



GEF-6 REQUEST FOR PROJECT ENDORSEMENT/APPROVAL

PROJECT TYPE: FULL SIZE PROJECT

TYPE OF TRUST FUND: GEF TRUST FUND

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PART I: PROJECT INFORMATION

Project Title: Global Knowledge Management and Exchange of Programme Project Results Through Networking and Outreach Activities for the GEF GOLD Programme			
Country(ies):	Burkina Faso, Colombia, Guyana, Indonesia, Kenya, Mongolia, Peru and Philippines	GEF Project ID: ¹	9697
GEF Agency(ies):	UN Environment	GEF Agency Project ID:	01548
Other Executing Partner(s):	UN Environment Global Mercury Partnership ASGM area (co-leads: NRDC, UN Environment and UNIDO)	Resubmission Date:	May 8, 2018
GEF Focal Area (s):	Chemicals and Wastes	Project Duration (Months)	60
Integrated Approach Pilot	IAP-Cities <input type="checkbox"/> IAP-Commodities <input type="checkbox"/> IAP-Food Security <input type="checkbox"/>		Corporate Program: SGP <input type="checkbox"/>
Name of Parent Program	Global Opportunities for Long-term Development of ASGM Sector - GEF GOLD	Agency Fee (\$)	720,000

A. FOCAL AREA STRATEGY FRAMEWORK AND OTHER PROGRAM STRATEGIES²

Focal Area Objectives/Programs	Focal Area Outcomes	Trust Fund	(in \$)	
			GEF Project Financing	Co-financing
CW-2 Program 4	The core of the project objective is to develop economic approaches to deliver finance to the ASGM sector, as well as an efficient dissemination of the information on the GEF GOLD programme to mining stakeholders/communities, government and society in the participating countries.	GEFTF	8,000,000	17,767,604
Total project costs			8,000,000	17,767,604

B. PROJECT DESCRIPTION SUMMARY

Project Objective: Financial resources for the ASGM sector are secured to transition to mercury-free mining techniques						
Project Components/ Programs	Financing Type ³	Project Outcomes	Project Outputs	Trust Fund	(in \$)	
					GEF Project Financing	Confirmed Co-financing
1.Improving access to financial resources in the ASGM sector	TA	1.1 Financial service providers and investors who are new to the GOLD Programme access guidance on financial schemes to engage with the ASGM sector	1.1. Sensitisation of potential financial institutions and investors to invest in the ASGM sector. 1.1.2 Unlock capital flows to the ASGM sector through financing specific opportunities	GEFTF	3,279,000	4,823,000

¹ Project ID number remains the same as the assigned PIF number.

² When completing Table A, refer to the excerpts on [GEF 6 Results Frameworks for GETF, LDCF and SCCF](#) and [CBIT programming directions](#).

³ Financing type can be either investment or technical assistance.

			<p>for improvement.</p> <p>1.1.3 Socially responsible investment (SRI) Community members sensitized to remove barriers in their charters and/or other governing rules that are or may have been preventing them from investing in small scale gold mining.</p>			
2. Provide access to information and opportunities for exchange among Parties and other ASGM Practitioners	TA	2.1 Project participating countries and the wider ASGM community increasingly share access and apply knowledge on global experiences to assist the development and implementation in formalisation, access to finance and technology transfer.	<p>2.1.1 Knowledge from global experience, as well as from GEF-GOLD programme experiences in key ASGM topics (formalisation, financing, market access and technology transfer), is collated and synthesized.</p> <p>2.1.2 Information is disseminated and shared among relevant stakeholders.</p> <p>2.1.3 Results among country-level projects of the programme collected and analysed to provide program-level results</p>	GEFTF	2,843,000	9,261,000
3. Educating the General Public about ASGM as a global issue	TA	3.1 Support among the governments, stakeholders, mining communities or financial sector and international media for reduced mercury use in ASGM is increased	<p>3.1.1 Global branding of GEF GOLD programme identity established</p> <p>3.1.2 Proactive PR/media strategy executed, targeting general public, financial institutions and government agencies, to create more balance perception of impacts of ASGM.</p> <p>3.1.3 Communication efforts by all GEF GOLD projects are supported and reinforced.</p>	GEFTF	1,358,000	1,154,000
4. Monitoring and	TA	4.1 Project is	4.1 Evaluation of project	GEFTF	120,000	500,000

Evaluation		evaluated according to GEF Rules	impacts			
			Subtotal		7,600,000	15,038,000
			Project Management Cost (PMC) ⁴	GEFTF	400,000	2,029,604
			Total project costs		8,000,000	17,767,604

C. CONFIRMED SOURCES OF Co-financing FOR THE PROJECT BY NAME AND BY TYPE

Please include evidence for co-financing for the project with this form.

Sources of Co-financing	Name of Co-financier	Type of Cofinancing	Amount (\$)
GEF Agency	UN Environment	In Kind	3,740,000
		Cash	3,000,000
GEF Agency	UNIDO	In kind	740,000
IGO	OECD	In kind	415,000
		Cash	280,000
IGO	AMDC	In kind	15,000
		Cash	20,000
IGO	CIRDI	In kind	54,000
		Cash	315,604
Donor Agency	SDC	Cash	6,000,000
CSO	NRDC	In kind	200,000
		Cash	300,000
CSO	AGC	In Kind	150,000
CSO	The Dragonfly Initiative	Cash	2,000,000
CSO	Resolve	Cash	50,000
Other	Levin Sources-GI	In kind	33,000
		Cash	205,000
Private Sector	ArrowHead Films	Cash	250,000
Total Co-financing			17,767,604

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

GEF Agency	Trust Fund	Country Name/Global	Focal Area	Programming of Funds	(in \$)		
					GEF Project Financing (a)	Agency Fee ^{a)} (b) ²	Total (c)=a+b
UNEP	GEF TF	Global	Chemicals and Wastes	Mercury	8,000,000	720,000	8,720,000
Total Grant Resources					8,000,000	720,000	8,720,000

a) Refer to the [Fee Policy for GEF Partner Agencies](#)

⁴ For GEF Project Financing up to \$2 million, PMC could be up to 10% of the subtotal; above \$2 million, PMC could be up to 5% of the subtotal. PMC should be charged proportionately to focal areas based on focal area project financing amount in Table D below.

E. PROJECT'S TARGET CONTRIBUTIONS TO GLOBAL ENVIRONMENTAL BENEFITS⁵

Provide the expected project targets as appropriate.

Corporate Results	Replenishment Targets	Project Targets
1. Maintain globally significant biodiversity and the ecosystem goods and services that it provides to society	Improved management of landscapes and seascapes covering 300 million hectares	<i>hectares</i>
2. Sustainable land management in production systems (agriculture, rangelands, and forest landscapes)	120 million hectares under sustainable land management	<i>hectares</i>
3. Promotion of collective management of transboundary water systems and implementation of the full range of policy, legal, and institutional reforms and investments contributing to sustainable use and maintenance of ecosystem services	Water-food-ecosystems security and conjunctive management of surface and groundwater in at least 10 freshwater basins;	<i>Number of freshwater basins:</i>
	20% of globally over-exploited fisheries (by volume) moved to more sustainable levels	<i>Percent of fisheries, by volume:</i>
4. Support to transformational shifts towards a low-emission and resilient development path	750 million tons of CO _{2e} mitigated (include both direct and indirect)	<i>metric tons</i>
5. Increase in phase-out, disposal and reduction of releases of POPs, ODS, mercury and other chemicals of global concern	Disposal of 80,000 tons of POPs (PCB, obsolete pesticides)	<i>metric tons</i>
	Reduction of 1000 tons of Mercury	<i>123 metric tons</i>
	Phase-out of 303.44 tons of ODP (HCFC)	<i>ODP tons</i>
6. Enhance capacity of countries to implement MEAs (multilateral environmental agreements) and mainstream into national and sub-national policy, planning financial and legal frameworks	Development and sectoral planning frameworks integrate measurable targets drawn from the MEAs in at least 10 countries	<i>Number of Countries:</i>
	Functional environmental information systems are established to support decision-making in at least 10 countries	<i>Number of Countries:</i>

Total GEB for the GEF GOLD programme amount to reduction of global mercury emissions of 123 tonnes for the duration of the programme with an expectation of in-country replication of each project to double within the following 2-3 years. With the implementation of this global project, the replication potential will again be doubled including countries not benefitting from the Programme through on the ground activities but through the knowledge management and results disseminations of activities planned on this global project. Therefore, the total potential for global mercury reduction of this global project alone is **123 tonnes**.

F. DOES THE PROJECT INCLUDE A “NON-GRANT” INSTRUMENT? NO

⁵ Update the applicable indicators provided at PIF stage. Progress in programming against these targets for the projects per the *Corporate Results Framework* in the [GEF-6 Programming Directions](#), will be aggregated and reported during mid-term and at the conclusion of the replenishment period.

PART II: PROJECT JUSTIFICATION

A. DESCRIBE ANY CHANGES IN ALIGNMENT WITH THE PROJECT DESIGN WITH THE ORIGINAL PIF⁶

A.1. Project Description. Elaborate on: 1) the global environmental and/or adaptation problems, root causes and barriers that need to be addressed; 2) the baseline scenario or any associated baseline projects, 3) the proposed alternative scenario, GEF focal area⁷ strategies, with a brief description of expected outcomes and components of the project, 4) incremental/additional cost reasoning and expected contributions from the baseline, the GEFTF, LDCF, SCCF, CBIT and co-financing; 5) global environmental benefits (GEFTF) and/or adaptation benefits (LDCF/SCCF); and 6) innovativeness, sustainability and potential for scaling up.

1) THE GLOBAL ENVIRONMENTAL AND/OR ADAPTATION PROBLEMS, ROOT CAUSES AND BARRIERS THAT NEED TO BE ADDRESSED

Mercury is a toxic substance that poses adverse negative impact to human and environmental health. No safe level of exposure to the chemical is currently known. Globally, it is acknowledged that mercury pollution is capable of exposing populations, regardless of proximity to source, to the harmful effects of the chemical.

Although mercury is a naturally occurring element, anthropogenic sources of mercury emissions account for about 30 percent of the total amount of mercury entering the atmosphere. Of these anthropogenic sources, a main source category has been identified: artisanal and small-scale gold mining (ASGM) is the largest, accounting for 37 percent of the total anthropogenic emissions. Globally more than 90 percent of all the ASGM operations are considered informal, or lacking standards and/or compliance to government regulations. The sector is mostly poverty driven- e.g., most small scale miners engage in ASGM because of the limited economic opportunities available. Currently, the sector is estimated to contribute around 15 to 20 percent of the world's total gold production.

The Programme Global Opportunities for the Long-term Development of the ASGM sector has been designed to address the key issues and provide sustainable development opportunities for the communities involved. The Programme is composed of 8 child projects: 7 country projects where the programme components will be implemented in the field, and one global project which will sustain knowledge and improve replication potential. This document concerns the global project on knowledge management and communication.

1.1 The Global environment problems

ASGM is a source of employment for 10-20 million miners in over 80 countries, almost all of them in the developing world. There are approximately 100 million women, men, and children that are economically supported by this industry, producing roughly 20% of the world's gold. ASGM is a huge vector for transferring wealth from the rich to the poor. However, the sector is often informal and is also estimated to be the largest source of global mercury pollution in the world, estimated as accounting for over a third of global anthropogenic emissions.

⁶ For questions A.1 –A.7 in Part II, if there are no changes since PIF , no need to respond, please enter “NA” after the respective question.

⁷ For biodiversity projects, in addition to explaining the project's consistency with the biodiversity focal area strategy, objectives and programs, please also describe which [Aichi Target\(s\)](#) the project will directly contribute to achieving.

In addition to being a source of global mercury pollution, ASGM can result in other negative environmental impacts such as deforestation and biodiversity loss. ASGM is often associated with child labor, other human rights violations and can be a driver for reduced environmental security, sometimes being linked to armed conflicts over access to mineral reserves. However, ASGM's important role as a source of livelihood to millions of rural poor communities make any solutions inseparable from the larger development agenda and socioeconomic considerations. This is the consensus viewpoint of most development and international agencies and the premise underlying the direction of the Minamata Convention's Article 7 on ASGM.

1.2. Root causes and barriers to be addressed

The root causes of high mercury usage and emissions in the ASGM sector, also described in the Programme framework and addressed in the country projects, are related to poverty and lack of economic opportunity; poor governance; lack of awareness of the dangers of mercury; and, the lack of knowledge of economically viable alternative gold recovery methods. The largely informal nature of the sector, which significantly limits access to capital, is one of the most critical barriers to the adoption of alternative gold recovery methods.

1. **Informality:** The informal, illegal, or quasi-legal status of many mining communities make it difficult to organize and educate miners and mining communities to the risks from use of mercury. The status of the sector also make it hard for miners to invest in technological and social solutions to reduce and eliminate mercury use. Contributing to ongoing informality is the pervasive negative perception among governments and the general public about the nature of small-scale mining, particularly its perceived association with a range of social and environmental ills. This perception makes it difficult to create political will for governments to take steps to bring the sector into the formal economy and enable positive environmental and social reforms to occur.
2. **Lack of adequate capital:** In most cases miners use mercury because it is quick (same day), cheap, and easy. Moving to improved technologies requires capital for the equipment, setup, permitting, management systems, and know-how to operate formally and obtain a larger and more reliable payoff. The negative reputation and informality also makes investors and financiers wary of involvement in the sector, keeping it deprived of the necessary capital, despite the opportunities for profit. Hence, even when miners are able to operate in a formal system, they often lack the access to finance to enable them to create mining and mineral processing systems that are able to recover gold efficiently without using mercury. The **scope of finance needed** to be able to meet modern norms of responsible production can also be a barrier. Many participants in the downstream gold market, from refiners to bullion banks to jewellers, now require compliance with norms of social and environmental responsibility along the complete production system. These clients have standards about how and where gold is produced which must be met in order for them to buy the gold. In briefest terms, the gold must meet something akin to the *London Good Delivery* status, which means knowing significant aspects about the provenance of the gold (i.e., it must come from a known and legal location with a mining license) and the manner in which it is produced (i.e., compliance with national environmental and labour practices); the producer must be available to be audited for these conditions. In this system, the whole production cycle must meet responsibility standards. Therefore, it may be difficult to finance just one element of a production system when the entirety of the system must meet these standards. This may limit some finance options which could otherwise target smaller financial needs of

individuals or small groups. For example, it may be difficult to finance equipment needed for just the crushing of ore without guarantees that upstream, the ore is being produced safely and from mine with a legal mining license, and guarantees that downstream the crushed rocks will be processed without mercury and that the gold being produced is being sold into a legal and transparent supply chain. It may be more attractive to financial partners to offer larger amounts of funding for developing businesses that explicitly elaborate how the upstream and downstream production, processing, and sales risks will be managed.

3. **Lack of formal business skills:** Investors and providers of project finance typically require a **fully elaborated business plan**, with detailed descriptions of the production system, to understand and judge the financial risk. Often significant up-front costs, expertise and knowledge are required to elaborate clear financial models and risk characteristics, provide the necessary production data and available feedstock estimates, to establish clear gold-purchasing contracts (referred to as “off-take”) and, confirm the return on investment estimates. In addition, most investors and finance providers are looking for a **strong management and operational team** so that there is clarity on whom they are financing, and how they are organized. The lack of a management team with recognized experience therefore is a barrier to artisanal and small scale miners to access finance. There is often a need to provide intermediary assistance to the miners to build such capacity.

These barriers stand in the way of creating a well-developed formalized ASGM sector. Institutional interaction and coordination is key for to addressing these barriers where all stakeholders have a clear mandate to promote finding a solution to high mercury usage and emissions, as well as environmental degradation and, negative health effects.

2) THE BASELINE SCENARIO OR ANY ASSOCIATED BASELINE PROJECTS

2.1. ASGM National Action Plans (NAPs)

The Minamata Convention on Mercury, adopted in 2013, recognizes the importance of ASGM in the context of global mercury pollution. ASGM is addressed in its own article in the text of the Convention (Article 7) and an associated annex (Annex C) which describes the required contents of a National Action Plan (NAP) that Parties with more than insignificant ASGM are required to develop and implement. The Minamata Convention on Mercury made NAPs the centerpiece of Parties’ obligations on ASGM. Indeed, NAPs are intended to involve all the relevant government agencies and enable them to agree on a single plan, with a set of strategies to address all the major components of ASGM, such as baseline estimates, worst practices, formalization, health impacts, and availability of mercury. Using the NAP, Parties and donors can make informed decisions about future interventions to reduce mercury use in ASGM.

All the countries participating in this project are currently interested in or are developing a NAP. Burkina Faso, Kenya, Indonesia, Mongolia and Peru for example are currently developing a NAP with GEF funds. The implementation of this Programme (in particular, the country-level projects) will be coordinated with the implementation of the NAPs in each of these countries. The NAPs will gather essential baseline information on the ASGM at national level. They will also identify strategies for each country to reduce mercury use in this sector and associated health and environmental impacts. It is anticipated that these NAP reports will be available by the end of 2019 and so will strengthen the existing baseline of the GOLD Programme. At the same time, the GOLD programme will in itself also contribute to the NAP development process at both the country level and at the global level. It will provide miners and other stakeholders with technical assistance and access to information on legal, formalization, financial and technical aspects of promoting mercury-free mining. A specific focus of the global project is to provide information and models on

increasing access to finance and investment for ASGM, both of them considered important market-based mechanisms for NAP elements as well as key to the reduction of mercury use in this sector.

The success of the NAP process to transform the sector will also depend on changing the public perception. Currently, this focuses on the negative social and environmental impacts of artisanal and small scale mining with little attention given to the potential positive elements of poverty reduction and social, gender and economic development. It will be necessary to actively elaborate the neglected positive narrative that emphasizes the economic development potential of ASGM provided that the appropriate social and environmental safeguards are put in place. This will be needed in order to build political support for the inclusion of ASGM in the formal economy, to create demand for responsibly produced ASGM gold, and to increase investment in the sector.

Below is a discussion of the baseline situation with regard to existing models of financing and socially responsible investment; availability of global experience and information on relevant ASGM topics needed to support the development of NAPs (formalisation and mercury free techniques); and the current state of public discourse on ASGM.

2.2. Existing Models for Increasing Access to Financing and Investment

The ASGM sector is severely undercapitalized. Capital applied per unit gold it produces is vastly lower than that available for the industrial formal gold mining sector which is capital intensive. Closing this gap cannot be accomplished through the delivery of official development assistance funds alone. Institutional financing and investment capital must be mobilized in order to provide the ASGM sector the capital it needs to become environmentally and socially responsible and thus allow it to fulfill its role in uplifting the rural poor whilst stopping the use of mercury. Several existing initiatives and models provide examples of how this mobilization could be achieved.

