



GEF-7 PROGRAM FRAMEWORK DOCUMENT (PFD)

TYPE OF TRUST FUND: GEFTF

PART I: PROGRAM IDENTIFICATION

Program Title:	Global Opportunities for Long-term Development of artisanal and small-scale gold mining (ASGM) Sector Plus - GEF GOLD +		
Country(ies):	Uganda, Republic of the Congo, Suriname, Honduras, Ghana, Bolivia, Nigeria, Madagascar	GEF Program ID:	
Lead GEF Agency:	(select) Conservation International	GEF Agency Program ID:	
Other GEF Agenc(ies):	(select) (select) (select) UNEP, UNDP, UNIDO	Submission Date:	
Program Executing Entity(s):		Program Duration (Months)	60
GEF Focal Area (s):	(select) Chemicals and Waste	Program Commitment Deadline	
Program	(choose Program)		

A. FOCAL/NON-FOCAL AREA ELEMENTS

Programming Directions	Expected Outcomes	Trust Fund	Amount (in \$)	
			GEF Program Financing	Co-financing
(select) (select) CW-1-1 Strengthen the sound management of industrial chemicals and their waste through better control, and reduction and/or elimination	Reduction of anthropogenic releases/emissions of mercury from Artisanal and Small-Scale Gold mining into the environment.	GEFTF	43,832,830	202,668,755
Total Program Cost			43,832,830	202,668,755

B. INDICATIVE PROGRAM DESCRIPTION SUMMARY

Program Objective: To reduce the use of mercury in the ASGM sector in the participating countries through a holistic, multisectoral integrated formalization approach, and increasing access to finance leading to adoption of sustainable mercury free technologies and access to traceable gold supply chains.					
Program Components	Component Type	Program Outcomes	Trust Fund	(in \$)	
				GEF Program Financing	Co-financing
1. Enhancing formalization in the ASGM Sector	(select)	Increased formalization in the sector through multisectoral, integrated approaches and capacity building of actors ¹ engaged in ASGM formalization.	GEFTF	10,550,000	45,471,631

¹ Formalization actors include the different stakeholders who have an active role in enhancing ASGM formalization from local to national level. These may include miners, ASGM organizations, local and national government agencies, policy makers, support institutions etc.

2. Access to finance enhanced by financial inclusion ² and responsible supply chains	(select)	Increase in finance options for miners through the attainment of better gold prices facilitated by transparent and responsible supply chains	GEFTF	11,284,000	57,603,948
3. Enhancing uptake of mercury-free technologies	(select)	Reduced mercury use in ASGM enabled by the increased uptake of mercury-free technologies by miners	GEFTF	10,997,667	64,984,400
4. Knowledge sharing, communication and local capacity building support	(select)	Knowledge sharing and communication strategies targeted at all ASGM stakeholders to support and increase formalization and mercury reduction efforts	GEFTF	4,050,000	16,011,238
5. Monitoring and evaluation of country-level child projects	(select)	Country-level M&E plans inform management, implementation, and adaptive management.	GEFTF	465,000	700,000
6. Global coordination, knowledge management and outreach	(select)	<ul style="list-style-type: none"> • Project-participating countries and the wider ASGM community increasingly share, access and apply knowledge. • Governments, mining communities and the general public have a shared understanding of the ASGM sector • GOLD+ program participating countries and communities understand successes and lessons learned from the Program • Program results are monitored and evaluated 		4,407,220	15,000,000
Subtotal			GEFTF	41,753,887	199,861,217
Program Management Cost (PMC)			GEFTF	2,078,943	2,807,538

² “Financial inclusion means that individuals and businesses have access to useful and affordable financial products and services that meet their needs – transactions, payments, savings, credit and insurance – delivered in a responsible and sustainable way”. <https://www.worldbank.org/en/topic/financialinclusion/overview>

Total Program Cost	GEF TF	43,832,830	202,668,755
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For multi-trust fund projects, provide the total amount of PMC in Table B, and indicate the split of PMC among the different trust funds here: ()

C. SOURCES OF CO-FINANCING FOR THE PROGRAM BY SOURCE, BY NAME AND BY TYPE

Sources of Co-financing	Name of Co-financier	Type of Co-financing	Investment Mobilized	Amount (\$)
(select)		(select)	(select)	
Total Co-financing				

Source of Co-financing	Name of Co-financier	Type of Co-financing	Investment Mobilized	Amount
Recipient Country Government	Ministry of Environment and Water of Bolivia	In-Kind	Recurrent Expenditure	\$ 481,260
Recipient Country Government	Ministry of Mining and Metallurgy (Viceministry of Mining Policy)	In-Kind	Recurrent Expenditure	\$ 500,000
Recipient Country Government	Ministry of Mining and Metallurgy (Viceministry of Productive Development - Gobernación de La Paz	In-Kind	Recurrent Expenditure	\$ 500,000
Recipient Country Government	Gobernación de La Paz	In-Kind	Recurrent Expenditure	\$ 60,000
Beneficiaries	FEDECOMIN LP	In-Kind	Recurrent Expenditure	\$ 2,000
Beneficiaries	FERRECO	In-Kind	Recurrent Expenditure	\$ 2,000
Beneficiaries	FECOMAN	In-Kind	Recurrent Expenditure	\$ 2,000
Beneficiaries	Mining Cooperative 15 Agosto	Equity Investment	Investment Mobilized	\$ 5,000
Beneficiaries	Mining Cooperative Yani	Equity Investment	Investment Mobilized	\$ 5,000
Beneficiaries	Mining Cooperatives	Equity Investment	Investment Mobilized	\$ 95,000
Civil Society Organization	Helvetas	Grant	Investment Mobilized	\$ 120,000
Civil Society Organization	Conservation International	Grant	Investment Mobilized	\$ 2,500,000
Private Sector	Argor Heraeus S. A.	Grant	Investment Mobilized	\$ 10,000,000
Private Sector	Puntomaq	In-Kind	Recurrent Expenditure	\$ 10,000
Other	Better Gold Initiative	Grant	Investment Mobilized	\$ 300,000
Private Sector	Cumbre del Sajama S. A.	In-Kind	Recurrent Expenditure	\$ 10,000
Civil Society Organization	MEDMIN	Grant	Investment Mobilized	\$ 45,000
Civil Society Organization	Solidaridad	Grant	Investment Mobilized	\$ 70,000
Civil Society Organization	Wildlife Conservation Society (WCS)	Grant	Investment Mobilized	\$ 90,000
Civil Society Organization	OLAMI (Latin America Mining Organization)	In-Kind	Recurrent Expenditure	\$ 10,000
Civil Society Organization	Gato Andino	Grant	Investment Mobilized	\$ 25,000
Civil Society Organization	Red Nacional de Mujeres y Minería (RNMM)	In-Kind	Recurrent Expenditure	\$ 5,000
Other	Women In Mining (WIM)	In-Kind	Recurrent Expenditure	\$ 2,000
Other	Universidad de Cataluña (España)	Grant	Investment Mobilized	\$ 20,000
Other	Universidad Mayor de San Andrés	Other	Investment Mobilized	\$ 5,000
	UNIDO	Grant	Investment Mobilized	\$ 120,000
				\$ 14,984,260

Source of Co-financing	Name of Co-financier	Type of Co-financing	Investment Mobilized	Amount
Recipient Country Government	Ministère de l'Environnement et du Développement Durable	In-Kind	Recurrent Expenditure	\$ 2,000,000
Recipient Country Government	Ministère des Mines (Agence Nationale de	In-Kind	Recurrent Expenditure	\$ 2,000,000
Recipient Country Government	Ministère de la Santé	In-Kind	Recurrent Expenditure	\$ 1,000,000
Recipient Country Government	ANOR	In-Kind	Recurrent Expenditure	\$ 6,000,000
Donor Agency	GIZ (PAGE programme)	Grant	Investment Mobilized	\$ 8,631,495
GEF Agency	UNIDO	Grant	Investment Mobilized	\$ 100,000
				\$ 19,731,495

Source of Co-financing	Name of Co-financier	Type of Co-financing	Investment Mobilized	Amount
Recipient Country Government	Ministry of Mines and Steel	Loan	Investment Mobilized	\$ 22,000,000
Recipient Country Government	Ministry of Environment	In-Kind	Recurrent Expenditure	\$ 3,000,000
Private Sector	Kian Smith Refinery	Grant	Investment Mobilized	\$ 2,000,000
GEF Agency	UNIDO	Grant	Investment Mobilized	\$ 80,000
				\$ 27,080,000

Source of Co-financing	Name of Co-financier	Type of Co-financing	Investment Mobilized	Amount
Recipient	Ministry of Environment - Congo	In-Kind	Recurrent Expenditures	\$ 1,000,000
Recipient	Ministry of Mines Congo	In-Kind	Recurrent Expenditures	\$ 1,000,000
Private Sector	Refiner	Grant	Investment Mobilized	\$ 10,000,000
GEF Agency	UNEP	In-Kind	Recurrent Expenditures	\$ 100,000
				\$ 12,100,000

Source of Co-financing	Name of Co-financier	Type of Co-financing	Investment Mobilized	Amount
Recipient	Ministry of Environment	In-Kind	Recurrent Expenditures	\$ 1,000,000
Recipient	Ministry of Mines	In-Kind	Recurrent Expenditures	\$ 1,000,000
Civil Society	IMPACT	Grant	Investment Mobilized	\$ 200,000
Private Sector	Refiner	Grant	Investment Mobilized	\$ 30,000,000
GEF Agency	UNEP	In-Kind	Recurrent Expenditures	\$ 100,000
				\$ 32,300,000

