-free technology
	Jewellers and associations	ABLEM	- Contribute to the improvement of the gold supply chain
	Manufacturing (blacksmiths, craftspeople)	VOHITRA ENVIRONNEMENT	- Support waste management at EMAPE sites
Civil Society Organizations (CSOs)	Non-profit	Civil Society Organization on Extractive Industries (OSCIE)	- Contribute to advocacy and awareness sessions for the extractive sector in Madagascar  - Support the GOLD project for the development of national skills in the extractive industries
		ONG TSANTA	- Contribute to the development and implementation of the strategy for the education of gold miners and smallholders on collective savings
	Gender-focussed	PLATEFORME NATIONALE FEMME, DEVELOPPEMENT DURABLE ET DE LA SECURITE ALIMENTAIRE (PNFDDSA)	- Support the project in the implementation of communication activities and advocacy sessions
	Environment-focussed	VOARISOA OBSERVATOIRE	- Contributing to the education and awareness of all stakeholders on the health and environmental risks associated with the use of mercury and chemicals
		CRAAD OI	- To question the government and the international community on the injustices perpetuated against gold miners and small-scale miners in terms of health, economy and environment
		Alliance Voahary Gasy	- To question the national government on the poor governance of natural resources

Academia	Universities	UMAGIS ? SAMIS	- Contribute to the development and implementation of communication, monitoring-evaluation and knowledge management strategies	
	Vocational Education and Training	ACOR Formation & Associ?s SARL	- Contribute to the business and tax education of actors working in the EMAPE sector	
TYPE	GROUP	STAKEHOLDERS	EXPECTATIONS / INTERESTS	CONCERNS
Public entities	National Government	MEDD AND ITS REGIONAL BRANCHES	<ul style="list-style-type: none"> <li>- Elimination of the use of mercury at the national level following the Minamata Convention</li> <li>- Safeguard and valorization of the environment and unique natural resources for the well-being of the Malagasy population and the sustainable development of the country</li> </ul>	- The NAP for the national elimination of mercury in the EMAPE sector aims to transform the sector into a pillar of the country's sustainable development.
		MMRS AND ITS REGIONAL BRANCHES	<ul style="list-style-type: none"> <li>- Development of the extractive sector, through the design and implementation of the</li> </ul> <p>General policy of the State in terms of mining and strategic resources</p>	- Formalization of gold miners and smallholders in the gold EMAPE sector
		MICA AND ITS REGIONAL BRANCHES	<ul style="list-style-type: none"> <li>- Supporting the competitiveness and development of small and medium-sized enterprises in compliance with</li> </ul> <p>respect of standards and quality</p>	- Development of cooperatives to improve the competitiveness of smallholders

		<p>MTEFPLS AND ITS REGIONAL BRANCHES</p>	<ul style="list-style-type: none"> <li>- Establishing a communication strategy with the social partners in order to maintain a sustainable social peace with the objective of improving working conditions and productivity;</li> <li>- Ensuring that labor market rules promote competitiveness while protecting workers' fundamental rights and social security</li> <li>- Designing and implementing strategies to support the upgrading and professionalization of rural occupations in order to eradicate extreme poverty and control the rural exodus</li> </ul>	<ul style="list-style-type: none"> <li>- Standardization of working conditions and professionalization of rural jobs</li> </ul>
		<p>MPPSPF AND ITS REGIONAL BRANCHES</p>	<ul style="list-style-type: none"> <li>- Improvement of the socio-economic conditions of the population, implementation of mechanisms for the protection and promotion of women, gender and minorities, design and coordination and implementation of a general policy framework for social protection for households in vulnerable situations</li> </ul>	<ul style="list-style-type: none"> <li>- Reduction of social exclusion</li> <li>- Access to basic social services for the poor and vulnerable population</li> <li>- Promotion of human rights</li> </ul>

		MEF AND ITS REGIONAL BRANCHES	<ul style="list-style-type: none"> <li>- Coordination of the Government's financial inclusion policy</li> <li>- Control and collection of fiscal resources</li> </ul>	<ul style="list-style-type: none"> <li>- Access to financial inclusion for gold miners and smallholders</li> <li>- Formalization of the gold supply chain</li> </ul>
		MSANP AND ITS REGIONAL BRANCHES	<ul style="list-style-type: none"> <li>- Equitable access to quality health care for the entire population through the implementation of Universal Health Coverage strategies</li> </ul>	<ul style="list-style-type: none"> <li>- Access to community care in the EMAPE area</li> </ul>
		MESRES Ecole Sup?rieure Polytechnique et Facult? des Sciences d?Antananarivo	<ul style="list-style-type: none"> <li>- Valorization of the products of the scientific research by the creation of an entrepreneurial strategy (Promotion of the Economy), in order to realize at its best level of exploitation of the products resulting from this research</li> </ul>	<ul style="list-style-type: none"> <li>- Access by gold miners and small-scale miners to appropriate and effective technologies and equipment for their trade at affordable costs</li> </ul>
		MEAH AND ITS REGIONAL BRANCHES	<ul style="list-style-type: none"> <li>- Guarantee access to water, sanitation and hygiene services for all and ensure sustainable management of water resources</li> </ul>	<ul style="list-style-type: none"> <li>- Access to water, sanitation and hygiene services for gold miners and smallholders</li> </ul>
		MID AND ITS REGIONAL BRANCHES	<ul style="list-style-type: none"> <li>- Support and accompaniment of decentralized territorial communities (CTD)</li> </ul>	<ul style="list-style-type: none"> <li>- Access of gold miners and smallholders to CTD services</li> </ul>

	Public Agencies	ANOR (National Agency for the Gold sector)	<ul style="list-style-type: none"> <li>- Formalization of the gold sector and reduction of negative socio-economic and environmental impacts to increase export revenues and ensure local development</li> </ul>	<ul style="list-style-type: none"> <li>- Promotion and regulation of the gold sector with other stakeholders</li> <li>- Management and harmonization of the gold sector</li> <li>- Harmonization of the gold sector in order to ensure better traceability of gold and thus improve the revenues generated by gold activities both at the level of the Communities and the State's portfolio</li> <li>- Administrative monitoring of operators' activities</li> <li>- Strengthening the control system for gold</li> <li>- Supervision of the Communes for a local management</li> </ul>
		Central Bank of Madagascar		
International Organizations	Cooperation Agencies	UNIDO		
		Conservation International		

		GIZ	<ul style="list-style-type: none"> <li>- Environment, biodiversity and natural resources (PAGE: Programme d'Amélioration de la Gestion Environnementale)</li> <li>- Adaptation of agriculture to the consequences of climate change and food security</li> <li>- Renewable energies and energy supply</li> </ul>	- Improvement of Environmental Management in the EMAPE sector
		USDOL/UNDP	- Coordination of work in order to increase efficiency and effectiveness of their MICA project	
Private Sector	Financiers	Institutions financières locales et de microfinances	- Development of financial trade	- Access to financial inclusion for gold miners and smallholders
	Jewellers and associations	ABLEM	- Formalization of the sector and the profession	- Formalization of the sector and the profession
	Manufacturing (blacksmiths, craftspeople)	VOHITRA ENVIRONNEMENT	- Promotion of waste management in general and recycling where possible	- Elimination of health and environmental risks associated with waste
Civil Society Organizations (CSOs)	Non-profit	Civil Society Organization on Extractive Industries (OSCIE)	- Development of the extractive sector in Madagascar	- Transfer of skills to the extractive industries sector
	Local development-focussed	ONG TSANTA	- Elimination of financial exclusion of rural communities	- Financial inclusion of the EMAPE sector community

	Gender-focussed	PLATEFORME NATIONALE FEMME, DEVELOPPEMENT DURABLE ET DE LA SECURITE ALIMENTAIRE (PNFDDSA)	<ul style="list-style-type: none"> <li>- Consultation and mobilization within women's movements</li> <li>- Promotion of legal knowledge on women's rights</li> </ul>	<ul style="list-style-type: none"> <li>- Elimination of the exclusion of women from activities in the sector</li> </ul>
	Environment-focussed	VOARISOA OBSERVATOIRE	<ul style="list-style-type: none"> <li>- Promotion of Sound Management of toxic chemicals (pesticides, persistent organic pollutants, municipal waste, hospital waste, industrial chemicals)</li> </ul>	<ul style="list-style-type: none"> <li>- Raising community awareness of the health and environmental risks associated with the use of chemicals and supporting their sound management</li> </ul>
		CRAAD OI	<ul style="list-style-type: none"> <li>- Promotion of sustainable development alternatives centered on the realization of human rights and based on the principles of gender equality and social, economic and ecological justice</li> </ul>	<ul style="list-style-type: none"> <li>- Struggle for the defense of human rights and dignity and for the assurance of social and ecological justice</li> </ul>
		Alliance VOAHARY GASY	<ul style="list-style-type: none"> <li>- Promotion of good environmental governance for the benefit of the local population and the future generation</li> </ul>	<ul style="list-style-type: none"> <li>- Fight against all forms of bad governance of natural resources</li> </ul>
Academia	Universities	UMAGIS - SAMIS	<ul style="list-style-type: none"> <li>- Promotion of quality education for academics through the network of Jesuit schools in Madagascar</li> </ul>	<ul style="list-style-type: none"> <li>- Promotion of the quality of study</li> </ul>
	Vocational Education and Training	ACOR Formation & Associ?s SARL	<ul style="list-style-type: none"> <li>- Transfer of commercial and fiscal competences</li> </ul>	<ul style="list-style-type: none"> <li>- Promotion of commercial and tax knowledge</li> </ul>

Please provide the Stakeholder Engagement Plan or equivalent assessment.

## Stakeholder engagement program

Ongoing consultation and engagement activities to be undertaken during project implementation.

*Table 20: Stakeholder engagement program*

## Stakeholder engagement during PPG phase

Below is a record of consultations already undertaken as part of the PPG phase.

In short, the consultation sessions include:

- 11 technical meetings and workshops (including one inception and one final validation workshop)
- 71 bilateral meetings
- 20 individual interviews
- 01 survey on the banking sector (sent to 13 banks and microfinance organizations).

*Table 21: Summary of the key activities under stakeholder engagement during PPG phase (the names and contact details of the meeting participants and the full list of meetings could be found in Annex Stakeholder Engagement Plan)*

<b>TYPE</b>	<b>GROUP</b>	<b>PURPOSE OF ENGAGEMENT / TYPE OF INFO TO BE DISCUSSED</b>	<b>PLATFORMS (FREQUENCY)</b>
Public entities	National Government	Project implementation status	Steering Committee meetings (Semestrial)
		Lessons learned	Result diffusion meeting (Annual)
	Public Agencies	Lessons learned	Result diffusion meeting (Annual)
		Consultant works? validation	Meeting/workshop (quarterly)



International Organizations	Cooperation Agencies	Project implementation status	Steering Committee meetings (Semestrial)
Community-based organizations (CBOs)	ASGM Groups Formal & informal, including family groups, seasonal groups, itinerant groups etc.	Attending sensibilisation, formation	Depend on the planning
	Community-based mining companies	To be established	Depend on the planning
	Women's groups	Attending sensibilisation, formation	Depend on the planning
Civil Society Organizations (CSOs)	Non-profit	Consultant works? validation	Meeting/workshop (Depend on the planning)
	Local development-focussed	Consultant works? validation	Meeting/workshop (Depend on the planning)
	Gender-focussed	Consultant works? validation	Meeting/workshop (Depend on the planning)
	Environment-focussed	Consultant works? validation	Meeting/workshop (Depend on the planning)
Academia	Universities	Consultant works? validation	Meeting/workshop (Depend on the planning)
	Vocational Education and Training	Consultant works? validation	Meeting/workshop (Depend on the planning)

MEETING	LOCATION (DATE)	PARTICIPANTS (MAIN POINT OF CONTACT)	KEY DISCUSSION POINTS	RESPONSES TO ISSUES RAISED, INCLUDING COMMITMENTS OR FOLLOW-UP ACTIONS
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Meeting of the Technical Minamata Committee	CNEAGR-NANISANA (29 June 2021)	<p>Participants:</p> <p>Female = 12</p> <p>Male = 13</p> <p>Total = 25</p>	<p>- Validation of the Institutional Arrangement of the GOLD+ project, of the monitoring evaluation Plan and the stakeholder's participation Plan</p>	<p>The Ministry of Environment and Sustainable Development constitutes the Project implementation Agency through the National Minamata Office or Bureau National Minamata (BNM) which will assure the Project Management Unit of the GOLD + Project in Madagascar.</p>
				<p>UNIDO will be the GEF Executing Agency which works closely with MEDD/BNM.</p>
				<p>The Ministry of Mines and ANOR constitute the strategic partners of MEDD during the implementation of the GOLD + project.</p>
				<p>It was decided during this meeting that the monitoring of project activities will be carried out every six months and the mid-term and final evaluations at the end of the project will be realized.</p>
				<p>A large number of stakeholders / partners are identified to participate in the implementation of this project, such as the executive and legislative authorities, public and private institutions working in the ASGM sector and mercury problem, international organizations, NGOs, civil society, groups, associations</p>

Official PPG Launch Workshop	HOTEL COLBERT  (12 July 2021)	Participants:  Female = 30  Male = 35  Total =65	- Objective and content of the GOLD+ program  - Schedule of activities for the elaboration of the project's PPG document  - Stakeholders contributing to the implementation of the project	- Workshop participants are familiar with the objectives and implementation of the Minamata Convention on Mercury in Madagascar  - The participants know the content of the GOLD+ program  - The schedule of activities for the development of the project's PPG document is communicated to participants  - Participants are informed about the stakeholders contributing to the implementation of the project
Stakeholders? mobilization meeting	CNEAGR-Nanisana (14 May 2021)	Participants :  Female = 12  Male = 28  Total = 40	- Mobilization of stakeholders to participate in the implementation and co-financing of the project	- Willingness of stakeholders to participate in the implementation of the project
Meeting of the technical Minamata committee	CNEAGR Nanisana (09 April 2021)	Participants:  Female = 11  Male = 13  Total =24	- Validation of the ToR of the national consultants of the GOLD+ Project	- TOR of the national consultants of the GOLD+ Project validated

Meeting of the technical Minamata committee	11 June 2021	Participants: Female = 11 Male = 14 Total =25	- Validation of the work of the national experts on the development of the ProDoc document of the GOLD+ project	- The Committee's main recommendations: to set up a research unit on mercury-free technology in order to produce the necessary materials at the national level; to know exactly the gold reserves at the national level by sending a request to BRGM France, which has been working in Madagascar for about ten years
Meeting with UNDP Madagascar	9 June 2021	UNDP (1), UNIDO (3) 3 female 1 male Total: 4	Possible collaboration with the MICA USDOL _ UNDP project	Need more information to identify potential area of collaboration and co-financing. Once a draft log frame is available it will shared with them.
Collection of information from Microfinance and Commercial Banks of Madagascar (Finance expert)	05 May 2021 13 May 2021	OTIV TANA / SMMEC		The gold counter is not yet in place, which is an indispensable entity for the regularization of the gold market  No form of partnership can be envisaged as long as the EMAPE formalization process has not yet been completed
Consultation MEF/CNFI (expert Finances)	20 May 2021	Ministry of Economy and Finance/National Coordination of Inclusive Finance (CNFI)	Information on CNFI's roles in the implementation of the SNIF and the sectoral strategy affecting the EMAPE-gold sector	CNFI wants to be involved in the implementation of EMAPE's financial inclusion strategies and could provide EMAPE's financial education outreach officers to the Project