2.2.1. GEF GOLD agencies

The GEF agencies implementing GEF GOLD have some experience with financing initiatives that may be models for inclusion in the GOLD programme activities, though these models have not yet necessarily focused on small scale mining *per se*.

Conservation International: Conservation International (CI) does not have direct experience with projects that increased access to finance in the ASGM sector but has noted that Guyana has established a \$1b Guyana dollar (\$5m US dollar) Mercury Free Mining Development Fund (MFMD), to help miners transition to mercury-free techniques. However, to date the money has not been disbursed because of difficulty establishing an acceptable and workable mechanism for disbursing the funds (see: <https://www.pressreader.com/guyana/stabroek-news/20150113/281638188586860>). Under GOLD, CI is expecting to develop a workable mechanism by which such a fund could be mobilized and then convince the new government to re-invigorate and actually disburse the MFMD.

UNDP: Some work has recently been undertaken as part of the project preparation for a new UNDP project in Ecuador, also funded by the GEF, that has elements in common with the upcoming GOLD project. During that project preparation an extensive study of potential financial models was carried out. The study identified several local financial institutions that could be potential partners for project implementation. The project itself focuses on increasing knowledge and capacity for those institutions to make financing available to the ASGM sector. While

recognizing that the report is specific to Ecuador and that the institutions have not yet dispersed any funds to the ASGM sector, this work could provide an example for other projects of how to map and educate potential financial actors in their own countries. This may benefit from the global project's efforts under Component 1 on defining the risk profile for ASGM operations such that financing elements such as interest rates, amortization periods, repayment options can be more easily understood and acted upon by financial institutions, investors and the socially responsible investment (SRI) community.

UN Environment: The United Nations Environment's Finance Initiative (UN Environment-FI) interfaces with over 200 financial institutions in a global partnership. Sixty percent of the participants are banks and the rest are insurers and investors (mainly institutional investors). Its focus is to advance the sustainable finance agenda to achieve the SDGs by changing behavior of financial institutions and investment strategies to finance more green initiatives, and to reduce environmental damages linked to economic development. It focusses on banks, insurers, and investors. UNEP FI's work also includes a strong focus on policy – by fomenting country-level dialogues between finance practitioners, supervisors, regulators and policy-makers, and, at the international level, by promoting financial sector involvement in processes such as the global climate negotiations..

For example, UN Environment-FI has been supporting a group of banks in Mongolia (the banking association of Mongolia) which has now organized a green working group. Following a market study on green credit supply and demand in Mongolia this group is currently contributing to the establishment of Mongolian Sustainable Finance Principles and Sector Guidelines (including mining) and the mobilization of green credit fund. The working group is in the process of developing a business plan with an initial investment of \$50 million. A goal is to establish a loan mechanism (principally a revolving loan fund) for socially responsible investments to assist in developing infrastructure for distributing clean energy for needy rural communities as well as Ulan Bataar. Recognizing that many rural people do not have formal financial records about their assets or activities that would allow banks to create a risk profile and disperse finances accordingly, the UN Environment-FI has been working with the group of banks and the regional and local authorities as potential specialized managers of the funds. This type of financial mechanism, whereby local and regional authorities play a role in de-risking the distribution of finances to their constituents, may be a useful financial mechanism design for the purposes of the GOLD programme.

UN Environment-FI is also working in the Philippines where there is micro-insurance delivered by non-traditional insurance agencies. They are working through municipalities and local agricultural banks in both Mongolia and the Philippines. The micro-insurance network in the Philippines could potentially be accessed for other purposes. The UN Environment-FI organizes regional and global investment meetings (Global and Regional Roundtables) which could be of benefit to the GOLD programme.

UNIDO: UNIDO has two key experiences with micro-finance in sectors that could be considered analogous to ASGM in some ways, and thus serve as a model for GOLD.

In Armenia, UNIDO provided funds through a contract to an existing microfinance provider, who then managed the disbursement of small loans to Small and Medium Enterprises (SMEs). UNIDO noted that this kind of programme could also be set up as a loan guarantee programme, where the loan is made to the central bank, which can then provide guarantees on loans made by other financial institutions to SMEs.

In Iraq, UNIDO provided an interest-free loan to a microfinance entity, which then provided loans to SMEs. At the end of the project, the microfinance entity repaid the funds to UNIDO.

Their experience identified that the main issue in these projects is not the mechanism to make loans, but rather ensuring that SMEs will make a profit and thus be able to pay back the loans. However, the transposition of this model to ASGM may have several challenges, such as a general lack of formal SMEs in ASGM, as well as the complexity discussed above regarding responsibilities expected for the whole gold production system rather than just one part of the supply chain.

2.2.2. Development agencies

Outside of the implementing agencies involved in GOLD, several other development agencies have engaged in projects have tested or are testing financial mechanisms specifically for ASGM, including:

Burkina Faso Social Enterprise Project: This model is based on finding a social motivated investor to provide funds to form a Social Enterprise comprised of ASGM and business experts that combine their skills to survey the country for potential ASGM partners and create a joint venture (JV) or other forms of partnership that benefits both parties and improves ASGM socio-environmental conditions and financial performance.

USAID has three flagship ASM projects which all take a different approach to financing ASM trade and/or equipment.

- **Capacity Building for Responsible Minerals Trade Program (CBRMT) – DRC** (executed by Tetra Tech): This programme uses an approach to financing Artisanal and Small-Scale Mining (ASM) largely through developing partnerships with the downstream members of the supply chain to provide inventory finance to responsible exporters and programme implementers. This is manifest through the development and funding of a Responsible Artisanal Gold Solutions Forum. Through the forum, a contract is developed between the party providing the inventory finance (either a refiner, jeweler, or international trader), with an in-country party (exporter or project manager). However, at this time, no downstream party has yet developed a contract with a mining cooperative for various reasons. Downstream supply chain members expect compliance with OECD Due Diligence Guidance and various programmes based on its recommendations. To date, equipment provided through project funds acts as an incentive for participation.
- **PRADD I and II – CDI and CAR** (executed by Tetra Tech): Under the Property Rights and Artisanal Diamond Development (PRADD) project, Equipment Rental Pools were developed. The project purchases equipment for ASM diamond communities, and the ASM cooperatives rent the equipment through various project mechanisms. PRADD has also explored approaches to directly connect rough diamond buyers to miners.
- **Oro Legal – Colombia** (executed by Chemonics): one finance mechanism being explored is the development of contractual agreements between large scale miners (LSM) and ASM that allows for formal ASM businesses to sell their gold ore to LSM operators if labor and environmental standards are met.

Further, USAID may have additional mechanisms which can be tapped into for financing ASGM which can be explored under GOLD:

- **USAID Development Credit Authority**: This authority is a possible model to finance ASGM projects, although it is not currently engaged in that market. The USAID DCA offers targeted loans with a loan guarantee to a single borrower. They typically work with a lender (such as local bank), perform due diligence on the

borrower, and cover roughly half of the risk of the loan. Normally two years of audited financial statements are required to obtain a loan. The due diligence requirements of the partner bank have typically been very stringent and may represent a barrier to broad uptake. DCA is experimenting with portfolio guarantees as well, which cover a number of borrowers with no more than 20% of the total loan amount going to one party. This approach could potentially fund a portfolio of viable projects in ASGM.

- **USAID Private Capital and Microenterprise Office (E3/PCM):** Blended Finance: Under this programme, USAID seeks partners to research, design, develop, test and evaluate approaches for quickly and efficiently providing the development community and investors with access to the diverse range of expertise or partnerships (investor and/or implementer) required to design, deploy, and evaluate appropriate blended capital approaches and/or product. This can be applied to a specific challenge or opportunity identified across the different regions and sectors in which USAID operates.

Solidaridad's "Accelerator for Responsible Gold". The Accelerator model envisages a platform to support local entrepreneurs in the business life-cycle, deliver business skills, and solicit participation from actors in the value chain. Generally, it is about offering supportive services for good practices. The model aims to assist in providing convincing return of investment (ROI) and demonstrating the value of investing. Actual solicitation of investment would come from the participation of existing impact investment initiatives, potential rotating funds, and other sources. Their intent is to launch a pilot in Ghana, and then scale up the pilot to Peru and Tanzania. Pilot funding would be Euro 400K provided from the Dutch government. The timeline for Solidaridad's accelerator is scoping and design through 2017, then launch in the subsequent 9 months, and pilot operation over 3 years before scaling up in other markets.

The Dragonfly Initiative "The Impact Facility for Sustainable Mining Communities". The Facility is the first and only vehicle with a specific focus on and established to capture the value for communities and to protect the environment from mineral development projects in developing countries and countries in transition. The Facility provides a much needed service to professionally manage a flow or patient capital and grant finance to enterprises and communities at gold mining developments that will ensure a long term, self-sustaining, solution to the control of mercury emissions and resilient micro, small and medium-sized enterprises and mining landscapes. The Facility provides a purpose-built investment and grant-making vehicle established for impact investors, downstream business, and foundations to finance the transition to resilient local mining communities and economies thus demonstrating small-scale mining's contributions to the SDGs (sustainable landscapes, strong enterprises, resilient communities, responsible product stewardship, and viable impact investment). It will leverage investment from jewelers, banks, refiners and donors that are willing to invest in gold mining communities, but require professional management of their assets and the ability to monitor impact at the mining level. With a minimum investment period of 4 years and average return of 5%, the Facility provides access to affordable loans for small business improvement to increase the revenue generation capacity, safety and environmental sensitivity of small scale mining; technical assistance grants to provide technical support and monitoring; route to market to increase profitability, reduce credit risk by taking actions at every step of the process to minimise them and, improve transparency through a previous project developers' application. They have successfully implemented a mining landscape transformation project in Burkina Faso in a period of 3 years with a 7.5% return of the total loan. The project was implemented through a team with gold mining and agricultural technical expertise that supported government on the finance towards an alternative, sustainable economy. The Facility is supported by the Dutch government agency, FMO, Comic Relief; Fairtrade International, Foundation and Africa; and a number of luxury brands. It is highly collaborative venture that partners with implementation NGOs including Solidaridad (supporting the accelerator programme), the Better Gold Initiatives, ARM and Fairmined, Oro Legal, and

the Artisanal Gold Council amongst others. The management team has an extraordinary track record and broad expertise in the gold value chain from mine to market and bring expertise in mining engineering, mineral processing, environmental management, social impact and the marketing of 'ethical' gold. The long term goal of the Facility is to build the investment case for responsible, environmentally benign small scale mining. The Facility is currently accepting capital investments and servicing grants and evergreen loans from donors, businesses and impact investors.

2.2.3. Others

In addition to these projects, there are various forums under which the issue of responsible and fair financing models for financial flows to the ASGM sector have been or are being discussed and evaluated:

The implementation programme of the **OECD Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk Areas** (hereafter "OECD Due Diligence Guidance"⁸) is a keystone international initiative and contribute to the efforts on social and environmental security. The OECD Due Diligence Guidance clarifies how companies can identify and better manage risks throughout the entire mineral supply chain, from miners, local exporters and mineral processors to the manufacturing and brand-name companies that use these minerals in their products. One of the main areas of OECD's work in the responsible sourcing of minerals is to ensure that international standards do not further marginalize workers of the informal sector. This implies working on the formalization of Artisanal and Small-Scale Mining (ASM). The OECD Due Diligence Guidance includes an Appendix on ASM, which encourages stakeholders to support formalization and legalization, and help miners create verifiable supply chains. The implementation forum of the OECD Due Diligence Guidance therefore devotes a large amount of its attention to the ASM sector in general, and ASGM sector in particular. The OECD Secretariat released a booklet in 2016. The booklet provides practical guidance and answers frequently asked questions relating to the sourcing of gold from artisanal and small-scale mining globally in compliance with the OECD Due Diligence Guidance. The booklet goes on to provide a list of the relevant regulations and industry programmes which are essential for developing sustainable businesses and attracting finance to the ASGM sector.

The US Department of State is currently working with RESOLV, a consulting company, to create workshops and forums to discuss financial models for the Artisanal Gold Mining Sector. To date this has resulted in a US Department of State-sponsored workshop in New York City with precious metals investors and ASGM experts to discuss promising financial models for investment and understand the barriers for investing in ASGM and what can be done to reduce risks and increase investment interest. Results of this workshop are summarized at: <https://www.nrdc.org/sites/default/files/investing-artisanal-gold-summary.pdf>. RESOLV and the USDoS are planning further similar workshops that may benefit the GEF-GOLD programme. US Department of State and RESOLV are also working together on a public private partnership incubator that hopes to support match making events. This may have some relevance to the GOLD programme in terms of partners in the downstream consumer market for gold. This could be a vehicle to bring together investors and miners and financial agencies and governments to discuss the creation of financial mechanisms similar to those that GOLD is designing.

2.2.4. Finance models:

⁸ <http://www.oecd.org/daf/inv/mne/OECD-Due-Diligence-Guidance-Minerals-Edition3.pdf>

A review of the open literature performed during the project preparation revealed that in general the documented evidence on use of national commercial finance to fund ASGM operations is lean (see 2.3.2 for more details on this). That said, the research conducted during the project preparation also examined a broader history of development projects aimed at increasing finance to other informal, dispersed sectors (such as agriculture), with the notion that these models could serve as examples for ASGM. From this review, three common financial models emerged. A brief description of these models, with observations about their potential application to ASGM is presented below:

- a. A **risk sharing facility** (RSF) is a structured financial product entailing a loss-sharing arrangement between a third-party provider of capital, referred to as a guarantor, and an originator of assets, such as a financial institution or socially responsible investor, under which the guarantor reimburses the originator for a portion of principal losses incurred on a portfolio of eligible assets, such as a loan portfolio. A financial institution may face real and/or perceived barriers and constraints that lead to risk aversion of entering or expanding financing in a specific industry or sector. A risk sharing facility aims to facilitate the introduction of new or expand existing lines of business by sharing the risk of loss. One principle challenge for the ASGM sector may be producing an adequate description of risk. RSFs are utilized in many sectors, including mortgages, consumer finance, small and medium-sized enterprises, agribusiness, energy efficiency, renewable energy, and are perhaps beginning to be utilized in the ASM sector, with some of the USAID programmes, although not explicitly described as RSFs, as emerging examples.

For local financial institutions the barriers and constraints related to ASGM lending could include information asymmetries, lack of experience on how to serve the market, a lack of suitable financing products and/or conditions to serve that market. By risk-sharing on an ASGM portfolio, the goal is that local banks and other financing entities will become more familiar with and less risk averse to lending to ASGM borrowers and so build a sustainable line of business beyond the RSF.

In circumstances where supporting local banks to lend in a given sector (even with risk a sharing approach) is challenging, alternative models may be more suitable, such as revolving funds and leasing vehicles.

- b. A **revolving loan fund** (RF) is a loan fund intended to be maintained by repayment of funds such that new loans can be extended. RFs are typically seeded with donor capital and target borrowers that do not qualify for traditional financial services. Particularly in a local economic development context, RFs have been associated with strong community-level ties, local management, and borrower empowerment. An RF fills a gap when local financial institutions are not lending to the ASGM sector and aims to bring financing decisions to specialized lenders, potentially with community-based participation. RFs are utilized in various sectors including small-scale agribusiness, small and medium-sized enterprises, water/ sanitation and housing.

ASGM miners face multiple challenges, when trying to access finance including geographical remoteness from local financial institutions, inability to meet traditional documentation and collateral security requirements, and gender issues. RFs, as specialized financing vehicles, are designed to reach target clients through “fit-for-purpose” distribution channels. In addition, because they are specialized, RFs could come to understand the specific needs of the ASGM sector and as such application processes may be streamlined and the approach to collateral security can become tailored to the needs of the sector. Coupled with community-based participation, commitment from and performance by ASGM borrowers may be enhanced.

- c. A **leasing vehicle** is an entity (lessor) that leases the use of an asset, such as property, vehicles or equipment, to a third-party (lessee) for which a lease payment is provided. The lessor maintains ownership of the asset while the lessee has the right to use the asset in exchange for periodic payments and, typically, agrees to conditions for the use of the asset such as regular maintenance. Leasing can also be a form of acquisition finance through which asset ownership eventually transfers to the lessee. A leasing vehicle can fill the gap when local financial institutions are not lending to the ASGM sector. Leasing vehicles are utilized in many sectors including automotive, heavy equipment, land/property, and even computer hardware/software.

For ASGM miners that are unable or unwilling to take on debt and/or where upfront capital costs of low/mercury-free equipment is a barrier, the option of leasing facilitates access to equipment for ASGM miners without paying high upfront costs. Specialized leasing companies would also develop a deeper insight into the ASGM sector with appropriate distribution channels and risk appetite for ASGM lessees. Incorporating elements of community-based models may further enhance access to the finances needed in the sector.

The potential application of these finance models to the ASGM sector would need to take into account the current lack of formal status of many actors in ASGM. It is possible that such finance models could be best deployed for the implementation of progressive incremental improvements to the ASGM sector. These may be less well suited for larger scale investments needed for full compliance with supply chain standards for gold production in its entirety (mining, processing, waste disposal, chain of custody, etc.). These may be more amenable to larger investments, discussed below.

2.2.5. Investment models:

In addition to models of financing, several potential models on how to disperse the funds from the finance models have also been proposed and put into practice:

- a. **“2 kg model”**: Most artisanal mining methods yield 30-40% of recoverable gold from ore. By improving process equipment, this can be increased to 60-80%, representing an increase in profit that may attract investors. This model requires an investor to purchase the equipment, which is then loaned to a group of miners, who repay the loan through their increase in production and according to a schedule and interest rate. After capital re-payment, ongoing use of the funds from increased production would include extra profit, as well as about 10% to be set aside for maintenance and operations. Notably the tailings from this process are often still marketable to secondary processors who extract the remaining gold and provide the service of professional and centralized waste disposal. An added benefit to increased recovery for a given site is the reduced need for miners to expand to new areas. The 2kgm is generally a mix of a revolving loan (RL) and a Risk Sharing Facility (RSF). In the context of many development projects it consists of half loan and half grant to reduce risk to both beneficiary and loaning entity. A leasing model can also be included as part of this model whereby equipment is leased to own.