Source of Co-financing	Name of Co-financier	Type of Co-financing	Investment Mobilized	Amount
GEF Agency	UNDP	In-Kind	Investment Mobilized	\$ 50,000
Recipient Country Government	CESCCO and MIAMBIENTE	In-Kind	Recurrent Expenditures	\$ 1,850,000
Private Sector	AMAPEH (Artisanal and Small Scale Miners)	In-Kind	Investment Mobilized	\$ 1,000,000
Recipient Country Government	Institute of Geology and Mines (INGECOMIN)	In-Kind	Recurrent Expenditures	\$ 5,700,000
Beneficiaries	02 de Julio (Registered Artisanal Gold Mining Company) localized in El Corpus, Choluteca	Other	Investment Mobilized	\$ 2,753,000
Beneficiaries	Minas y Cuevas (Registered Small Scale Gold Mining Co. Localized in Macuelizo, Santa Barbara)	Other	Investment Mobilized	\$ 1,560,000
Recipient Country Government	Production National Bank (BANPROVI)	Public Investment	Investment Mobilized	\$ 2,000,000
Beneficiaries	Santa Cruz Minas (Small Scale Miners organization) located in Santa Cruz Minas in Santa Barbara	Other	Investment Mobilized	\$ 1,960,000
				\$ 16,873,000

Source of Co-financing	Name of Co-financier	Type of Co-financing	Investment Mobilized	Amount
GEF Agency	UNEP	In-kind	Recurrent Expenditures	\$ 1,000,000.00
GEF Agency	Conservation International	Grants	Investment Mobilized	14,000,000
			Total	\$ 15,000,000.00

Source of Co-financing	Name of Co-financier	Type of Co-financing	Investment Mobilized	Amount
Other	Multilateral Mining Integrated Programme (MMIP) - multiple donors	Public Investment	Investment Mobilized	\$ 5,000,000
Other	Multilateral Mining Integrated Programme (MMIP) - multiple donors	Grant	Recurrent Expenditures	\$ 5,000,000
Recipient Country Government	Inter-Ministerial Committee on Illegal Mining	Public Investment	Investment Mobilized	\$ 9,230,000
Recipient Country Government	Inter-Ministerial Committee on Illegal Mining	Grant	Recurrent Expenditures	\$ 9,230,000
Other	The Responsive Engagement and Collective Learning Approaches to Inform Mercury Substitution in ASGM, Ghana (RECLAIMS ASGM Ghana) - US Department of State	Grant	Recurrent Expenditures	\$ 500,000
Donor Agency	Ghana Forest Investment Program (World Bank)	Grant	Investment Mobilized	\$ 12,390,000
Donor Agency	Ghana Forest Investment Program (World Bank)	Loan	Investment Mobilized	\$ 7,000,000
Private Sector	Private sector (large mining companies)	Grant	Investment Mobilized	\$ 1,000,000
				\$ 49,350,000

Source of Co-financing	Name of Co-financier	Type of Co-financing	Investment Mobilized	Amount
	Government of Suriname	In-Kind	Recurrent Expenditures	\$ 3,000,000
	Large-scale gold mining companies	Grant	Investment Mobilized	\$ 8,250,000
	Middle size gold mining companies	Grant	Investment Mobilized	\$ 4,000,000
				\$ 15,250,000

Total Co-financing				202,668,755
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The amounts of co-financing are indicative at this stage, and we will adjust co-financing amounts and sources during the PPG phase. We expect that co-financing from governments, private sector and other actors will increase during the PPG phase.

Describe how any “Investment Mobilized” was identified.

D. TRUST FUND RESOURCES REQUESTED BY AGENCY, TRUST FUND, COUNTRY, FOCAL AREA AND THE PROGRAMMING OF FUNDS

GEF Agency	Type of Trust Fund	Country Regional/Global	Focal Area	Programming of Funds	(in \$)		
					Program Amount (a)	Agency Fee (b)	Total c=a+b
UNIDO	GET	Bolivia	Chemicals and Waste	Mercury	6,583,500	592,515	7,176,015
UNIDO	GET	Madagascar	Chemicals and Waste	Mercury	4,971,750	447,458	5,419,208
UNIDO	GET	Nigeria	Chemicals and Waste	Mercury	3,850,000	346,500	4,196,500
UNEP	GET	Uganda	Chemicals and Waste	Mercury	5,500,000	495,000	5,995,000
CI	GET	Global-CI	Chemicals and Waste	Mercury	3,927,580	353,482	4,281,062
UNEP	GET	Global-UNEP	Chemicals and Waste	Mercury	700,000	63,000	763,000
UNEP	GET	Congo	Chemicals and Waste	Mercury	2,700,000	243,000	2,943,000
UNDP	GET	Honduras	Chemicals and Waste	Mercury	4,000,000	360,000	4,360,000
UNDP	GET	Ghana	Chemicals and Waste	Mercury	4,302,500	387,225	4,689,725
UNIDO	GET	Ghana	Chemicals and Waste	Mercury	2,047,500	184,275	2,231,775
UNDP	GET	Suriname	Chemicals and Waste	Mercury	5,250,000	472,500	5,722,500
Total GEF Resources					43,832,830	3,944,955	47,777,785

E. PROGRAM’S TARGET CONTRIBUTIONS TO GEF 7 CORE INDICATORS

Provide the relevant sub-indicator values for this program using the methodologies indicated in the Core Indicator Worksheet provided in Annex B and aggregating them in the table below. Progress in programming against these targets for the program will be aggregated from child projects at the time of CEO endorsement, at midterm evaluation, and at terminal evaluation. Achieved targets will be aggregated and reported at any time during the replenishment period. There is no need to complete this table for climate adaptation projects financed solely through LDCF and SCCF.

Program Core Indicators		Expected at PFD
1	Terrestrial protected areas created or under improved management for conservation and sustainable use (Hectares)	

2	Marine protected areas created or under improved management for conservation and sustainable use (Hectares)	
3	Area of land restored (Hectares)	
4	Area of landscapes under improved practices (excluding protected areas) (Hectares)	
5	Area of marine habitat under improved practices (excluding protected areas) (Hectares)	
6	Greenhouse Gas Emissions Mitigated (metric tons of CO ₂ e)	
7	Number of shared water ecosystems (fresh or marine) under new or improved cooperative management	
8	Globally over-exploited marine fisheries moved to more sustainable levels (metric tons)	
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 (metric tons of toxic chemicals reduced)	280 metric tons of mercury reduced
10	Reduction, avoidance of emissions of POPs to air from point and non-point sources (grams of toxic equivalent gTEQ)	
11	Number of direct beneficiaries disaggregated by gender as co-benefit of GEF investment	

Mercury reduction targets in each country are estimated based on mercury use in the national ASGM sector in final or draft versions of National Action Plans, Minamata Initial Assessment (MIA), and the Global Mercury Assessment. Several variables were used to estimate current mercury use in each country, such as yearly volume of gold production by ASGM, and the mercury to gold ratios given the type of amalgamation technologies used. Mercury reduction targets are furthermore estimated based on variables such as number and location of ASGM sites, number of ASGM miners, current practices, capacities, and distribution of achievable reductions over the years of project implementation.

The sum of mercury use reductions that will be achieved in the participating countries during the 5-year program implementation phase amounts to 70 metric tons. While the countries have a very specific ASGM related context, they also have in common a widespread distribution of ASGM sites over their territories. In line with the program's theory of change that is designed to remove barriers to access to finance and adoption of mercury-free technologies, to enhance formalization, and to share knowledge and lessons learned at the national and global level, mercury use reduction will be replicated after the program is finalized. A replication by a factor 3 is expected over the 10 years following completion of the program. This represents an additional 210 metric tons of mercury use reductions. The total reduction of mercury use in ASGM achieved through the program is therefore **280 tons of mercury**.

It is expected that contributions to other core indicators will be achieved, for example under core indicators 3 (area of land restored), 4 (area of landscapes under improved practices) and 6 (greenhouse gases mitigated). The targets for those contributions will depend on the specific sites that will be selected for the country-level child projects, and will be quantified during the PPG phase. This will involve a selection of the intervention sites through a participatory process with key stakeholders. For these sites a baseline will be established related to deforestation rates, carbon stocks, biodiversity values, and areas of degraded forests and other lands. Based on these baselines and planned activities and interventions, targets will be quantified.

The number of beneficiaries is for each country-level project estimated based on the number of miners that will be targeted and the average family size. It is assumed that all family members of a household with a miner will benefit from the project. The total number of beneficiaries is 69,500 (of which 50% women and 50% men). This number will be further refined during the PPG phase.

F. PROGRAM TAXONOMY. Please fill in the table below for the taxonomic information required of this program. Use the GEF Taxonomic Worksheet provided in Annex C to help you select the most relevant keywords/topics/ themes that best describe this program.

Level 1	Level 2	Level 3	Level 4
Influencing Models	(multiple selection)	(multiple selection)	(multiple selection)
Stakeholders	(multiple selection)	(multiple selection)	(multiple selection)
Capacity, Knowledge and Research	(multiple selection)	(multiple selection)	(multiple selection)
Gender Equality	(multiple selection)	(multiple selection)	(multiple selection)
Focal Area/Theme	(multiple selection)	(multiple selection)	(multiple selection)
Rio Markers	(multiple selection)		

PART II: PROGRAMMATIC JUSTIFICATION

1.a Program Description. Briefly describe: 1) the global environmental and/or adaptation problems, root causes and barriers that need to be addressed (systems description); 2) the baseline scenario and any associated baseline program/projects, 3) the proposed alternative scenario with a brief description of expected outcomes and components of the program; 4) alignment with GEF focal area and/or Impact Program strategies; 5) incremental/ additional cost reasoning and expected contributions from the baseline, the GEFTF, LDCF, SCCF, and co-financing; and 6) global environmental benefits (GEFTF) and/or adaptation benefits (LDCF/SCCF); and 7) innovation, sustainability and potential for scaling up.