<p>Consultation ANOR (expert on Finances, Site selection, Technology, Formalisation process, Environmental and Social Expert)</p>	<p>Meeting on 20 May 2021 and phone calls</p>	<p>MMRS / ANOR</p>	<p>Functions and Responsibilities of ANOR to promote the gold industry</p>	<p>ANOR's involvement in the project will consist of a contribution to the implementation of the objectives, notably component 1 of the project on the strategy of formalization of the gold miners by integrated approach</p> <p>ANOR can contribute in the training of the gold panners until the follow-up of the realization of the management plan of the project and sensitize the operators to opt for the formal</p> <p>To promote the activity of the gold sector by supporting (administrative and technical) the operators for their professionalization and to increase their production capacity by offering scientific and technical expertise.</p> <p>Implementation of the Malagasy government policy concerning the gold sector by carrying out a formalization program, support for decentralized local authorities and professionalization of gold mining, collection, marketing, processing and export activities gold.</p>
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<p>Consultation MMRS (expert Finances, Site selection, Hg Technology)</p>	<p>6, 12, 14, 20 May 2021</p>	<p>Environment and Security Resources Department (ESRD)</p>	<p>Contribution to the development of the environmental component of the project</p>	<p>In view of the area of competence of the DRES, it cannot deal with the EMAPE</p> <p>Involvement of local authorities in the design and implementation of the project: awareness, monitoring-evaluation and learning from the project. Activities to promote Hg-free technology could include:</p> <ul style="list-style-type: none"> <li>- Sensitization of small-scale illicit miners to comply with the texts and standards in force</li> <li>- Support and accompaniment of small-scale miners in the preparation of files in accordance with the laws and decrees (constitution of a group of small-scale miners and/or gold miners)</li> <li>- Training on technical, environmental and fiscal standards</li> <li>- Technical assistance to artisanal miners or small-scale miners</li> <li>- Awareness, information and training on the use of mercury-free technology</li> <li>- Capacity building on mercury-free mining techniques to improve production and be more environmentally friendly</li> <li>- Identification of appropriate themes</li> </ul>
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Consultation ACOR Formation & Associ?s SARL (expert Finances)	12 May 2021 20 May 2021	ACOR Formation & Associ?s SARL	Capacity building of the actors involved in the gold sector	ACOR Training wants to contribute to the business and fiscal education of minors in the EMAPE sector
Consultation ONG TSANTA (expert Finances)	11 May 2021 27 May 2021	ONG TSANTA	The Tsinjo Aina program could serve as a funding model for the EMAPE gold chain	The NGO TSANTA wants to contribute to the implementation strategy of actions related to collective savings
Consultation U-MAGIS / SAMIS-ESIC (expert Finances)	05 May 2021	U-MAGIS / SAMIS-ESIC	Information on the UMAGIS group in order to integrate it as a stakeholder in the Gold+ project and particularly on the implementation of activities related to financial inclusion	<p>The partnership with the UMAGIS group via SAMIS-ESIC for the implementation of the project is summarized as follows</p> <ul style="list-style-type: none"> <li>- Development and implementation of the strategic communication plan in all its forms (media - organizational - social)</li> <li>- Development and implementation of the monitoring and evaluation strategy (from design to data collection)</li> <li>- Development and implementation of the knowledge management strategy</li> <li>- Development and implementation of a strategic plan for EMAPE's training in financial inclusion</li> </ul>

Consultation MSP (expert Selection sites, Gender expert)	13 May 2021	HEALTH AND ENVIRONMENT DEPARTMENT (HENV)	Involvement of the MSP in the project	As a member of the committee, MSP's willingness to be involved in the coordination, facilitation, and implementation of interventions within the health sector
Consultation Chambre de Commerce Mananjary (expert Selection sites)	19 May 2021	CHAMBRE DE COMMERCE MANANJARY	Collection of information and recommendations for the proper implementation of the Gold+ project  Involvement of the Chamber of Commerce in the project	The Mananjary Chamber of Commerce wants to be involved in all stages of the project life cycle:  - Development and implementation of the strategic communication plan in all its forms (media - organizational - social)  - Development and implementation of the monitoring and evaluation strategy (from design to data collection)  - Development and implementation of the strategy of knowledge management, formalization and environmental and social protection.  - Financial inclusion
Consultation OSCIE (expert Selection sites, Gender expert)	26 April 2021  01 May 2021	OSCIE	Involvement of OSCIE in the implementation of the project	OSCIE is ready to contribute to the success of the project through its expertise and its network: capacity building, advocacy



Consultation SAF/FJKM (expert Selection sites)	14 May 2021	SAF/FJKM	Involvement of the SAF/FJKM in the implementation of the project	SAF/FJKM is ready to contribute to the success of the project through its expertise and its network, particularly in the training and support of ASGM communities in several areas: food security and nutrition, EAH, AVEC/VSLA (village savings and loan association), governance, community health
Consultation Commune Rurale Vohilava (expert Selection sites)	25 May 2021	Rural Commune Vohilava	Involvement of the Vohilava Rural Commune in the implementation of the project	Involvement of local authorities in the design and implementation of the project  Willingness of the stakeholder to join the project
Consultation Ecole Supérieure Polytechnique (expert Tech sans Hg)	30 April 2021 04 May 2021 14 May 2021	ESPA	Involvement of ESPA in the implementation of the project	Orientation of the training of engineers in the research, application and development of gold ore processing

<p>Consultation with ASSOCIATION OF MINING ENGINEERS OF MADAGASCAR (AMEM) (expert Tech sans Hg)</p>	<p>07 May 2021 14 May 2021</p>	<p>ASSOCIATION OF MINING ENGINEERS OF MADAGASCAR (AMEM)</p>	<p>Involvement of AIMIMA in the implementation of the project</p>	<ul style="list-style-type: none"> <li>- Study and design of sluices and other ore processing equipment.</li> <li>- Training of gold miners on mercury-free technology.</li> <li>- Monitoring and evaluation of the practice and profitability of the equipment in order to improve the extraction yield</li> <li>- Training and supervision of gold miners on prospecting and gold mining techniques and the environment</li> <li>- Training and supervision of gold miners on the technique of using sluices</li> </ul>
<p>Consultation with CONSORTIUM OF AGRI-FOOD LABORATORIES OF MADAGASCAR (CALM) (expert Tech sans Hg)</p>	<p>07 May 2021 14 May 2021</p>	<p>CONSORTIUM OF AGRI-FOOD LABORATORIES OF MADAGASCAR (CALM)</p>	<p>Involvement of the CLAM in the implementation of the project</p>	<ul style="list-style-type: none"> <li>- Contribution to the implementation of the quality approach in the EMAPE sector</li> </ul>
<p>Consultation with Faculty of Science, Earth and Environmental Sciences (expert Tech sans Hg)</p>	<p>06 May 2021 14 May 2021</p>	<p>Faculty of Science, Earth and Environmental Sciences</p>	<p>Involvement of the Faculty of Science in the implementation of the project</p>	<ul style="list-style-type: none"> <li>- Orientation of the training of scientists in the research, application and development of gold ore processing</li> <li>- Training of gold miners</li> </ul>

<p>Consultation CONSERVATION INTERNATIONALE (expert Formalisation)</p>	<p>17 May 2021</p>	<p>INTERNATIONAL CONSERVATION</p>	<p>1 - Has a harmonization exercise of fiscal regimes and policy frameworks for ASGM already been initiated by the IC?</p> <p>2- What concrete measures have been taken to eradicate the invasion of protected areas by ASGM actors, particularly gold miners, and to make them responsible for site restoration issues?</p>	<p>1. These points have not yet been concretely discussed, however, for the pilot zones where the Jurisdictional Approach (REDD+) has been initiated, the COS: Orientation and Monitoring Committee - Advisory Body with representatives of technical services at all levels where these issues could be raised.</p> <p>2. The concrete actions carried out to date are essentially related to : Awareness raising; Reinforcement of the physical presence in the field (patrols -Sustainable Development Agents + VNA (population representative) - Recording; Repression actions by the mixed control brigades</p> <p>3. Other: Problem of interpretation of texts: certain facts are interpreted as offenses in certain texts and these same facts are qualified as crimes in other texts; The practice of transactions (monetary) hinders the smooth running of judicial procedures of repression in terms of degradation of protected areas; The Governorate should be involved in the proximity management of the EMAPE d'Or sector</p>
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<p>Consultation of the Regional Office of the Mining Cadastre of Madagascar</p> <p>(BCMM)</p> <p>(knowledge management expert)</p>	<p>Telephone interview:</p> <p>-15 April 2021</p>	<p>Regional Director of the Mining Cadastre Office of Madagascar (BCMM)</p> <p>1 Man</p>	<p>Knowledge, practices and attitudes of gold miners in the Vatovavy Fitovavy Region</p>	<p>-Explanation on the management of the mining permit in this Region as well as to ensure the promotion of the Malagasy mining sector at the national and international level;</p> <p>-Discussion on the supervision of mining operations in this Region;</p> <p>-Vatovavy Fitovinany Region, gateway for mining investors in Madagascar and a platform for exchanges with national and foreign investors;</p> <p>-Clarification on the situation of EMAPE;</p> <p>Sharing of views on the formalization of the gold EMAPE sector</p>
<p>UMAGIS Consultation Graduate School of Information and Communication (Knowledge Management expert)</p>	<p>Individual interview:</p> <p>-05 May 2021</p>	<p>UMAGIS Graduate School of Information and Communication</p> <p>1 Man</p>	<p>Communication strategy, knowledge management.</p>	<p>-Discussions on monitoring and evaluation techniques; knowledge management strategies, training module development, behavior change, information techniques, education and mass communication.</p>

<p>Consultation with the Ministry of Population, Social Protection and Promotion of Women (Gender Expert)</p>	<p>Via Google meet :  -05 May 2021</p>	<p>1 Woman</p>	<p>-How does the stakeholder want to be involved in the project?</p>	<p>-The MPPSPF wants to be involved in the entire project life cycle (design/development - implementation - monitoring &amp; evaluation)</p> <p>It can be involved through (i) their Regional Directorate, which is based at the regional level and is in constant contact with all local stakeholders - state and non-state; and (ii) through the child protection network, which exists at the regional level and is led by the DRPPSPF.</p>
<p>GIZ Consultation (Gender Expert)</p>	<p>E-mails and telephone interviews:  -05 May 2021</p>	<p>3 Men</p>	<p>-How does the stakeholder want to be involved in the project?</p>	<p>-GIZ should be involved in all strategic discussions regarding the project. In other words, GIZ wants to be involved throughout the entire life cycle of the project.</p> <p>-The form of collaboration should be through a collaboration agreement.</p> <p>- GIZ can also provide sufficient funding for the implementation of the activities planned in PAGE Phase 2.</p>

<p>Consultation National Coalition of Women of Madagascar (CNFM) (Gender expert)</p>	<p>Telephone interview:  -30 April 2021</p>	<p>President of the National Coalition of Women of Madagascar</p>	<p>-How does the stakeholder want to be involved in the project?</p>	<p>-The CNFM wants to be involved in both coordination and implementation.</p>
<p>SAF/FJKM Consultation (Gender Expert)</p>	<p>Telephone and email interview:  -14 May 2021</p>	<p>National Director</p>	<p>-How does the stakeholder want to be involved in the project?</p>	<p>-SAF/FJKM can contribute to the implementation of the project by bringing its expertise and experience in community development by accompanying the targets in the development of their means of subsistence in a sustainable manner, improving food security and nutrition.</p> <p>-SAF/FJKM will also be able to support the targets in accessing financial services from the constitution of village savings groups and the establishment of relationships with MFIs.</p>

Consultation Commune Rurale Vohilava (Gender expert)	Individual interview: -25 May 2021	Mayor of the Rural Commune of Vohilava	-How does the stakeholder want to be involved in the project?	-The Vohilava RC is a key stakeholder in the implementation and achievement of the Gold+ project objectives  -The commune wants to be involved in all the steps and stages of implementation, including monitoring and evaluation activities and project learning.
Consultation Ministry of Public Health (Environmental and Social Expert)	Individual interview: -15 May 2021	Environmental Health Manager (EHM)	-How does the stakeholder want to be involved in the project?	MSANP implements: public health strategies on  ? Detection, surveillance, and management of mercury poisoning in affected populations; ? Development of sanitation services; ? Hygiene awareness; ? Health surveillance and prevention.
Consultation with the Service of Assistance to Artisanal Mines or SAMA (Environmental and Social Expert)	Interview : -18 May 2021	Head of the Service of Assistance to Artisanal Mines	-How does the stakeholder want to be involved in the project?	-SAMA wants to be involved in contributing to the implementation: Coordination, facilitation, implementation of interventions within the environmental and social sector according to the mining code.

In addition, provide a summary on how stakeholders will be consulted in project execution, the means and timing of engagement, how information will be disseminated, and an explanation of any resource requirements throughout the project/program cycle to ensure proper and meaningful stakeholder engagement

The diverse groups of stakeholders mean that there are different interests, levels of education on the ASGM sector, cultural norms, and values. Therefore, different approaches should be used to communicate with different stakeholders. Local communities and other economic actors within the selected jurisdiction will also be engaged for integrated land use planning, developing road maps and monitoring plans.

An Accountability and Grievance Mechanism (AGM) has been developed and describes how all stakeholders will be able to raise grievances and how these will be processed at the program level. To ensure stakeholders are aware and able to access the grievance mechanism: (i) A Grievances Form will be created on the PlanetGOLD website in multiple languages; (ii) Links to the Grievances Form will be added throughout the PlanetGOLD Website; (iii) A link to the Grievances Form will be included in the PlanetGOLD knowledge products; and (iv) The project will allow for anonymous grievances.

To ensure that the AGM is working effectively and efficiently, the AGM will treat all grievances confidentially and objectively ? to provide those with grievances a safe space to voice them. The AGM has established timelines for grievance responses. Adherence to these timelines will be monitored as part of the monitoring and evaluation of the project. The AGM outlines processes for how grievances will be handled by the project and which grievances are eligible. The AGM will be hosted in the planetGOLD website and administered by CI and UNEP.

If the resolution of the complaint is not possible at the program level, UNIDO encourages the utilization of the UNIDO grievance mechanism detailed in the Environmental and Social Management Plan.

The Project Execution Entity (PEE) will be notified and responsible for addressing the issue in line with the [UNIDO Environmental and Social Safeguards Policy](#).

The Stakeholder Engagement Plan will be consistent with the program guidelines.

**Select what role civil society will play in the project:**

**Consulted only; Yes**

**Member of Advisory Body; Contractor; Yes**

**Co-financier; Yes**

**Member of project steering committee or equivalent decision-making body;**

**Executor or co-executor;**

**Other (Please explain)**

The table below summarizes the civil society roles in the GOLD+ Project:



Table 22: Civil society roles in GOLD+ Project

TYPE	GROUP	STAKEHOLDER	ROLE IN GOLD+ PROJECT
Private Sector	Jewellers and associations	ABLEM	- Contribute to the improvement of the gold supply chain
	Manufacturing (blacksmiths, craftspeople)	VOHITRA ENVIRONNEMENT	- Support waste management at EMAPE sites
Civil Society Organizations (CSOs)	Non-profit	Civil Society Organization on Extractive Industries (OSCIE)	- Contribute to advocacy and awareness sessions for the extractive sector in Madagascar  - Support the GOLD project for the development of national skills in the extractive industries
		ONG TSANTA	- Contribute to the development and implementation of the strategy for the education of artisanal and small gold miners on collective savings
	Gender-focussed	PLATEFORME NATIONALE FEMME, DEVELOPPEMENT DURABLE ET DE LA SECURITE ALIMENTAIRE (PNFDDSA)	- Support the project in the implementation of communication activities and advocacy sessions
	Environment-focussed	VOARISOA OBSERVATOIRE	- Contributing to the education and awareness of all stakeholders on the health and environmental risks associated with the use of mercury and chemicals
		CRAAD OI	- To question the government and the international community on the injustices perpetuated against gold miners and small-scale miners in terms of health, economy and environment
		Alliance Voahary Gasy	- To question the national government on the poor governance of natural resources

In general, Civil Society Organisations are responsible for the advocacy and awareness sessions for the extractive sector, the question to the government and the international community on the injustices

perpetuated against artisanal gold miners in terms of health, economy and environment during the project.

Moreover, they contribute to the development and implementation of the strategy for the education of artisanal, small gold miners and the local community around the ASGM sites.