- b. Hub and Spoke model:** incorporates several “2 kg” operations, servicing a larger area and larger number of mining groups. In this model 5 – 20 gravimetric systems are installed and operated for 1 – 10 mining groups with a combined ore processing capacity of around 15 – 100 tons per day. Each separate gravimetric system (i.e., each “spoke”) has similar production numbers to those described in the 2 kg model but in this case the ore processing residue (tailings) are designed to be gathered at a central secondary processing “hub” which is part of the overall investment to extract the residual gold, using a professionally run, industrial type process. The hub can act as a central organizing entity and monitoring system. Though this model requires a larger investment, it provides the great benefit of guaranteed *professional* tailings disposal system, leaving the gravimetric plant sites free of environmentally hazardous tailings, while increasing total yield and income for the miners and providing improved resource productivity by extracting a maximum amount of gold. The hub and spoke is in itself a RSF in that it spreads the risk across a group of operations. It as well includes an RF and Leasing Model as needed.
- c. Bank of ASGM:** This is an example of a blended vehicle. Such approaches can enhance profit margins by blending capital from socially motivated investors with more profit-oriented organizations, enhancing credit by shifting project risk to organizations with more creditworthy balance sheets, and creating marketing opportunities by being associated with socially responsible investments. This example is a combination of a revolving fund (RF), risk sharing facility (RSF), leasing vehicle and investment platform (match making entity). The Bank of ASGM could serve as an intelligent or educated fund staffed with experts and professionals who are knowledgeable about the sector. It could offer access to credit; provide professional, technical, and financial advice; and, support some convening activity. Interest rates, conditions of collateral and repayment terms would be in the “patient capital” or “socially responsible investment” realm and would be set such that they were optimized for the ASGM sector. Through the advice provided by the funding organization, miners would be free to choose in what area to direct investment funds and could include aspects of the two models presented above or other uses.
- d. Downstream and Other Investment:** in the Downstream model investment is focused on the end-user of responsible artisanal gold. The Swiss Better Gold Initiative is one example of this type of model where a part of the profits generated in the downstream refining business is directed back to improving the small scale mining sector, potentially incentivizing a greater number of miners to behave responsibly (e.g., eliminating the use of mercury) and produce yet more responsible gold.
- e. Finance Platform:** some of the key challenges that inhibit responsible external financiers from participating in any given artisanal mining operation include the complexity and high costs of structuring investment deals and the relatively low investment amounts required by ASM gold projects. The Finance Platform model addresses this challenge and leverages the interest of both donors, banks and investors. In this model, donor resources are engaged to help enable private sector lending and investment. As an example, the platform could adopt the following model, with defined roles for private and public partners:
1. Donors, foundations, and investors join together with development agencies and NGOs that work in ASM gold projects to create an alliance committed to enabling responsible private sector finance of ASM gold mining operations.
 2. The alliance uses donor funding to engage specialized project development consultants to define individual investment deals in ASM gold mining projects including: the development of pro-forma

- financial models; partner due diligence; draft contract development; supply chain logistics, working capital structure; and, modeling of social/environmental benefits.
3. The private sector members of the association help to oversee the project development work and also have a right of first refusal for investment in the projects once they are defined.
 4. The non-profit partners help to certify that the projects are consistent with social and environmental best practices and help to market the gold in niche ethical markets.

2.2.6. Mineral Processing Services

One particular business framework that is already operational is the toll milling industry in Peru. A description of the elements of this business model are available here: <https://www.911metallurgist.com/blog/small-scale-gold-mining-business-plan>. There are now several publicly listed companies and numerous domestic operations that purchase ore from artisanal miners in the Andean provinces of Peru at about 40 cents on the dollar (the formula changes based on grade, metallurgy, and other factors). The remaining 60 cents is used to cover the cost of these operations and to produce profits for the investors. This model has been in existence for at least two decades. It is currently unsuitable without significant modification for future ASGM businesses as it has not considered the extraction or processing activities upstream where intensive mercury use and unsafe extraction occurs under an unknown permitting status. In response to this, parts of this industry are implementing changes to meet the evolving compliance needs of the gold sector. However, currently the model does not work upstream at the community level to any significant degree but rather works at a downstream level in the supply chain with centralized processing plants worth millions to tens of millions of dollars. It also has processed extensive amounts of mercury contaminated tailings with cyanide – a practice forbidden by the Minamata Convention. Therefore, a clear change in practice that these companies must implement. Recognizing that the sector is evolving and practices must change, one of these companies came to a GOLD workshop in New York City in March 2017 to discuss these challenges as well as the emerging business case for working with the artisanal gold mining sector.

2.2.7. Gaps and opportunities for new financing models:

As described above there are already a range of models being tested to deliver better access to finance although their final results are not yet documented; further, the country-level projects of the GOLD programme will provide even more evidence around these mechanisms. The GOLD global component can spearhead outreach and communication with the investor world and financial institutions to raise awareness and create a forum where new financial models for the ASGM sector are evaluated and documented. The global component can help facilitate connection with concrete investment opportunities available to investors through the country-level projects, and encourage downstream buyers to engage more directly with upstream producers. Through direct engagement, the investment community will become more interested when they are more aware of the opportunities that the ASGM sector presents for socially responsible investment.

2.2.8. Options identified in the GOLD country projects:

The Global project will, throughout the duration of the Programme, continue to gather and curate information on the various financial schemes available and will, at the same time, document the experiences of the country projects. Initial financial options pursued by the 7 country projects is described below.

Guyana

The Guyana project will take two complementary approaches to enhancing access to finance. First the project will demonstrate production of a brand of responsibly-mined gold, to be labelled “El Dorado Gold”. This activity will include identifying markets and establishing a chain of custody process and verification mechanism for gold produced under the project, as well as developing an El Dorado Gold branding scheme that will be linked to criteria developed under the GEF GOLD global project. Second, the project will aim to establish a financing mechanism for gold producers to convert to non-mercury technology. The project has not yet identified the specific form that the financing mechanism will take, nor exactly how it will be capitalized; according to the project proposal, possibilities include direct incentive schemes, a dedicated credit facility, credit-schemes established by equipment dealers, a trust fund, or others. To select the appropriate mechanism, the project will conduct an in-depth assessment of financing mechanisms building on recent financial analyses, particularly those done when the Mercury-free Mining Development Fund (MFMDf) was proposed in 2014, as well as evaluations exploring the reasons why the MFMDf was not utilized by miners.

Colombia, Indonesia, Kenya, Peru

UNDP has designed a broadly similar approach to improve access to finance in the four country projects they are implementing under GEF GOLD, with some country-specific additional elements. All UNDP projects will support the improvement/development of financing mechanisms by establishing partnerships with banks and/or other funding institutions, helping to expand their offerings of financial products tailored to the ASGM sector, and training them on assessing loan applications from ASG miners. Specifically, financial institutions will be trained on how to use long-term records and documents miners may already have (e.g., production records, valid mining licenses) as part of making the case for loans and leases. The projects will work with selected financial agencies to develop new, or redesign existing, products to fit needs of the ASGM sector, especially women miners. The project also will train miners in record-keeping and OECD-compliant reporting, to better suit financiers’ application requirements. Miners will also be trained in developing loan/investment applications, and in certain cases will be assisted with securing financing. These projects will also use data from mercury-free processing plants (including processing plant payback periods) to develop economic evidence/ make the business case to miners and financiers on the value of investing in these upgrades. The projects will also help miners and financiers to evaluate the economic value of tailings, so that tailings can possibly be counted as an asset and sold rather than being viewed only as (unmanaged) waste.

Finally, the projects will facilitate deals between international refiners and miners, with local banks acting as intermediate gold custodians and fund transfer/holding agents. The theory is that these arrangements will allow miners to get a much higher value for their gold, and this will incentivize others to formalize and become responsible miners who would qualify for similar offtake arrangements.

Some of the projects have country-specific features as well. In Indonesia, the project will build the capacity of miners to leverage investments from entities other than conventional banks, such as: sharia banking; village-owned cooperative financing mechanisms; and an existing funding mechanism under the Ministry of Environment and Forestry. In Colombia, the project will also facilitate linkages among miners and financiers that are already engaging

with the mining sector using innovative approaches (e.g., Banco Agrario), as well as existing private investors (Oro Legal project); in Peru the project may partner with a rural development program to set up financial products and will also support MINEM (the mining ministry) in the development and operation of a Mining Formalization Fund.

Burkina Faso

The project will focus piloting a gold buying entity that incentivizes ASGM miners to follow Minamata and OECD-compliant processes, leading to artisanal gold export via official channels, rather than through smuggling. While the specifics of this mechanism are still under development, the theory of change is that by establishing a secure and transparent value chain, and through additional income gained from direct sale at a fair price, the miners will be incentivized to invest in mercury-free technologies under improved social and environmental conditions and ultimately increase their production. This will be complemented by activities to train miners on mercury-free technology.

Mongolia and Philippines

The project will create an ASGM fund to allow miners to invest in mercury-free technologies and access responsible gold markets. The project will work with both investors and financial institutions, raising their awareness of the ASGM sector, to facilitate and remove barriers to their involvement in the sector. To complement this, miners will be trained in operational and financial management, allowing them to demonstrate increased recovery (and thus income) from the upgraded, mercury-free processing methods. The project will also link interested responsible gold buyers (e.g. international refiners, potential domestic gold markets), and national banks to miners to sell their gold directly, which would reduce intermediaries and thereby increase the price miners receive. Where banks cannot buy directly, the project will work to reduce the number of intermediaries, at a minimum. The project will also engage socially responsible investors (SRIs) to attract their investment in the sector, through organizing educational workshops and technical forums linking miners to investors.

2.3. Availability of Information on relevant ASGM topics needed to support the development of NAPs

The global community working on ASGM issues, and in particular Parties who are developing National Action Plans under the Minamata Convention, are in need of accessible and synthesized information on the sector. This project will provide information relevant to the NAP development on key topics such as formalization, financial and technical issues. Below is a summary of available literature on these topics. This information will be available to all Parties developing NAPs, but will especially benefit the country-level projects involved in the GOLD programme.

2.3.1 Formalization

Taking steps to formalize the ASGM sector is undoubtedly one of the most important and challenging aspects of the NAP process. Countries developing NAP strategies need access to information on the key challenges surrounding formalization, especially examples and case studies of how these challenges have been addressed (positively or negatively) by other countries. In the past two decades, a number of countries have undertaken various reforms of the ASM sector, many supported by the World Bank, as well as bilateral donors. From this experience has arisen an extensive existing literature on issues surrounding formalization, and documentation of some of this global experience. As an example, an online (Google scholar) search of the term “artisanal and small scale gold mining formalization” returns over 4500 citations with over 1750 of these published since 2013. To give a sampling of the kind of literature that exists on this topic, key references were gathered from existing well-known reference sites as well as

based on expert recommendation. A bibliography of these key resources is provided in **Appendix A**. The bibliography includes:

- general reference materials on ASM
- references on specialized topics such as: financial investments, critical ecosystems, health impacts, land and property rights
- specific country case studies, general academic studies
- links to critical websites that contain key references on formalization and other topics.

For further elaboration of what types of information are available from these resources see **Appendix B** which provides an annotated description of the general reference materials, and **Appendix C** which summarizes specific country case study reports.

As described in **Appendix B**, several organizations working in ASM have produced guides to formalization issues including, the main considerations in each area such as mining titles and licenses; environmental permitting; rehabilitation and closure; financial mechanisms; and, access to markets. For example, ARM's document *Analysis for Stakeholders on Formalization in the Artisanal and Small-scale Gold Mining Sector Based on Experiences in Latin America, Africa and Asia* presents a comprehensive review of these topics. It includes examples from a number of ASGM countries that shows the range of approaches taken to address these issues. Further, UN Environment's guidance on the development of National Action Plans includes a review of formalization issues and contains suggested actions that countries can take in their NAPs to address these issues.

In addition, **Appendix C** gives an indication of the wealth of documented country experience on legal and formal approaches to the ASM sector. The country and regional case studies cover the full range of relevant ASM topics among our sample of 38 case studies:

- 17 cover gender, child labor, Indigenous groups, migrants
- 23 discuss conflict-free minerals
- 35 are focused on economics, pricing, market assessments, supply chains
- 26 provide historical contexts of industry
- 20 cover the exporting and importing of gold and mercury
- 32 focus on specific local laws regarding ASM and
- 26 contain specific policy recommendations.

2.3.2. ASGM finance and investment

There is a substantial and growing literature on models for financing for development objectives. However, the literature on the application of these models to ASGM has been limited. For example, there is a significant literature on Green banks, which is analogous to some of the financing models discussed above and thus may be informative for GOLD. The OECD defines a Green bank as a public or quasi-public entity established specifically to facilitate private investment into domestic low-carbon, climate-resilient infrastructure (LCR) and other green sectors such as water and waste management. The central goal of Green banks is to close gaps in markets for clean energy projects and facilitate financing to increase market penetration using market-oriented approaches.

Green banks can be capitalized with public funds, philanthropic grants or programme-related investments (PRIs), various bond structures, or private funds. They can use those funds to offer turnkey financial products (such as loans, leases, credit enhancements) and other financing services for clean energy projects. Over a dozen national and sub-national governments have created public Green banks and Green bank-like entities in recent years.

Green banks generally share the following core characteristics: a mandate focusing mainly on mobilizing private LCR investment using interventions to mitigate risks and enable transactions; innovative transaction structures and market expertise; independent authority and a degree of latitude to design and implement interventions; and, a focus on cost-effectiveness and performance based on their unique national and local contexts. Green banks use a range of metrics to measure and track their performance and demonstrate accountability including emissions saved, job creation and, in some cases, rate of return.

As another example, many of the models of financing for ASGM discussed above fall under the general category of “innovative financing” which are tools to address specific market failures and institutional barriers that hinder global development. The focus of innovative financing is shifting from the mobilization of resources through innovative fundraising approaches to the delivery of positive social and environmental outcomes through market-based instruments.

Innovative financing mechanisms also offer private sector actors risk-adjusted financial returns and access to new markets. They also help remove barriers to entry into the sector and so enable commercial investments in new products and markets.

While innovative financing has a robust literature, the formal documentation of its application to the ASGM sector is limited. Examples in the literature show the use of innovative financing mechanisms to address various development challenges through resource mobilization (e.g. driving investments as the microfinance industry became commercially sustainable), financial intermediation (e.g. reallocating the business risk associated with producing health commodities) and improved resource delivery (e.g. sharing information about new products such as product-linked savings accounts).

Most discussion of ASGM financing occurs within the documents describing the cases and projects listed described above, rather than in overview summary literature or syntheses. There are some materials that discuss the issue in an overview or peripheral way but do not give details. For example, the document entitled: Minerals and Africa’s Development found at:

https://www.uneca.org/sites/default/files/PublicationFiles/mineral_africa_development_report_eng.pdf

provides an overview of finance models, especially loan programmes, that have been attempted in Mozambique, South Africa and Ghana as well as a discussion of equity-based finance schemes and large-scale mining business mentoring schemes. However, details are not provided. Thus, there is significant space for creating educational information and documented case studies about finance models in the ASGM sector.

2.3.3. Technical information low-mercury and mercury-free technologies

Low mercury options:

Technical guidance for low mercury and mercury-free technologies has been produced by several past and ongoing programmes. **Appendix D** provides a bibliography of these publications. Generally, low mercury practices have focused on two main approaches: (i) a reduction in mercury use by eliminating the mercury intensive process of whole ore amalgamation; and (ii) mercury recycling and re-use through capturing mercury through retorts and by re-activating mercury through an electrochemical process so that miners re-use it rather than throwing it away. Theoretically, the use of a retort can reduce mercury use and contamination dramatically but in practice this approach is not used substantially and can pose some potentially acute health risks if not done properly. For example, once a retort is used it becomes a highly-contaminated object that must be stored and treated with a high degree of caution and care to avoid contaminating indoor spaces, clothing and other personal items. Reactivation of mercury also can bring people into acute contact with mercury and give rise to health risks. In summary, it is difficult to use mercury safely. For these reasons the ASGM practitioner community has been focusing more vigorously on mercury-free technologies with the goal of progressively converting an increasing portion of the mining community to mercury-free processing. This will stimulate a reduction in mercury use by the mining community as a whole, allowing compliance with Minamata Convention obligations.

Adoption of mercury free technologies:

Some mercury-free technologies being deployed, piloted, and developed are (i) gravity or enhanced gravity processing; (ii) flotation; (iii) particle-oil agglomeration.

- I. Gravity processing continues to benefit from further research and development to improve recovery and broaden the variety of systems available for different settings and demands. Flowing film gravity separation devices (including sluices, spiral separators and cone concentrators) have undergone significant development over the past two decades and are now well established technologies used in processing a wide variety of mineral feeds. The recent resurgence of interest in cone concentrators has resulted from a recognition of the benefits that this high-capacity and low-cost separator offers.. The benefits of high unit capacity are also reflected in the evolution of high capacity spiral separators which similarly offer operational simplicity and plant sizing with associated cost savings. These benefits are accompanied by demonstrable gains in recovery.
- II. Flotation is a gravimetric concentrating process where mechanical and chemical conditions are carefully adjusted in a flotation tank to allow the concentration of desired minerals. The mineral particle surfaces are conditioned by the use of reagents and surfactants to make them suitable to attach to rising air bubbles. Once at the surface of the liquid layer the concentrated mineral froth created is removed by a paddle mechanism. The remaining material is removed from the bottom of the tank and disposed of as tailings in the appropriate manner.
- III. Particle(coal)-oil agglomeration is a separation process that combines a coal-oil phase relation and flotation processes. The coal-gold agglomeration process for gold recovery became known to the mining industry in the mid-80s after the first related patent was approved. Twenty-two years have passed since that first patent was issued and various tests and research have been conducted but the process has not gained commercial success so far. The utilization of coal-oil agglomerates in the recovery of gold is based on the natural hydrophobicity/lipophilicity of gold. Though it is possible to recover gold by agglomerating it with oil alone, the amount of gold in the ore is usually so small that there are insufficient gold particles to form agglomerates. This necessitates the use of other hydrophobic materials (e.g. coal) to either form agglomerates together with gold or act as carrier of gold particles.

In general, a critical element to most mercury-free processing techniques is the final step of taking a high-grade concentrate and smelting it to produce a gold dore ingot. This direct smelting step needs to be understood and taught for a variety of conditions, metallurgies, and gold concentrate masses and concentrations in order to extract maximum gold and value and also to ensure that miners do not revert to using mercury for this step. This is also a commonly misunderstood and oversimplified step considering its critical role in both obtaining maximum value for miners and in eliminating mercury. This is also where the confusion about the role of borax originates. In this sense it deserves significant attention and additional resources in terms of ensuring proper technical guidance is made available.

Another critical consideration in choosing a mercury-free technology are the waste management challenges that each present. Simple gravity processing may produce mercury free tailings but these tailings may still be harmful in terms of their acid producing potential. Chemical leaching may produce tailings contaminated with chemicals like cyanide if not properly treated and disposed of. In all cases, there is a waste stream that must be managed either locally or centrally, and this aspect must be built into any planning and business development from the outset.