1) The global environmental and/or adaptation problems, root causes and barriers that need to be addressed (systems description)

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)³, and accounts for about 15% of the world’s annual gold production (Metal Focus, 2019)⁴. 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 soils. 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 on-going global efforts to reduce mercury use in the ASGM sector involving GEF and 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 user and 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 12-15 million people are currently involved in the 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: a) informality b) a lack of access to finance in the ASGM sector c) low technical capacity in countries to support formalisation and mercury reduction d) Lack of a holistic approach and regional coordination

a) Informality (the challenges of formalization)

³ UNEP. 2018. “Global Mercury Assessment 2018”. Available at:

<https://wedocs.unep.org/bitstream/handle/20.500.11822/27579/GMA2018.pdf?sequence=1&isAllowed=y>

⁴ <https://www.europeangoldforum.org/wp-content/uploads/sites/8/2019/04/Gold-Focus-2019-compressed.pdf>

There appears to be consensus that formalization is a process of which at the core is the issue of legalization. In the world of ASM and 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. However, often there is no exclusion of ASM level operations in the categories of licenses meant for industrial scale operators and only the onerous obligations prohibit miners who fall in the ASM (and ASGM) category to operate under said licenses. Some countries go as far as providing for a commodity specific (i.e. gold) category for ASM.

Oxford dictionary definition of the term formalization; "... the act of making an arrangement official; giving something a fixed structure or form by introducing rules....".

The term "formalization" when used in the ASM and ASGM sectors imparts a wide range of meanings for different people and different situations, and this often causes confusion. At the core of this confusion is when to call ASGM "formal" or "otherwise"; with the word "otherwise" being used interchangeably as a proxy for "illegal", "informal" and/or even "extra-legal" (Mutemeri, 2016).

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 transition from mercury. 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. In Mongolia, there is empirical evidence of a link between ASGM formalization and responsible mining practices. When miners started formalizing, there was improvement in mining practices, and willingness to transition to mercury free processing despite having very few processing facilities throughout the country. Due to access to mining land and predictable tenure, miners could invest in better practices and in addition enjoyed an improved public image.

The sector's informality is also linked to a poor understanding of its role in the economic development agenda in many countries. Due to policy oversights and unfounded ideas and generalizations about the sector's activities, ASGM occupies a peripheral position in many countries⁵.

There have been many interventions in different countries to formalize ASM and these often stop at providing a license category and not much else. Progressively, some countries go a little further and provide institutional arrangements to support and promote the sector, but in most developing countries these arrangements are often poorly resolved.

The key challenges of an informal ASGM sector are well documented. These are some of the reasons why formalization initiatives have had limited success (Mutemeri, 2016)⁶:

- Managing people not spaces for jurisdictions that are under-resourced
- Excluding local stakeholders (i.e. miners' organisations, traditional and local authorities) and their institutional arrangements
- Scaling down of regulatory frameworks that govern large-scale mining

⁵ ibid

⁶ Mutemeri et al. 2016. "Capacity building for self-regulation of the Artisanal and Small-Scale Mining (ASM) sector: A policy paradigm shift aligned with development outcomes and a pro-poor approach". *Extractives Industries and Society*, 3, 653-658.

- Lack of inclusivity in the policy formulation processes
- Taking a niche approach as opposed to a holistic integrated approach
- Prioritization of large-scale mining (LSM)

b) Lack of access to finance in the ASGM sector

The ASGM sector is undercapitalized, particularly in comparison to the formal/industrial scale gold mining sector⁷. 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 capitalisation of informal gold mining operations are: a lack of education of the sector within local financial institutions, a lack of data, a lack of formal business skills, the scope of the finance required and the remoteness of the operations which create market access challenges. Naturally, the formalization of ASGM also presents a significant hurdle. A 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 sector⁸. 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 operations data is lacking because ASGM miners do not have formal business skills. Without these formal management skills, again, the loan becomes perceived as higher risk.

Even if a miner is able to raise the finance to create a sustainable ASGM operation, there exists the challenge of keeping that gold “ethical”, meaning that the provenance of the gold throughout the supply chain is also expected to meet responsibility standards. So even if the ore is mined responsibly, the subsequent steps in the supply chain must also adhere to similar standards or risks having downstream participants in the gold market reject it for a lack of compliance. This presents a significant challenge to those attempting to reform the sector as multiple areas in the supply chain must be addressed and funded.

The remoteness of ASGM operations creates two key problems with regards to access to markets and financing: relatively low gold prices and a lack of opportunities. However, in comparison to other commodities such as produce from agriculture, 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 far lower revenues than the international price of gold. 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 as they are disconnected from centers of opportunity.

c) 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 poor capacity of actors at the local level and knowledge sharing. Despite 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) a traditional preference for gravity only methods even though they are not very efficient for total gold recovery, (iii) failure to adapt technologies to the level appropriate for ASGM organisations, (iv) lack of adequate training to enhance capacity during transfer of technology to miners, and (v) lack of awareness on available mercury-free alternatives.

d) Lack of a holistic approach and regional coordination

Despite country level efforts, mercury flows, inter-country migration and a lack of common purpose amongst neighbours present challenges to controlling mercury flows and ASGM formalization. The capacity of customs regulators and officers at national and regional level to control illegal mercury flows is limited.

⁷ Macdonald, KF *et al.* 2020. “Riverine biota as environmental indicators of artisanal small-scale and large-scale gold mining impacts on riverine ecosystems in Brong Ahafo Region, Ghana”. 2020 *IOP Conf. Ser.: Earth Environ. Sci.* 413 012014

⁸ Solidaridad. 2019. “ASM Gold Deserves Support from Formal Finance”. Available at: <https://www.solidaridadnetwork.org/news/asm-gold-deserves-support-from-formal-finance>

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. A study conducted by UNIDO⁹ on regional mercury and gold flows in the ECOWAS region of Africa, concluded that i) misalignment between regulatory frameworks and lack of coordination amongst relevant actors frustrates attempts to curb mercury supply and use, ii) efforts to curb mercury flow would benefit from greater coordination at the state level and by including various actors in mercury discussions and capacity building, iii) harmonization of trade and taxation regulations, and improving coordination in the ECOWAS region would disincentivize the trade of mercury between targeted countries, and thus meet their obligations under the Minamata Convention. In the Guianas, the major border rivers of the three countries allow easy movement of miners, mercury and gold¹⁰. It is reported that undeclared mercury flows across borders are intense and the entire illegal gold production in French Guiana relies on mercury imported clandestinely from neighbouring countries. Solving individual country mercury reduction targets will require regional coordination amongst neighbouring countries. Other challenges related to the transboundary nature of ASGM include migrant labour and informality, deforestation, illicit financing and illegal gold exports.

2) The baseline scenario and any associated baseline program/projects

The Global Environment Facility (GEF) and various other donors have over the last 20 years supported several projects, with the scaling of initiatives following the 2013 Minamata Convention. A description and analysis of these efforts follows to provide a global level baseline.

The Global Mercury Project

During the years 2002-2006, the GEF, UNDP and UNIDO 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 completed. This project recognized that it would not only have to introduce better practices in the form of technology and training but that it would have to overcome the barriers to the adoption of these practices, to ensure the sustainability and scalability of mercury reduction efforts. 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.

UNEP Global Mercury Partnership Area on 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. To date, 36 countries are developing their ASGM NAPs with two reportedly lodged with the Minamata Secretariat.

⁹ Valcambi Suisse. 2019. "Gold Focus 2019". Available at: <https://www.unido.org/sites/default/files/files/2018-11/UNIDO%20ECOWAS.pdf>

¹⁰ ID4D. 2016. "Mercury and gold mining in the Guianas – cooperate or fail". Available at: <https://ideas4development.org/en/mercury-and-gold-mining-in-the-guianas-cooperate-or-fail/>

It oversees the global knowledge management, communications and outreach component of the planetGOLD program. The Partnership Area is bringing together a range of key stakeholders, including governments, financial entities, refiners, jewelers, NGOs, academics and other partners, to collaborate and provide inputs on this effort.

The Minamata Convention

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 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.

The planetGOLD Program

The planetGOLD Program (2019-2024) program is currently being implemented in eight countries in three major global regions: Burkina Faso, Colombia, Guyana, Indonesia, Kenya, Mongolia, Peru, the Philippines and a global programme component¹¹. These countries were selected on the basis of their demonstrated interest in addressing the sector positively and on the amount of mercury reportedly used. Two major barriers to effective mercury management in the ASGM sector identified by the planetGOLD Program are: (i) informality, and (ii) lack of facilitated access to finance and markets. To address the two key barriers, the planetGOLD Programme is organized around four components: Component 1 - Institutional strengthening, policies and regulations; Component 2 - Promotion of investment options and direct market access for artisanal miners and their communities; Component 3 - Introduction of better and more efficient mercury-free technologies and practices, and Component 4 - Knowledge management, communication and outreach. Within component 4, a dedicated planetGOLD website has been developed, hosting a knowledge repository which has materials in the knowledge areas of formalization, technical solutions, awareness raising and access to finance. The materials are in different languages, which include the six United Nations (UN) languages and Swahili. The website also has links to each of the Child Project countries and provides a summary of the ASGM situation in the country and an introduction to the planetGOLD Program approaches for implementation.