*Table 23 : Classification of Stakeholders*

<b>CLASSIFICATION</b>	<b>STAKEHOLDERS</b>
<b>Consulted only</b>	? ABLEM ? CRAAD OI ? Alliance Voahary Gasy
<b>Contractor</b>	? MMRS AND ITS REGIONAL BRANCHES ? MICA AND ITS REGIONAL BRANCHES ? MTEFPLS AND ITS REGIONAL BRANCHES ? MPPSPF AND ITS REGIONAL BRANCHES ? MEF AND ITS REGIONAL BRANCHES ? MSANP AND ITS REGIONAL BRANCHES ? MESRES (Ecole Sup?rieure Polytechnique et Facult? des Sciences d?Antananarivo) ? MEAH AND ITS REGIONAL BRANCHES ? MID AND ITS REGIONAL BRANCHES ? ANOR (National Agency for the Gold sector) ? VOHITRA ENVIRONNEMENT ? Civil Society Organization on Extractive Industries (OSCIE) ? ONG TSANTA ? PLATEFORME NATIONALE FEMME, DEVELOPPEMENT DURABLE ET DE LA SECURITE ALIMENTAIRE (PNFDDSA) ? VOARISOA OBSERVATOIRE ? UMAGIS ? SAMIS ? ACOR Formation & Associ?s SARL

<b>Co-financier</b>	<ul style="list-style-type: none"> <li>? MEDD AND ITS REGIONAL BRANCHES</li> <li>? MMRS AND ITS REGIONAL BRANCHES</li> <li>? MICA AND ITS REGIONAL BRANCHES</li> <li>? Civil Society Organization on Extractive Industries (OSCIE)</li> <li>? UMAGIS ? SAMIS</li> <li>? PLATEFORME NATIONALE FEMME, DEVELOPPEMENT DURABLE ET DE LA SECURITE ALIMENTAIRE (PNFDDSA)</li> <li>? VOHITRA ENVIRONNEMENT</li> <li>? VOARISOA OBSERVATOIRE</li> <li>? MSANP AND ITS REGIONAL BRANCHES</li> </ul>
<b>Member of project steering committee or equivalent decision-making body</b>	<ul style="list-style-type: none"> <li>? Ministry of Environment and Sustainable Development or Ministère de l'Environnement et du Développement Durable (MEDD), co-chair of the Steering Committee</li> <li>? National Office of Minamata or Bureau National Minamata (BNM) will assure the secretariat of the Steering Committee</li> <li>? UNIDO, co-chair of the Steering Committee</li> <li>? Ministry of Mines and the Strategic Resources</li> <li>? ANOR</li> <li>? Ministry in charge of trade</li> <li>? National Platform for Women, Sustainable Development and Food Security (PNFDDSA)</li> <li>? UMAGIS ? SAMIS ESIC University</li> </ul>
<b>Executor or co-executor</b>	MEDD AND ITS REGIONAL BRANCHES

### 3. Gender Equality and Women's Empowerment

#### Provide the gender analysis or equivalent socio-economic assesment.

Gender equality and the empowerment of women have a significant positive impact on sustainable economic growth and inclusive industrial development, which are key drivers of poverty alleviation and social progress. During the execution of the project, gender mainstreaming will be based on GEF's

**Policy on Gender Equality and UNIDO's Policy on Gender Equality and the Empowerment of Women.**

UNIDO recognizes that both men and women flourish in a wide range of roles in the ASGM primary and secondary economies, especially when operating in an enabling environment and when equipped with the right skill set. The project will provide alternatives to existing norms that currently limit the range of employment opportunities for women and men in the ASGM primary and secondary economies.

A detailed gender analysis was undertaken during project preparation, which then informed the development of a gender action plan (both documents uploaded to the portal). The project's design was subsequently closely informed by the gender analysis and action plan, with the identified gender considerations taken into account across all proposed activities and ? where appropriate ? standalone gender-focused activities incorporated into project design.

The participation of women in ASGM in Madagascar is considerable and has increased significantly in recent years, both as cooperative members, and informal workers although the exact number is difficult to estimate due to a lack of data. The impact of COVID-19 on women miners should be carefully analyzed. Most of the women have seen an increase in their workload both at the mining sites and at their households and are especially disadvantaged due to the lack of knowledge and skills on ICTs.

The project's results framework will gather sex-disaggregated data (both quantitative and qualitative) for all relevant indicators. However, the gender action also plan articulates a detailed gender results framework that will be used and monitored in tandem with the overarching project results framework. The gender results framework is more granular, focused on collecting data on workstreams and activities that have been identified as being specifically important for building gender equality. At the same time, the gender framework identifies key performance indicators that are aligned with ? and will be directly measured through ? the main project results framework:

*Table 24 : Alignment of Main results framework indicators with Gender action plan key performance indicators*

Gender action plan key performance indicators	Main results framework indicators
Number of women and men in decision-making positions in relation to project activities, by 2026	OC1.1: Number of gold miner supported in the formalization process (sex-disaggregated)
Number of formal gold miner groups supported with at least 40% female representation	

>>>

By 2026, percentage and number of women and men actively participating in consultations, workshops and training

>>>

OC4.1: Number of actors reached through project awareness raising and capacity development activity (sex-disaggregated)

**Does the project expect to include any gender-responsive measures to address gender gaps or promote gender equality and women empowerment?**

Yes

**Closing gender gaps in access to and control over natural resources;** Yes

**Improving women's participation and decision making** Yes

**Generating socio-economic benefits or services or women** Yes

**Does the project's results framework or logical framework include gender-sensitive indicators?**

Yes

#### **4. Private sector engagement**

**Elaborate on the private sector's engagement in the project, if any.**

The project is explicitly focused on private sector development and will engage extensively with private sector actors throughout the Malagasy gold supply chain, from individual gold miners to established exporters. Moreover, it will work with Government authorities that have responsibility for monitoring, supporting and regulating private sector operations and actors. Essentially, the whole project is geared towards private sector development, and will support national efforts to formalise the ASGM sector and bring more miners into the formal economy and formal private sector.

The private sector will actively involve in the GOLD+ project. This is especially the case in the Component 2 and 3. The private sector is engaged as a stakeholder during the implementation of the GOLD+ project. The private sector will contribute to the integration of environmental measures in its activities, as well as to the support of investments in the value chains of the mercury sector in Madagascar (component 2 and 3).

The project will engage with private companies potentially active in the Regions and districts concerned by the project to develop collaboration agreements and examine investment opportunities in the value chain of the Gold sector. In this case, the private sector entities will include local banks and other financial institutions with interests in investing in the gold sector, companies that may have the potential to invest in gold mining, etc. (component 2).

UNIDO has an MOU with Argor Heraeus, a gold refining company, to cooperate and make the ASGM sector and the international gold supply chain more transparent and responsible. Argor Heraeus is one of the world's largest processors of precious metals.. Argor is a partner with extensive experience in response sourcing from ASGM mines, traders, bullion houses, central and commercial banks, mints and jewellery and watch manufacturers, as well as industrial consumers worldwide. In Madagascar,

Argor Heraeus is exploring options to support the establishment of responsible supply chains, jointly with UNIDO, ANOR, and the central bank of Madagascar.

The involvement of private sector fabricators and suppliers of equipment can be explored to provide proper technologies along with capacity-building sessions for ASGM cooperatives on the operation and maintenance of the equipment. This capacity-building session can be in exchange for procurement and usage by the ASGM cooperatives thereby promoting environmental best practices.

Involvement of private financial sector actors through encouraging awareness on the ASGM sector and provision of incentives will be encouraged. They will progressively engage with ASGM operators and provide financial instruments in line with the needs of ASGM leading to potential investments.

Privately owned mines, leaching plants such as seen in Madagascar outside of the four target sites can be involved as possible drivers of adoption of mercury-free technological changes thereby ensuring best practices and local capacity are in place.

A private sector engagement strategy will be developed to transform the artisanal and small-scale gold mining sector in the concerned districts into a formalized and mercury-free sector.

The objectives of the Mining sector of the Government of Madagascar are to pursue the national program of economic reforms aimed at accelerating economic growth through public investments and private investment initiatives.

To address the main factors that hinder the improvement of economic growth and poverty reduction, Government actions must be framed by a policy centered on the participation of beneficiary communities and the private sector. The strategy is to reduce costs and increase productivity while minimizing the negative impacts of production on the environment and human health.

## 5. Risks to Achieving Project Objectives

**Elaborate on indicated risks, including climate change, potential social and environmental risks that might prevent the project objectives from being achieved, and, if possible, the proposed measures that address these risks at the time of project implementation.(table format acceptable):**

Table 25 : Risks and mitigation measures

Risk	Rating	Mitigation measures
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<b>COVID-19 risks</b>		
Mobility restrictions / lockdowns	Moderate	Remote working for the implementation of some of the project's activities, as well as the creation of virtual platforms for the dissemination of information to project stakeholders
Increase in COVID-19 cases at mining sites	Moderate	Rigorous planning for the site-based interventions, with implementation of strict biosafety protocols for all project personnel, including distribution of protective equipment
Lack of medical care and awareness at mining sites	Moderate	Deliver awareness programs at mining sites, partnering with local health services where possible
Pandemic reduces the viability of (and income from) gold mining	Low	Promote added value of responsible supply chains and build miner capacities to formalize and access those supply chains
<b>Climate change and environmental risks</b>		
Vulnerability to extreme climatic events	Low	Potential climate change impacts were considered during site selection and will be closely monitored during implementation
Water shortages due to climate variability	Low	The potential technologies initially identified during project preparation involve recycling of process water, with miners to be trained on improved water recycling techniques. This will not only prevent water loss but will reduce other related environmental impacts (prevention of downstream pollution).
Land degradation and deforestation due to mining activity	Moderate	Analysis during project preparation indicates that legislation round land rehabilitation is likely to be a priority action during the project. Any work on this will also include sensitization / training with miners to strengthen rehabilitation efforts.
Non site rehabilitation leading to social and individual risks	Moderate	Conduct training, awareness campaigns and social behaviour change communication to all stakeholders around the importance of environmental restoration.
Degradation of water and soil resources	Moderate	Legal literacy and awareness raising; strict law enforcement around use of mercury in ASGM; implement environmental restoration activities (such as reforestation).
Greenhouse gas emissions grow from fossil fuel use in ASGM	Low	Motivate beneficiary mining organizations to progressively implement electrical equipment and renewable energy sources whenever utilities are available
<b>Operational risks</b>		

Resistance of supply chain actors to formalization	High	Adopt participatory and awareness-raising approaches at the local level to make ASGM actors aware of the advantages of formalization. Increase enforcement of regulatory and legislative provisions or standards. Support local governance structures in order to improve supervision and product traceability.
Change in the political and/or economic situation that negatively impact the ASGM sector	High	Building on the national committee on mercury established for the NAP project, the Government of Madagascar will supervise the project execution as part of the PSC, ensuring thus commitment and alignment with national priorities. Continuous communication and updates will be provided to ensure institutional support both at the national and at the local level for the selected jurisdiction  The fluctuation of the international price of gold over the years had had little effect in the number of miners involved in the sector
Lack of coordination between key ministries, main stakeholders and various ASGM initiatives in the ground	High	There are several players working on many ASGM related projects and regular communication and coordination with them will be ensured, especially through the PSC meetings. Additionally, quarterly reports will be shared with relevant stakeholders
Veto of local authorities, lack of commitment from local authorities	Low	Support the public disclosure, on a disaggregated basis, of all information regarding taxes, duties and royalties that are paid to governments for the extraction, trade, processing, transport and export of minerals from areas of conflict or high risk. Inform government agencies at local and central level of any gaps in revenue collection and tracking; support capacity building training for these organizations so that they can effectively carry out their mission.
Lack of accessible financial institutions / Limited interest from financial institutions	Moderate	Establish and strengthen miner group capacity to organize collective savings. Encourage networks of existing financial entities to extend their network to rural areas. Support projects to set up microfinance institutions dedicated to the ASGM sector. Organize awareness and information sessions involving all potential players in the sector while highlighting the potential of the sector and the socio-economic impact that their investments will produce.
Conflicts within and between mining communities and native residents in the mining areas	Moderate	Prioritise development of conflict resolution processes (including legislation if necessary) as identified during project preparation stage. Strengthen monitoring and control systems within sites and strengthen capacity of monitoring authorities.



Corruption	Moderate	Develop warning mechanisms at the various stages of operations (at group level and at supply chain level) to identify suspicious behavior and activities. Maintain comprehensive list of all the actors; report behavior that raises suspicion of criminal activity to local, national, regional and international law enforcement agencies. Strengthen transparency by displaying the procedures and standards in force at the level of municipalities.
<b>Social risks</b>		
Continued disregard for the environmental and health impacts of existing mining activities	Moderate	Awareness raising activity will be tailored to different audiences: government, private sector, public. Increase enforcement of regulatory and legislative provisions or standards.
Prevailing cultural norms and practices (negative views on outsiders, resistance to change) prevent project activities	High	These risks will be mitigated through cultural orientation, community consultation, and miner-miner consultations. In addition, awareness-raising and incentives will be put in place to motivate bi-directional behavior changes (for project team and for miners)
Displacement of women and vulnerable groups through technologic changes	High	Implementation of new technologies will be accompanied by a gender impact assessment and corresponding mitigation measures
Economic displacement of informal sector workers through formalization of ASGM	Moderate	Communities/relevant experts and the informal sector will be engaged in the execution of the project's activities to ensure that activities provide new economic opportunities for informal workers.
Loss of jobs for intermediaries and mercury providers could lead to threats and/or criminal activities	High	Providing job opportunities in the formalized artisanal gold supply chain while assessing the mercury trade flows and related risks throughout the project lifecycle
Educational gaps such as illiteracy prevent meaningful engagement with project	Low	Tailor training / capacity development material and processes to each specific target audience.
Social conflict over the use of new equipment	Low	Participatory community meetings

Workers? safety during mining operation	High	Provision of appropriate personal equipment (PPE)
Failure to identify an appropriate investment model ensuring sustainability post-intervention	Low	Several options will be explored throughout the implementation of the project based on the local circumstances
Limited willingness of public and private financial institutions to coordinate	Low	Prioritization of work agendas on specific issues. Use of communication strategies that promote the importance of concurrence between actors
Lack of interest of intermediary financial institutions to implement financial products targeting ASGM	Very High	Raising awareness among intermediary financial institutions of the importance of these mechanisms for further deepening of the financial system
Language barrier communication/low education in the mining communities when training workshops take place	Low	The project will develop easy access and understandable information workshops prepared by local specialists that will maintain close communication with mining communities
Low absorption capacity of trainees on technical and difficult site accessibility	Moderate	To mitigate the risk, the project will employ skilled experts (local and international) to provide training and then hands-on guiding. As the project progresses, the participants trained under the project can offer their acquired expertise to peers. Concerning the accessibility, a prescreening of area, combined with proper budgeting, transportation arrangement and communication support mechanisms, will be applied
Gender-based violence (GBV)	Moderate	Legal literacy and rights dissemination (including human rights, women's and children's rights, law 2019-008 on GBV)  Law enforcement through exemplary sanctions
Insecurity	Moderate	Work with law enforcers to ensure security  Advocate for a better application of the social convention ?the dina?

An in-depth analysis of the different risks can be found in the Environmental and Social Management Plan (ESMP) that can be found in Annex G.

Additionally, the project team will ensure that all PlanetGOLD beneficiary mining entities conform with the PlanetGOLD Criteria for Environmentally and Socially Responsible Operations through the review of the PlanetGOLD Environmental and Social Risk Assessment Report and the Mitigation Report.

#### COVID-19 situation in Madagascar

As of November 2021, Madagascar had a total of more than 43,672 infections and 964 deaths. More than 606,819 vaccine doses were administered and 1.51% of the total population is fully vaccinated.[1]

Though the numbers of infections and deaths in Madagascar are lower than that of many other African countries, the economic consequences of COVID-19 are substantial, particularly on the two major sectors: tourism and mining. Countries with which Madagascar has the strongest trade links are most affected by the pandemic, including China, Italy, the United States, and France. In 2019, exports to these four countries, including mineral exports, account for 46% of Madagascar's total exports.[2] COVID-19 could reverse past progress in poverty reduction and deepen fragility within the Malagasy society. Before COVID-19, more than half of the population were classified as living below the national poverty line. In 2019, 58% of Malagasy men and 62% of Malagasy women lived in extreme poverty. In 2020, the numbers were 60% and 64% respectively.[3]

The informal sector, which employs more than nine out of ten workers and contributes to 24% of the GDP, is in critical distress. Informal workers, including artisanal and small-scale miners, who do not benefit from official social security coverage, suddenly lose their sole and daily sources of income, making lockdown an impossible option in the long run for them and their family's existence and well-being.

Malagasy female informal workers are more affected by COVID-19 than their male counterparts due to several factors. Firstly, Madagascar has one of the biggest percentage point gaps between women and men in informal employment in the non-agricultural sector among East and Southern African countries (10 percentage points).[4] Secondly, women generally lack reliable and fast access to news and information because of the internet, mobile and IT gender gaps.[5] Finally, Malagasy women have a big burden of household chores and community services, which tend to increase during lockdowns. They spend 4 times more time on unpaid care work for their families and communities than men do (3.7 hours per day for women compared to 0.8 hours per day for men).[6]

In the ASGM sector, COVID-19 has exposed the vulnerabilities of ASG miners and unequal footings between them and gold buyers or traders. In this context, government's ambitions to reform the mining legislation could be accelerated to meet new challenges.