As described in **Appendix D**, while some technical information is available to describe these technologies and the considerations in selecting the appropriate method for a given setting, it is also important to provide information about how to deliver this information to miners. There is a need to carefully document pilot projects undertaken to introduce these technologies and the associated business case for using them. Typically, these pilots need to be done directly in collaboration with artisanal miners and use a high level of their existing knowledge to create a system that is intuitive and trusted. Documentation of these pilot systems can also be used as a proof of concept for a business model that can be replicated on other similar sites.

2.3.4. Access to Information on Formalization, Financial and Technical Matters: Review of Existing Knowledge Management

As described above, there is a significant and growing literature on ASM issues, and in particular for those issues of focus in the GOLD programme (formalization, financial, and technical), however, the information is often widely scattered, and often not easily available or in the general public domain (such as government reports or consultant studies). The ASM community has long recognized this gap, and in response, several efforts have been made to create ASM-focused websites and/or “knowledge hubs” to improve access to information and tools, as well as in some cases to create a platform for sharing among ASM practitioners. While these knowledge hubs target a range of different audiences, the focus is primarily academia, governments, the mining community and other professionals (rather than, for example, miners). Some sites cover general ASM issues, while others are focused on particular topics areas within the ASM space, including health, child labor, policy, social impact, conflict mapping, trade, technical assistance, sustainable communities, extraction, legal resources and socio-organizational matters. Some sites cater to specific regional audiences. For example, the African Intelligence page highlights energy, mining, and other topics from an African perspective. SAESSCAM-ASM is database that focuses on registering production and socio-economical information on artisanal and small-scale mining sites, specific to some Francophone countries in Africa. In Asia, the Sustainable Artisanal Mining Project’s knowledge hub focuses on formalization, advocating for environmentally sound mining practices and raising awareness amongst stakeholders within the Mongolian ASM sector.

Appendix E presents detailed information on 27 of these knowledge hubs. Among the 27 knowledge hub sites reviewed:

- 22 include specific case studies of ASM topics
- 13 include online learning platforms
- 22 contain online libraries including reports
- 10 offer toolkits/training materials
- 9 offer interactive features such as blogs/discussion forums providing opportunities for sharing knowledge and experience in a real-time setting.

Among the knowledge hubs reviewed, the (newly resurrected) **CASM** and **UN Environment Global Mercury Partnership** platforms offer the most robust content and include a range of information from technical case studies, reports, toolkits, country conference reports and information specific to the language within the Minamata Convention. In particular, since 2009, the ASGM area of the UN Environment Global Mercury Partnership has been working to compile relevant information and create important synthesis tools. These include the NAP guidance document which is used by an increasing number of countries and others working on mercury reduction activities.

Notably, there are also two key hubs in development at this time, one sponsored by the African Minerals Development Commission (AMDC) and the other by a partnership between the OECD and the World Bank which promise to be highly relevant to areas of interest in GEF GOLD.

The **UN Economic Commission for Africa** is developing a knowledge platform on the issue of artisanal and small scale mining (ASM) for the AMDC. While the portal will apply to all kinds of minerals, not only gold, the information resources and other services will provide a robust set of assets that can be accessed by anyone interested in the ASM topic. The portal is conceptualized as a one-stop-shop where users can find a very robust search engine that includes algorithms to search the deep web and grey literature; a discussion forum; an experts' database; a knowledge repository, research guides on key topics; and, a knowledge hub that includes services to contextualize the data (e.g., finding related articles or news stories to complement a particular search). The GOLD programme will closely work with this initiative in the dissemination of information activities.

DELVE is a database under development by Pact, an active NGO in the sector, and funded by the World Bank. The intention is to create a global platform for artisanal and small-scale mining data that is accurate, comprehensive and that will reveal the sector's real contribution to developing economies and global supply chains. As such the platform should support better decision-making, policies and interventions. The effort is expected to include collaboration from a range of stakeholders. It aims to allow miners to showcase their work and access new resources for advocacy and business opportunities. This aspect may be a good linkage to-GOLD. The DELVE knowledge hub aims to cover all ASM minerals. Its goals are to be an online platform that supports the collection, storage, analysis, visualization and dissemination of ASM data; to define shared metrics for collective measurement of the ASM sector; to aggregate data from distinct data sources allowing for real-time analytics and dynamic decision-making; and, to create rich business intelligence tools for at-a-glance including insights, interactive charts and maps. DELVE hopes to showcase efforts by organizations across the ASM sector acting as a portal and a network and to produce an annual ASM Sector Report from the data it holds. The World Bank has also discussed expanding the knowledge hub, in collaboration with the OECD, to include more qualitative data on ASM as well.

Within the GEF, in the International Waters Focal Area, with a considerable GEF-financed portfolio, a specific project was set up to ensure collaboration and exchange of experience between the various initiatives. IW: Learn, currently in its 4th phase, ensures cohesion of the IW portfolio and also is the repository of all previous and current projects.

2.3.5. Gaps and opportunities on providing information on formalization, financial and technical aspects of mercury-free mining:

This sampling of the literature indicates clearly that there exists a wealth of information that can help countries to understand key formalization, financial and technical issues linked to ASGM. The data allows countries to learn from experiences from other countries that have greater experience in this area. As highlighted above, there are also a number of existing and planned “knowledge hubs” on ASM that aim to organize and help users access relevant information. Less frequent is literature that is comprehensive and yet readily understandable. There remains a lack of reviews, synthesis and analysis of these resources, which governments can practically employ when formulating relevant strategies under the NAP.

Rather than duplicate efforts or attempt to amass a comprehensive knowledge repository on ASGM, the GOLD programme can, therefore, better assist countries and other stakeholders by “curating” the available data to identify key resources within this vast store of existing information and by creating brief, understandable, topic-specific syntheses, analyses and/or research guides that focus on key topics. For example, the issue of environmental permitting is often raised as a major barrier to the formalization of small scale miners. A useful synthesis could be created that looks across academic studies as well as ground level experiences to document both successful and unsuccessful approaches to this issue. This would then be used to potentially stimulate further discussion and dialogue among the community to get closer to resolution on a set of successful strategies. Other such topics could include harmonizing taxation rates; providing geological services; identifying ASGM reserve land; and, models, guides and case studies on increasing access to finance and attracting investment to the sector by raising funds from issuing stocks on public markets, through private investment placements, or through vehicles such as social impact bonds (SIBs). Similarly, guides, case studies and models on the new technical approaches to mercury free processing of gold ores such as coal-oil agglomeration, direct smelting, and micro-flotation and how these fit into the socio-economic context of ASGM settings need to be created. This will assist in making these new technologies more easily understood by a variety of stakeholders including the international donor community, the private finance market, and artisanal mining communities.

The GEF GOLD programme can also link to existing knowledge hubs through which users interested in more comprehensive research can access a full range of information, case studies, blended learning, mobile courses in multiple changes and tools related to ASM in general and ASGM in particular. Also, as two key knowledge hubs (AMDC, OECD/WB) are still in development, the GOLD programme can potentially collaborate with the developers at the initial stages of these efforts in order to ensure that they contain features complementary to the needs of GOLD.

In summary, a great deal of information exists on these topics but unfortunately this does not mean that the proper forms of information are making it into the hands of the right people. For the purposes of implementation of the Minamata Convention the right people include policymakers, local leaders, miners, private and commercial finance and other stakeholders with the ability to change behaviors to improve the ASGM sectors. For the purpose of this

project, the right information includes materials curated, synthesized, or specifically tailored to meet the specific needs of each target group in a format which is readily accessible and easily understood.

2.4. Baseline on Public Perceptions of ASGM

2.4.1 Press coverage of ASGM

Negative reporting on aspects of ASGM can sometimes motivate governments to take high profile actions which can stand in the way of positive progress in the sector. For example, in the midst of a concerted media campaign against “illegal” gold mining in Ghana, the Ministry of Lands and Natural Resources took the severe action of suspending small scale gold mining in the country, as well as dismissing all of the district officers of the Minerals Commission, the entity responsible for providing direct services to small scale miners throughout the country. These actions affected legal and illegal miners alike and undermined outreach efforts. These types of actions can be highly counterproductive to efforts to assist miners reduce mercury use, driving mining underground and making it more difficult to engage with communities to provide information, training, and financing.

Mercury is specifically highlighted as a toxic impact of ASGM in the New York Times article entitled “Peru Scrambles to Drive Out Illegal Gold Mining and Save Precious Land”ⁱ, National Geographic’s article entitled “The Toxic Toll of Indonesia’s Gold Mines”ⁱⁱ, and the CNN op-ed “What you should know about your jewelry”ⁱⁱⁱ. Overall environmental destruction is emphasized in the BBC’s “Letter from Africa: Why a new word in Ghana spells trouble”^{iv}, and the 2016 documentary “River of Gold” (<http://riverofgoldmovie.com/>). On occasion, there are more nuanced discussions of ASGM such as the Guardian’s “A million artisanal gold miners in Madagascar wait to come out of the shadows”^v and The Economist’s “In praise of small miners”^{vi}. ASGM is often viewed as connected to criminality, exemplified by a recent Quartz article which states “According to a 2015 United Nations World Drug Report (pdf), Colombia’s drug cartels make \$1 to \$1.5 billion a year in wholesale proceeds from both heroin and cocaine, whereas illegally mined gold earned smugglers in the country between \$1.9 and \$2.6 billion a year.” The story is similar in Peru: the value of illegal gold exports, approximately \$2.6 billion a year (pdf), now exceeds the value of cocaine trade—\$1 to 1.5 billion annually—by a wide margin.”^{vii}

2.4.2 Efforts to improve the reputation of ASGM gold

There are a number of efforts that aim to counteract the negative perception of ASGM and that create an alternative narrative for artisanally mined gold. There is an emerging global market built around increased interest in buying / selling responsibly mined gold which is mercury-free or reduced-mercury. Such market-based mechanisms play a role in incentivizing miners to transition away from mercury use and/or specific bad practices, and to transition toward more environmentally and socially sustainable practices.

Government-led efforts:

Underpinning the increasing global interest for responsibly mined artisanal gold are recent initiatives and international standards that require gold buyers to map their supply chains and ensure, to the best of their abilities, that they are not directly or indirectly funding armed groups or violations of human rights through their mining purchases. For example, in July 2010 the US Congress included a provision (Section 1502) in the Dodd–Frank Wall Street Reform and

Consumer Protection Act (“Dodd Frank Act”)⁹ pertaining to trade involving so-called ‘conflict minerals’— tantalum, tin, tungsten and gold (3TG) – produced in the Democratic Republic of Congo and adjoining countries. More specifically, Section 1502 requests the US Securities and Exchange Commission (SEC) to develop rules that oblige the covered companies to undertake efforts to ascertain the origin of tin, tantalum, tungsten and gold in their mineral supply chains. The SEC’s Final Rule on Section 1502 published in August 2012 recognizes the OECD Due Diligence Guidance (cf. page 5) as an international framework available to companies to perform due diligence for responsible mineral sourcing and help them meet their reporting obligations under the Act. The governments of Burundi, the DRC and Rwanda have also integrated the OECD Due Diligence Guidance into their legal frameworks. In 2010 the International Conference on the African Great Lakes Region (hereafter “ICGLR”) endorsed the OECD Due Diligence Guidance and developed a comprehensive approach to put an end to the predatory use of natural resources, setting up a Regional Certification Mechanism (RCM) for mining and trading of minerals from the region designed to be consistent with the Guidance. In parallel national authorities from the People’s Republic of China (China), Turkey, the United Arab Emirates and India have also taken steps to support the implementation of the OECD Due Diligence Guidance within their borders, focusing more specifically on smelters and refiners of minerals. In addition, in 2017 the European Union has strengthened its approach to the responsible sourcing of minerals by adopting a Regulation introducing supply chain due diligence obligations on EU importers of tin, tantalum and tungsten, their ores and, gold originating from conflict-affected and high-risk areas. This regulation draws on the recommendations laid out in the OECD Due Diligence Guidance and will apply as of 1 January 2021.

Countries developing regulations to eliminate mercury use in ASGM will therefore need to take into account the increasing demand from international markets for gold, free of any relation with conflict financing and violations of human rights.

Market-based initiatives:

In response to this growing market there have been efforts to create standards for the production of “responsibly” produced gold thus steering buyers toward sources that have lower environmental and social impacts. Many of these standards and initiatives are using the OECD Due Diligence Guidance as their basis and benchmark and include: the Conflict Free Smelter Initiative (CFSI); the London Bullion Market Association (LBMA) Responsible Gold Standard; the Responsible Jewelry Council (RJC) Code of Practice and, the Dubai Multi Commodities Centre (DMCC) responsible sourcing programme. The World Gold Council has also created a Conflict-Free Gold Standard that is based on the OECD Due Diligence Guidance.

Market-based mechanisms often have two elements: some kind of verification or certification process to ensure the supplier uses mercury-free (or in some cases, mercury-reduced) methods, including setting standards; and, supply chain traceability and transparency. Initiatives often focus on help miners improve production and reduce environmental impacts and increase traceability so creating a supply of gold produced without mercury for the market. This type of initiative may contain components on better production, transparency and traceability which are vital to getting and retaining access to markets for gold mined without mercury. These mechanisms can also help create demand and links certified or certified willing producers with the market.¹⁰

Selected examples of market-based approaches:

⁹ <http://www.sec.gov/rules/final/2012/34-67716.pdf>

¹⁰For example, see <http://www.seco-cooperation.admin.ch/themen/05404/05405/05406/05411/index.html?lang=en>

- The Fairmined Standard v2.0^{viii} includes requirements for ASGM organizations to conduct responsible ASGM
- The Better Gold Initiative created in 2013 by the Swiss Government and the Swiss Better Gold Association (SBGA) as a public-private partnership. BGI'S integrated supply chain project aims at improving the social and environmental conditions of ASGM throughout the world^{ix}.
- The Going for Gold programme of the international network Solidaridad works to improve the livelihoods of miners by adopting occupational health and safety standards, creating policy dialogue around formalization and gender with a current focus on women's empowerment.^x
- The PAC Just Gold Project as been extended with a Woman-Led Microcredit Project (AFECCOR-in French). This project is now focusing on women's vulnerabilities in the ASM sector and both microcredit and savings services will be provided to both men and women who are participating in the Just Gold project.^{xi}
- The Ethical Consumer Group^{xii} is set up to guide consumers to purchase in a smart and sustainable manner. Specifically for so-called conflict minerals, this site offers information regarding the trade of conflict minerals and how it finances war and it offers safe options for the conscious consumer.

Some prominent retailers of gold have adopted their own sourcing policies that require good environmental practices in gold production. While these policies are generally directed at large scale mining, they can also be tailored to create markets for small scale gold producers. These programmes can reward mercury -free extraction through preferred purchases and can also include training and education programmes for artisanal miners, along with equipment and access to markets.

2.4.3. Gaps and opportunities on Public perception about ASGM:

While negative press dominates the dialogue about ASGM around the world the GOLD programme aims to create a counterbalance by creating a media strategy to highlight improvements in the sector (especially those made by the country-level projects in the GOLD programme) and to emphasize the positive development opportunities presented by responsible small scale gold mining. In no way will these activities "greenwash" the genuine social and environmental issues confronting the sector but they will attempt to create more balanced coverage of the issue. By doing so the general public and policy makers, as well as other stakeholders such as investors, will be better informed and hopefully more likely to support effective policies strategies to improve conditions and bring ASGM into the formal economy. GOLD can also work with downstream users such as jewelers to promote the use of responsibly produced ASGM gold.

ⁱ Peru Scrambles to Drive Out Illegal Gold Mining and Save Precious Land

ⁱⁱ The Toxic Toll of Indonesia's Gold Mines

ⁱⁱⁱ What you should know about your jewelry

^{iv} Congo's Illegal Gold Trade Seen Benefiting Foreign Companies

^v How Illegal Gold Mining Relates To The Spread Of Malaria

^{vi} Who Did This To Peru's Jungle?

^{vii} Going For The Gold Sends Mercury Down The River

^{viii} Letter from Africa: Why a new word in Ghana spells trouble

^{ix} A million artisanal gold miners in Madagascar wait to come out of the shadows

^x In praise of small miners

^{xi} Illegal gold mining has supplanted cocaine trafficking as Latin America's criminal endeavor of choice

^{xii} <https://www.oecd.org/daf/inv/mne/Gold-Industry-and-Sector-Initiatives-Guide.pdf>

^{xiii} <http://www.fairmined.org/the-fairmined-standard/>

^{xiv} <https://www.theguardian.com/sustainable-business/roundtable-world-gold-council-conflict-mining>

^{xv} <http://www.responsiblejewellery.com/>

^{xvi} <http://www.swissbettergold.ch/en/about>

^{xvii} <http://annualreport.solidaridadnetwork.org/2016/en/gold>

^{xviii} <http://www.pacweb.org/en/pac-media/press-releases/276-international-women-s-day-partnership-africa-canada-announces-women-led-microcredit-project>

^{xix} <http://www.ethical.org.au/3.4.2/get-informed/issues/conflict-minerals/>

3) THE PROPOSED ALTERNATIVE SCENARIO, GEF FOCAL AREA STRATEGIES, WITH A BRIEF DESCRIPTION OF EXPECTED OUTCOMES AND COMPONENTS OF THE PROJECT

In the proposed alternative scenario, financial resources will be made available to the ASGM sector so facilitating the transition to mercury-free mining techniques. In order to reach this alternative scenario and reduce harmful risks to the health and the environment support will be provided to artisanal and small-scale enterprises through the creation of policies and market incentives. This will be supplemented by providing improved access to markets via connecting mercury-free gold producers directly to supply chains and markets which use mercury-free gold.

This global project of the GOLD Programme will create a nexus of connections among the various country projects constituting the wider programme. The global project will have three primary components: (1) educating and promoting investment in ASGM in the financial community; (2) providing information, synthesis, analysis and dissemination of the global experience on key ASGM topics; and (3) informing the general public as well as thought leaders and decision makers to change public perception about the ASGM sector. Interaction between the various components and external partners is presented in figure 1.