The planetGOLD Program aims to support the eight countries to fulfil 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 over the period of implementation. The main objective is to reduce the amount of new anthropogenic mercury emissions and remediation of mercury contaminated tailings in at least two of the countries. The mercury remediation will be tested within a gold recovery economic model from the contaminated tailings.

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 standards¹². This innovation recognizes that the market does not see mercury usage in isolation, but rather as one of many factors that need to be tackled if they are to market the gold as "ethical". This reinforces a sectoral approach to mercury reduction and recognizes the interconnection of ASGM operations with other stakeholders within a given landscape.

Other GEF-related projects

- *Ecuador ASGM/POPs project implemented by UNDP (partner to planetGOLD)*¹³

11 GEF. (2015). GEF-6 Program Framework Document (PFD)

https://www.thegef.org/sites/default/files/project_documents/GOLD_PFD-Signed-CI-UNDP-UNEP_0.pdf

12 Including for example alignment with minimum market expectations such as the OECD Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk Areas (2016). OECD Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk Areas: Third Edition, OECD Publishing, Paris.

<http://dx.doi.org/10.1787/9789264252479-en>. Approaches to achieving such alignment might include the implementation of the CRAFT Code. CRAFT – Code of Risk-mitigation for ASM engaging in Formal Trade – Version 1.0 – July 31, 2018.

<http://www.responsiblemines.org/wp-content/uploads/2018/08/2018-07-31-CRAFT-Code-v-1.0-EN.pdf>

¹³ <https://www.planetgold.org/ecuador>

Implemented under the National Program for Chemical Management, the project's objective is contributing to Ecuador's National Development Plan of the Mining Sector and promoting responsible mining under the Minamata Convention. The program seeks to contribute to the formalization and associative processes of ASGM. It promotes creation of financial opportunities for the sector that allow recognition and promotion of good, mercury-free practices, through the implementation of tools and technical knowledge that enable the production of gold in an appropriate manner. The program also seeks to involve women, especially those working in mine dumps, in training, identify their needs and promote two sustainable ventures that are led by them. It aims to reduce mercury use and releases from ASGM in Ecuador by 2 tons.

- Improving the Health and Environment of Artisanal and Small Scale Gold Mining (ASGM) Communities by Reducing Mercury Emissions and Promoting Sound Chemical Management¹⁴

GEF funded a project in Burkina Faso, Mali and Senegal to reduce the impacts of mercury on human health and the environment of artisanal gold mining communities by promoting sound chemical management and strengthening local and national capacity to effectively reduce mercury use, emissions and exposure.

Other initiatives

Other initiatives that relate to ASGM have been launched in recent years in response to the growing understanding between the negative environmental and developmental impacts of unsustainable mining practices, these include:

- The OECD's Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk Areas which provides recommendations to help companies avoid contributing to conflict through their mineral purchasing decisions. The Guidance includes an Appendix on "suggested measures to create economic and development opportunities for artisanal and small-scale miners" calling on all stakeholders to engage in legalization and formalization programs of artisanal mining communities. In 2016, the OECD Secretariat also issued the "sourcing gold from Artisanal and Small-Scale miners" document, which provides practical guidance on how companies should engage and source gold from ASGM miners.

- In 2013, the Government of Switzerland developed the Better Gold Initiative (BGI). The scheme aims to build transparency, responsibility and profitability into the gold value chain through the elimination of intermediaries. BGI is a public private partnership between the Swiss Better Gold Initiative and the State Secretariat for Economic Affairs (SECO) and supports efforts on formalization and implementation of cleaner and more efficient extraction methods.

- The Alliance for Responsible Mining (ARM) and Fairtrade International have developed international standards, "Fairmined" and "Fairtrade Gold" respectively in a move to raise the public awareness on the positive impact of their consumer choices. The standards require communities to be formalized and respect social and environmental minimum requirements. Mongolia, with the assistance of ARM, exported its first Fairmined gold bar in 2015. ARM has further developed with Code for Risk Mitigation for ASGM engaging in Formal Trade (CRAFT), which is a code for progressive compliance for ASM producers.

3) The proposed alternative scenario with a brief description of expected outcomes and components of the program

The proposed program, called GOLD+, aims to deepen mercury reduction in ASGM through a holistic multisectoral integrated formalization innovations. This takes into account all facets of gold production and supply chain and consideration of all sectors that enable an optimally functioning ASGM sector with capacity to reduce mercury use and support sustainability.

¹⁴ <https://www.thegef.org/project/improve-health-and-environment-artisanal-and-small-scale-gold-mining-asgm-communities>

Impact:
Eradication of anthropogenic releases/emissions of mercury from ASGM into the environment.



Outcomes:
Higher degree of formalisation in the sector; Improved sustainability; Increased investment in mercury-free transition and increased incomes in the sector; Increased uptake of mercury-free technologies by miners and increased gold recoveries; Improved knowledge and skills of the ASGM actors; Improved governance



Key Outputs:
Appropriate formalisation models are developed and implemented; Greater conformance/alignment with SDGs; Models that enhance uptake of mercury-free technologies are developed and implemented; Improved access to finance; More transparent mineral supply chains that are mercury free; Strengthened local institutions that provide support to ASGM actors to transition from mercury; Better policies and stronger institutions



Key Strategies/Inputs

<p>GEF-7</p> <p>1. Enhancing</p>	<p>2. Access to finance</p>	<p>3. Enhancing uptake of Ho-</p>	<p>4. Knowledge sharing</p>
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- Assumptions**
- ✓ Selection of appropriate EAs
 - ✓ Selection appropriate Child project countries
 - ✓ Stakeholders' willingness to participate and appropriate capacity building instruments designed
 - ✓ Uptake by member govts
 - ✓ Uptake by miners
 - ✓ Continued support by donors
 - ✓ Stability of gold economy sector



Theory of Change

Figure 1. Theory of Change

The GOLD+ program responds to the GEF 7 Chemicals and Waste Focal Area Strategy priorities, which require high level of innovation and integration, and interventions developed to be sustainable beyond the life of the GEF project. It responds to GEF 7 program principles of building on or using existing networks, regional, national and sub-national institutions.

The program aims to achieve the long-term goal “to prevent the exposure of humans and the environment to harmful chemicals and waste of global importance.” As designed, the program is consistent with the GEF-7 Chemicals and Waste element CW-1-1: Strengthen the sound management of industrial chemicals and their waste through better control, and reduction and/or elimination. Various multilateral environmental agreements and global processes including the Minamata Convention on Mercury also inform the design of the program.

In order to address the key barriers identified, the program will be organized around the components detailed below in Figure 2.

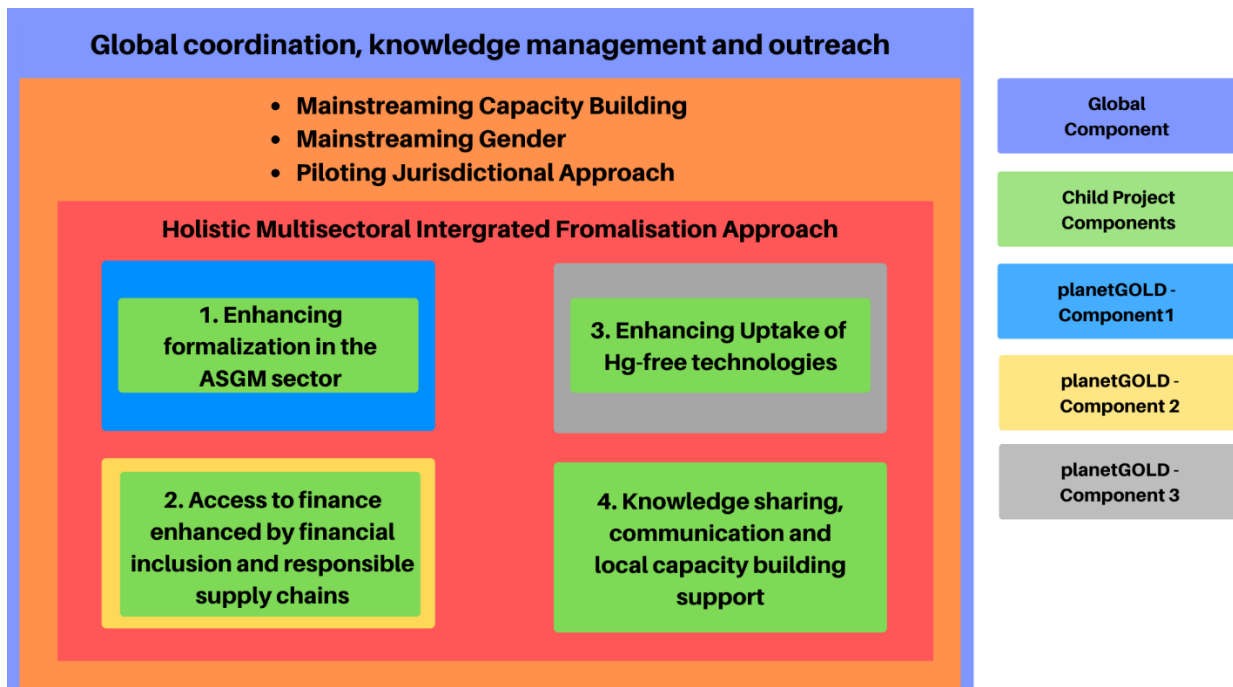


Figure 2. Components of GOLD+

Component 1: Enhancing formalization in the ASGM Sector

Area of focus: ASGM formalisation enabling environment through multisectoral, holistic and integrated approaches.