The impact of the COVID-19 pandemic needs to be carefully considered for the project's implementation period, especially in view of the new strains (i.e., Delta and Omicron variant). Travel restrictions to and from Madagascar, as well as lockdowns, are likely to impact project execution. The situation will be closely monitored throughout the project life cycle, and a contingency plan building on the above-identified risks will be refined during the inception phase and then be regularly updated during Project lifetime.

The project will also face risks of national counterparts working at a lower capacity, a possible reduction in co-financing due to shifted priorities and the worsening of social inequalities as a consequence of the economic slowdown.

*Opportunities to support COVID-19 response in the short term*

The project could be used as an opportunity to improve public health awareness at the selected mining sites.

The project will aim at introducing digital solutions that can build technological capacity to reduce the digital divide; supporting livelihoods and job creation in the artisanal and small-scale gold mining sector; and building capacity of mining cooperatives to safely manage hazardous waste, including the use of personal protective equipment that will safeguard miners from health impacts including the ones related to COVID-19.

The project will take this opportunity to support the Government in their revision of the mining legislation to address changes and challenges in the ASGM sector due to COVID-19.

*Opportunities to support COVID-19 response in the long-term*

The project will pilot the sustainable landscape approach/jurisdictional approach which will promote responsible land uses that should limit deforestation and reduce human-wildlife contact having an impact in the overall protection of natural capital.

Additionally, the project will provide an opportunity to strengthen the local artisanal gold supply chains in the country while at the same time increasing natural and economic resilience and the adaptive capacities in the selected communities.

Green Recovery measures will be promoted not only for ASGM but also for other high-polluting sectors in the country to build back better. This project's objectives and activities will support Madagascar's green economic recovery post COVID-19 that is consistent with sustainable and nature-based development in the following areas:

- ? Reduce environmental pollution and protect biodiversity from unsound management of chemicals and wastes and malpractice of mining
- ? Improve public health
- ? Enhance human capacities and public awareness on climate change and health problems
- ? Increase investment in innovation and new technology
- ? Participatory approach would ensure social inclusion, project ownership of local communities, and long-lasting project benefits.

### Climate change analysis in Madagascar

Madagascar is one of the countries with the least negative contribution to climate change, as its greenhouse gas emissions are very low. It contributed only 0.01% to the total world's CO<sub>2</sub> emissions.[7] However, it is one of the 10 most affected countries from climate change and sea level rising, in 2018[8]<sup>8</sup> due to its geographic location as an island nation located in the south-western part of the Indian Ocean, poor adaptation capacity related to poverty, variable ecosystems, deforestation, and irregular rainfall patterns.

The main vulnerabilities to climate change in Madagascar include the following:

- ? An island nation with wide topographic spectrum from semi-arid to arid climate and tropical climate and the related range of climatic conditions combined with social vulnerability make the country more susceptible to natural disasters;
- ? The water resources are geographically unequally distributed and threatened by reduced precipitation amounts and rising temperatures;
- ? Unsustainable agricultural practices, such as slash-and-burn and overgrazing;
- ? Temperature increases and climate variability are also causing several health-related problems, such as malaria, waterborne diseases, heart diseases, and so on.

Madagascar's climate varies from central highlands to coastal areas in the East and West. Madagascar has a single rainy season (unimodal precipitation regime) from November to April in the northern and eastern part of the country, with decreasing length and precipitation amounts towards the south-west (Figure 9 and 10).

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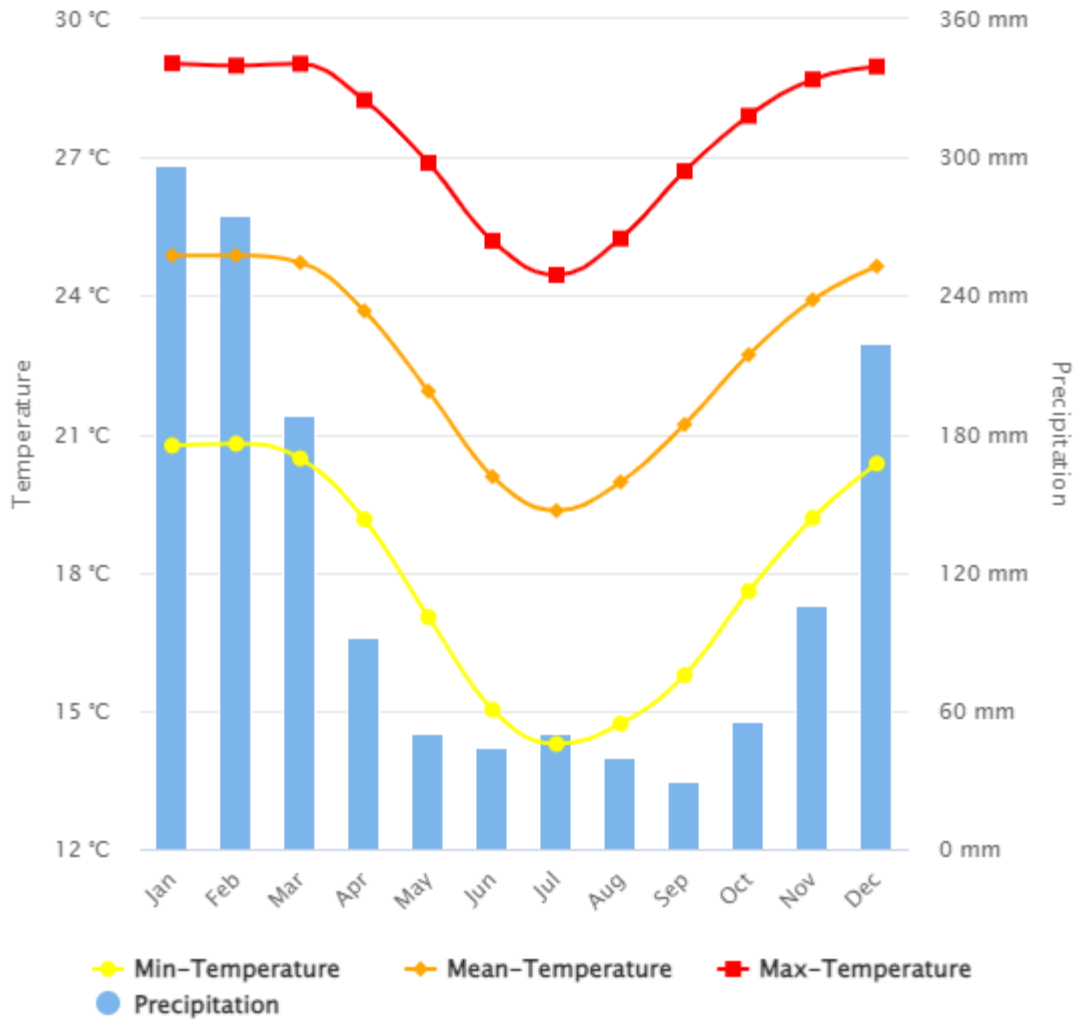


Figure 9: Monthly climatology of min-temperature, mean-temperature, max-temperature and precipitation from 1991-2020 (Source: World Bank Group)

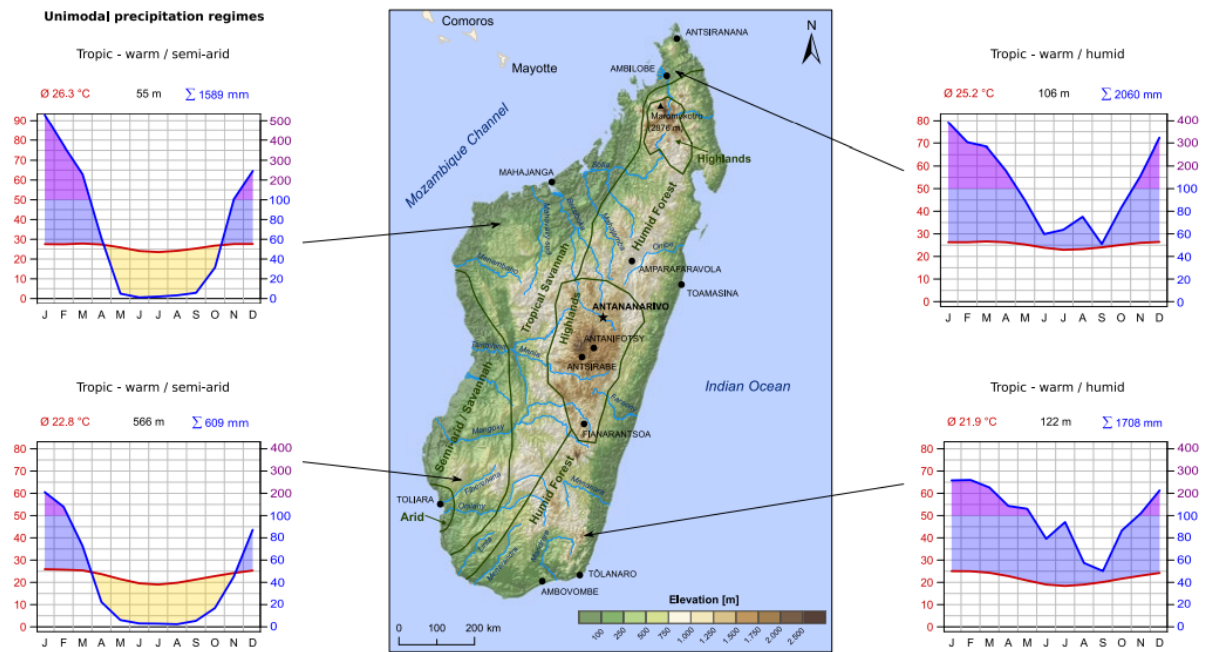


Figure 10: Topographical map of Madagascar with agro-ecological zones and existing precipitation regimes (Source: Agrica[9])

Climate change projections estimate that the temperature by 2065 will increase between 1.1 °C and 2.6 °C, with the lowest projected increases along the northern coastal regions and the highest projected increases for the southern part of the country.

In addition, the following trends have been identified in the medium and long-term under a medium to high emissions scenario:

- ? The sea level is expected to rise by 43cm until 2080.
- ? Precipitation trends are uncertain with projections indicating a decrease in annual precipitation of up to 114mm by 2080. Future dry and wet periods are likely to become more extreme.
- ? Increase in crop land exposure to drought which is critical as the agricultural production in Madagascar is primarily subsistence-based and rainfed.
- ? Water availability per capita will decrease due to population growth.
- ? 4.8% of the population will be affected by at least one heatwave per year. In 2000, only 0.2% were affected.

All of these changes will cause severe damage to the infrastructure, agriculture, public health, clean water, and biodiversity in Madagascar.

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[1] Coronavirus Resource Center. John Hopkins University. Available [here](#).

[2] UNDP 2020, Available [here](#).

[3] UN Women, 2020, Available [here](#).

[4] UN Women, 2021, Available [here](#).

[5] Afrobarometer, 2019, Available [here](#).

[6] ILO, 2019, Available [here](#).

[7] CO2 Emissions in Madagascar. Worldometers. Available [here](#).

[8] Global Climate Risk Index (2020). Available [here](#).

[9] Climate Risk Profile: Madagascar, Agrica. Available [here](#).

## **6. Institutional Arrangement and Coordination**

**Describe the institutional arrangement for project implementation. Elaborate on the planned coordination with other relevant GEF-financed projects and other initiatives.**

UNIDO is the GEF **Implementing Agency** for the GOLD+ project in Madagascar. The Ministry of Environment and Sustainable Development or Minist<sup>re</sup> de l'Environnement et du D<sup>veloppement</sup> Durable (MEDD) through its Bureau National Minamata (BNM) is serving as the **Executing Agency** for the project. A **Project Steering Committee** will serve as the project's **board**, overseeing project execution and providing strategic direction and guidance. The BNM will host the **Project Management Unit (PMU)**, which will be responsible for day-to-day management, delivery and monitoring of the project as well as the diffusion of the results and responsible for the communication of the project. The PMU will also coordinate project inputs from other Madagascar Government Ministries and Agencies, and other stakeholders in the country. As a child project of the planetGOLD initiative, the design, implementation and monitoring of GOLD+ Madagascar will also be closely guided by the parent program, which is led by Conservation International. In their role as Implementing Agency, UNIDO will serve as the liaison between planetGOLD (Conservation International) and GOLD+ Madagascar. The project's organogram is presented below, followed by a summary of the main implementation bodies' core roles and responsibilities:



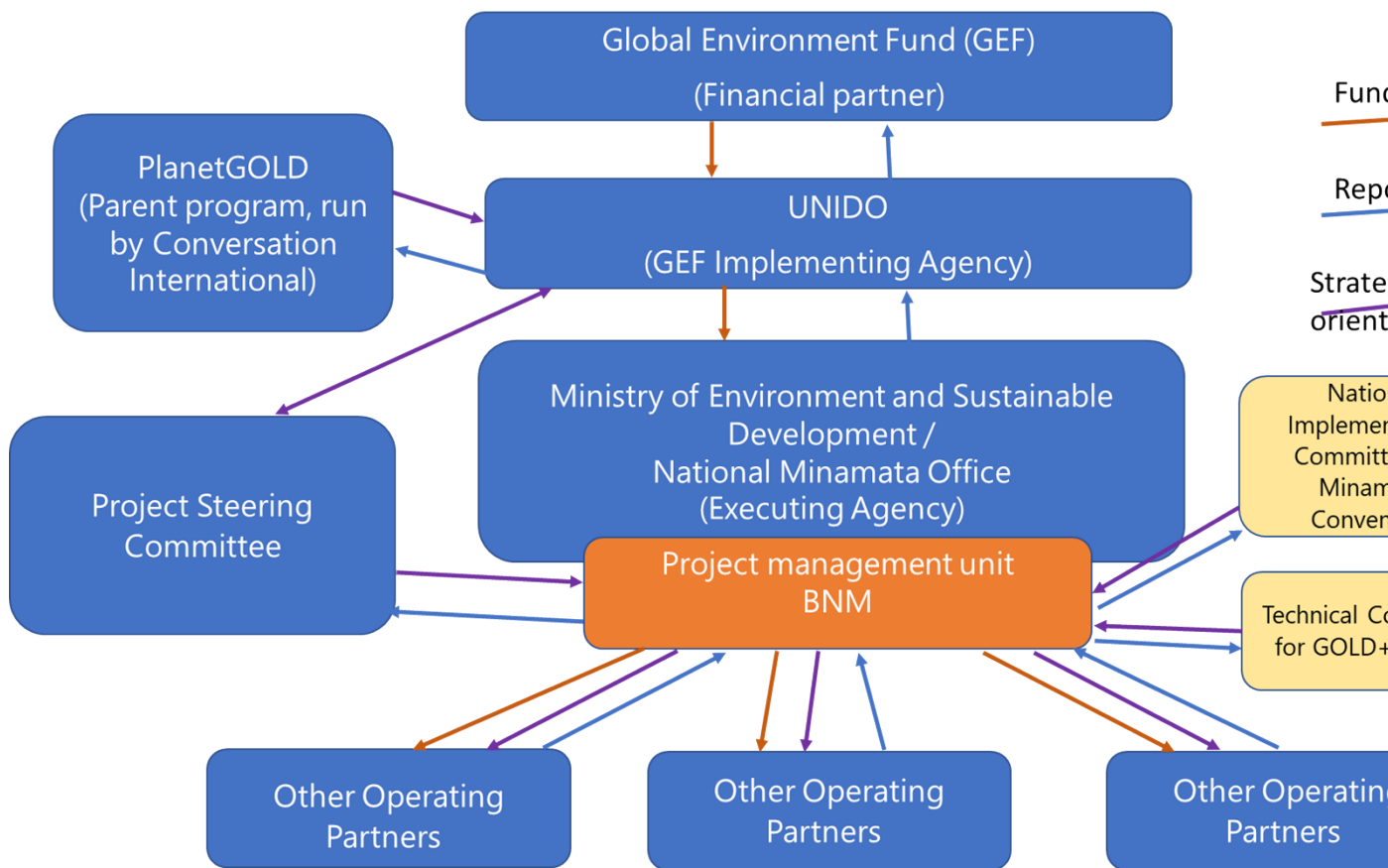


Figure 11: Institutional arrangement

Table 26 : Core roles and responsibilities of Implementation body

Implementation body	Core roles and responsibilities
<b>Implementing Agency (UNIDO)</b>	<ul style="list-style-type: none"> <li>? Accountable to the Funding Partner (GEF) for the achievement of project outputs and outcomes</li> <li>? Set up the contractual arrangement with the Executing Agency</li> <li>? Responsible for disbursing GEF funds to the Executing Agency (BNM) in accordance with the contractual agreement</li> <li>? Provide appropriate technical support to address specific requests</li> <li>? Ensure that planetGOLD knowledge and learning informs GOLD+ Madagascar project direction; ensure that knowledge and learning generated by GOLD+ Madagascar is shared with planetGOLD</li> <li>? Co-chair of the Project Steering Committee</li> </ul>