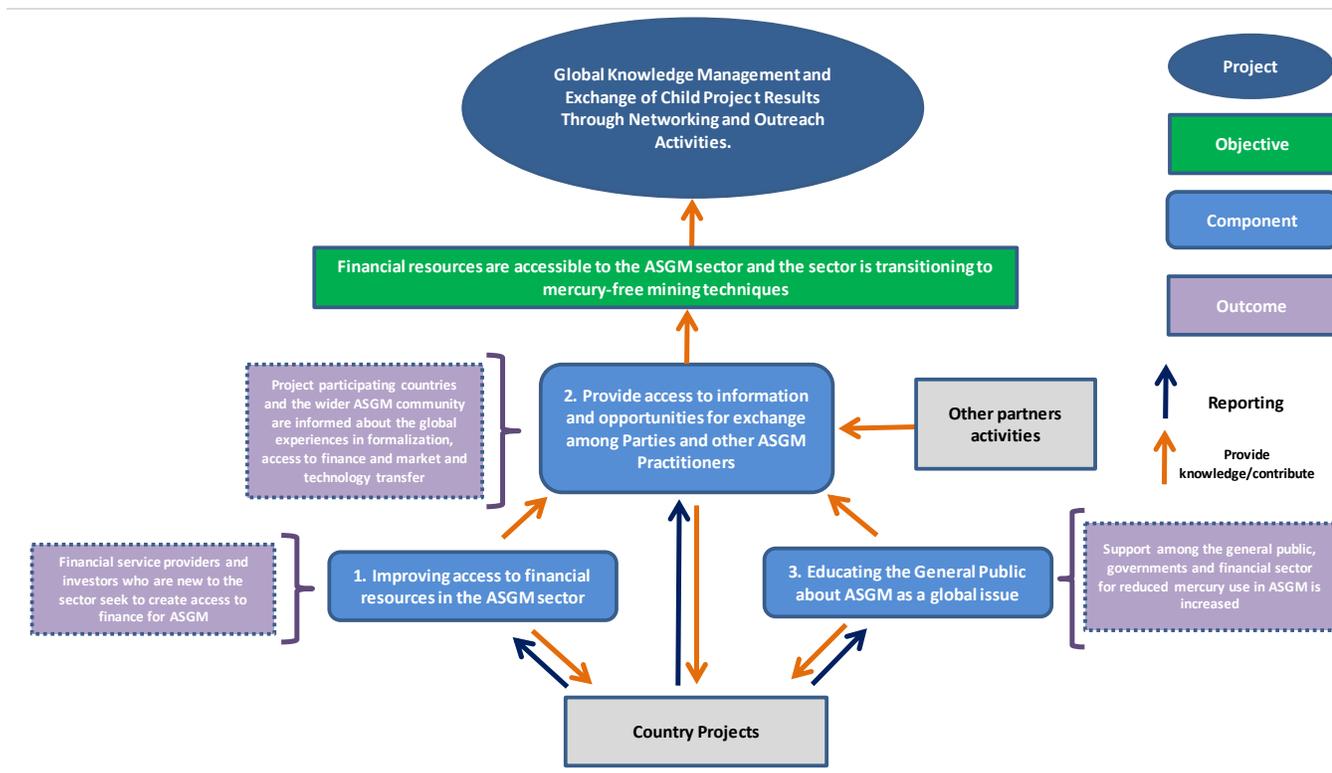


Figure 1: Structure of the global project

Component 1

The component will focus on education and outreach to the financial services and investment sector to provide information about the benefits and opportunities for investment in ASGM. Artisanal gold exploration and production are typically seen as risky investments and there is generally a lack of accurate information about the sector. However, the investment landscape is changing creating opportunity to attract new financial institutions and investors due to :

- o an increasing consumer and corporate demand for responsibly mined artisanal gold;

- the ASGM sector being de-risked by international and national policy frameworks, conventions, standards, practices, insurance coverage, capacity building initiatives and other types of public and private engagement;
- artisanal gold is already being produced, unlike other investments in prospecting and exploration which may not yield gold;
- financing in improved, relatively simple technologies can increase recoveries while improving environmental performance;
- banks, insurers and investors can generate social impact because of their protection of and investment in mining communities.

This component will thus provide education and outreach with the aim to sensitise investors about this changing landscape of banking, insurance and investment opportunities in ASGM. In addition to reaching out to commercial banking and investment community, the project will also target downstream gold consumers using high profile products such as jewellers to champion the sourcing of responsibly mined gold.

Expected outcome:

Financial service providers and investors who are new to the GOLD Programme access guidance on financial schemes to engage with the ASGM sector.

Expected Outputs:

Output 1.1 Sensitisation of potential financial institutions and investors resulting in them seeking opportunities for investment in the ASGM sector.

The combination of institutional finance and private sector investment in ASGM can potentially provide financing resources on a scale not possible through government intervention. The UN Environment Global Mercury Partnership’s engagement with financiers and investors to date has indicated that a major barrier to attracting and deploying capital is a lack of information as well as misinformation about the nature of the ASGM sector and the potential for sustainable finance and meaningful returns. This project will engage in sensitisation of the financial and investment community to provide better understanding of ASGM financing and investment opportunities. The objective will be to encourage more active participation in the sector, with aim of scaling up financial institution capacity and ethical/responsible investment that leads to significant changes in mercury use and allows miners greater participation in selling to downstream responsible gold markets.

Given that several country-level projects in the GOLD programme will include financial mechanisms that leverage the national commercial banking sector, part of the activities under this Output will include outreach and education to relevant commercial banking partners, in collaboration with the country projects and others (e.g., UN Environment Finance Initiative, or regional green banks initiatives), in order to promote sustainable financing for ASGM and to create best practices guidance for the financial community.

Specific activities

1.1.1 Direct outreach to financial and investment communities at major international finance and investment meetings/conferences

The GOLD global project will participate in international and regionally diverse financial services (e.g. commercial banks, credit unions, mining associations, SMW incubators and others) and investments sector meetings especially those focused on the mining industry and as the socially responsible investing forums (UN Environment FI, PDAC, others). The project will convene or lead round-table, panel, exhibit, or pre- and post-meeting forums to provide additional information to interested financial entities and investors, to introduce and educate about the benefits of ASGM investments. The project will focus on identifying financing interests and investors for further follow-up/ one-on-one engagement (see Activity 1.1.2)

1.1.2 Promotion of information/education exchange between miners, their communities, local authorities and interested financial entities & investors about potential opportunities.

The GOLD global project will promote information exchange and engagement between interested financial agencies & investors and miners & their communities with promising opportunities, by:

- Routinely contacting each of the seven GOLD programme country projects to identify potential or interested investment recipients (communities, SMEs, women miners associations, cooperatives, etc). During these inquiries the global project will make special effort to include women miners and their associations in the list of identified potential investment recipients. This information will be stored in a standard format in a database, which can be made available to investors by request or provided directly to interested investors during investment and mining events. Creation of a course for finance students through partnership with universities.
- Creation of courses for the miners to be able to interact with finance sources. This will build on existing global efforts to provide finance and business training to miners such as that currently ongoing under the APEC Mining Task Force in the Philippines, Indonesia, Papua New Guinea, and Peru.
- Creating a platform for information exchange between the GOLD country projects, their participating miners and interested financiers and investors (identified in Activity 1.1.1), by facilitating direct contact (with permission) and dialogue between financiers and investors and miners, with particular emphasis on inclusion of women miners as appropriate.
- Creating a regularly updated guide with key contact information for GOLD country projects and the GOLD global project, as well as contact information for others promoting investment in, or working on ASGM projects.

1.1.3 Engage downstream buyers of responsible gold to promote/enable better market access for miners

While the financial and investment communities will be the focus of the sensitization activities, the GOLD global project will also work with selected downstream gold buyers to improve miners' access to gold markets. Specifically, the project will:

- Advocate to targeted refineries to deploy more of their resources to assist artisanal miners. Currently refineries are mainly in the business of "off taking" or buying gold from mines once it has been produced and do not have a direct role in promoting responsible production, but rather demanding compliance with standards. However, as the refining business has become more competitive, refineries have become more interested in special products such as responsible gold. The project will conduct outreach to selected refiners to encourage their deeper engagement in assisting miners to produce more supply of responsible gold, specifically through financial mechanism and direct investment and/or technical assistance to mines in their supply chains.
- On a regular basis, informally survey selected downstream actors in the mine-to-market gold supply chain (such as to three refiners, three consumer product manufacturers and three end-consumer vendors) to

solicit feedback on the financing and investment opportunities created from the GEF GOLD programme, to ensure that these efforts are consistent with creating a supply of gold that will meet downstream needs for sourcing.

- Collaborate with partner jeweller(s) and electronic manufacturers to promote and publicize the sourcing of responsible gold. This would entail (a) creating a specific set of criteria that the gold produced must meet in order to be considered for sourcing by the jeweller(s), based on GEF and implementing agency environmental and social safeguards, OECD Due Diligence and other criteria (b) creating a concrete workplan that addresses all specific issues necessary to facilitate the sourcing and (c) implementing a joint public relations strategy and promotion approach, between the jeweller and the GEF GOLD global project team, and participating country level projects.

Output 1.2 Unlock capital flows to the ASGM sector through financing specific opportunities for improvement.

Although GOLD country projects will test a wide range of potential models for improving access to credit and investment, the global project will set aside modest funds to allow for enhancement of investment opportunities that may not be otherwise realized in the country level projects. The fund will be accessible by the country-level projects through a selection process described below. The main purpose of the fund will be to support testing of financing/ investment opportunities that are seen to potentially provide especially promising and/or innovative examples of financing, which could add new global experience, but which country-level projects are unable to fully support on their own. The country level projects could use these funds in a number of ways, compliant with GEF rules, for example for conducting detailed geological surveys, acquiring initial equipment, training local investment partners to help miners make the business case for the investment. The overall amount of money set aside for this fund is \$300,000, and all country-level projects will be eligible to apply. Depending on the number of applicants, the amounts given could range from about \$40,000 (assuming each country project took an equal share) up to \$300,000 if only one project applies.

The use of the fund will be opened after the first year of the programme, and will take into account experience gained after the country projects have begun testing their financial mechanisms, providing a basis for evaluating where extra support may be needed to secure the involvement of investors. This support will be provided through grants to country projects where selected investments will be catalyzed by the use of this reserve.

Specific activities:

1.2.1 Develop necessary procedures and structures to administer fund.

In order to ensure that the allocation of funds is fair and transparent, the GOLD global project will institute specific procedures and structures for fund administration. This will include:

- Organising a programme steering committee that will assess and provide input on the options for disbursement of funds.
- Setting up criteria for selection of most appropriate investment opportunities from those identified.
- Validating criteria through the programme steering committee.
- Setting up procedures for application from interested GOLD country projects to the fund.

1.2.2 Identify appropriate opportunities and disburse funds.

To identify candidate activities within the GEF GOLD programme that could best use the funds, the project will:

- Evaluate the general financial mechanisms being piloted in the seven country projects and the overall opportunities for investment, in order to determine which country project (s) would best benefit from augmented funding from private venture/investment capital.
- Assess the risk sharing or risk lowering needs of these investors which would secure their involvement.

1.2.3 Based on the above activities, identify specific opportunities for use of reserve funds that meet criteria. Document selection and inform country project(s), and then disburse to selected country project(s).

1.2.4 Monitor the use of the funds and document how the investment opportunity has been supported with the use of the funds. Lessons learned (positive or negative) will be documented and shared through the knowledge management component (see Component 2 below).

Output 1.3 Socially responsible investment (SRI) and sustainable finance community members sensitized to remove barriers in their charters and/or other governing rules that are or may have been preventing them from investing in small scale gold mining.

Specific activities:

1.3.1 Research and document socially responsible investment funds, their charters and the knowledge base that underlies their investment decision processes in order to map out the barriers that are currently in place that prevent investments in the ASGM sector, and prepare recommendations to address the identified barriers.

1.3.2 Conduct sensitization and outreach, through meetings, workshops and forums, with members of the SRI community, to gauge the appetite for including investment in ASGM business opportunities and to advocate for removal of the barriers to investment in ASGM. Through this outreach, identify/create “champions” who will act to increase the awareness of investment opportunities in ASGM and who are willing to consider changing their own practices.

1.3.3 Work with the champions to help them remove barriers and promote investment in responsible artisanal gold businesses to their clients. This will involve working directly with fund managers to train them how to respond to their stakeholders inquiries about the ASGM sector and its opportunities.

Component 2

This component will focus on knowledge management and increased access to information and exchange among project participating partners and wider ASGM community in the experience in formalization, access to finance and technology transfer. As described in the baseline, there exists a substantial global body of knowledge relevant to improving environmental, health, economic and social outcomes in the ASGM sector but the information has not been curated to identify the most relevant information, nor has the information been sufficiently synthesized in a manner useful for Parties developing NAPs.

Under this component, the global project will create mechanisms by which ASGM communities and governments can increasingly share, access and use information, technical materials, guidance, and lessons learned to assist the development and implementation of National Action Plans. The component will use the examples of the IW:Learn initiative under the International Waters portfolio to emulate its successes.

Expected outcome:

Project-participating countries and the wider ASGM community increasingly share, access and apply knowledge on global experiences to assist the development and implementation in formalisation, access to finance and technology transfer.

Expected outputs:

Output 2.1 Knowledge from global experience, as well as from GEF GOLD programme experiences in key ASGM topics (formalisation, financing, investing, market access and technology transfer) is collated and synthesized.

Building on existing global ASM experience, as well as specific information and lessons learned deriving from the activities of projects in the GEF GOLD programme, the GOLD global project will collect/collage, from a wide range of sources, relevant legal, technical and financial information and resources, and create syntheses, compilations and other key knowledge products.

Because a main focus of the GOLD program is access to finance, one area for focus for this research and synthesis will be the global experience in using both national commercial sources of funding and direct investment to finance the ASGM sector. As discussed in section 2.3.2 the existing documentation in the literature on these topics is light. Under Output 2.1, the GOLD global project will aim to boost such documentation, by working with the country-level projects within GOLD as well as reaching to other key stakeholders strong finance experience (such as the World Bank). The project will endeavor to capture the experience and best practices learned from these projects within our knowledge management platform.

Specific activities:

2.1.1 Collect, collate and/or provide links to existing available documents, papers, videos, training materials websites and other materials that contain information relevant to developing and implementing NAPs, highlighting/recommending the most critical of these information sources.

2.1.2 Based on a review of existing material, create new synthesis materials and needed educational materials and tools, where necessary, to fill information gaps. The Global Mercury Partnership provides a good initial knowledge base, and Partners will be available to assist and advise on the availability and suitability of additional tools and data sources. Considering the initial baseline review of available materials, the following are priority candidates for knowledge products to fill in existing gaps or augment incomplete materials:

- Research on and documentation of key projects outside of the GOLD portfolio that have demonstrated successful methods for financing ASGM (possibly identified in collaboration with the World Bank/OECD ASM platform),
- Compendia or databases on:
 - specific elements of laws and regulations from various countries relevant to ASGM (mining codes; taxes/royalties; environmental standards and EIA requirements; legal status of mercury use; trade regulations regarding mercury and gold; relevant international standards);
 - available training courses/materials for ASM miners (on both technical and business topics), including specific training for the promotion of women entrepreneurs;

- examples of communication campaign materials (aimed at miners, communities) and existing campaign materials (posters, advertisements, information pamphlets) that could be adapted by other programmes,
-
- Basic tutorial/ research guide/ reading syllabus on formalization, and/or series of best practice examples and case studies for key formalization issues,
- Materials/best practices on embedding gender considerations in the artisanal mining communities
- Easy to understand/ illustrated guides, mobile courses and capacity development for field training through partnership with local universities on mercury-free mining techniques and when/how they are appropriate in different geological and socioeconomic settings,
- Planning tools such as legal authorities checklists and institutional mapping guides;
- A compilation of key information from NAPs, as submitted to the Minamata Secretariat, to create a global database on relevant ASGM information from Parties to the Minamata Convention,
- Tools for collecting, managing, and visualizing geospatial data relevant to ASGM that can assist relevant actors in designing, implementing and monitoring interventions. Such data could include remote sensing data, data from site visits, environmental monitoring data. Existing tools, such as MAP-X could be adapted for this task.
- A set of informational materials that discuss the global opportunities for investment in ASGM. To the extent possible, this will include case studies and examples consolidated from the eight GOLD project countries.
- A “how-to” guide that would provide a nomenclature or glossary for ASGM terminology, more technical/financial information on how the ASGM sector works, and information on other financial or business entities participating in the sector.
- A set of investor tools such as a cost manual, ROI calculators, guide to risk reduction, and a scoping information/initial data collection tool.
- Review of emerging areas in the ASGM value chain sector such as blockchain technology.

Whenever possible, these materials will be produced in English, French and Spanish.

Output 2.2 Information is disseminated and shared among relevant stakeholders.

Under this output, the global project will undertake several activities, including development of online resources as well as in-person exchanges, to disseminate information and to encourage ongoing exchange among GEF GOLD project partners as well as the global ASGM community as a whole.

Specific activities:

2.2.1 Create a website for the GOLD programme that will serve all elements of the knowledge management. The website is to meant to serve two audiences: the wider public and the specific knowledge sharing and dissemination needs of the country level projects. The website will maintain close links to the website of the Minamata, in order to ensure institutional connection and sustainability of the site over time. Ultimately, the website will offer the opportunity to host information on other GEF-funded projects in the sector.

The global project will design the website and country project templates, and provide assistance and guidance to country projects in populating their pages. For those country-level projects who wish to designate a qualified focal

point to do basic updates of text and documents, the global project will give them access to do so; otherwise the global project will be responsible for these updates using data provided by the country projects. In any case, country projects will be responsible for generating the content on their country pages and providing regular updates for the website.

The proposed architecture for the GOLD global website is shown in Figure 2. As shown in this figure, the website will include:

- o A home page with basic project information, dynamic features such as news/events/calendar, as well as a blog for highlighting key relevant issues.
- o Individual pages for each of the country-level GOLD projects, with each country having a page to feature its own results and also information on other activities in the sector nationally.
- o A knowledge repository for curated and synthesized materials developed in Activity 2.1.2. The repository will focus three main areas: technical solutions, finance and formalization, as well as a space to share projects communications and awareness raising materials and assets.
- o Links to other relevant websites and ASGM knowledge hubs for other key ASGM initiatives, including important sites such as GMP ASGM partnership site, as well as the planned AMDC and OECD/WB sites, and the conference websites for the International Conference on Mercury as a Global Pollutant (ICMGP), the premier global scientific conference on mercury, held every two years. This area may also provide links organized by the issues covered under Annex C in the Minamata Convention, which must be included in National Action Plans.