This component builds on the planetGOLD Program component “*policy and institutional frameworks*”. It proposes to address the challenge of a “*weak formalisation enabling environment*” through supporting frameworks that have a *multisectoral, holistic and integrated approach*. This approach will also support improved contribution to the SDGs. The starting point is the analysis of ongoing regional, national and local formalisation efforts, various stakeholders and their interest and scoping entry points to create ownership, buy in and win-win scenarios on ASGM formalisation. It proposes looking at different models of addressing formalisation such as engagement with Large Scale Mining (LSM) through different modalities such as tributing¹⁵, co-existence¹⁶ and multi-stakeholder agreements¹⁷. Within the different models, conflict mitigation/dispute resolution mechanisms should be put in place. Other formalisation approaches will include trials of jurisdictional approaches (JA)¹⁸, integrated land use planning and application of relevant country legal frameworks. It will also explore ASGM governance framework models that support formalisation such as Multistakeholder Committees as tried in Ethiopia, DRC and Tanzania¹⁹. These Committees bring different stakeholders together to drive the formalisation agenda. The integration of LSM in ASGM formalisation provides an added benefit for access to geological data, mercury free processing facilities and professionalisation

¹⁵ “Tributing” refers to the practice of allowing another operator to mine on one’s mining concession for an agreed fee which may be paid through a rental or product sharing arrangement.

¹⁶ Co-existence is a term that has been applied to the “live-and-let-live” set-up where an LSM operator permits controlled ASM activities on its concession as a way of managing encroachment related conflict.

¹⁷ Multi-stakeholder agreements involve various stakeholders agreeing and committing to ASM land access and formalization within a framework that binds each party to the agreement. Examples are agreements amongst LSM, ASM, local government, National Government, Civil society etc. In Mongolia a tripartite agreement between LSM, ASM and local government is stipulated in the ASM regulations as a means to formalization.

¹⁸ Jurisdictional approaches are intervention approaches that seek to align interests and coordinate actions among governments, businesses, local communities, and NGOs toward shared conservation, supply chain sustainability, and green development goals.

¹⁹ Mutagwaba, et al. 2018. “Artisanal and small-scale mining in Tanzania – Evidence to inform an ‘action dialogue’”. Available at: <https://pubs.iied.org/pdfs/16641IIED.pdf>

through capacity transfer. Technical partnerships with the private sector will be promoted. The component proposes capacity building through the different levels of organisations to enable technical assistance in the formalisation process. This capacity transfer institutionalises intervention at the different levels for sustainability. Formalisation propositions will be aligned with NAP strategies to ensure they are built from stakeholders' propositions.

It is proposed that landscape approaches and jurisdictional approaches (JA) will be used as a framework for structuring interventions in a holistic multisectoral and integrated way. Through integrated land planning, ASGM zones will be established and geo-prospected through private sector technical partners. While JA provides opportunities for integrated and multistakeholder interventions, it lends itself to a number of challenges, which include unrealistic expectations about what JAs can achieve and over what time frame. Some of the most successful examples of JA have taken more than a decade to develop and are based on strong government commitment and robust multi-stakeholder processes. In addition, other challenges to JA include political turnover, limited public sector capacity and lack of broader support and incentives – all of which can hamper the kind of long-term, sustained attention these initiatives require to succeed. Mitigation measures for political turnover and the need for a strong emphasis on institutional capacity building and institutionalizing the approaches piloted will also be required.

This component will explore collaboration at a regional level to find solutions on issues around cross-border informality, illicit mercury trade, harmonisation of fiscal regimes and policy frameworks, accounting for climate change in ASGM, setting policy targets on Minamata Ratification and regional mercury reduction. Through a regional approach, regional priorities and initiatives shall be identified with potential to provide a leverage through collaboration, regional ownership and common objectives, thus institutionalising the interventions at country and national level. To reduce regional cross border mercury flows, engagement should be made with the World Customs Organisation (particularly its network of Regional Intelligence Liaison Offices) or Interpol units with a focus to improve capacity of customs and enforcement officers to address illicit trade in mercury and facilitate cross-border cooperation to avoid illegal trade. Customs bodies and financial ministries²⁰ play a pivotal role in regulating mercury trade flows and improved cooperation, knowledge sharing between government bodies can be developed to close coordination gaps.

While child projects will be implemented at country level to ensure ownership, regional opportunities will be explored to address some of the formalisation and mercury flow challenges that require regional level intervention and dynamics. Where feasible and meeting with set criteria, two or more countries in a region could align their project design to pilot certain aspects of regional and/or jurisdictional approaches.

Component 2: Access to finance enhanced by financial inclusion and responsible supply chains

Area of focus: The capacity building and education of local financial institutions and the creation of transparent and responsible supply chains.

Access to finance and responsible supply chains are interlinked and their establishment are key to the creation of a sustainable ASGM sector. Component 2 of GOLD+, builds on the planetGOLD Program component “Promotion of investment options and direct market access for artisanal miners and their communities” by continuing to focus on educating financial institutions to support the development of the ASGM sector and improving the supply chain in order to unlock new markets for ASGM miners.

The principal activities in Component 2 will include:

1) Continuing to educate and collaborate with local financial institutions to provide financial products suited to the ASGM sector. Lessons from the Global Child Project will be used to improve the process of getting these financial products to market by providing case studies and best practices that can then be adopted to suit the local environment. Initiatives that explore new models that assist in the assessment of risk, such as gathering geological data, are also encouraged.

²⁰ Taxation, fines and dis-incentives

2) Capacity building to assist miners to access funds will continue to be heavily emphasized in GOLD+. Training miners on business and operations management will provide miners the tools to not only access the finance but also successfully execute on their business plans to create a sustainable and more profitable mining operation.

3) Interventions along the supply chain will be performed to encourage an understanding and commitment to reaping the benefits of responsible mining. Educating gold buyers on how compliance with standards such as the OECD Due Diligence Guidance for Responsible Mineral Supply Chains prevents them from contributing to conflict will continue to be key. Quantifying and communicating the financial benefits of responsible mining to ASGM miners and gold traders is a crucial incentive and will be used to encourage the adoption of sustainable practices. The adoption of these practices will require the capacity building and access to finance mentioned above. Technology solutions, such as Decentralized Ledger Technology, will also be explored to assess their ability to enable a transparent ASGM supply chain. Engagement with gold traders in deploying gold provenance solutions and associated business benefits to ensure their buy-in will be key to the success of responsible mineral supply chain interventions.

Component 3: Enhancing uptake of mercury-free technologies

Area of focus: Creation of supportive business models

This component aims to address the challenge that mercury free technologies exist but largely remain undeployed by miners or hardly used. Where there are on-going mercury free processing efforts or government restrictions on mercury supply, there are cross broader leakages and mercury still finds its way to ASGM.

This component proposes to upscale lessons from the planetGOLD Program on the deployment of technology. In addition, it will seek to develop models that are applicable to different levels of ASGM organisations, financial and technical capacity as well as achieve high gold recoveries. Models will include linking ASGM organisations using gravity only solutions with leaching plants²¹; enabling ASGM operators to use a combination of gravity and leaching processing circuits, exploring sale of ores and tailings to LSM operators in places where there is capacity for reliable independent assaying, improved processing circuits and downscaling leaching to professionally capable ASGM operators. Since these technologies already exist, this component of the program will seek to understand the challenges limiting deployment by ASGM organisations and propose viable models suited for different ASGM operators. This component’s activities will be aligned with proposals and strategies from the NAPs. Mercury free technologies available in the market and which work to production scale include gravity free concentration (sluices, centrifuges, shaking tables, Gemini tables), floatation and chemical leaching of gold (see table below).

Mercury Free category	Examples	Recoveries	ASM Organisation	Ease (cost, operational)
Gravity Only	Pans, sluices, improved sluices	Basic to good depends on mineralisation. Good for coarse alluvial, poor for very fine primary gold. Results in High grading of deposit Quick recovery	Individuals, small organisations, informal to formal set ups	Low cost, familiar operations, easy to operate. Low maintenance and replacement cost.
Improved Gravity	Centrifuges, shaker tables	Good – for coarse and fine gold Poor for ultra-fine gold Quick recovery	Advanced individuals, organisations, formalised set ups with financial capacity	Medium to high in cost and operations. Need maintenance, high replacement cost

²¹ Leaching plants will be operated by different actors depending on country context. These include private processors, ASGM operators with requisite licences and LSM operators.

Gravity/ Flotation/Leaching	Centrifuge, flotation cells, Vat tanks, carbon-in- leach (CIL)/ carbon-in-pulp (CIP) circuit	Very good, maximum recovery coarse and fine gold	Organised groups, financially capable, technically sound human resources	Medium to high cost, high operation cost and supervision.
Digestion/Leaching	Cyanide leaching	Maximum recoveries	Organised groups, financial and human resource capacity	Medium to high cost, supervision required.

To ensure that low capacity ASM organisations have access to maximum gold recovery technologies various models for access should be explored. Examples include having the miners using gravity only methods like sluices and centrifuges, selling their tailings to a leaching facility, or setting up a leaching facility for the same miners to group-process their tailings. Other models include miners selling their ores to existing plants with complete gravity concentration to leaching processes. The technological solutions should be able to deliver on the miners' need for quick cash with high recoveries at the end of the day. Failure to achieve that keeps miners in the old trusted mercury amalgamation methods as it provides them quick processing and acceptable recoveries. For most small organisations, which do have adequate cash reserves, improved gravity concentration methods should deliver gold on a daily basis, while an additional flotation leaching circuit provides gold after 2 weeks to 1 month of processing. The optimal combination of the technology and the context of ASM organisations and operations should be explored to deliver maximum gold recovery and transition to mercury free processes.