<p><b>Executing Agency</b> <b>(MEDD, through BNM)</b></p>	<ul style="list-style-type: none"> <li>? Responsible for overall management of the financial and human resources directly related to project execution, including line management of the Project Management Unit.</li> <li>? Accountable to the Implementing Agency (UNIDO) for the achievement of project outputs and outcomes.</li> <li>? Regular consultation with both UNIDO and the Project Steering Committee on all matters concerning the project.</li> <li>? Co-chair of the Project Steering Committee.</li> <li>? Secretariat for the Project Steering Committee meeting through BNM</li> <li>Coordination and management of other executing partners.</li> <li>? Preparation of annual work plans and project implementation reports (PIRs).</li> <li>? Preparation of project technical and financial reports, including progress reports to Project Steering Committee and UNIDO.</li> <li>? Leading implementation of project monitoring and evaluation.</li> <li>? Project communication and results dissemination.</li> </ul>
<p><b>Project Steering Committee</b></p>	<ul style="list-style-type: none"> <li>? Provide strategic direction and guidance in order to support the timely delivery of project outputs and the achievement of project outcomes</li> <li>? Identify knowledge and learning of value to stakeholders and initiatives beyond GOLD+ Madagascar</li> <li>? Reviewing progress reports</li> <li>? Approving annual work plans</li> </ul>
<p><b>National Project Director (DNP)</b></p>	<ul style="list-style-type: none"> <li>? Ensure the supervision of all activities carried out during the implementation of the project</li> <li>? Ensure the role of facilitator in the administrative procedures for the realization of the project activities</li> </ul>
<p><b>Project Management Unit</b></p>	<ul style="list-style-type: none"> <li>? Day-to-day management of project delivery</li> <li>? Coordination and line management of other implementation partners</li> <li>? Monitoring and reporting project progress to Project Steering Committee</li> <li>? Preparation of annual work plans</li> </ul>

**OTHER EXECUTION PARTNERS**

The implementation of GOLD+ Madagascar will necessarily be based on the substantive participation and contribution of multiple Government Ministries and Agencies, and of other private, public, academic and community-based stakeholders in the country. The full stakeholder engagement plan in section 2 outlines the role/s of each group in the project.

## **PROJECT STEERING COMMITTEE MEMBERSHIP**

The Project Steering Committee will aim to ensure that project direction is informed by strategic perspectives from all relevant stakeholder groups (public, private, academic, community-based). Although final membership is to be confirmed, the Committee will have no more than 12 members, including representatives from at least the following bodies:

- ? Ministry of Environment and Sustainable Development or Ministère de l'Environnement et du Développement Durable (MEDD), co-chair of the Steering Committee
- ? National Office of Minamata or Bureau National Minamata (BNM) will assure the secretariat of the Steering Committee
- ? UNIDO, co-chair of the Steering Committee

Ministry of Mines and the Strategic Resources

- ? ANOR
- ? Ministry in charge of trade
- ? National Platform for Women, Sustainable Development and Food Security (PNFDDSA)
- ? UMAGIS ? SAMIS ESIC University

Different institutions, such as the Ministry of Environment and Sustainable Development, Ministry of Mines and Strategic Resources, ANOR, Ministries of Population, Public Health, Finance, Trade, NGOs, Civil Society working in the field of ASGM and mercury will work together during the implementation of the project.

A Steering committee will be created to provide strategic direction and guidance during the implementation of the project.. Because Madagascar has already established a National Implementation Committee of the Minamata Convention since 2013, this Committee will validate all activities and studies undertaken during the implementation of the GOLD+ project in Madagascar.

The National Implementation Committee is composed of the members from the different governmental ministries including other relevant agencies. It also includes relevant members of civil society with experiences and knowledge on chemicals especially mercury, NGOs, industrial and women associations.

The UNIDO as the Project Executing Agency will work closely with the Ministry of Environment and Sustainable Development to ensure that the implementation of the Gold +project achieves the objectives set up.

The roles of different stakeholders and the coordination of the GOLD+ project are described below.

? The Technical Committee (TB) and the National Committee for the Implementation of the Minamata Convention (NJC) are advisory bodies. They give their opinions and recommendations for the proper implementation of activities related to the Minamata Convention and the GOLD+ project. They are also responsible for validating the documents developed and the activities carried out as part of the project.

? The Technical Committee of the GOLD+ project is composed of representatives of the institutions and departments directly involved in the GOLD+ project. The members of this Committee shall not exceed 25 persons. The members of the Technical Committee are in charge of validating the first drafts of the ACTIVITIES OF THE GOLD+ project.

? The National Committee for the Implementation of the Minamata Convention is composed of representatives of public and private institutions, NGOs and civil society working in the field of mercury pollution control. The members of this Committee are in charge of the final validation of all documents and activities carried out within the framework of the GOLD+ project.

## **LEGAL NOTES**

The Government of the Republic of Madagascar agrees to apply to the present project, *mutatis mutandis*, the provisions of the Standard Basic Assistance Agreement between the United Nations Development Programme and the Government, signed on 19 March 1991 and entered into force on 14 April 1992.

Any project amendment will be undertaken in accordance with the GEF Council Document GEF/C.39/Inf.03.

All recruitment and procurement of services by the Executing Agency should adhere to UNIDO fiduciary standards and the standards applied at the national level.

Full or partial title and ownership of equipment purchased under the project may be transferred to national counterparts and/or project beneficiaries during the project implementation and at the end of the project as deemed appropriate by the UNIDO Project Manager in consultation with the project steering committee.

The support to be provided and outcomes targeted by the proposed project are not already being delivered by other agencies or donors in Madagascar.

#### **7. Consistency with National Priorities**

Describe the consistency of the project with national strategies and plans or reports and assessments under relevant conventions from below:

NAPAs, NAPs, ASGM NAPs, MIAs, NBSAPs, NCs, TNAs, NCSAs, NIPs, PRSPs, NPFE, BURs, INDCs, etc.

The GOLD+ model ? and hence this proposed project ? is tightly aligned with the national priorities, strategies, and activities that are clearly articulated within Madagascar?s ASGM NAP, which in turn was informed by analysis undertaken during Madagascar?s MIA. The proposed project will help to address the resource and capacity gaps that have so far constrained delivery of the NAP.

The NAP ? along with the national objectives and implementation actions that it defines ? has directly informed the GOLD+ project logic and design, to the extent that GOLD+ activities will directly support the delivery of a considerable part of the NAP. A mapping exercise undertaken during project preparation demonstrates that this project?s components are directly aligned with 21 of the national objectives that are defined within the NAP. Moreover, the GOLD+ project?s results framework and indicators have been developed so as to ensure project monitoring can feed directly into the Madagascar Government?s own monitoring of the NAP and of their broader Minamata strategy.

#### **8. Knowledge Management**

**Elaborate the "Knowledge Management Approach" for the project, including a budget, key deliverables and a timeline, and explain how it will contribute to the project's overall impact.**

The Knowledge management approach for Madagascar will be consistent with the overall project for the global program and the planetGOLD project; and will capture precisely aspects of knowledge sharing and management relevant to the Malagasy scenario.

Two of the projects five components are largely focused on knowledge management:

*Table 27 : Components largely focused on knowledge management*

<b>COMPONENT 4: Knowledge sharing, communication and local capacity building support</b>			
<b>OUTCOME 4</b>	All actors across the ASGM sector have improved knowledge of strategies, tools and processes for mercury reduction	<b>OUTPUT 4A</b>	Programme of awareness raising and capacity development delivered for all ASGM actors
		<b>OUTPUT 4B</b>	Madagascar GOLD+ project contributes to - and benefits from - global planetGOLD knowledge management activity
<b>COMPONENT 5: Monitoring, evaluation and learning</b>			
<b>OUTCOME 5</b>	Stronger evidence base on effective mercury reduction strategies	<b>OUTPUT 5A</b>	M&E and adaptive management applied to capture and share lessons learned

A project knowledge management strategy will be developed based on the component level strategies (and budgets) which define the overall approach to internal and external knowledge management.

The project's comparatively strong emphasis on knowledge management is a response to the baseline scenario developed during project preparation. The baseline scenario indicates that significant knowledge gaps exist across the ASGM sector, with limited awareness of mercury's negative impacts, technological alternatives, financial options for miners, and existing legislation covering the mining sector. Moreover, knowledge gaps are evident amongst miners, but also amongst national institutions. The project's theory of change maintains that addressing these gaps is a foundational requirement for project success, hence significant project resources (USD 600,000 for five years) have been allocated towards knowledge management strategies and activities.

The goal of the communications and knowledge management is to increase knowledge to deepen mercury reduction and improve the understandings of the public sector, the private sector, mining communities and the general public, on the ASGM sector. The project will capture, store, and distribute knowledge products, experiences and lessons learned to all stakeholders at the national and international levels to contribute positively to a responsible ASGM sector. These products will at a minimum be disseminated through the planetGOLD platform which will continue to be the hub of knowledge gathered by the programme. Effective communications will be important over the lifecycle of the project as it aims to rally a wide range of stakeholders and audiences around supporting artisanal and small-scale miners.

### Knowledge management in Madagascar

- The project will build on the communication strategy developed at the program level ensuring consistent messaging and branding alignment. However, the strategy will be adapted to the local context selecting specific audience groups, objectives, key messages and calls to action and key channels.
- The joint and participatory development of the strategy will build around mapping, documenting, systematizing, and disseminating information, knowledge, experiences, and lessons learned related to ASGM in Madagascar.
- Jointly with the relevant national stakeholders, a sustainable exchange mechanism to generate and socialize knowledge and information on ASGM in Madagascar will be designed in a participatory manner including all interested stakeholders that express their willingness in contributing. It will be hosted by a local partner and will build on ongoing initiatives ensuring that the information cascades down to the community and mining site levels.
- The communication strategy will identify the most appropriate means to engage the key stakeholders (e.g. Government institutions, gold mining federations and cooperatives, individual miners, vocational training centres, universities and technical schools, gold buying entities, finance and banking sector, and related NGOs and development organizations) based on the local context, cultural differences, and messages that may already be used by parallel ASGM programmes in the country and region.
- The outreach communication strategies developed will ensure other local key stakeholders such as cooperative members and workers, mayors of municipalities, local authorities, women associations, youth associations, and indigenous people have access to the project information.
- Tailored key messaging for each audience group, delivered through designated channels and communication tools, will help to shift perceptions, change unproductive ASGM sentiments over time and empower stakeholders involved in the formalization process.
- In this regard, the project will make use of traditional media (radio, press and television), specialized audio-visual media used by financial institutions, or social media as appropriate. As mentioned above, the knowledge will also be accessible through a dedicated project website under the GEF GOLD global website with searchable content and program/project social media pages (i.e., Facebook page). Radio programs, community forums and other communication channels will be explored as means to reach mining organizations throughout the territory.
- The project will participate in and organize outreach activities including working groups, technical committees, industry events, training courses, workshops, seminars, and other awareness-raising activities while collaborations and partnerships will be explored.
- Three groups have been pre-defined to target specific outreach activities: i) ASGM production referring to the productive, organizational and formalization processes of the mining cooperatives, organizations of cooperatives (centrales) and federations that can be internalized and used by other productive actors; ii)

Jurisdiction referring to the knowledge generated under the pilot of the jurisdictional approach and will involve the various stakeholders at the local scale (local authorities and productive actors present in the territory, including gold mining cooperatives); and iii) Government referring to the institutions at the national and local levels. Due to their specific attributions and functions in relation to management, policy-making and control, specific actions must be designed to further enhance formalization and mercury reduction.

- Positive impacts and results achieved under ongoing initiatives and outcomes of the NAP on ASGM will be highlighted and these lessons will be integrated in GOLD+.

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#### Knowledge management beyond Madagascar

- A knowledge-sharing expert will be responsible for providing updates, featuring country-specific results, developing communication materials and updates related to project activities related to innovations in formalization such as jurisdictional/landscape approaches to formalization, market access and technology transfer. Lessons learned and documentation of country efforts, and other ASGM related themes for consideration include biodiversity, land-use planning, occupational health and safety, mercury-free gold production and due diligence in gold supply chains.

- The knowledge products will take varying formats. Technical publications will include policy overviews, technical case studies, evaluations, resource toolkits, manuals, guidelines and guidance notes and datasets. Non-technical knowledge products will include research reports (qualitative and quantitative), strategy documents, and insights papers: best practice, non-technical case studies, infographics, and perspectives papers on ASGM themes and topics. These will be shared via the PlanetGOLD platform. The project will use the standards and guidelines from the programme when developing knowledge products.

- The country-specific page in the PlanetGOLD website will provide access to best practices, knowledge, insights, lessons learned and success stories that will encourage ASGM stakeholders to engage in networking activities and inform and educate the global development community, general public, and decision makers on the major issues, challenges and solutions related to the ASGM sector in Madagascar.

- Documenting activities and outputs while developing user-friendly communication materials will be required.

- Through the GOLD+ global project, knowledge, learning and experience exchanges will be organized amongst the different country projects, particularly at the regional level. The project will take part in the planetGOLD events such as the Global Forums, Annual Programme Meetings (APMs) and other relevant events organized at the program level.

- The PEE and the IA will maintain regular and consistent communication to obtain updated information and share results of other project components to ensure effective implementation of the activities.



- The project will contribute to the global program quarterly and annual report which will include narrative as well as quantitative reporting on achievement of project level and planetGOLD program-level indicators.

## 9. Monitoring and Evaluation

### Describe the budgeted M and E plan

#### PURPOSE

The purpose of the project's monitoring, evaluation and learning (MEL) plan is to define the principles, processes and roles that will be necessary to:

- (i) ensure project **accountability** (how is the project performing against agreed results?); and
- (ii) capture, share and apply any **learning** that arises during project delivery (how can project management and delivery be improved?)

By extension, the MEL plan outlines how component 5 of the project (monitoring, evaluation and learning) will be delivered. However, the plan is also highly relevant to all other project components, as it establishes the monitoring and measurement approaches to be applied across all project outputs. The MEL plan is also closely linked to the project's knowledge management strategy, as it provides the basis for identifying project-level learning and lessons that are relevant to ? and can be shared with ? national and international audiences that have an interest in mercury-free strategies for ASGM.

#### PRINCIPLES

The MEL plan is of course just one element of a larger project, so MEL activities need to be delivered in a resource-efficient way that complements and adds value to the broader GOLD+ Madagascar effort. To ensure a proportionate, efficient and effective approach to MEL, the plan has been developed against the following overarching principles:

? **Keep it simple:** MEL processes should be easy to apply with minimal resource requirements (money, time) yet still be capable of generating useful, quality data.

? **Use existing systems, processes and indicators where possible:** Extending the ?keep it simple? principle, MEL processes should not duplicate monitoring work that is already being undertaken by ? for example ? the Madagascar government or other initiatives in the ASGM sector. Similarly, the MEL plan should use existing indicators and tools that have already been developed for use in ? for example ? other planetGOLD projects, other GEF-financed projects, or other UNIDO-managed projects.

? **Place equal weight on accountability and learning:** MEL activities should gather and report data on project performance, particularly progress towards results: this is essential to ensure accountability. However, MEL should go beyond accountability and generate information that can also be used to improve project management and performance: MEL should support analysis of not just **what** has (or has not) been achieved but **how and why** those results were (or were not) achieved. In turn, this can support adaptive project management.

? **Ensure MEL is participatory, inclusive and gender-responsive:** Much of the project's work is focused on changing the behaviour of individuals, communities and institutions. Consequently, it is vital that those interest groups feed their perspectives into project MEL. Their insights will be essential for ensuring a rounded analysis of project performance, particularly when it comes to understanding how and why results are (or are not) being delivered. An inclusive approach should extend to ensuring gender-responsive MEL: this should go beyond just having sex-disaggregated indicators and should involve the application of MEL processes that ensure the meaningful participation of both men and women within project monitoring.