Proposed web site architecture for GEF GOLD Programme

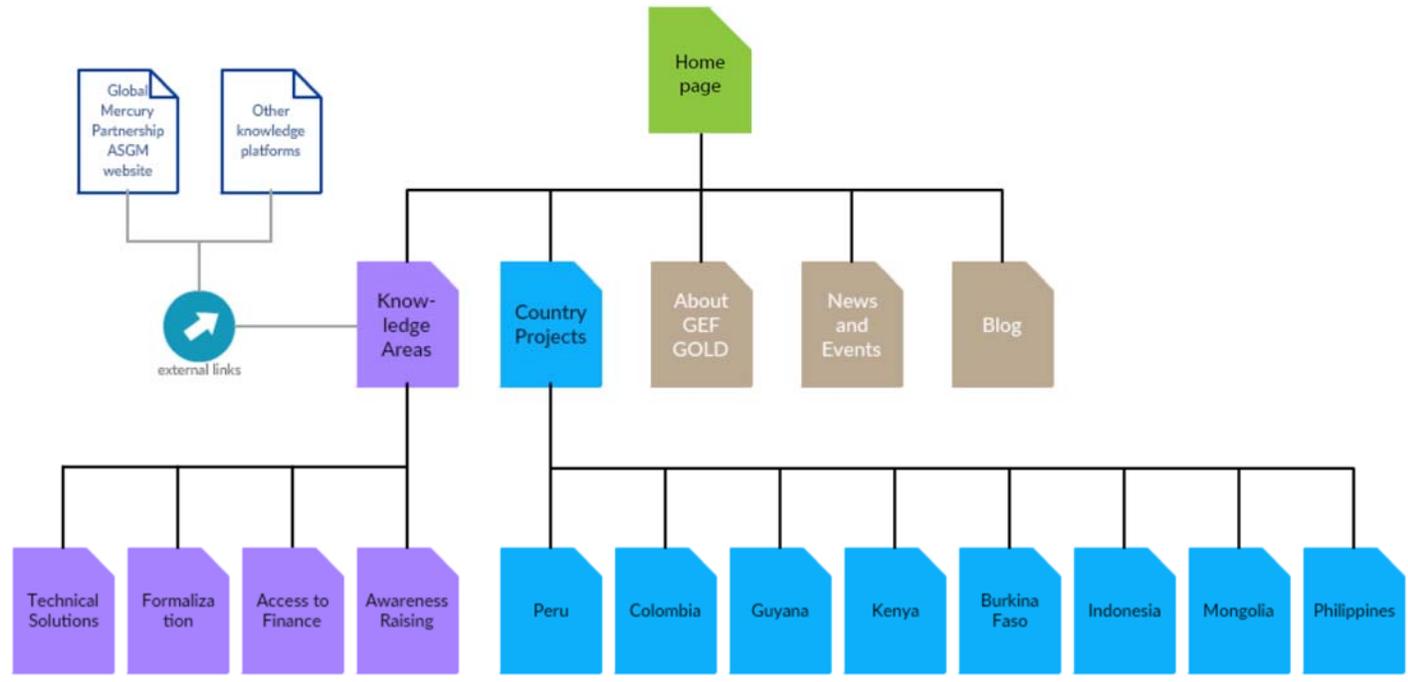


Figure 2. GEF GOLD website architecture.

2.2.2 Promote and maintain virtual channels of ongoing communication among practitioners and scientists in the global ASGM community. The project will develop methods to ensure that all participants and stakeholders can communicate effectively and easily with each other, such as through an online forum and a dedicated list serv, as well as through social media. Component 3 will provide assistance to this activity in the form of creating content appropriate for social media such as social media cards, other images, and short videos.

2.2.3 Organize and coordinate a global ASGM forum every other year to support ongoing exchange of experiences, as well as development of global expertise and capacity building on ASGM issues. Ideally the forums will alternate among Latin America, Africa and Asia. The forums can also be used as opportunities to “workshop” products created by the global project, such as synthesis materials and tools created under Activity 2.1.2. Co-benefits will be sought through the timing and location of these event with project partners own activities. Specific attention to gender representation will be considered such as inviting women mining associations.

2.2.4. Work with country-level projects, as requested, to identify specific stakeholders in each country who could act as amplifiers, to be specially included in efforts to disseminate information. For example, this may include universities, technology centers and schools in ASGM countries in their respective countries who could disseminate information on better ASGM techniques to miners and mining experts. Equal participation of men and women will be sought among these disseminators.

Output 2.3 Results among country-level projects of the programme collected and analysed to provide program-level results.

The global project of GEF GOLD will be responsible for tracking and analyzing projects results to provide a comprehensive picture of programme level results. To do so, the project will provide a connection point among the teams working in the country projects, and will support them in documenting their financial, formalization and technical activities. The global project can also assist country projects by providing access to experts, facilitating discussion among project teams to share experience, coordinating common approaches where appropriate, troubleshooting problems, and monitoring progress.

Specific activities:

2.3.1 Facilitate direct communications and knowledge sharing among GEF GOLD projects, including:

- Regular (quarterly) full programme calls to share progress. While the global project would organize and initiate these calls, the country-level projects can take turns leading them.
- More frequent (monthly) calls among projects in same region/ time zones (Asia, Africa, LAC).
- Creation of standard (short) templates which country-level projects use to create routine project updates, using commonly agreed indicators. Specifically, projects will provide narrative updates on a semi-annual basis, and provide annual updates with quantitative data on the agreed indicators. The global project will then digest these materials and create brief sharable summary (such as a programme newsletter or blog post) on a regular basis.
- Create of a project partner list serv or other similar tool to promote and enhance routine communications.
- An annual programme steering committee (appended to the Global Forum in years that it occurs); for this meeting, each country-level project would come, at their own cost, to the meeting prepared to present

specific information about their project’s progress. The country-level projects should aim to ensure gender balance over time in representatives attending in these meetings.

- Moderated discussions and learning opportunities on specific topics, including topics requested by country projects.
- Facilitate targeted access to expert help, for example, by maintaining a roster of experts, and where appropriate, seeking the assistance of the experts to provide assistance on specific problems.

The global project will encourage country level projects to consider gender when selecting representatives to participate in these exchanges.

2.3.2. In conjunction with Component 3, provide opportunities for country-level projects to publicize their projects, through common communications approaches and channels by:

- Ensuring that projects use the common “visual identity/branding”: logo; common hashtag (but with country added) and other identifiers on social media; same banners for meetings; etc. Creation of the branding and visual identity will be done under Component 3 in collaboration with country projects, implementing agencies, and the GEF.
- Creating standard programme materials that can be used for general education and promotion of the GEF GOLD programme as a whole, as well as creating standard “marketing materials” for country-level projects (one page project descriptions, fact sheets),
- Creating standard technical formats for country projects to follow when documenting results of the projects;
- Establishing a “communications network” which would include global project communications specialists as well as individuals designated by each country-level project as responsible for their communications, and then facilitate regular (quarterly) calls to share experience and progress on work,
- Organizing an in-person meeting of the communications representatives during years when there will not be a global forum (two meetings total),
- Hosting a regular blog on the website featuring a different country level project each month,

2.3.3 Based on data provided by the country level projects, including gender disaggregated information, through reporting, and through supplemental data collection as necessary, assemble information into a report on an annual basis, which will be provided on the website. Once sufficient data is generated by the country level projects to allow meaningful analysis, conduct a comparative analysis of project results across countries, to assess factors that lead to success or failures of the different technical and financial models. Using this analysis, develop recommendations for what kinds of approaches may work best under a variety of circumstances.

Component 3 will use targeted communication to gather support among the general public, gold consumers, governments, and the financial sector, for sector reform, increased access to finance and improved markets for ASGM gold. As discussed in the baseline, ASGM is a misunderstood issue in many countries. Many people have never heard of it. For those who have heard of it, miners are often simplistically vilified as criminals who cause social upheaval and environmental destruction. However, there needs to be a broader and more sophisticated understanding of this complicated sector, in order to create the political will necessary to effectively address problems caused by ASGM, and more importantly highlight the positive community development and economic support generated by ASGM. Component 3 will create outreach materials that are highly accessible for both specialized and general audiences, and deploy these assets through a carefully planned media/public relations (PR) strategy. This component will also coordinate a specific PR campaign in conjunction with a downstream user or users of gold, specifically jewelers, to

increase awareness and demand for responsible gold. The goal will be to educate the public, government officials, downstream users and other stakeholders, to create public support for the development of positive and effective improvement programmes for miners and their communities.

Expected outcome: Support among the governments, stakeholders, mining communities or financial sector and international media for reduced mercury use in ASGM is increased

Expected outputs:

Output 3.1 Global branding of GEF GOLD programme identity established

Delivering communications and other project materials with a unified brand will create global recognition of GEF GOLD among stakeholders engaged in the ASGM issue, and will convey credibility and an expected level of quality and reliability of project products. The creation of new products as well as re-purposing existing assets using this unified brand will result in more impactful messaging. The GEF GOLD brand is an opportunity for all stakeholders to feel connected to something bigger, and to help create a sense of a cohesive and unified programme, rather than just a collection of singular projects.

Specific activities:

3.1.1 Engage stakeholders from all projects in the GEF GOLD programme (country level and global) to create consistent and cohesive brand voice, by undertaking purpose-based branding exercises, and otherwise coordinating to share ideas that could be folded into the branding campaign. Based on this input, develop a sample creative brief presented to and agreed upon by the GEF GOLD programme team.

3.1.2 Based on outcomes of Activity 3.1.1, create brand assets, including:

- Create unifying logo, and tag line for a brand umbrella that can be used across the board in all countries, as well as the numerous platforms
- Create customized Power Point master slide for the programme overall and for each country
- Create messaging templates for GEF GOLD team communications to ensure consistency of the GOLD message, tone, and language. The messaging template may include brand positioning, the project “elevator speech,” and whatever else is needed to convey the message and to have consistent tone and voice. For instance, in PR, it would be the basis for press releases. In advertising it would be the basis for ads, banners, etc. On an email, it would be consistent language and graphics.
- Provide standard layout/graphic formats for all project reports, factsheets, etc.
- Develop graphic standards for all freelance video or graphic design personnel.
- Develop a GEF GOLD diploma based on online courses learning

Output 3.2 Proactive PR/media strategy executed, targeting general public, financial institutions and government agencies, to create more balanced perception of impacts of ASGM.

Specific activities:

3.2.1 Create a set of media tools and other assets that will support a story-driven PR/Media strategy for the GEF GOLD global project, and that can also be used by other GEF GOLD partner projects for communications. The PR strategy will include the gender dimension of the ASGM sector. The strategy will:

- Create accessible interactive content for the programme website, including
 - interactive, web-based stories and info-graphics
 - an interactive map that allows visitors to learn about the many different facets of ASGM and the projects taking place within the GEF GOLD project
- Create tools that can be used for media outreach and creation of media stories and reports, including
 - digital media kits – tip sheets, photographs, video clips, and press releases
 - an asset library of existing photo and video assets that exist on varying partner websites – all unified under the global brand.
 - a list of media contacts
- Develop PowerPoint presentations and presentation guides for the GEF GOLD Global Project that can be used for direct outreach to the general public and governments.
- Create video chaptered stories of artisanal miners and their families to engage the general public in the human aspect of the programme by focusing on specific miners in one or more projects of the GEF GOLD partners. These videos will be developed in such a way that they can be re-packaged for different specific audiences as needed.

3.2.2 Develop a strategy for outreach to conventional and social media channels to encourage balanced/ more positive coverage of ASGM, that will:

- Identify a set of GOLD ambassadors/champions to improve visibility of the programme.
- Pitch story opportunities arising from country-level projects (or other means) to international news media partners, such as CNN International, Al Jazeera, BBC, and The Guardian.
- Utilize website and social media to promote GEF GOLD Global Project news and create opportunities for news events.
- Create innovative ways to communicate key messages to the target audience, such as using story maps, interactive graphics, and short videos.
- Develop a strategy for using the chaptered video stories as the basis for media stories, potentially in both conventional media (e.g., local or national television in project countries) and/or incorporating and contributing this content to the website and social media or other methodologies such as the development of a micro-site.

Output 3.3. Communication efforts by all GEF GOLD projects are supported and reinforced.

Specific activities

3.3.1. Provide materials to support communications efforts of country-level projects and find opportunities to promote country projects through global project communications products

- Use regular GEF GOLD “communication network” and other internal GEF GOLD project meetings to identify content points to be added to global communications tools and strategies.
- Identify and incorporate best practices and successes from the country-level projects on an ongoing basis into web-based tools, public relations, and presentation components

- Promote use of the programme website and any associated digital engagement tools (eg., facebook) by the country project teams
- Create common scripts/messages to be used by local producers for communications campaigns at country-level

3.3.2. At end of project ensure that UN Environment's efforts to update or modify the GEF GOLD Global Project content can be done as easily as possible.

- Distribute a data device that is current technology to each of the four partner agencies that contains the entire body of photos, graphics, info-graphics, animations and video footage acquired through the GEF GOLD Global Project and any other materials acquired from other parties.

3.3.3. Create communications to support education of investors/ financiers under Component 1 that will focus on the improvement of the new financial resources models including: preparing presentations for industry and economic development conferences, focused on the win/win opportunities; producing other materials specific to entrepreneurial opportunities, including video and PowerPoint usable for presentations, event marketing, and streaming; repackaging chaptered stories to demonstrate successes of pilot financial models and market access activities in GEF GOLD programme projects in order to create this easy access to effective financing models.

Contribution of the project to Agency goals

This project contributes to reach the GEF Focal Area Strategy CW-2 "Reduce the prevalence of harmful chemicals and waste and support the implementation of clean alternative technologies/substances"; in particular Program 4 "Reduction or elimination of anthropogenic emissions and releases of mercury to the environment".

This project also contributes to an effective implementation of the UN Environment Programme of Work (PoW) for 2018-2019. UN Environment will work to improve the regulatory and institutional frameworks for a global legally binding instrument on mercury, and enhancing cooperation and coordination between the multilateral environmental agreements (MEAs) related at the national level. UN Environment will also help countries to develop their capacity to use the scientifically robust and technically sound advice and guidelines developed by the Programme on the risk assessment and management of chemicals, including those listed in the MEAs on mercury.

4) INCREMENTAL/ADDITIONAL COST REASONING AND EXPECTED CONTRIBUTIONS FROM THE BASELINE, THE GEFTF, LDCF, SCCF AND CO-FINANCING

By integrating the activities of this project with the existing network of the UN Environment Global Mercury Partnership, leverage of financial and knowledge resources will be maximized. In the knowledge management component, this project will build on current efforts to collect, share, and create knowledge resources, such as case studies, guidance documents, and training materials. Building on this existing network is preferable to establishing a new network, and significantly increases the availability of co-financing.

In Component 2, the participation of private sector partners will be critical. Private sector partners will provide significant co-financing in several country projects of this Programme, and this global project will serve to tie together these activities and their associated private sector involvement and contributions.

It should be noted that this global project will serve to magnify the results and impacts of all the projects, as well as coordinating efforts among key actors and collecting and sharing knowledge generated from each country project, ASGM National Action Plans, and other ASGM research and interventions. This global project will also create new knowledge where stakeholders identify gaps and provide solutions to close these gaps. Finally, it will help increase the visibility of the ASGM problem and solutions and contribute to increased political awareness of the issue and support for solutions.

The co-financing for this project will come from a broad range of partners, reflecting the interest generated by the Programme and the complexity of the the issue:

- **UN Environment** with its Global Mercury Partnership and Mercury Programme will contribute to the efforts of the project by bringing its convening power and wide expertise on the mercury issue. The Global Mercury Partnership has been active for more than 10 years and UN Environment has access to a wide range of experts, both within the Chemicals and Health Branch and outside who can contribute to the project. UN Environment will continue to organise and host the Annual Partnership Advisory Group meeting as well as the Conference of the Parties for the Minamata Convention which will be important platforms for the dissemination of the results of this Programme.
- **UNIDO** has more than 20 years of experience in managing mercury, especially in the ASGM sector. The Mercury Programme is leading and facilitating the development of baseline needed in carrying out mercury inventories in ASGM communities, demonstrating practical field methods that can easily be implemented by a wide variety of stakeholders depending on particular circumstances. UNIDO also has an established network of industrial partners which makes an unique entry in increasing the presence of private sector in international development projects, such as the Memorandum of Understanding with Argor Heraeus, a main partner of the GEF GOLD programme. The co-financing will facilitate the incorporation of this risk and health measures to the project needs in each country.
- **Organisation for Economic Cooperation and Development (OECD)** has been developing and promoting Due Diligence Guidance in the extractive sector for many years. The guidance is already being followed by a broad range of stakeholders, including Governments, civil society and private sector. The annual meeting OECD organises on this issue represent a key co-financing activity as it facilitates linkages with the private sector and publicising the work of the Programme.
- The **African Mineral Development Center (AMDC)** of the UN Economic Commission for Africa has been working with African Governments on sharing information on the sector and especially on legislation aspect. Their co-financing will be important in component 2.
- The **Canadian International Center Resources and Development Institute (CIRDI)**, a Canadian Government-sponsored programme, is an important partner in the area of education on mining issue, in particular on gender and vulnerable population topics.
- **The Sustainable Artisanal Mining (SAM)** is a Swiss Development Cooperation project in its 12th year of implementation and final phase. SAM has worked extensively on the introduction of non-mercury techniques in Mongolia in the previous phases and this experience will be documented in component 2. The final phase of SAM is focussed on the establishment of a national knowledge hub on the sector which will be an important opportunity for dissemination for the Programme in Mongolia.
- The **Natural Resources Defense Center (NRDC)** is a United States NGO which has co-lead the UN Environment Global Mercury Partnership area on ASGM since 2008. NRDC has been a key actor in the negotiations of the Minamata Convention and coordinated the development of the NAP guidance document which has been adopted by the first Conference of the Parties. Its co-financing will be contributing to the management of the project as well as all the components where it has well recognised level of expertise.
- The **Artisanal Gold Council (AGC)** is a Canadian NGO which has been a key partner of the UN Environment Global Mercury Partnership area on ASGM. AGC is currently implementing a number of projects in the ASGM

sector and in the context of this global project, AGC's co-financing will contribute to component 2 through a grant they implement for the US Department of State.

- **Resolve** is an NGO involved in the formalisation and access to finance for the miners. Through a grant implemented for the US Department of State, their co-financing will contribute to Component 1.
- The **Responsible Jewelry Council (text to be added post PRC)**
- **Levin Sources and Global Initiative Against Illicit Financial Flows** have been active partners in the areas of formalisation and financial flows in the extractive sector. Their co-financing will contribute to Component 1 and 2. Indeed, with a better understanding of the financial flows, investors will be less risk averse when considering their involvement.
- **ArrowHead Films** has been an active partner of the GEF Chemicals and Wastes focal area for many years. They have strong expertise in producing balanced and well documented videos and stories on the ASGM issues as has been demonstrated in the movie presented in the context of the first Conference of the Parties. Their co-financing will be an asset for Component 3.
- The **Dragonfly Initiative**. Is the manager of the Impact Facility for Sustainable Mining Communities, a vehicle that manages impact capital and loans from donors, downstream companies, and impact investors to demonstrate measurable impact in mining communities globally. the Dragonfly Initiative brings multi-disciplinary expertise to transform ASM to a net-negative sub-optimal economic activity to a sustainable economic opportunity for community world wide.