Landscape Approaches/Jurisdictional Approaches (LA/JA) to reduce mercury use across a geographic landscape will be piloted. This will involve engaging different actors, such as governments, communities, private sector, financiers, downstream actors in deploying mercury free approaches. Capacity building is an integral part of the component will be carried out through existing structures in the country from national to sub-national level to institutionalize the knowledge and experience within country structures. Where there are existing ASGM Departments or organs, a capacity assessment should be done, and a capacity building strategy framed to accompany them during the project life. Collaboration with Technical institutions and miners' associations should be explored to involve trainers from the host communities and associations. Onward peer learning and experience exchange amongst miners will have upscaling effects on the technology's uptakes.

Component 4: Knowledge sharing, communication and local capacity building support

Area of focus: Support for capacity building across the different components, knowledge sharing and communication with an increased focus impact at the miner level.

Each country-level child project has a component on knowledge sharing, communication and local capacity building support (Figure 2). Furthermore, the GOLD+ program has a global project that builds on planetGOLD and focuses on coordination, global knowledge management and outreach, which is further discussed in section 8: knowledge management.

This component will support capacity building, knowledge sharing and communication across the different components and will include a focus on maximising the impact of communications at the local miner level. This component proposes using online education and digital marketing tools to support the traditional participatory workshop and training model to help institutionalize sustainable mining methods at the community level.

There will be a large degree of focus on building local capacity across different levels of project implementation to ensure knowledge and capacity stays in country all the way down to the site level. Capacity assessment of different stakeholders and knowledge gaps will be identified. Similarly, institutions of technical knowledge will be identified, and collaborations made. Targeted institutions will be government services, technical training or vocational education institutes and ASM organisations. Lessons can be learned from the many initiatives on the capacity building approaches of local actors that have been implemented in Africa, Asia and Latin America ^{22 23 24 25}. This will include

²² <https://www.planetgold.org/resources>

approaches involving working with Mining Rescue Services, Inspectors (for labour, safety, health, production monitoring etc.), Local Emergency Services, and Vocational Education centres. Relevant and appropriate training materials and approaches will be deployed to capacitate the miners and other stakeholders to support ASGM transition to mercury free technologies. This component supports the different components with capacity development strategies, adult learning techniques and skills development techniques. It is proposed that each implementing agency elaborates strategies for capacity building in the project design and how institutionalisation amongst local actors will be achieved.

Media campaigns and communication tools will be used to inform the general public, ASGM communities and schools on the dangers of mercury and possible solutions. A communication strategy will be developed, and key stakeholders identified. The global project will support the country level child projects in developing communication strategies, tools and sharing of project results and lessons learned.

4) Alignment with GEF focal area and/or Impact Program strategies

This program is directly aligned with the Chemicals and Waste Focal area, Industrial Chemicals Program (program 1) 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, program 1, is the reduction and elimination of mercury from the Artisanal and Small Scale Gold Mining Sector. GOLD+ will contribute directly to this objective, building upon the GEF-6 planetGOLD program.

5) Incremental/ additional cost reasoning and expected contributions from the baseline, the GEFTF, LDCF, SCCF, and co-financing

The program will provide incremental funding for the reduction of mercury use in ASGM in the participating countries. It will build on the GEF planetGOLD program that is currently being implemented, through the use of an existing knowledge platform, lessons learned, capacity building materials, data bases, proven technologies and market opportunities. It will also build on existing efforts of the UNEP Global Mercury Partnership. In each participating country the program's child project will coordinate with the work of national partners and contribute to complementing their planned interventions. In countries where NAPs are completed or nearly completed, the child projects will consider the implementation of priority actions as identified in the NAPs. In countries where the NAPs are still in an early stage of development, the child projects will closely coordinate with that process for coherence and complementarity. The GEF funding will assure global environmental benefits in terms of mercury reduction that are additional to the baseline in each country. Governments and project partners, including the private sector, will provide substantial and significant co-financing for the projects related to the proposed interventions including investments in reducing mercury contamination related to the ASGM sector. Co-financing has been listed in the respective country child projects.

6) Global environmental benefits (GEFTF) and/or adaptation benefits (LDCF/SCCF)

Mercury reduction targets in each country are estimated based on mercury use in the national ASGM sector in final or draft versions of National Action Plans, Minamata Initial Assessment (MIA), and the Global Mercury Assessment. Several variables were used to estimate current mercury use in each country, such as yearly volume of gold production by ASGM, and the mercury to gold ratios given the type of amalgamation technologies used. Mercury reduction targets are furthermore estimated based on variables such as number and location of ASGM sites, number of ASGM miners, current practices, capacities, and distribution of achievable reductions over the years of project implementation.

²³ <https://www.worldbank.org/en/topic/extractiveindustries/brief/artisanal-and-small-scale-mining>

²⁴ <http://artisanalmining.org/>

²⁵ <http://repository.uneca.org/handle/10855/5447>

The sum of mercury use reductions that will be achieved in the participating countries during the 5-year program implementation phase amounts to 70 metric tons. While the countries have a very specific ASGM related context, they also have in common a widespread distribution of ASGM sites over their territories. In line with the program's theory of change that is designed to remove barriers to access to finance and adoption of mercury-free technologies, to enhance formalization, and to share knowledge and lessons learned at the national and global level, mercury use reduction will be replicated after the program is finalized. A replication by a factor 3 is expected over the 10 years following completion of the program. This represents an additional 210 metric tons of mercury use reductions. The total reduction of mercury use in ASGM achieved through the program is therefore **280 tons of mercury**.

It is expected that contributions to other core indicators will be achieved, for example under core indicators 3 (area of land restored),⁴ (area of landscapes under improved practices) and 6 (greenhouse gases mitigated). The targets for those contributions will depend on the specific sites that will be selected for the country-level child projects, and will be quantified during the PPG phase. This will involve a selection of the intervention sites through a participatory process with key stakeholders. For these sites a baseline will be established related to deforestation rates, carbon stocks, biodiversity values, and areas of degraded forests and other lands. Based on these baselines and planned activities and interventions, targets will be quantified.

The number of beneficiaries is for each country-level project estimated based on the number of miners that will be targeted and the average family size. It is assumed that all family members of a household with a miner will benefit from the project. The total number of beneficiaries is 69,500 (of which 50% women and 50% men). This number will be further refined during the PPG phase.

7) Innovation, sustainability and potential for scaling up.

Innovation

The proposed Program is unique in its approach to formalization. The approach proposed here is based on the notion that holistic multisectoral integrated formalization innovations can deepen mercury reduction in ASGM. It is informed by the barriers and gaps identified in the literature and premised on a formalisation approach that includes the following Key Success Factors:

- Appropriate legal framework, that promotes management of spaces not people.
- A holistic integrated approach, which means taking into account all facets of the gold production and supply chain and how they work together optimally for viable ASGM operations.
- Multisectoral, which means considering all sectors (e.g. forestry, water, health, environment that are important for enabling an optimally functioning ASGM sector with capacity to reduce mercury-free use and supports sustainability).
- Inclusivity in policy formulation processes that include all stakeholders, including gender mainstreaming.
- Inclusion of local context in the institutional arrangements (i.e. miners' organisations, traditional and local authorities).
- Local capacity for sustainable change.

This approach goes beyond a purely legalization focused approach often taken to ASM and encourages the creation of systems that will increase the long-term prospects of the Program to effect lasting change.

Another innovative aspect to this Program is that it will provide the first pilots of the jurisdictional approach as tool for interventions in the ASGM sector on some of its child projects. Jurisdictional approaches have been used to good effect in conservation interventions as they aim to balance the often competing yet interlinked economic, social and environmental goals encountered in conservation programming within a geographical space²⁶. Furthermore, JA's use government administrative boundaries to define the project's scope to maximize governmental participation. The JA was created as a response to two key insights gleaned from the analysis of past conservation projects: first, standalone projects are unable to deliver on their goals in the long-term and secondly, that policies and programs must be

²⁶ Conservation International. 2018. "Sustainable Landscape Approach – Implementation Guidebook."

implemented at multiple levels of government in order to be successful²⁷. The approaches provide strategies that will integrate ASGM formalization into community land use planning, biodiversity preservation and livelihood security as well as drawing stronger political and stakeholder commitments. The use of these approaches will provide an additional pathway to ensure the sustainability of the child projects in the long-term.

Regional integration will be explored in strengthening control of mercury flows amongst neighboring countries and tackling informality.

The results of these holistic approaches will be documented in a systematic manner similar to the planetGOLD program where lessons learned from the interventions of the child projects are made available through the knowledge management platform. This allows non-participating countries to identify the management and technical options that best fit their local conditions.

Sustainability and Upscaling

The Program should be an opportunity to trial new solutions to address the objective of reducing mercury emissions from ASGM. Sustainability and scaling up will be built into the interventions allowing for scale -up and replication. This will be considered from local, national, regional and global levels and achieved through the following: i) Knowledge sharing and communication to raise the profile of the successes from the planetGOLD Program ii) Scale-up gained from the regional approaches as regional approaches allow for implementation of interventions at scale, building wider geographic reach. Replications of these regional approaches would also support much faster scaleup, iii) Implementation approaches that allow for greater alignments with national objectives, priorities and increased ownership and leadership by national actors iv) The capacity building approach mainstreamed in the components is to ensure knowledge and experiences stay in country within relevant institutions v) banking miners is a private sector sustainability proposition that goes beyond donor funds vi) where gold deposits exist and miners are well banked, financiers will be available to provide credit and hence continuity and scale up of program results vii) Formalisation and mercury free models linking ASGM with private sector have greater prospects for sustainability and upscaling, decoupling the intervention from long term donor dependence.