## **THEORY OF CHANGE, RESULTS FRAMEWORK AND INDICATORS**

In addition to the purpose and principles, the MEL plan is also determined by the project's theory of change (TOC) and results framework. The TOC describes the project's overarching logic and ? in doing so ? identifies what needs to be measured in order to understand the project's progress. The TOC therefore directly influences the design of the results framework, including the selection of indicators. In turn, this then determines what processes and tools will be necessary to measure progress and deliver the project's monitoring, evaluation and learning.

Indicator selection was necessarily guided by the TOC and results framework. However, indicator selection was also based on the MEL plan's principles: keep it simple, use existing systems where possible, place equal weight on accountability and learning, and ensure an inclusive approach to MEL. To a large extent, selected indicators are closely aligned with Madagascar's ASGM National Action Plan, planetGOLD's global results framework, GEF's core indicators, UNIDO's corporate indicators, and other relevant frameworks including the SDGs. This alignment will deliver efficiencies by enabling the project to use existing methodologies and tools, and will allow the project to provide substantive contributions to existing monitoring efforts (e.g. by feeding data into national Madagascan SDG monitoring processes). Where new indicators have been developed solely for the project, these aim to balance the collection of quantitative and qualitative data and ? wherever appropriate ? are based on sex-disaggregated data and gender-responsive monitoring processes. Annex A provides the full results framework including the specific monitoring processes (means of verification) that will be applied for each indicator, and an analysis of how each indicator aligns with other monitoring frameworks and efforts in Madagascar and beyond.

## PROCESSES AND ACTIVITIES

The MEL plan will be delivered through a series of processes that will enable the project to gather and analyse indicator-level data, report project performance, and support adaptive management through the application of project-generated learning. The following table summarises the main processes and activities, also outlining the primary responsibilities for delivering those activities:

*Table 28 : Processes and activities of MEL*

Process	Activity	Description (including responsibilities)
<b>Management</b>	Day-to-day oversight	Under the guidance of the Project Steering Committee and day-to-day supervision from the Project Coordinator, the MEL Coordinator will lead delivery of the MEL plan, with technical backstopping from UNIDO HQ and planetGOLD.
	Quarterly reviews	Informed by quarterly internal reports, quarterly meetings will analyse performance and identify potential changes to management processes. Meetings will be co-chaired by the BNM and UNIDO HQ, with the Project Coordinator and MEL Coordinator acting as secretariat.
	Annual review	Undertaken as part of the project's annual workshop and based on the draft annual Project Implementation Report (PIR), the Project Steering Committee will formally review project performance and provide guidance on potential changes to management processes.
<b>Design</b>	Validation of MEL plan	Undertaken as part the project's Inception Workshop, the TOC, results framework and indicators will be finalised following inception stage consultations with project stakeholders.
	MEL tool design	Following validation of the plan, the MEL Coordinator will finalise indicator methodologies, monitoring processes and tools, developing project-specific approaches as necessary.
<b>Monitoring</b>	Baseline setting	Following validation of the MEL plan and finalisation of MEL tools, the MEL Coordinator will establish baselines for all indicators. For specific indicators, additional resources and/or external support may be required (e.g. surveys to gather baseline opinions on ASGM governance).

	Ongoing monitoring	The MEL Coordinator will lead the day-to-day monitoring effort, gathering data against each indicator according to the required monitoring frequencies. This work will be undertaken directly by the MEL Coordinator, and/or by region-level project staff under the direct guidance of the MEL Coordinator.
	Qualitative assessments	Qualitative assessments will be necessary for a handful of indicators. These assessments will be based on periodic (usually annual) surveys to gather perspectives and self-assessments from project stakeholders. Whether undertaken remotely or face-to-face, the processes will be managed by the MEL Coordinator, but may require additional resources and/or external support.
<b>Reporting</b>	Quarterly internal reports	Quarterly internal reports will be prepared by the MEL Coordinator and signed off by the Project Coordinator. These will include brief narrative progress reports prepared by each Component Lead, and up-to-date tracking data on all project indicators.
	Annual GEF Project Implementation Reports (PIRs)	As a requirement of GEF funding, annual PIRs will present a narrative update on project progress and up-to-date tracking data on all project indicators. The MEL Coordinator will lead preparation of PIRs, with PIRs to be signed off by the Project Steering Committee and submitted to GEF by UNIDO HQ.
<b>Learning</b>	Stakeholder learning workshops	As part of the project's annual stakeholder engagement exercises, project performance data and learning will be discussed with stakeholders, who will be asked for their insight and analysis as to why certain results are (or are not) being achieved. These workshops could potentially also be used to undertake any qualitative assessments (e.g. surveys) that are necessary to support specific project indicators.
	Annual lesson stocktake	As part of the annual PIR process, the MEL Coordinator will collate lessons generated by the project, including generalisable lessons of relevance to other national and international initiatives. Based on that analysis, the Project Team and/or the Project Steering Committee may choose to hold annual reflection sessions, identifying potential changes to management processes. If relevant, results of the stocktake may also be shared with external stakeholders, as part of the project's knowledge management work.

<b>Evaluation</b>	Mid-term review	The GEF and the planetGOLD parent project require all GOLD+ child projects to undertake mid-term reviews. UNIDO will prepare the review's terms of reference (to be signed off by the Project Steering Committee) and will be responsible for contracting and managing the independent reviewer/s. In addition to assessing overall project performance, the review will also be used to assess the MEL plan itself, providing recommendations for improvement, if necessary.
	Terminal evaluation	The GEF and the planetGOLD parent project require all GOLD+ child projects to undertake independent terminal evaluations. UNIDO's Independent Evaluation Division will lead the terminal evaluation, with administrative and logistical support from the MEL Coordinator and broader project team, as necessary.

## BUDGET

Many of the resources required for MEL are already covered by other project expenses (for example Project Steering Committee costs and day-to-day management costs). Many project staff will also have day-to-day monitoring incorporated as a core duty within their job descriptions. However, dedicated MEL resources will be required, most notably to cover the salary of the project's MEL Coordinator. Significant lump sum costs will also be required for the mid-term review and terminal evaluation.

Table 29 : MEL plan budget

Item	Y1	Y2	Y3	Y4	Y5	Total
MEL Coordinator	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000	<b>\$10,000</b>
Annual stakeholder learning workshops (premises, facilitation, expenses)	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000	<b>\$5,000</b>
National travel for MEL Coordinator (site visits, training & supervising colleagues)	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000	<b>\$5,000</b>
Mid-term review	\$0	\$0	\$20,000	\$0	\$0	<b>\$20,000</b>
Terminal evaluation	\$0	\$0	\$0	\$0	\$60,000	<b>\$60,000</b>
<b>Total</b>	<b>\$4,000</b>	<b>\$4,000</b>	<b>\$24,000</b>	<b>\$4,000</b>	<b>\$64,000</b>	<b>\$100,000</b>

### 10. Benefits

**Describe the socioeconomic benefits to be delivered by the project at the national and local levels, as appropriate. How do these benefits translate in supporting the achievement of global environment benefits (GEF Trust Fund) or adaptation benefits (LDCE/SCCF)?**

The better access of artisanal gold miners? into financial services and the effective financial inclusion combined with a better access and use of free-mercury technologies are part of the key conditions for the improvement of communities? living standards, leading to households and communities? wellbeing. The formalization of the ASGM sector combined with a better access to finance will have a positive social impacts in terms of job proficiency, and community?s better health impacts.

The project provides beneficiaries with various benefits such as:

- ? Improvement of the health of the gold miners and the population through the use of mercury-free technology;
- ? Protection and preservation of the environment
- ? Improvement of the income of the actors of the gold sector (miners, gold collectors, countries)
- ? Traceability of gold circuits: credibility of the country in terms of marketing (legal)
- ? Contribution to the improvement of governance in terms of environmental management
- ? Behavioural change with respect to the environment and requires working in concert with stakeholders such as civil society organizations and mining and logging companies,
- ? Acquiring significant support, but it is difficult to manage the requirements and expectations of each development organization.

At the national level, the project shall promote the following:

- Sales of processed gold at internationally obtainable prices and an improvement in the quality of gold produced in Madagascar due to uptake of mercury-free technologies and institutionalization of leaching plants which will ensure efficient and environmentally safe management of tailings.
- Improved opportunities for Madagascar to compete in the global gold market especially due to quality assurance of gold processing activities that are not dependent on mercury use.
- Larger opportunities for foreign investments in the ASGM sector specially based on the enhanced formalization of ASGM, access to finance, uptake of mercury-free technologies amongst mining cooperatives, etc. The fact that the country is adapting to global best practices in ASGM, and strengthening its quality assurance and control processes in the sector present wide short and long-term opportunities for value to the country?s economy, especially its roadmap for economic diversification through improvements in the mineral/mining sector.

At the state level, the project shall promote the following:

- Mineral buying centers will be encouraged to purchase gold in higher quantities due to the integrity and quality of gold produced and sold by ASGM cooperatives. Additionally, other individuals and entities may be interested in venturing into gold purchases from ASGM cooperatives due to the improved gold

processing systems and envisaged financial benefits associated with the national, regional, and global gold markets.

- State governments stand to benefit from revenue, generated through ASGM activities within their state.
- Envisaged indirect socioeconomic benefits may be associated with opportunities for state government-assisted vocational training camps, focused on transferring knowledge and skills on ASGM to unskilled persons, groups, and communities.
- The elimination or significant reduction in the use of mercury and improper disposal of mercury-contaminated tailings is likely to reduce contamination of major environmental media such as surface and groundwater, soil, and air. Consequently, this tends to contribute to a lower incidence and/or occurrence of endocrine, reproductive and genetic disorders/diseases associated with mercury intoxication in communities within the participating states. As these socioeconomic benefits are attained and demonstrated, the incentive to avoid mercury will become stronger: miners and other ASGM actors will be able to appreciate the clear link between increased income, improved health and mercury-free practices and products. In turn, this will provide a strong motivation to sustain a mercury-free sector.
- Applicability of JA which considers the jurisdictional influences of stakeholders within landscapes associated with ASGM or proposed for ASGM pilots under the Child Project.

At the local government area level, the project shall promote the following:

- Opportunities for improvement in the livelihoods of members of ASGM communities are envisaged. Mainly job creation and cash inflow into communities, creating additional demands and therefore additional business opportunities. In participating states where irrigated farming is usually practiced, agriculture-based communities are likely to gain from an increase in sales to ASGM cooperatives and groups assigned leasing rights (SSML).
- Agricultural communities can supplement low agricultural income in times of drought with mining income thereby improving livelihoods. In the overall, the application of SLA/JA will enable a balance of all these production systems within selected landscapes.
- Better accountable stakeholder engagement which identifies stakeholder needs, expectations, concerns and suggestions especially at the community level.
- SLA/JA pilots will consider stakeholder participation from communities and their roles in the multi-stakeholder platform (MSP).
- Environmentally safe ASGM practices consistent with global best practices will improve opportunities for other socioeconomic developments in ASGM communities e.g. petty trading, catering, equipment/PPE sales, food vending, etc.

## 11. Environmental and Social Safeguard (ESS) Risks

Provide information on the identified environmental and social risks and potential impacts associated with the project/program based on your organization's ESS systems and procedures

### Overall Project/Program Risk Classification \*

PIF	CEO Endorsement/Approval	MTR	TE
Medium/Moderate			

#### Measures to address identified risks and impacts

Elaborate on the types and risk classifications/ratings of any identified environmental and social risks and impacts (considering the GEF ESS Minimum Standards) and any measures undertaken as well as planned management measures to address these risks during implementation.

Please refer to the uploaded ESMP for the below information and additional details

#### 1. Environmental and social risks and mitigation measures

**NB:** all mitigation measures are an integral part of all planned project activities, so no additional costs or budgets are required.

Risk	Mitigation measures	Timeline	Responsibility
<b>Social risks</b>			



<p>Discrimination against vulnerable groups (especially women, people with disabilities and illiterates) where prevailing social norms would ordinarily reduce or prevent those groups' participation in the project</p>	<p>Miners and communities have improved knowledge of the law and rights of different stakeholders</p> <p>Communication campaigns to disseminate awareness of rights</p> <p>Development of a documentary film with testimonials from target groups</p>	<p>At the beginning and during the lifetime of the project activities</p>	<p>PMU with local authorities</p>
<p>Inability of vulnerable groups to benefit in the same way from planned project activities, due to their lower education levels which may reduce their ability to use the new equipment</p>	<p>Involvement of artisanal miners (including from vulnerable groups) in the process of using, maintaining and constructing materials (permanent)</p> <p>Training of local artisans and technicians (including from vulnerable groups) in the local manufacture and maintenance of mercury-free gold mining equipment</p>	<p>At the beginning and during the lifetime of the project activities</p>	<p>Relevant project partner (i.e. those with lead responsibility for project delivery ? including training ? within each community)</p>
<p>Social unrest and potential conflict due to poor financial management within the group of gold miners</p>	<p>Financial and inclusive education of miners (as per planned project activities)</p> <p>Collaboration with specialized actors for the effectiveness of the inclusive financial strategy developed by the Ministry of Finance and Budget (MFB)</p>	<p>During the lifetime of the project activities</p>	<p>PMU</p>

<p>Social conflict over the use of new equipment</p>	<p>Participatory community meetings to explain the collaborative management of equipment when equipment is provided</p> <p>Development of the strategy and user guide for new equipment</p> <p>Establishment of a monitoring committee for the use of equipment and a conflict management team (in planned situations)</p> <p>Establishment of grievance books at the level of the Municipality / Fokontany</p> <p>Training of trainers in conflict management and complaint handling at municipal level</p>	<p>Participatory community meetings at every site, during initiation of project activities (including equipment allocation)</p>	<p>Relevant project partner (i.e. those with lead responsibility for project delivery ? including training ? within each community)</p>
<p>Increased levels of gender based violence as a result of project activities, potentially arising due to social norms that would ordinarily reduce or prevent womens? full participation in the project</p>	<p>Dissemination of rights and laws (including human rights, women's and children's rights, GBV law 2019-008, etc.) (ongoing)</p> <p>Application of exemplary sanctions (in the situations provided for)</p> <p>Involvement of local and traditional authorities in the dissemination of rights</p> <p>Collaboration with the media and local communication agents (health workers, teachers, etc.)</p> <p>Collaboration with local partners and CSOs working specifically in the promotion of gender for the care of victims</p> <p>Collaboration with law enforcement agencies for better law enforcement</p>	<p>At start of implementation and quarterly (report at end of quarter as routine activity)</p>	<p>MSANP MPPSPF</p>
<p>Increased levels of crime and insecurity</p>	<p>Work with local law enforcement to ensure security</p> <p>Application of the ?dina?[1] (social convention)</p> <p>Advocacy for the establishment of local law enforcement agencies</p>	<p>During the lifetime of the project activities</p>	<p>PMU with local authorities</p>
<p>Occupational accidents in mining areas</p> <p>Handling of toxic and hazardous substances</p>	<p>Safety briefings will be an integral part of any new technology or process-focused training</p> <p>Periodic, general ?refresher? sessions on mining safety, delivered during project workshops and/or scheduled stakeholder consultations</p>	<p>During training activities</p> <p>During stakeholder consultations</p>	<p>Relevant project partner (i.e. those with lead responsibility for project delivery ? including training ? within each community)</p>

Infections with COVID-19	<p>Project-level safety protocols developed for consistent application at all sites, including protocols for dealing with infections (project staff, participants)</p> <p>Safety protocols monitored centrally, adjusted as national restrictions change, and applied at all sites</p> <p>Temporary project lockdowns where infection rates rise above national rates</p>	During the lifetime of project activities	PMU, with all project partners required to sign and adhere to protocols
Child labour in mining cooperatives	<p>Awareness raising around law and supply chain requirements</p> <p>Participation in project activities dependent on miners and mining sites not using child labour</p> <p>Spot checks during scheduled project activities (e.g. trainings, consultations, monitoring)</p>	During the lifetime of the project activities	PMU, with all project partners sensitised to project requirements and asked to participate in spot checks