A.2. Child Project? If this is a child project under a program, describe how the components contribute to the overall program impact.

This global project will serve to magnify the global environmental benefits of the entire GOLD Programme through knowledge management and promotion of financial mechanisms to gain the means to reduce and where feasible eliminate mercury use in ASGM.

This global project will improve the sustainability of the entire GOLD Programme. It will collect, catalogue, and share knowledge from the country projects and the global community of ASGM practitioners. In this way, lessons learned will be preserved and future projects will be able to start from a state of increased knowledge of the issue, the solutions, and what works and does not work. In effect, this project will ensure that the lessons and knowledge generated from the Programme will be available for, and utilized by, all subsequent work in ASGM.

The project will also emphasize innovation by looking at various new approaches taken in country projects and helping to determine what innovations are promising and could be adopted on a broader scale. In the area of finance particularly there are a number of innovative solutions to the problem of making capital available to miners to invest in mercury-free technologies. Some of these solutions will be tested in the country projects, and others will be tested in countries not participating in the Programme. The global project will weigh the effectiveness of these innovative approaches and generate models of which types of solutions are most promising in different conditions.

By creating a platform for knowledge management, which will continue to function after the Programme has ended, conditions will be created for scaling up. As other projects are completed and new knowledge is generated, this can be incorporated into the existing knowledge management system and shared with the enhanced UN Environment Global Mercury Partnership network. Web infrastructure will allow this knowledge to be easily curated, summarized, and shared globally, at a nearly unlimited scale.

A.3. *Stakeholders*. Identify key stakeholders and elaborate on how the key stakeholders engagement is incorporated in the preparation and implementation of the project. Do they include civil society organizations (yes /no)? and indigenous peoples (yes /no)? ¹¹

This project will work in close coordination with the UN Environment Global Mercury Partnership, facilitating the engagement of stakeholders at the project design and implementation phases. Members of the Partnership represent the diversity of institutions involved in the ASGM issue, from governments and NGOs, to academic researchers and industry. With the coordination of UN Environment and the ASGM Partnership area leads, this global project will leverage the experience of partnership stakeholders to maximize the effectiveness of the project and the usefulness of the outputs. Other stakeholders will also be involved, in particular governments who are signatories or Parties of the Minamata Convention and will be consulted and informed both prior to the project and during implementation. Additional stakeholders will regularly be identified at the national level in the framework of the development of the National Action Plans and will also be informed and engaged by the project.

Table A: International Project stakeholders

Stakeholder	Role in the project preparation	Proposed engagement in project
International Governmental Organizations		
UN Environment	Led consultation with national project partners, discussing co-finance contributions, and seeking input into the project design. Co-lead of the Global Mercury Partnership. Co-led consultation with national project partners for their country projects	UN Environment Chemicals and Health Branch GEF Unit is the IA, responsible for implementing the project, in line with project budget and workplan, and overseeing the Executing Agencies. Member of the project Steering Committee. It will provide information about the implementation of country projects for which is acts as IA (Mongolia and the Philippines)
UNIDO	Co-lead of the Global Mercury Partnership. Co-led consultation with national project partners for their country projects	Targetted technical assistance in the organisation of the annual meetings of the project (SCM and Regional Fora). Member of the project Steering Committee. It will provide information about the implementation of country projects for which is acts as IA (Burkina-Faso, Mongolia and the Philippines)
UNDP	Co-led consultation with national project partners for their country projects	Member of the project Steering Committee. It will provide information about the implementation of country projects for which it acts as IA (Colombia, Indonesia, Kenya and Peru)
Global Mercury Partnership	Provided input into the project design, attended the project formulation workshops. Provided information on baseline projects and co-financing partners. Already has an established roster of experts	The Global Mercury Partnership will provide targeted technical assistance and manage the knowledge platform developed by the project
Minamata Secretariat	Consulted during project development	Secretariat of the Minamata Convention on mercury will provide the available information of the submitted NAPs to create a global ASGM database. The project website will be hosted by the Minamata Secretariat, providing an independent and sustainable platform

¹¹ As per the GEF-6 Corporate Results Framework in the GEF Programming Directions and GEF-6 Gender Core Indicators in the Gender Equality Action Plan, provide information on these specific indicators on stakeholders (including civil society organization and indigenous peoples) and gender.

OECD	Consulted on project design and execution arrangements. The Due Diligence Guidance of the OECD is a key tool for the involvement of the private sector in the project	Co-financing in kind donor agency, will assist in the identification of private sector partners and ensure their involvement
WHO	Provided input into key health contact points for each of the project countries, and assisted in the planning of the project. Consulted on project design and execution arrangements	UN specialized agency concerned with international public health. Will be evaluating matters related to human health impacts of ASGM and involvement on national health sector; will develop guidance for country strategies on information and training materials on public health and protection of vulnerable populations
AMDC (UNECA)	Collaborated on discussing on available knowledge products and existing knowledge management platforms for ASM in Africa	The project will collaborate with AMDC to identify literature and the project will link to their work as an external platform for knowledge management
Governments		
US Department of State	Consulted on project design and execution arrangements. Key financier of many partners under this project	Executive Department in charge of foreign policies. It will contribute to the co-financing of promoting knowledge dissemination on mercury-free processing techniques through workshops
Swiss Development Cooperation	Consulted on project design and execution arrangements in relation to the last phase of the SAM project in Mongolia which will host its own national knowledge hub	The knowledge platform of this project will benefit from the experience and own platform of the Sustainable Artisanal Mining in Mongolia
Canadian International Resources Development Institute	Consulted on project design. Key partner in the area of gender issues and indigenous people	Co-financing partner through APEC grant. CIRDI's work on training center modules on business plan development and gender in ASGM will be an important source of information on this topics
Private Sector		
Refiners	Refiners have been consulted in the framework of the OECD Due Diligence Guidance	Will commit to buying the mercury-free gold produce by the Programme's sites
Jewellers	Consulted during baselining	Will continue to develop their ethical gold line of products, thereby contributing to the wider public's education on the sector
Responsible Jewellery Council	Has 69 private sector member which comply with their certification process in the gold and platinum metal industry	Will be a key partner in reaching out to gold consumers to expand the market for the ASGM communities
Investors	Consulted during baselining and investor's meeting organized by NRDC in New York	Will invest in the Programme's participating sites and countries in order to accelerate the transition to mercury-free gold
ArrowHead Films	Consulted on project design on the public communication section based on their extensive history of collaboration with GEFSEC	Will contribute to component 3 by developing public information material
Non-Governmental Organizations		
Natural Resources Defense Council	Co-lead of the Global Mercury Partnership. NRDC prepared the baseline for the project. NRDC co-organised the investors meeting in the framework of the PPG. NRDC organised the development of the NAP guidance document and was a key NGO partner in the Minamata negotiations	NRDC will be the EA. It will be performing the day-to-day tasks and monitoring of the project's financial activities
The Artisanal Gold Council (AGC)	Consulted during preparation of national baseline report, and review of current activities completed. AGC co-organised the	NGO experts in environmental sound, socially responsible, formalized artisanal gold mining sector and outreach to the investment community; it will

	investors meeting in the framework of the PPG. AGC introduced the project to the UN Environment FI Regional Roundtable on Sustainable Finance in Tokyo, 2017.	also contribute to component 1 on the creation for responsible economic opportunities in the ASGM sector
Conservation International	Co-led consultation with national project partners for their country project	Member of the project Steering Committee. It will provide information about the implementation of country project for which it acts as IA (Guyana)
Dragonfly Initiative	Consulted during the baselining and investors meeting. Strong links to the investor community as well as ethical gold markets	Will develop a tool which can be used for investors to assess the feasibility of investment in a specific mining community
Resolve	Consulted during baselining. With the support they receive from US DoS, Resolve is an important player in the investment part of the Programme	Will assist with the linkages to the jewelry industry interested in investing in the sector
Levin Sources – Global Initiative	Consulted during baselining. Experiences in illegal financial flows and formalization	Will contribute to creating knowledge products on financial flows (gold and mercury) to facilitate the involvement of investors
Solidaridad	Consulted during preparation of national baseline report, and review of current activities completed	Will launch a small-scale mining platform including policy information, initiatives on responsible gold and clean technologies to support local entrepreneurs in the business gold life-cycle

A.4. Gender Equality and Women's Empowerment. Elaborate on how gender equality and women's empowerment issues are mainstreamed into the project implementation and monitoring, taking into account the differences, needs, roles and priorities of women and men. In addition, 1) did the project conduct a gender analysis during project preparation (yes /no)?; 2) did the project incorporate a gender responsive project results framework, including sex-disaggregated indicators (yes /no)?; and 3) what is the share of women and men direct beneficiaries (women X%, men X%)? ¹²

Women are often employed in many aspects of the ASGM process and live in communities where gold processing with mercury takes place. Women of childbearing age are considered a vulnerable group, because mercury exposure to pregnant women can cause serious and irreversible neurological impacts to fetuses. The issue of the negative impacts of mercury use in ASGM and the consequences on health of vulnerable groups, including women, in ASGM societies will be considered in all aspects of this project implementation. Empowerment of women entrepreneur will be an important consideration in the execution of the financial component. Promotion of gender equality in ASGM is good for business and good for development. Internationally, governments, mining companies, civil society organizations, and mining communities increasingly recognize the livelihood importance of ASGM and its potential to catalyze local development. For the moment, no clear gender baseline is available although inequality is reported and with actual knowledge there exist institutional barriers for women that limits the access to suitable financing programs. The project will generate an improved access to government incentives and support services for women's stakeholders groups/enterprises involved in the ASGM sector. This project will prevent these gaps to widen and worsen by working with governments, mining companies, and mining communities on gender issues. The effective implementation of this project will consider at all moments an analytical framework to help users identify gender issues at play in each stage of the ASGM in each community.

¹² Same as footnote 8 above.

In the experience of the UN Environment Global Mercury Partnership, women often lead civil society activities to reduce the health risks involved in their communities from ASGM. The empowerment of women's groups, and women-lead groups can have very beneficial impacts in strengthening a communities response to unsafe practices in ASGM. This project, through the work carried out by NAPs implementation in each country, will reinforce the development of a public health strategy for ASGM communities, having particular attention in protecting vulnerable populations such as women of childbearing age. Also, will encourage signatory nations to take part in education, outreach and capacity-building initiatives specific to ASGM, and in general strengthen public health measures to address mercury pollution with specific mention of strengthening of institutional and health professional capacities (engaged by WHO initiatives). Supporting the gender equality in this project, participation of women in the sector will be encouraged and promoted, especially in the areas of access to finance, licenses and cleaner technologies.

In general, women play an important role in ASGM communities, and no matter the capacity, they are critical to mining community stability and growth. The project will also reach out to women from this target group to sensitise them as to the issue and the potential impacts of mercury use in ASGM. Through an effective implementation of this global programme, proactive PR/media strategies will be at all moment be executed, targeting not only ASGM communities, but general public, financial institutions and government agencies as well, in order to create a more balanced perception of impacts of ASGM. Through implementation of this global programme, they can assist with addressing issues related to women exposure through several potential mechanisms. These might include:

- Targeted outreach and awareness-raising on the risks of women's work with mercury in ASGM communities;
- Implementation of mining regulations prohibiting the use of mercury by women of child-bearing age or pregnant women;
- Collaborating with national ministries of education and families as well as non-governmental actors to promote women institutions in ASGM communities and to include outreach components that focus on issues in current and future projects being conducted in ASGM communities.

Gender is a cross-cutting issue, which is considered in the proposed project components, and gender disaggregated data, and indicators have been included in Annex 1 (Project logical framework). Specifically the project has been designed to promote gender equality and empower women as detailed below:

Output 1.1: The gap analysis and consultations with Parties and potential investors will include an assessment of whether implications on mercury use during the supply chain on the process are sufficiently informing the working communities. It will also identify the current barriers to change and develop guidances based on gender related data that should inform investors about mercury health issues.

Output 2.3: The demonstration of the programme and information dissemination on each national level projects will provide the opportunity to raise awareness on gender related issues and promote gender equality by developing materials in a gender sensitive manner to ensure that learning opportunities are available and effective for both men and women in each national action plan.

A.5 Risk. Elaborate on indicated risks, including climate change, potential social and environmental risks that might prevent the project objectives from being achieved, and, if possible, the proposed measures that address these risks at the time of project implementation.(table format acceptable):

There are several low and moderate level risks inherent in this project. Acknowledgement of these provide a gauge for project assessment. The effective provision of national scale financial resources to the ASGM sector as well as an effective information dissemination, such as the one proposed here, largely depend upon the participating GEF GOLD stakeholders willingness to cooperate in the country.

The results of an initial risk assessment are presented below:

RISK	RISK RANKING	MITIGATION MEASURES
Change in the political and economic situation during the life time of the Programme impacts the implementation	Low	Participating countries in the Programme have been active in the negotiations of the Minamata Convention and have signaled their intention to take on the obligation to address the ASGM issue through their NAP. Through the implementation of the project, it will help increase the visibility of ASGM problems and solutions, contributing to develop increased political awareness of the issues and support for solutions. The fluctuation of the international price of gold over the last few years have had little effects on the number of miners involved in the sector. The local economic conditions and lack of rural employment are much stronger drivers.
Failure to identify an appropriate investment model, and assurance of post-intervention sustainability.	Low	The investment opportunities developed in the Programme have been piloted in previous ASGM projects and it will be continually assessed through the progress reports and ASGM meetings. Supporting the investment in small scale mining producers this will translate to more profitable opportunities.
Lack of coordination between various ASGM initiatives on the ground	Low	There are a lot of different players working on a number of projects in the countries and regular communication calls between the various actors. The EA being the co-lead of the UN Environment Global Mercury Partnership on ASGM is well place to be aware and to reach out to the other initiatives.
Armed conflict, armed groups and/or tax-seeking behavior impeding the Programme's planned interventions	Moderate	The Programme will focus its intervention in areas where formalization initiatives are already under way but the replication of interventions will need to consider this aspect. The close cooperation envisaged with the OECD Guidance Implementation programme will also help mitigate this risk by raising the profile of the Programme's planned interventions in particular with host governments, and by drawing the attention of interested partner companies that will mitigate this risk through the implementation of the recommendations set forth in the Guidance. If

		any problem happens, the project will consider transferring the project to another country with better chances of success in the implementation.
Prevailing cultural norms and practices (negative views on outsiders, resistance to change), prevent project activities	Low	Cultural orientation and community consultations will be undertaken using local NGOs and CSOs. Past referrals will also be drawn upon. The promotion of information-based strategies including the establishment of educational outreach strategy programmes will be used to help maximize the impact of collaboration of ASGM mining communities.
Language barrier communication/low education in the mining communities when the training workshops take place.	Low	The Programme will develop easy access and understandable information workshops prepared by local governments that will maintain close communication with these mining communities.

A.6. Institutional Arrangement and Coordination. Describe the institutional arrangement for project implementation. Elaborate on the planned coordination with other relevant GEF-financed projects and other initiatives.

Implementing Agency (IA): This project will be implemented by UN Environment. UN Environment will be responsible for the overall project supervision, overseeing the project progress through the monitoring and evaluation of project activities and progress reports. It will be responsible for quality assurance procedures, organise contracting with Executing Agency, approve progress reports and clear disbursement. The IA is will also monitor progress to ensure the quality of outputs. It will report the project implementing progress to GEF and will take part in the Project Steering Committee (PSC). UN Environment will closely collaborate with the EAs and provide them with administrative support in the implementation of the project.

Executing Agencies (EA): NRDC will be the executing agency for this project with targeted technical inputs from UN Environment Global Mercury Partnership and UNIDO. As EA, NRDC's key roles include:

- Establishing and house project implementation unit (PIU)
- Perform day-to-day tasks and monitoring of planned activities. NRDC will report to the IA and provide regular narrative and financial updates.
- Acting as Secretariat for the Project Steering Committee (PSC)

PIU: The PIU (housed NRDC) will be staffed by a Project Manager. The role of the PIU is to:

- Ensure Project execution (all technical aspects of project implementation)
- Ensure project governance and oversight of the financial resources from GEF investment
- Provide staff time and expertise in guiding and advancing the project
- Sharing all achievements and project products/outputs with stakeholders
- Supervise the consultants and project partner organizations to deliver against their contracts and in time
- Organize the PSC meetings and serve as its secretariat
- Management and implement the project results and output level M&E framework, to evaluate project performance
- Manage the flow of information from the field and producing periodic monitoring reports.