1.b Program Map and Coordinates. Please provide geo-referenced information and map where the program interventions will take place.

2. *Stakeholders.* Select the stakeholders that have participated in consultations during the program identification phase:

Indigenous Peoples and Local Communities;

Civil Society Organizations;

Private Sector Entities;

If None of the Above, please explain why.

In addition, provide indicative information on how stakeholders, including civil society and indigenous peoples, will be engaged in the program preparation, and their respective roles and means of engagement.

The Program will involve the complete network of stakeholders that form and influence the ASGM sector. This will include local, national and regional levels of government, including but not limited to: the Executive, the Legislative, and Ministries of Mines, Ministry Urban Development, Ministry of Health, Ministry of Environment, Environmental Protection Agencies. The program design will be participatory and bottom up with preparatory teams building project design based on stakeholders input to create ownership and commitment to project implementation.

²⁷ Boyd, W. et al. 2018. "Jurisdictional Approaches to REDD+ and Low Emissions Development: Progress and Prospects."

Institutions with ASM mandates, international and local CSOs and NGOs working in the ASGM sector could become implementation partners of the GEF GOLD+ program to help advocate reduced mercury usage in global gold supply chains and disseminate widely the outputs and findings of the program. Strengthening local institutions and actors through joint implementation will be one of the engagement strategies of the program. Local communities and other economic actors within the landscape will be engaged for integrated land use planning, developing road maps and monitoring plans. Organisations such the Swiss Better Gold Association (SBGA), the Responsible Minerals Initiative (RMI) and others will provide valuable advocacy and coordination support for the program.

ASGM miners and their representatives will be core partners of GEF GOLD+ and will be involved throughout the Program. Their willingness to participate in mercury-free interventions is naturally important. To attain maximum buy-in, the miners will be involved in the identification and implementation of locally defined solutions. They will also be the recipients of training, finance and technology transfer at the child project level.

The role of the private sector will be different in each child project however some key roles could include:

- Local banks participating as sources of capital to assist the miners in adopting mercury free technologies.
- Working with existing networks of informal ASGM financiers can be explored to engage them in formal activities.
- Downstream product manufacturers as consumers of the product generated by ASGM miners.
- Formal and informal gold traders as important players in the gold supply chain and their willingness to participate in ethical gold provenance solutions.
- Security, logistics and transport companies operating along the supply chain will be essential to securely move and track gold, especially within conflict affected and high-risk areas.
- Large-scale gold mining companies (LSGMs) operating within program landscapes where co-location with ASGM is present will have a role to play. Large scale mines can adopt different models to manage and co-exist with ASGM, one of those models is to support the establishment of a viable ASM zone or mine in their concession or the surrounding area.

At regional level, high level political engagement to coordinate regional efforts will be sought at the design stage of the project and regional commitment secured.

3. *Gender Equality and Women's Empowerment.* Are gender dimensions relevant to the success of the program? (yes /no) If yes, please provide indicative information on these dimensions and how these will be addressed in the program. If no, please explain why. In addition, please also indicate whether the program will include gender-sensitive indicators in its results framework? yes /no / tbd

An estimated 30% of the world's artisanal miners are women and they occupy a number of roles ranging from labor-intensive mining methods to the processing aspects of artisanal mining. Consistent with the GEF Policy on Gender Mainstreaming, the proposed Program recognizes the gender dimensions of mercury use and exposure risks in ASGM as women often perform the most toxic jobs (i.e. mixing the mercury in panning) as these activities require less strength. This Program presents an opportunity to educate women on these risks and maximize the potential benefits from participation in the ASGM sector. The program will mainstream gender equality and women's empowerment throughout its components by ensuring that formalization efforts, access to finance and responsible markets and access to mercury free technologies benefit both men and women. Capacity building of ASGM actors will target both men and women through training and skills transfer.

The Program includes gender dimensions that are key to its success. At the policy formulation level, inclusivity and gender mainstreaming have been included to highlight that women should be a part of this process and have their interests and concerns accounted for in ASGM related policies. This provides an opportunity to ameliorate some of the inequities in political power that women in the sector encounter.

Mainstreaming gender is planned for every component of the project, to this end, gender analyses will form part of the socio-economic assessments for child projects; the roles women play in various stages of ASGM process include mining, crushing, processing, mercury use in gold recovery, gold trading, mining support services, leading and organizing and support services. Through these processes mercury exposure happens in varying levels. The unique health risks mercury poses to women due to both their roles on the mine sites and the potential adverse effects of

prenatal mercury exposure will be highlighted in community level communications; and women will be strongly encouraged to participate in all ASGM miner training activities, from business skills to clean technology skills transfer. These efforts should provide the basis for healthier and more empowered women in the ASGM sector. Gender mainstreaming in this program could be supported by application of the methodologies like the ‘Gender and ASM Framework’ in the World Bank’s “Gender Dimensions of Artisanal and Small-scale Mining - Rapid Assessment Toolkit”²⁸. This framework considers gender from the perspective of roles and responsibilities, access and control and impacts and benefits for the different components of the ASM value chain. Activities the program will undertake to support gender mainstreaming throughout the program cycle management include ensuring country child project design and development consultations engage women and men, (stakeholders, and consulting teams). To be able to measure progress with gender mainstreaming, the child projects result framework should have gender disaggregated indicators. Each child project should develop a gender action plan to guide activities and measure progress. Other activities include identifying and working with ASGM Women Associations, promoting access to ASM land, finance and mercury free technologies to women miners. Communication tools and methods will be designed with the perspective of both men and women ASGM actors.

4. *Private Sector Engagement.* Will there be private sector engagement in the program? (yes /no). Please briefly explain the rationale behind your answer.

As mentioned previously the role of the private sector will vary on each child project. However, the private sector’s involvement in the Program will be key on a host of issues, particularly with regards to unlocking financing and providing incentives for responsible practices within the ASGM sector. The global coordination project also has a key role in convening the private sector along the value chain of gold, investment community and others. Much of the effort with regards to financial inclusion will be to educate local financial institutions on the opportunity that ASGM presents, de-risking strategies for the sector and how to provide appropriate financial products to the sector. This is important for the long-term sustainability of the project as it institutionalizes the access to finance for ASGM miners at the local level and recognizes that donor funds can only go so far.

5. *Risks.* Indicate risks, including climate change risks, potential social and environmental future risks that might prevent the program objectives from being achieved from program implementation and if possible, propose measures that address these risks to be further developed during the program design (table format acceptable).

Risk	Rating	Risk Mitigation Measures
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²⁸ <http://documents.worldbank.org/curated/en/644761468157780524/Gender-dimensions-of-artisanal-and-small-scale-mining-a-rapid-assessment-toolkit>

Risk	Rating	Risk Mitigation Measures
<p>Political Economy / Vested Interests: criminal groups; armed groups; corruption etc.</p>	<p>Medium/ High</p>	<p>Implementing a landscape approach is essential to identifying and working with all interest groups in order to drive improved practice. The program will seek to engage <i>all legitimate actors</i> (see for example Organisation for Economic Co-operation and Development (OECD) definition of legitimate ASM).</p> <p>The program will monitor the potential link between gold production and conflict or instability in conflict affected and high-risk areas.</p> <p>The program will ensure strong operational credibility by building strong partnerships with national and local stakeholders, with a focus on formal governance institutions.</p> <p>Risk profiling of potential pilot areas or landscapes within jurisdictions in the form of baseline and ongoing monitoring will inform initial selection and potential disengagement (in extreme circumstances) of program geographies.</p> <p>The program will further be predicated on demonstrating the widespread benefits and co-benefits (environmental, economic, social etc.) resulting from its activities. Whilst regulation and enforcement of nefarious actors may be required by program partners (i.e. prosecution of criminal groups involved in the illicit mercury trade), the value of the program to most stakeholders should be self-evident (benefits of participation / cooperation outweigh the costs).</p>
<p>Introduction of new technologies may threaten jobs</p>	<p>Low</p>	<p>The program will seek to promote adoption of technologies that are accessible (financially, geographically, culturally etc.) and where possible procured locally.</p> <p>The program will do exhaustive profiling of the program landscape at the beginning of the program and collective program design and decision making with beneficiary communities will minimise risks of marginalizing these actors.</p> <p>The program will work closely with government to firmly establish them as a “service provider” as well as regulator. Alternative livelihoods/income diversification strategies may be implemented as part holistic JA frameworks</p>
<p>Climate Change: Changes in the environment. Desertification etc. pushing people into ASGM resulting in rushes which are difficult to regulate</p>	<p>Low</p>	<p>The program will track changes in the environment due to climate change impacts and adapt accordingly.</p> <p>As part of the holistic multisector integrated approach (possibly JA) the program will perform climate change vulnerability assessments and implement climate adaptation strategies.</p>
<p>Lack of buy-in by governments</p>	<p>Medium</p>	<p>The program will engage governments a global, regional and national levels during the program development and implementation</p>
<p>Lack of buy-in by the private sector</p>	<p>Medium</p>	<p>The program will engage private sector parties through industry bodies like the ICMM, Chambers of Mines and Commerce program development and implementation</p>
<p>Lack of buy-in by miners</p>	<p>Medium</p>	<p>The program will engage miners directly through their associations, and also through governments and NGOs, CSOs and CBOS, during the program development and implementation.</p>