### Environmental risks

Increased land degradation and environmental pollution in case training on the proper implementation of site restoration activities is not or not properly conducted	<p>Development and / or updating of the ?dina? (social convention) to take into account the protection of the environment</p> <p>Support the municipalities in integrating the requirement of site restoration into the investment cost in the criteria for authorization to operate</p> <p>Monitoring of the application of Dina</p> <p>Gold miner cards based on personal responsibility : failure to comply with regulations around gold washing, health, safety and environmental regulations results in withdrawal of gold miner card</p>	During the lifetime of the project activities	PMU with local authorities
Failure to restore the environment, leading to social and individual risks such as poorer health incomes, social tensions	<p>Support in environmental restoration</p> <p>Raising awareness among artisanal miners and local stakeholders about environmental restoration</p> <p>Environmental restoration training</p> <p>Ongoing environmental monitoring of the project</p>	During the lifetime of the project activities	MEDD

<p>River contamination from mining discharges</p> <p>Emissions of pollutants into water and air from mining operations or processing plants supported through the project</p>	<p>Strict application of the law on the non-use of mercury</p> <p>Communication campaigns to disseminate awareness of existing laws and rationale for those laws</p> <p>Gold miner cards based on personal responsibility : failure to comply with regulations around gold washing, health, safety and environmental regulations results in withdrawal of fgold miner card</p> <p>Mobilization of local actors in the dissemination of rights and laws (local and traditional authorities, communication relays: health workers, teachers, etc.)</p>	<p>During the lifetime of the project activities</p>	<p>Local authorities, MEDD and partners</p>
<p>- Impacts on soil from mining operations. Further decrease in organic matter, reduced fertility and water infiltration capacity (likely) decrease in arable land and increase in orphan sites (likely)</p> <p>- Increased soil erosion (probable)</p>	<p>Strict application of the law on the non-use of mercury</p> <p>Communication campaigns to disseminate awareness of existing laws and rationale for those laws</p> <p>Gold miner cards based on personal responsibility : failure to comply with regulations around gold washing, health, safety and environmental regulations results in withdrawal of gold miner card Establishment of local communities and services</p> <p>Mobilization of local actors in the dissemination of rights and laws (local and traditional authorities, communication relays: health workers, teachers, etc.)</p>	<p>During the lifetime of the project activities</p>	<p>Local authorities, MEDD and partners</p>
<p>Increased Air pollution (evaporation of Hg) =&gt; inhalation (probable)</p>	<p>Awareness campaign</p>	<p>During the lifetime of the project activities</p>	<p>Local authorities, MEDD and partners</p>

Impacts on conservation values in protected areas	Commitment to site rehabilitation ? including participation in associated capacity development ? will be a condition of project participation	During the lifetime of the project activities	Local authorities, MEDD and partners
Loss of biodiversity	Dissemination and awareness raising of rehabilitation law, including rationale for that law  Mobilization of local actors in the dissemination of rights and laws (local and traditional authorities, communication relays: health workers, teachers, etc.)		
Access to water as a constitutional right	Awareness raising around environmental and health impact of mercury, including downstream (non-local) effects and implications  Communication campaigns to disseminate awareness of existing laws and rationale for those laws  Where public access to potable water is reduced, mining sites will be reorientated to restore access	During the lifetime of the project activities	Local authorities, MEDD and partners

[1] ?Dina? are Malagasy social conventions / norms and local customs

The risk mitigation cost is included in the technical budget allocated for the delivery of the project activities of 4 components. For example, group training on formulization of the mining sector and new mercury-free technologies and equipment will take into account the gender aspects and be inclusive of all groups of population living at the mining sites. Training materials will be gender mainstreamed. Participants will be sensitized on the need to formalize and improve the value chain. These efforts aim to avoid any form of discrimination and to ?leave no one behind?.

2. Environmental and social sustainability monitoring plan

**NB:** to ensure efficient monitoring of risks, mitigation measures and safeguards, **some indicators will be applied to keep track of multiple risks** (for example, in the table below the first indicator ? # *vulnerable groups participating and benefiting from project activities* ? will support monitoring of the first **two** risks). Where an indicator reaches a risk threshold, the PMU will then identify which specific risk(s) have been triggered and will formulate a response / mitigation measure accordingly.

Risk	Indicators	Monitoring method	Monitoring frequency	Risk threshold	
<b>Social risks</b>					
Discrimination against vulnerable groups (especially women, people with disabilities and illiterates) where prevailing social norms would ordinarily reduce or prevent those groups' participation in the project					
Inability of vulnerable groups to benefit in the same way from planned project activities, due to their lower education levels which may reduce their ability to use the new equipment	# of vulnerable groups participating and benefiting project activities	Ongoing project monitoring (project logs, surveys)	Continuous, with quarterly aggregation and reporting	Detailed analysis of target populations will be conducted during inception. Once population data is confirmed (including proportions of vulnerable groups) risk will be triggered if project data indicate that proportion of vulnerable group(s) participating in project is <b>less than 50%</b> of the proportion that group represents in the general population	PMU with o project
Social unrest and potential conflict due to poor financial management within the group of gold miners				Any grievance or dispute raised will be investigated, with the out come of that investigation informing the need for (and nature of) risk mitigation	
Social conflict over the use of new equipment	# of tools produced and distributed to address social conflicts	Project grievance and dispute resolution mechanism	Continuous, with quarterly aggregation and reporting of grievances / disputes by theme	Risk mitigation will also be triggered where 3 separate issues against the same theme are raised within a 12-month period	PMU
Increased levels of gender based violence					
Increased levels of crime and insecurity					
Occupational accidents in mining areas		Miner cooperative safety records		Any major safety incidents will trigger risk mitigation and a PMU-led investigation	
Handling of toxic and hazardous substances	# of safety briefings integrating part of ant new technology or process-focused training	Observation during regular project activities	Continuous observation, with annual aggregation and reporting of miner cooperative safety records	Risk mitigation will also be triggered where – within a 12-month period – 4 separate minor safety incidents are logged in any given mining site.	PMU with a require safety inclu
Infections with COVID-19	Infection rates	National data	Continuous	Where project staff and/or project site test data indicates infection rates that are higher than national rate, risk	PMU

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[1] ?Dina? are Malagasy social conventions / norms and local customs

**Supporting Documents**

Upload available ESS supporting documents.

Title	Module	Submitted
Annex G ESMP_200051	CEO Endorsement ESS	

**ANNEX A: PROJECT RESULTS FRAMEWORK (either copy and paste here the framework from the Agency document, or provide reference to the page in the project document where the framework could be found).**





**ANNEX B: RESPONSES TO PROJECT REVIEWS (from GEF Secretariat and GEF Agencies, and Responses to Comments from Council at work program inclusion and the Convention Secretariat and STAP at PIF).**

COMMENT:	SOURCE:
<p><i>??the [GOLD+ parent PIF] includes \$2 million of [in-kind] recurrent expenses from the MEDD. It is our understanding that their budget has recently been significantly downsized, and we would request confirmation of this support in the next iteration of project development.?</i></p>	<p>US comments on the GEF 58th Council Work Program</p>
RESPONSE:	
<p>Here: The MEDD has confirmed \$2 million co-financing contribution for the GOLD+ Madagascar project (revised amount as of 3 November 2021).</p>	

COMMENT:	SOURCE:
<p><i>??we would like further information?on the justification for selecting GIZ as a basis to build on. They are mentioned as an ?excellent basis for the proposed GOLD+ Madagascar project to build on?, since GIZ has a very small-scale mining component under their Programme d?Appui ? la Gestion de l?Environnement or PAGE Programme. However, we understand that GIZ does not cover all the areas that will be covered by this project and have a distinct domain of expertise and experience than this project, namely in fair-trade affiliated very small-scale mining.?</i></p>	<p>US comments on the GEF 58th Council Work Program</p>
RESPONSE:	

While the PAGE Programme did not cover all areas that this GOLD+ project will cover, by the time of its completion in 2020 PAGE did deliver outputs that have systematic importance for the work of GOLD+, including: a) Support to the Ministry of Mines and Strategic Resources? five-year sustainable development strategy for the ASGM sector (SDDEMAPE); b) Roadmap for responsible ASGM in Madagascar, including an action plan for the professionalization of artisanal miners through the implementation of a ?Fairmined Malagasy? certification and traceability system; and c) Introduction of practices that could lead to Fairtrade certification in ASGM pilot sites.

The GOLD+ project design has been aligned with the SDDASGM strategy and the ASGM roadmap, and the GOLD+ inception phase will explore whether and how the practices introduced by PAGE can be replicated and/or scaled up across GOLD+ project sites.

COMMENT:	SOURCE:
<p><i>?We look forward to greater clarity on CSO involvement?this will also be critical, given ongoing efforts at mining code reform in Madagascar. CSOs were very active during the government?s efforts to reform the mining code at the end of 2019. Related, are there planned contributions from this project to ongoing efforts for mining code reform, and/or considerations for the potential implications of reform for the implementation of this project??</i></p>	<p>US comments on the GEF 58th Council Work Program</p>
RESPONSE:	
<p>Stakeholders in the GOLD+ project in Madagascar have committed to accompany the project to achieve its ultimate goal of eliminating and/or reducing the use of mercury in small-scale gold mining (EMAPE GOLD) in their respective areas. CSOs have even contributed to the co-financing in the belief that the final outcome of the project will contribute to the sustainable development of the country and the GOLD PLANET.</p> <p>CSOs will be involved in the following areas: a) improvement of gold supply chain; b) waste management in ASGM sites; c) advocacy and awareness raising on the extractive sector in Madagascar and health and environmental risks related to the use of mercury; d) development of skills at the national level; e) development and implementation of education strategy for ASG miners; and f) awareness raising on good governance of natural resources.</p> <p>The GOLD+ Madagascar project, under its component 1, will work jointly with national authorities and ASGM stakeholders to identify gaps and opportunities across policy and regulatory framework (incl. the Mining Code). Where appropriate, the Project will provide technical support to strengthen legislative and capacity gaps in relation to formalization.</p>	

COMMENT:	SOURCE:
<p><i>?Finally, in the next proposal iteration, we would like to better understand the relationship between the proposed activities and the MECIE (Mise en Compatibilit? des Investissements avec l'Environnement). We understand that the proposed activities are subject to environmental impact study and approval of an environmental commitment program, subject to this decree, but did not see this referenced within the project documents.?</i></p>	<p>US comments on the GEF 58th Council Work Program</p>
RESPONSE:	
<p>As confirmed on 2 November 2021 by the National Focal Point of the Minamata Convention and Head of the Medical-Social Service of the Ministry of Environment and Sustainable Development of Madagascar (MEDD), Dr. Liliane Hanitriniaina, this project is not subject to an environmental impact study and approval of PREE or Environmental Engagement Program within the framework of the MECIE Decree.</p>	

COMMENT:	SOURCE:
<p><i>?In Madagascar, apart from the BMZ/GIZ PAGE project already mentioned further synergies could be generated with the ProD?CID project. The ProD?CID project works on anti-corruption at national scale as well as on community development (community service, finance and local economic development) in the regions Analamanga, Boeny and DIANA in Madagascar. GER therefore kindly asks to consult the PAGE and the ProD?CID project during the further project preparation phase.?</i></p>	<p>Germany comments on the GEF 58th Council Work Program</p>
RESPONSE:	
<p>The ProD?CID project has been identified as a potential partner for piloting jurisdictional approaches within the Malagasy ASGM sector. During the inception phase, ProD?CID staff (national and DIANA-based) will be involved.</p> <p>BMZ/GIZ PAGE project staff and other relevant stakeholders (Focal Point, Gender Officer and Head of DIANA) were consulted during the project preparatory phase and will be involved in the implementation phase as well.</p> <p>Formal collaboration agreements with both initiatives will be explored, and synergies between the GOLD+ Project and the activities planned under both ProD?CID and PAGE Phase 2 will be pursued.</p>	

<b>COMMENT:</b>	<b>SOURCE:</b>
<p><i>?In addition, the project proposal points out on page 9 that there is a Co-Finance/</i></p> <p><i>grant investment of 8,631,495 USD from GIZ?s PAGE project. This information is incorrect. GIZ PAGE is not a donor of the upcoming project, but the implementing agency. Therefore, GER kindly asks to list the Federal German Ministry for Economic Cooperation and Development (BMZ) as the donor agency with the GIZ as the implementing agency.?</i></p>	<p>Germany comments on the GEF 58th Council Work Program</p>
<b>RESPONSE:</b>	
<p>The comment is duly noted, and changes will be done where applicable.</p>	

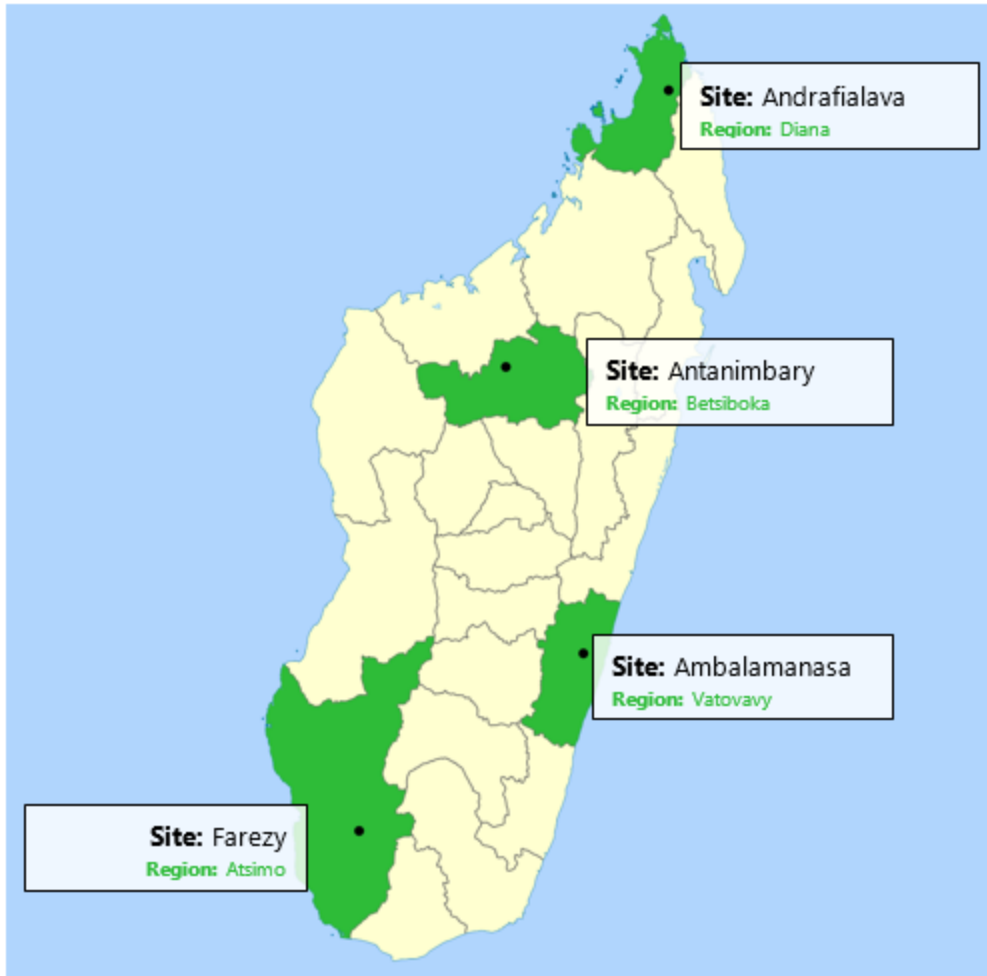
**ANNEX C: Status of Utilization of Project Preparation Grant (PPG).  
(Provide detailed funding amount of the PPG activities financing status  
in the table below:**

<b>PPG Grant Approved at PIF:</b>	\$150,000		
<b>Project Preparation Activities Implemented</b>	<b>GEFTF/LDCF/SCCF amount (USD \$)</b>		
	<b>Budgeted amount</b>	<b>Amount spent to date</b>	<b>Amount committed</b>
<p>International consultants</p> <p>Development and finalization of the CEO document and its annexes</p> <p>Partial preparation, revision and finalisation of the Project Document and the CEO Endorsement package of this project</p> <p>Development of TOR for PEE</p>	40,000	34,690	

Contractual Services with a national entity			
Inception workshop and stakeholder engagement activities			
Preparation of stakeholder engagement plan			
Baseline data collection and development of alternative scenario			
Study on financial mechanism			
ESMP development	100,000	100,587	
Gender assessment and gender action plan			
Validation workshop and obtaining national approval for the submission of the project document.			
Collecting co-financing letters			
Partial preparation of the CEO document and its annexes			
Other Costs ( e.g. HACT assessment)	10,000	14,655	68
<b>Total</b>	<b>\$150,000</b>	<b>\$149,932</b>	<b>\$68</b>

#### **ANNEX D: Project Map(s) and Coordinates**

**Please attach the geographical location of the project area, if possible.**



## ANNEX E: Project Budget Table

**Please attach a project budget table.**

A more detailed budget per year can be found in Annex E.