PSC: The PSC’s membership includes the GEF, IA, EAs of the global and country projects, NAPs and other stakeholders. The PSC will meet annually. PSC meetings as well as global fora will be organized by UNIDO. The role of the PSC is to:

- Oversee the GEF Project
- Provide overall guidance and ensure coordination between all parties
- Provide overall supervision for project implementation
- Approve the annual work plan and budget
- Oversee the implementation of corrective actions
- Enhance synergy between the GEF project and other ongoing initiatives

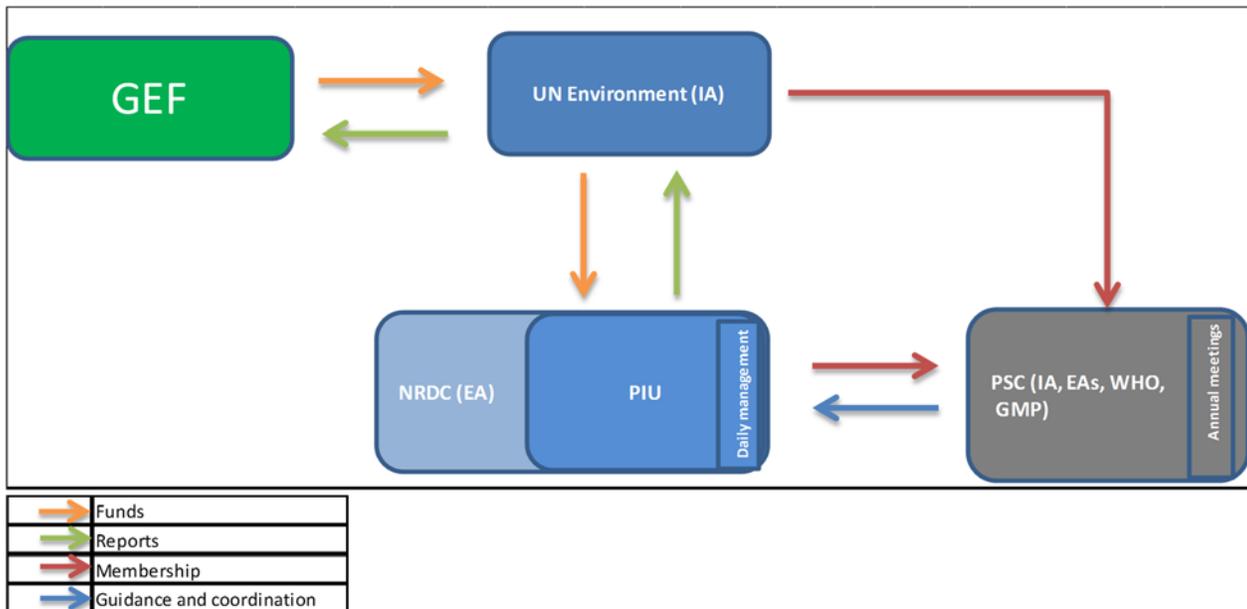


Figure 3: Proposed project governance structure

Coordination with other projects

NAPs

Development of National Action Plans (NAPs) for ASGM is an obligation under Article 7 of the Minamata Convention on Mercury for each participating country under the Programme as they have all declared the sector as more than insignificant. Because the ASGM sector is closely linked to complex economic development and poverty issues, the Convention allows flexible, country-specific solutions through the development of a tailored ASGM National Action Plan. Although each involved country’s NAP process will be unique during the development of this global project, it shall address the specific issues and bring the best suitable solution in each region. Annex C of the Minamata Convention provides a list of elements that must be at all moment included in the development of the NAPs:

- Strategies to eliminate worst practices and promote mercury-free methods
- Steps to facilitate the formalization or regulation
- Baseline estimates of the quantities of mercury used and the practices employed
- Strategies for managing trade and preventing the diversion of mercury
- Strategies for providing information to ASGM affected communities
- A public health strategy on the exposure of miners and their communities to mercury

- o Strategies to prevent the exposure of vulnerable populations, particularly children and women of child-bearing age, especially pregnant women
- o Strategies for mercury-free ASGM and market-based mechanisms or marketing tools

Currently the following participating countries are developing NAPs funded by the GEF:

Country	GEF ID	IA	EA	Start	End
Burkina Faso	9711	UNIDO	AGC	1 Feb 17	Mid 2019
Colombia					
Guyana	In preparation with UNDP, will be submitted in GEF7				
Indonesia	9755	UN Environment	Ministry	2 Jun 17	End 2019
Kenya	9276	UN Environment	Africa Institute	8 Sep 16	End 2018
Mongolia	9535	UN Environment	Ministry	5 Jul 16	End 2018
Philippines	In preparation with UN Environment, will be submitted in GEF7 when the Philippines ratifies				
Peru	9475	UNIDO	AGC	9 May 16	End 2018

NAP Global Component

The UN Environment Programme implemented NAP projects, funded by the Global Environmental Facility, contain an important component entitled “National information exchange, capacity building and knowledge generation”. This is referred to as NAP global component and is coordinated by the UN Environment Programme Global Mercury Partnership. In order to facilitate the development of NAPs in the implementing countries of the global project, the Partnership is undertaking activities to ensure that all NAP projects receive, at all moment, support and information throughout the entire process. As part of the support, the Partnership (i) has developed a roster, and provides recommendations on the ASGM experts, (ii) provides access to, and develops information materials and methodologies, (iii) offers assistance with the development of the baseline estimates and national overview of the sector, (iv) and facilitates the communication and regional cooperation between countries and executing agencies developing NAPs.

The materials developed and collected under the umbrella of the NAP global component, in particular the ASGM library “Wheel of Knowledge”, and Formalization Toolkit, will serve as a rich resource, upon which certain activities of the global project will built. Moreover, the support with the development of national overview of the sector, including baseline estimates of the mercury use, provided to the NAP projects in Indonesia, Mongolia and Kenya, will result in an improved understanding of the national ASGM situations and as such will provide excellent baseline for future interventions of the global project in these countries.

MIAs

A MIA project provides an opportunity for a country to undertake a mercury inventory, determine and agree upon the measures it will take to implement the Convention, estimate associated costs and communicate this information in a concise and clear manner to Government partners, national stakeholders, national and international experts and consultants. MIAs developed in the implemented countries, will be updated and improved regularly following feedback and experiences from similar countries that have prepared their MIA reports. It is important to remark that the inventory prepared under MIAs for the ASGM sector will provide a baseline-guide for the development of the detailed inventory established by NAP project. The implementation of MIAs in this global project will aim to

strengthen national decision-making toward an effective ratification of the Minamata Convention on Mercury and reinforce build national capacity towards implementation of future obligations.

Currently the following participating countries are developing MIAs funded by the GEF:

Country	GEF ID	IA	EA	Start	End
Burkina Faso	9098	UNIDO	UNITAR-WHO	29 Apr 15	2017
Colombia	8007	UNIDO	NCPC	18 Dec 14	Completed
Guyana	6939	UNDP	UNDP-Guyana	22 Dec 14	Completed
Indonesia	9755	UN Environment	Ministry	2 Jun 17	End 2019
Kenya		Self	Self		
Mongolia	9680	UNIDO	Ministry	5 Apr 17	End 2019
Philippines	5863	UN Environment	IETC	13 Jun 14	End 2017
Peru	5494	UN Environment	BCRC Uruguay	18 Nov 13	Nov 2017

World Bank project (#9444)

The World Bank currently submitted a GEF Programme (#9444): Environmental Health and Pollution Management Programme (EHPMP) in Africa (Ghana, Kenya, Senegal, Tanzania, Zambia and Regional). It was developed in order to face the challenges related to inadequate capacity to effectively monitor the use of mercury, lack of capacity for regulation and weak enforcement, lack of access to cleaner production systems, technologies for waste management and availability of information. The Programme will provide: capacity to identify and address environmental health risks associated with mercury, establishment of a regional forum for monitoring and decision-making on use and trade of mercury, improved capacity for monitoring of mercury data (usage and trade), better inventory of mercury import data at country level, awareness among targeted mining communities about environmental health risks, inspection protocols developed and enforcement authorities equipped with monitoring equipment, regional guidance developed on formalization of ASGM. The Programme will attempt to further leverage World Bank's International Development Association (IDA) resources to create enabling environment for the ASGM operators, such as enhanced capacity for financial management, improved reporting and disclosure of revenue and expenditure data, as well as compliance with the fiduciary and safeguards requirements consistent with internationally acceptable norms. The World Bank's comparative advantage is its ability to leverage resources, convene stakeholders around the issue and lead a dialogue both at national and regional levels.

The World Bank will also launch an initiative, calling on all interested stakeholders involved in the global project to share their data in partnership to reinforce the development of DELVE, a platform for artisanal and small-scale mining data. Delve will rely on data contributions from various stakeholders. In its initial year, the platform will focus on a select few high-impact data sets to showcase ASM's positive impact on sustainable development. Through the DELVE programme, the WB promises to highly improve relevant areas concerning to the ASM sector. Close links will be established between the WB platform which covers ASM in general and the GOLD Programme knowledge platform.

IW:Learn (#5729)

The International Water experience in organizing knowledge creation, management and sharing among the various projects of the focal area will be emulated for this specific ASGM sector.

WHO initiative

In recognition of its associated human health and environmental impacts, in particular resulting from the use of mercury in the ASGM process, the Minamata Convention obligates Parties, as applicable, to develop public health strategies on the exposure to mercury of ASGM workers and their communities. Such strategies must include the gathering of health data, training for health-care workers and awareness-raising through health facilities. Through the guidance of WHO, the global project will share the available information of the participating countries through the technical paper: Environmental and Occupational Health Hazards Associated with Artisanal and Small-Scale Gold Mining. The document developed in response to World Health Assembly Resolution 67.11. It will seek to inform ministries of public health of roles they can play in supporting the implementation of ASGM related provisions of the Minamata Convention on Mercury. WHO will play a key role, because it is an important member of the PSC that will guarantee at all moment of the project their active participation through meetings and regular updated reports.

Subprogramme 5 Chemicals and waste

The implementation of the project has a direct link to the objective of subprogramme 5 of the UN Environment proposed biennial programme of work, which states promoting a transition among countries to the sound management of chemicals and waste to minimize impacts on the environment and human health. This programme of work will expect that involved countries increasingly have the necessary institutional capacity and policy instruments to manage chemicals and waste soundly, including the implementation of related provisions in the multilateral environmental agreements.

A.7 Benefits. Describe the socioeconomic benefits to be delivered by the project at the national and local levels. How do these benefits translate in supporting the achievement of global environment benefits (GEF Trust Fund) or adaptation benefits (LDCF/SCCF)?

The Programme intends to improve health and environment through the reduction and elimination of mercury use through the use of new free mercury technologies. Important reduction in mercury used in each of the participating countries will contribute to the global efforts of the international community to reduce anthropogenic mercury emissions. Moreover, by having more capacity access financing for mercury free and efficient technologies, miners and their families will be more productive and therefore the Programme will have important socio-economic benefits at the mining community level.

This global project will serve to magnify the global environmental benefits of the entire GOLD Programme through knowledge management and promotion of financial mechanisms to gain the means to reduce and where feasible eliminate mercury use in ASGM to other mining communities not participating in the Programme. The primary global environmental benefit of the Programme, as discussed in the Programme framework is mercury use and emission reduction. Mercury pollution directly impacts miners and their communities, and through atmospheric transport and bioaccumulation, effects consumers of fish and marine mammals around the world, as well as sensitive ecosystems. Because this Programme will take an integrated approach to ASGM, focusing not only on mercury use but related social, economic, and environmental factors, other medium term environmental benefits are expected. These include reduced deforestation and biodiversity loss from land clearing for ASGM, and reduced impacts to aquatic environments from improved tailings and waste rock management. This Programme seeks to address, through private financing support, the complex issues affecting mercury use in the ASGM sector, including aspects of markets, informality of the sector, and information needs. Clarity of design carries through to the other projects, which are in

turn clearly aligned with the programme framework, and include mechanisms for information and knowledge capture and exchange.

A.8 Knowledge Management. Elaborate on the knowledge management approach for the project, including, if any, plans for the project to learn from other relevant projects and initiatives (e.g. participate in trainings, conferences, stakeholder exchanges, virtual networks, project twinning) and plans for the project to assess and document in a user-friendly form (e.g. lessons learned briefs, engaging websites, guidebooks based on experience) and share these experiences and expertise (e.g. participate in community of practices, organize seminars, trainings and conferences) with relevant stakeholders.

Knowledge management is the key purpose of this global project under the GOLD Programme. The project will develop standards and guidelines for Knowledge Management products coming out of the country projects of the Programme and ensuring quality control of these products for integration in the knowledge hub. In addition, Knowledge Management for the project will utilise UN Environment tools including the Indicator Reporting Information System (IRIS), an online national reporting system developed by UN Environment to facilitate reporting at all levels and to make it easier to take stock of the environment. The new MAP-X platform developed by UN Environment for the extractive sector in particulare will also be used to report on the Programme. The project will make use of the available mapping, search, visualization tools, to ensure project knowledge is captured and disseminated. The project will also establish a Community of Practice under the project website providing stakeholders from project countries, as well as around the globe, a space to share ideas, data and knowledge, with and from other similar projects and initiatives, and ensure opportunities for networking building and communication through the use of technology and social media.

The project will also benefit from the Extractive Industries hub currently under development in UN Environment. Private sector involvement in the hub, especially from the mining industry, will ensure a very targeted dissemination of the outreach material and lessons learnt from the project developed.

The annual Global Forum on ASGM and the dedicated programme website will be the main platform for sharing information on the Programme with

- Countries not participating in the Programme, in order to raise awareness and interest in implementing tested solutions.
- Development partners to exchange information on the experience accrued.
- New financial investors.
- Relevant stakeholders.

B. DESCRIPTION OF THE CONSISTENCY OF THE PROJECT WITH:

B.1 Consistency with National Priorities. Describe the consistency of the project with national strategies and plans or reports and assessments under relevant conventions such as NAPAs, NAPs, ASGM NAPs, MIAs, NBSAPs, NCs, TNAs, NCSAs, NIPs, PRSPs, NPFE, BURs, INDCs, etc.:

As Parties of the Minanata Convention on Mercury, the involved countries endorse the requests of the Minamata Convention described below:

- To undertake, subject to the availability of resources, capacity-building and training activities to support Parties in order to facilitate the development, review and constant updating of national action plans in a harmonized manner with the reporting under Article 7 of the Convention,
- To develop, subject to the availability of resources. its national action plan to their responsible Secretariat no later than three years after entry into force of the Convention.
- Development of effective strategies to prevent the diversion of mercury for use in ASGM by supporting activities such as education, outreach and capacity-building initiatives; promotion of research into sustainable non-mercury alternative practices; provision of technical and financial assistance; and partnerships to assist in the implementation of their commitments under article 7.

Also as part of the Convention, developing country Parties will take advantage of:

- Multilateral, regional and bilateral sources of financial and technical assistance, as well as capacity-building and technology transfer, are encouraged, on an urgent basis, to enhance and increase their activities on mercury technical assistance and technology transfer under article 13.
- An efficient mechanism for the provision of adequate, predictable, and timely financial resources developed to support developing country Parties and Parties with economies in transition in implementing their obligations under this Convention.

C. DESCRIBE THE BUDGETED M&E PLAN:

Day to day monitoring of the global project is the responsibility of the executing agency. The EA will prepare the annual Project Implementation report which will be forwarded to UN Environment for its reporting to the GEF. In between the PIF, the EA will prepare a half yearly project report to ensure proper supervision by the IA.

In addition to this regular monitoring, the project will be reviewed or evaluated at mid-term and evaluated at term.

In line with UN Environment Evaluation and Policy and the GEF's Monitoring and Evaluation Policy the project will be subject to a Terminal Evaluation and, additionally, a Mid-Term Review will be commissioned and launched by the Project Manager before the project reaches its mid-point. If project is rated as being at risk, a Mid-Term Evaluation will be conducted by the Evaluation Office.

The evaluation Office will be responsible for the Terminal Evaluation (TE) and will liaise with the Task Manager and Executing Agency(ies) throughout the process. The TE will provide an independent assessment of project performance (in terms of relevance, effectiveness and efficiency), and determine the likelihood of impact and sustainability. It will have two primary purposes: (i) to provide evidence of results to meet accountability requirements, and (ii) to promote learning, feedback, and knowledge sharing through results and lessons learned among UN Environment, the GEF, executing partners and other stakeholders. The direct costs of the evaluation will be charged against the project evaluation budget. The Terminal Evaluation will be initiated no earlier than six months prior to the operational completion of project activities and, if a follow-on phase of the project is envisaged, should be completed prior to completion of the project and the submission of the follow-on proposal. Terminal Evaluations must be initiated no later than six months after operational completion.

The draft TE report will be sent by the Evaluation Office to project stakeholders for comments. Formal comments on the report will be shared by the Evaluation Office in an open and transparent manner. The project performance will be assessed against standard evaluation criteria using a six point rating scheme. The final determination of project ratings

will be made by the Evaluation Office when the report is finalized and further reviewed by the GEF Independent Evaluation Office upon submission. The evaluation report will be publicly disclosed and may be followed by a recommendation compliance process.

The direct costs of reviews and evaluations will be charged against the project evaluation budget.

M&E activity	Purpose	Responsible	Budget	Timeframe
Inception workshop & report	Review of project activities, output and intended outcomes: detailed work planning	EA	0	Within two months of project start
Steering Committee meetings	Review of progress against approved workplan and budget and help provide advice to the Project Manager to ensure project achieves desired outputs and outcomes; Provide guidance to project Manager so that project business case remains valid, especially among stakeholders whose behaviour must change if project is to achieve its planned results; Provide guidance to Project Manager on needed changes or revisions of project	EA		Steering committee meetings will be organise annually.
Quarterly financial reports	Assess that resources are being utilised optimally according to the approved workplan	EA	0	31 January, 30 April, 31 July and 30 September
Half-yearly progress reports and annual Project Implementation Review	Progress and effectiveness review, including for GEF. Documentation of lessons learnt	EA	0	31 January
Project Implementation Report	Progress and effectiveness review, including for GEF. Documentation of lessons learnt	EA / IA	0	31 July
Mid-term Review	Reviews effectiveness against implementation plan; Highlights technical outputs; Identifies lessons learned and likely design approaches for future projects; assesses likelihood of achieving design outcomes	IA	30,000	2.5 years after inception
Terminal report	Reviews effectiveness against implementation plan; Highlights technical outputs; Identifies lessons learned and likely design approaches for future projects; assesses likelihood of achieving design outcomes	EA	0	1 month after the completion of the technical activities
Terminal evaluation	Reviews effectiveness,	UN	70,000	6 months after the

	efficiency and timeliness of project implementation, coordination mechanisms and outputs. Identifies lessons learned and likely remedial actions for future projects Highlights technical achievements and assesses against prevailing benchmarks	Environment Evaluation Office		completion of the technical activities
Financial audit	Reviews use of project funds against budget and assesses probity of expenditure and transactions	EA	20,000	
Total M&E Cost			120,000	

PART III: CERTIFICATION BY GEF PARTNER AGENCY(IES)

A. GEF Agency(ies) certification

This request has been prepared in accordance with GEF policies¹³ and procedures and meets the GEF criteria for CEO endorsement under GEF-6.

Agency Coordinator, Agency Name	Signature	Date (MM/dd/yyyy)	Project Contact Person	Telephone	Email Address
Kelly West, Senior Programme Manager & Global Environment Facility Coordinator Corporate Services Division UN Environment		May 8, 2018	Ludovic Bernaudat Task Manager	+41229178312	Ludovic.Bernaudat@un.org

¹³ GEF policies encompass all managed trust funds, namely: GEFTF, LDCF, SCCF and CBIT

List of Annexes

Annex A:	Logical Framework
Annex B1:	GEF SEC Review Sheet
Annex B2:	STAP Review
Annex B3:	Answers to GEF Council Members comments
Annex C:	Status of PPG implementation
Annex D:	Financial reflows: N/A
Annex E:	Consultants to be hired
Annex F:	Detailed budget
Annex G:	M&E Budget and workplan
Annex H:	Project implementation arrangements
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Annex J:	Tracking tools: N/A
Annex K:	Endorsement letters: N/A
Annex L:	Co-finance Letters (zip file)
Annex M:	Environmental and Social Safeguards
Annex N:	List of Acronymns
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