Risk	Rating	Risk Mitigation Measures
Reputational risk	Medium	The program should do due diligence on all key partners The program will develop a communication strategy to manage the narrative around the program
Political upheaval / instability: change of government; change of policy priorities; new program interlocutors etc.	Medium/High	A commitment to the implementation of the Minamata Convention, including signature / ratification of the Convention, conduct of a Minamata Initial Assessment and / or development of a National Action Plan and will have requested support in the form of a Letter of Endorsement from the Operational Focal Point. A programmatic approach that minimizes discretion and personality driven interventions that will come from use of the JA may reduce the impact of changes in governments. Child project countries will commit significant co-funding, which will ensure strong national ownership of programming at the national level. Program implementation with ASGM as core beneficiaries will reinforce a trend towards greater accommodation of ASGM in host-government policy. A jurisdictional approach that has at its core the establishment of strong partnerships with host-governments will be optimally placed to identify and manage shifts in political commitment to the core program objectives.
Government capacity to implement interventions	High	The program will have financial resources to kick start interventions The program will use its convening power to identify resources for government to develop capacity

The Corona Virus Pandemic (COVID-19) may affect the program due to delays in stakeholder consultations, in ability to travel, and in recruiting staff and consultants. In-order to mitigate the risks outlined above, the program will apply the following mitigation measures (these measures will be updated at the beginning of the PPG phase):

- During the PPG phase, the project will prepare and implement safeguard plans which will indicate activities being put in place to address risks triggered by COVID-19.
- At the start of the PPG phase, the program will develop and implement an Adaptive Management Plan for the COVID-19 situation. This plan will provide activities that will ensure that selected project activities can be delivered while working remotely. This Adaptive Management Plan will be updated throughout the PPG phase and could be applicable to the Implementation Phase depending on the impacts of COVID-19.
- During the PPG phase, progress and adaptive measures being put in place for the child projects will be closely monitored. This will enable the agencies to provide guidance on how best to adapt to the situation from a technical and financial perspective;
- The program budget will cover recurrent costs for purchasing hand sanitizers, face masks, gloves etc for project staff;
- The program will create a COVID-19 repository for disseminating information related to COVID19 with program teams and stakeholders.

6. *Coordination.* Outline the institutional structure of the program including defining the role of the lead agency in monitoring and evaluation coordination at the program level. Describe possible coordination with other relevant GEF-financed programs/projects and other initiatives.

The program will be coordinated by Conservation International in close collaboration with the GEF agencies that are implementing child projects: UNEP, UNDP and UNIDO. As lead agency, Conservation International will be responsible for the overall program coordination, supervision, monitoring and evaluation, and reporting of progress towards achieving the outcomes of the program and the overall objective of reducing the use of mercury in ASGM.

A Mid Term Evaluation (MTE) will be organized halfway the implementation of this 5-year program for each child project under the responsibility of the concerned implementing agency. The MTE will provide an independent assessment of implementation and likelihood of the child project reaching its objectives. The MTE will be a tool for adaptive management if necessary. An independent terminal evaluation (TE) will take place at the end of each child project's implementation, immediately after the finalization all activities. As for the MTE, the TE of each child project is the responsibility of the concerned implementing agency. The TE will provide an independent assessment of project performance (in terms of relevance, effectiveness, efficiency), and determine the likelihood of impact and sustainability. An independent Terminal Evaluation of the Program will be undertaken by Conservation International and will focus on lessons learned, technical value and implementation barriers. The Program TE will take place after all child projects have been completed.

7. *Consistency with National Priorities.* Is the program consistent with the national strategies and plans or reports and assessments under relevant conventions? (yes x /no). If yes, which ones and how:

- ASGM National Action Plans (ASGM NAP)

In countries where the ASGM National Action Plan (NAP) process has been completed or is underway, the relevant GEF Gold child project will take into account the established national objectives and reduction targets, as well as stated national strategies, when creating the final design of the project to ensure consistency with the NAP. In countries where the NAP development is concurrent with the child project, the project team will participate in the NAP process to assure that the design of the child project is well aligned with the NAP process and that available resources are taken into account mutually.

8. *Knowledge Management.* Outline the “Knowledge Management Approach” for the program and how it will contribute to the program’s overall impact, including plans to learn from relevant programs/projects, initiatives and evaluations;

The global project of GOLD+ focuses on knowledge management and increased access to information among project partners and the wider ASGM community, particularly on the topics of formalization, market access and technology transfer. Through the implementation of communication strategies and activities, it will also inform and educate the general public and decision makers on the mayor issues, challenges and solutions related to the ASGM sector. The knowledge management approach will build on the planetGOLD platform, which will continue to be the hub of the knowledge gathered by the planetGOLD and GOLD+ child projects. Learning and exchange amongst different country projects will be enabled by global events supported by the GOLD+ global project, such as the Global Fora (continuing the Global Fora that are organized by planetGOLD). The Knowledge and Communication component of GOLD+ will also include an increased focus on maximising the impact of communications at the local level within countries through the implementation of component 4 of the child projects. This component proposes using online education and digital marketing tools to support the traditional participatory workshop and training model to help institutionalize sustainable mining methods at the community level.

There will be a large degree of focus on building local capacity across different levels of project implementation to ensure knowledge and capacity stays in country all the way down to the site level. Capacity assessment of different stakeholders and knowledge gaps will be identified. Institutions of technical knowledge will be identified, and collaborations made. Targeted institutions will be government services, technical training or vocational education institutes and ASM organisations.

The global project will support the country level child projects in developing communication strategies, tools and sharing of project results and lessons learned.

9. *Child Project Selection Criteria.* Outline the criteria used or to be used for child project selection and the contribution of each child project to program impact.

Ten countries in the major regions where ASGM is present will participate to the Program. The countries were selected on the basis of the criteria below.

- Ratification of the Minamata Convention
- Some progress towards the elaboration of a National Action Plan for ASGM.
- Country’s mercury emissions are considered important given global reduction targets (global mercury hotspots). However, it will also be important to consider countries where ASGM is considered very significant and a national priority, for example, when there is substantial contribution to gross domestic product by gold produced with mercury
- Existence of frameworks that could support enhancement of its formalization-enabling environment at a country level. This could be but not limited to; a) existence of LA/JA initiatives in mining or other sectors (including ones that show a nexus between mining and biodiversity), b) Mercury-free best practices ready for scale-up, c) supply chain initiatives, d) financial inclusion interventions and, e) regional projects to piggyback on
- Potential for replication either at a national or regional level
- Country willing to demonstrate leadership and ownership in implementation and sector reform (i.e. political commitments and budget commitments) ownership

The ten selected countries are: Uganda, Republic of the Congo, Suriname, Honduras, Ghana, Bolivia, Nigeria, Madagascar, Gabon, Zambia

PART III: APPROVAL/ENDORSEMENT BY GEF OPERATIONAL FOCAL POINT(S)

A. RECORD OF ENDORSEMENT OF GEF OPERATIONAL FOCAL POINT(S) ON BEHALF OF THE GOVERNMENT(S):
 (Please attach the [Operational Focal Point endorsement letter](#) with this template).

NAME	POSITION	MINISTRY	DATE (MM/dd/yyyy)

LIST OF CHILD PROJECTS UNDER THE PROGRAM

Child Projects under the Program^{a/}							
Country	Project Title	GEF Agency	GEF Amount (\$)			Agency Fee (\$)	Total (\$)
			Focal Area		TOTAL		
			Chemicals and Waste		Project		
			Project		Project		
	FSPs						
Bolivia	1.GOLD+ Bolivia	UNIDO	6,583,500		6,583,500	592,515	7,176,015
Madagascar	2.GOLD+ Madagascar	UNIDO	4,971,750		4,971,750	447,458	5,419,208
Nigeria	3.GOLD+ Nigeria	UNIDO	3,850,000		3,850,000	346,500	4,196,500
Uganda	4.GOLD+ Uganda	UNEP	5,500,000		5,500,000	495,000	5,995,000
Global	5.GOLD+ Global coordination	CI	3,927,580		3,927,580	353,482	4,281,062
Global	5. GOLD+ Global coordination	UNEP	700,000		700,000	63,000	763,000
Congo	6. GOLD+ Congo	UNEP	2,700,000		2,700,000	243,000	2,943,000
Honduras	7. GOLD + Honduras	UNDP	4,000,000		4,000,000	360,000	4,360,000
Ghana	8. GOLD+ Ghana	UNDP	4,302,500		4,302,500	387,225	4,689,725
Ghana	8. GOLD+ Ghana	UNIDO	2,047,500		2,047,500	184,275	2,231,775
Suriname	9. GOLD+ Suriname	UNDP	5,250,000		5,250,000	472,500	5,722,500
	Subtotal		43,832,830		43,832,830	3,944,955	47,777,785
	MSPs						
	1.	(select)			0		0
	2.	(select)			0		0
	3.	(select)			0		0
	Subtotal		0	0	0	0	0
	Total		43,832,830		43,832,830	3,944,955	47,777,785

a/ Total amount of child project concepts should equal the GEF program financing requested and consistent with Tables A, B and D.

PROGRAM/PROJECT MAP AND GEOGRAPHIC COORDINATES
(when possible)

GEF 7 Core Indicators Worksheet

Use this Worksheet to compute those indicator values as required in Part I, item E to the extent applicable to your proposed program. Progress in programming against these targets for the program will be aggregated and reported at any time during the replenishment period. There is no need to complete this table for climate adaptation projects financed solely through LDCF and SCCF.

Program Taxonomy Worksheet

Use this Worksheet to list down the taxonomic information required under Part I, item F by ticking the most relevant keywords/ topics/themes that best describe this program.