Cost Categories	Detailed Description	Total Component 1	Total Component 2	Total Component 3	Total Component 4	Sub-total	MAE	PMC	Total GEF	
<b>YEAR 1</b>										
Local Consultants	National Project Coordinator	0	0	0	0	0	17,000		17,000	
	Financial Assessor	0	0	0	0	0	8,000		8,000	
	Financial Specialist	0	0	0	0	0	4,000		4,000	
	Internal Project Monitor	0	0	0	0	0	3,000		3,000	
	Internal Project Auditor	0	0	0	0	0	4,000		4,000	
	Formulation expert	20,250	0	0	0	20,250			20,250	
	Finance inclusion expert	0	13,500	0	0	13,500			13,500	
	Technology expert	0	0	9,000	0	9,000			9,000	
	Knowledge sharing expert	0	0	10,500	0	10,500			10,500	
	Gender expert	0	0	0	0	0			0	
	Environment Social expert	0	0	0	0	0		2,000	2,000	
	MSL Coordinator	0	0	0	0	0			0	
	Geospatial expert	0	0	0	0	0			0	
	<b>Sub-total Consultants</b>	<b>20,250</b>	<b>13,500</b>	<b>9,000</b>	<b>10,500</b>	<b>62,250</b>	<b>2,000</b>	<b>31,500</b>	<b>95,750</b>	
Contractual Services - Company	Activity 1.2.1 Evaluate the capacities of the ASGM sector institutions (BDED, BMRS, MEAH, MCA REGIONAL DIRECTIONS) to achieve the GOLD project objectives and identify their needs	34,000	0	0	0	34,000			34,000	
	Activity 2.2.1 Conduct a study on the distribution of mercury in the environment at the beginning and at the end of the project	0	0	185,500	0	185,500			185,500	
	Activity 4.1.6 Develop and multiply training manuals	0	0	30,000	0	30,000			30,000	
	Activity 4.1.7 Develop and multiply advocacy, awareness and training tools for all project components in national and local languages	0	0	20,000	0	20,000			20,000	
	Activity 5.1.1 Development of monitoring tools	0	0	0	0	0			0	
	Activity 5.1.2 Baseline survey	0	0	0	0	0			0	
	Activity 5.1.3 Annual survey	0	0	0	0	0			0	
	<b>Sub-total Contractual Services - Company</b>	<b>34,000</b>	<b>0</b>	<b>185,500</b>	<b>60,000</b>	<b>269,500</b>	<b>0</b>	<b>0</b>	<b>269,500</b>	
Travel	Activity 1.1.1 Assess the application of the regional approach for the identified ASGM areas and identify the appropriate approach	10,000	0	0	0	10,000			10,000	
	Activity 1.1.2 Establish partnerships with decentralized communities, artisanal and small gold miners, civil society organizations and the private sector to expand the deployment of mercury free technologies and put in place local consultation structure	10,000	0	0	0	10,000			10,000	
	Activity 2.2.1 Assess and strengthen the technical and material capacities of regional ANCR and the Rural Communities to assist artisanal and small gold miners	0	18,000	0	0	18,000			18,000	
	Activity 5.1.5 National travel for MEL	0	0	0	0	0	1,000		1,000	
	Activity PMIC - Local Travel	0	0	0	0	0			14,000	
	<b>Sub-total Travel</b>	<b>32,000</b>	<b>18,000</b>	<b>0</b>	<b>0</b>	<b>60,000</b>	<b>1,000</b>	<b>14,000</b>	<b>95,000</b>	
Office supplies	Activity 4.2.3 Manage the knowledge repository and expand knowledge sharing via the PlanDocID website, electronic document mailing list, and other dissemination channels	0	0	0	2,400	2,400			2,400	
	Activity PMIC - Office supplies PMIC	0	0	0	0	0		850	850	
	Activity PMIC - Non expendable Equipment	0	0	0	2,400	2,400		5,000	5,000	
		<b>Sub-total Office supplies</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2,400</b>	<b>2,400</b>	<b>0</b>	<b>5,850</b>	<b>8,250</b>
Training/Workshop opening	Activity 1.1.1 Assess the application of the regional approach for the identified ASGM areas and identify the appropriate approach	37,000	0	0	0	37,000			37,000	
	Activity 1.1.2 Establish partnerships with decentralized communities, artisanal and small gold miners, civil society organizations and the private sector to expand the deployment of mercury free technologies and put in place local consultation structure	38,000	0	0	0	38,000			38,000	
	Activity 1.1.3 Update and conduct workshops/meetings on validation of regulatory tools related to the ASGM sector	30,000	0	0	0	30,000			30,000	
	Activity 1.1.4 Conduct peer-reviewing and final allocation in accordance with EMAPF gold	44,000	0	0	0	44,000			44,000	
	Activity 1.2.1 Evaluate the capacities of the ASGM sector institutions (BDED, BMRS, MEAH, MCA REGIONAL DIRECTIONS) to achieve the GOLD project objectives and identify their needs	40,000	0	0	0	40,000			40,000	
	Activity 2.1.1 Assess the capacity of financial institutions to facilitate access to finance for artisanal and small gold miners	0	57,500	0	0	57,500			57,500	
	Activity 2.2.1 Assess and strengthen the technical and material capacities of regional ANCR and the Rural Communities to assist artisanal and small gold miners	0	36,500	0	0	36,500			36,500	
	Activity 3.1.1 Organize community awareness raising of the risks associated with mercury use	0	0	58,500	0	58,500			58,500	
	Activity 3.1.2 Realize awareness training among artisanal and small gold miners of the benefits of using mercury free technology	0	0	0	0	0			0	
	Activity 3.1.4 Identify appropriate processing and extraction methods and update them with pilot-scale	0	0	0	0	0			0	
	Activity 4.1.1 Official project launch workshop	0	0	10,000	10,000	20,000			10,000	
	Activity 4.1.2 Coordination and meeting	0	0	12,000	12,000	24,000			12,000	
	Activity 4.1.3 Steering committee meeting	0	0	6,000	6,000	12,000			6,000	
	Activity 4.2.1 Organize and conduct stakeholder sessions on project implementation at central, regional and communal levels and EMAPF sites	0	0	12,000	12,000	24,000			12,000	
	Activity 5.1.4 Annual stakeholders learning workshop	0	0	0	0	0		1,000	1,000	
		<b>Sub-total Training/Workshop/meeting</b>	<b>186,000</b>	<b>94,000</b>	<b>58,500</b>	<b>40,000</b>	<b>378,500</b>	<b>1,000</b>	<b>0</b>	<b>388,000</b>
		<b>TOTAL</b>	<b>200,250</b>	<b>126,000</b>	<b>263,000</b>	<b>160,000</b>	<b>759,250</b>	<b>1,000</b>	<b>33,350</b>	<b>1,093,500</b>
	<b>Component (USD)</b>									
	<b>YEAR 2</b>									
Cost Categories	Detailed Description	Component 1 Total Component 1	Component 2 Total Component 2	Component 3 Total Component 3	Component 4 Total Component 4	Sub-total	MAE	PMC	Total GEF	
Local Consultants	National Project Coordinator	0	0	0	0	0	17,000		17,000	
	Financial Assessor	0	0	0	0	0	8,000		8,000	
	Financial Specialist	0	0	0	0	0	4,000		4,000	
	Internal Project Monitor	0	0	0	0	0	3,000		3,000	
	Internal Project Auditor	0	0	0	0	0	4,000		4,000	
	Formulation expert	23,250	0	0	0	23,250			23,250	
	Finance inclusion expert	0	18,000	0	0	18,000			18,000	
	Technology expert	0	0	9,000	0	9,000			9,000	
	Knowledge sharing expert	0	0	10,500	0	10,500			10,500	
	Health expert	5,000	0	0	0	5,000			5,000	
	Environment Social expert	18,500	0	9,000	0	27,500			27,500	
	MSL Coordinator	0	0	0	0	0		2,000	2,000	
	Geospatial expert	0	0	0	0	0			0	
	<b>Sub-total Consultants</b>	<b>51,750</b>	<b>18,000</b>	<b>18,300</b>	<b>16,500</b>	<b>104,550</b>	<b>2,000</b>	<b>31,500</b>	<b>138,050</b>	
	<b>Sub-total Consultants</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	
Contractual Services - Company	Activity 1.2.3 Train and support the creation of the cooperative to regulate the status of this entity (Arminar)	22,000	0	0	0	22,000			22,000	
	Activity 2.1.5 Train and mobilize groups of artisanal and small gold miners on collective savings (Arminar)	0	22,000	0	0	22,000			22,000	
	Activity 2.2.1 Assess and strengthen the technical and material capacities of regional ANCR and the Rural Communities to assist artisanal and small gold miners	0	0	637,000	0	637,000			637,000	
	Activity 2.1.6 Acquire equipment for mercury free technology	0	0	0	28,000	28,000			28,000	
	Activity 4.1.8 Establish networks and communication on good practices in the 4 target sites of the project	0	0	0	0	0			0	
	Activity 5.1.1 Development of monitoring tools	0	0	0	0	0			0	
	Activity 5.1.3 Annual survey	0	0	0	0	0			0	
	<b>Sub-total Contractual Services - Company</b>	<b>22,000</b>	<b>98,000</b>	<b>637,000</b>	<b>28,000</b>	<b>785,000</b>	<b>0</b>	<b>0</b>	<b>785,000</b>	
Travel	Activity 1.1.3 Update and conduct workshops/meetings on validation of regulatory tools related to the ASGM sector	16,000	0	0	0	16,000			16,000	
	Activity 1.1.5 Conduct an Environmental and Social Assessment on the sites	16,000	0	0	0	16,000			16,000	
	Activity 1.2.3 Train children of the golden EMAPF zones in "We shift"	16,000	0	0	0	16,000			16,000	
	Activity 1.2.6 Mobilize stakeholders to supply drinking water, sanitation and hygiene infrastructure in EMAPF sites	16,000	0	0	0	16,000			16,000	
	Activity 1.2.7 Train artisanal and small gold miners and the community in environmental preservation and restoration	16,000	0	0	0	16,000			16,000	
	Activity 2.1.2 Organize advocacy sessions with local and regional level institutions	0	16,000	0	0	16,000			16,000	
	Activity 2.1.4 Provide technical assistance to decentralized communities for the adoption of responsible mining practices	0	16,000	0	0	16,000			16,000	
	Activity 4.2.4 Participate in international training workshops and meetings with other countries and other Gold Project stakeholders	0	0	0	26,000	26,000			26,000	
	Activity 4.2.5 Participate in international forums to share project results and lessons learned	0	0	0	6,000	6,000			6,000	
	Activity 5.1.5 National travel for MEL Coordinator (site visits, training & mentoring colleagues)	0	0	0	0	0	1,000		1,000	
	Activity PMIC - Local Travel PMIC	0	0	0	0	0			14,000	
	<b>Sub-total Travel</b>	<b>80,000</b>	<b>32,000</b>	<b>0</b>	<b>32,000</b>	<b>144,000</b>	<b>1,000</b>	<b>14,000</b>	<b>169,000</b>	
Office supplies	Activity 4.2.6 Manage the knowledge repository and expand knowledge sharing via the PlanDocID website, electronic document mailing list, and other dissemination channels	0	0	0	2,400	2,400			2,400	
	Activity PMIC - Office supplies PMIC	0	0	0	0	0		850	850	
	Activity PMIC - Non expendable Equipment	0	0	0	2,400	2,400		5,000	5,000	
		<b>Sub-total Office supplies</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2,400</b>	<b>2,400</b>	<b>0</b>	<b>5,850</b>	<b>3,250</b>
Training/Workshop opening	Activity 1.1.2 Establish partnerships with decentralized communities, artisanal and small gold miners, civil society organizations and the private sector to expand the deployment of mercury free technologies and put in place local consultation structure	21,000	0	0	0	21,000			21,000	
	Activity 1.1.3 Update and conduct workshops/meetings on validation of regulatory tools related to the ASGM sector	38,000	0	0	0	38,000			38,000	
	Activity 1.1.4 Organize community awareness raising and conduct workshops/meetings on dissemination and enforcement of regulations	40,000	0	0	0	40,000			40,000	
	Activity 1.1.7 Develop and implement a closure plan for EMAPF sites	40,000	0	0	0	40,000			40,000	
	Activity 1.2.1 Evaluate the capacities of the ASGM sector institutions (BDED, BMRS, MEAH, MCA REGIONAL DIRECTIONS) to achieve the GOLD project objectives and identify their needs	38,000	0	0	0	38,000			38,000	
	Activity 1.2.2 Organize awareness raising among artisanal and small gold miners and/or groups of artisanal and small gold miners on the formation of a cooperative	40,000	0	0	0	40,000			40,000	
	Activity 1.2.3 Train and support the creation of the cooperative to regulate the status of this entity	30,000	0	0	0	30,000			30,000	
	Activity 1.2.5 Train children of the golden EMAPF zones in "We shift"	30,000	0	0	0	30,000			30,000	
	Activity 1.2.6 Mobilize stakeholders to supply drinking water, sanitation and hygiene infrastructure in EMAPF sites	29,500	0	0	0	29,500			29,500	
	Activity 1.2.7 Train artisanal and small gold miners and the community in environmental preservation and restoration	35,000	0	0	0	35,000			35,000	
	Activity 2.1.2 Organize advocacy sessions with local and regional level institutions	0	23,000	0	0	23,000			23,000	
	Activity 2.1.3 Develop and apply procedures for traceability and control of the value chain	0	73,000	0	0	73,000			73,000	
	Activity 2.1.4 Provide technical assistance to decentralized communities for the adoption of responsible mining practices	0	54,000	0	0	54,000			54,000	
	Activity 2.2.4 Train municipal staff in financial management	0	23,000	0	0	23,000			23,000	
	Activity 3.1.5 Carry out an Environmental and Social Assessment of the implementation of the new technology	0	0	0	0	0			0	
	Activity 3.1.7 Develop and validate an extraction equipment meeting the criteria	0	0	0	0	0			0	
	Activity 3.2.1 Conduct a study on the distribution of mercury in the environment at the beginning and at the end of the project	0	0	24,000	0	24,000			24,000	
	Activity 4.1.2 Coordination and meeting	0	0	12,000	12,000	24,000			12,000	
	Activity 4.1.3 Steering committee meeting	0	0	6,000	6,000	12,000			6,000	
	Activity 4.1.8 Establish networks and communication on good practices in the 4 target sites of the project	0	0	0	12,000	12,000			12,000	
Activity 5.1.4 Annual stakeholders learning workshop	0	0	0	0	0		1,000	1,000		



**ANNEX F: (For NGI only) Termsheet**

Instructions. Please submit an finalized termsheet in this section. The NGI Program Call for Proposals provided a template in Annex A of the Call for Proposals that can be used by the Agency. Agencies can use their own termsheets but must add sections on Currency Risk, Co-financing Ratio and Financial Additionality as defined in the template provided in Annex A of the Call for proposals. Termsheets submitted at CEO endorsement stage should include final terms and conditions of the financing.

not applicable.

**ANNEX G: (For NGI only) Reflows**

Instructions. Please submit a reflows table as provided in Annex B of the NGI Program Call for Proposals and the Trustee excel sheet for reflows (as provided by the Secretariat or the Trustee) in the Document Section of the CEO endorsement. The Agency is required to quantify any expected financial return/gains/interests earned on non-grant instruments that will be transferred to the GEF Trust Fund as noted in the Guidelines on the Project and Program Cycle Policy. Partner Agencies will be required to comply with the reflows procedures established in their respective Financial Procedures Agreement with the GEF Trustee. Agencies are welcomed to provide assumptions that explain expected financial reflow schedules.

not applicable.

**ANNEX H: (For NGI only) Agency Capacity to generate reflows**

Instructions. The GEF Agency submitting the CEO endorsement request is required to respond to any questions raised as part of the PIF review process that required clarifications on the Agency Capacity to manage reflows. This Annex seeks to demonstrate Agencies' capacity and eligibility to administer NGI resources as established in the Guidelines on the Project and Program Cycle Policy, GEF/C.52/Inf.06/Rev.01, June 9, 2017 (Annex 5).

not applicable.