



GEF-6 PROGRAM FRAMEWORK DOCUMENT (PFD)

TYPE OF TRUST FUND: GEF Trust Fund

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PART I: PROGRAM IDENTIFICATION

Program Title:	Global Opportunities for Long-term Development of ASGM Sector - GEF GOLD		
Country(ies):	Burkina Faso, Colombia, Guyana, Indonesia, Kenya, Mongolia, Peru and Philippines	GEF Program ID: ¹	
Lead GEF Agency:	UNEP	GEF Agency Program ID:	
Other GEF Agenc(ies):	CI UNDP UNIDO	Submission Date:	2016-07-25
Other Executing Partner(s):	National Governments, AGC, NRDC	Program Duration(Months)	60
GEF Focal Area (s):	Chemicals and Wastes	Program Agency Fee (\$):	4,073,606
Integrated Approach Pilot	IAP-Cities <input type="checkbox"/> IAP-Commodities <input type="checkbox"/> IAP-Food Security <input type="checkbox"/>		
Program Commitment Deadline: 31 December 2017			

A. FOCAL AREA STRATEGY FRAMEWORK AND OTHER PROGRAM STRATEGIES²:

Objectives/Programs (Focal Areas, Integrated Approach Pilot, Corporate Programs)	Expected Outcomes	Trust Fund	Amount (in \$)	
			GEF Program Financing	Co-financing
(select) CW-2 Program 4 (select)	Reduction of mercury use and releases to the environment from the Artisanal and Small-Scale Gold mining	GEFTF	45,262,294	135,174,956
Total Program Costs			45,262,294	135,174,956

B. INDICATIVE PROGRAM RESULTS FRAMEWORK

Program Objective: Reduce the use of mercury in the ASGM sector in the participating countries through facilitating the access to finance to artisanal miners and mining communities for the introduction of low and non-mercury technologies and techniques and through the development of sustainable ASGM gold supply chains					
Program Components	Financing Type	Program Outcomes	Trust Fund	(in \$)	
				GEF Program Financing	Co-financing
1. Institutional strengthening, policies and regulations	TA	Participating Governments develop and implement conducting policies and regulations which enable and sustain positive change	GEFTF	4,940,000	18,421,328
2. Promotion of investment options and direct market access for artisanal miners and their communities	Inv	Private sector and financial institutions support the development of the sector	GEFTF	18,240,995	49,857,627
3. Introduction of better and more efficient technologies and practices	TA	Miners use tools and technologies which do not emit mercury to the environment and which increase their productivity	GEFTF	11,900,000	44,860,445
4. Knowledge Management, Communication and Outreach	TA	Knowledge generated by the programme is available on the UNEP Global Mercury Partnership dedicated website. Target-specific communication tools and media are used to raise awareness on the development potential of the sector of: - Financial and private sector partners - Artisanal miners - Technical partners - General public	GEFTF	7,345,000	18,735,556

¹ Program ID number will be assigned by GEFSEC.

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

Monitoring and Evaluation	TA	Project progress monitored and results evaluated	GEFTF	724,762	540,000
Subtotal				43,150,757	132,414,956
Program Management Cost (PMC) ³			GEFTF	2,111,537	2,760,000
Total Program Cost				45,262,294	135,174,956

PMC is the total of the Project Management Costs of all child projects. For multiple trust fund projects, please provide the total amount of PMC in Table B, and indicate the split of PMC among the different trust funds here: (PMC breakdown).

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

Sources of Co-financing	Name of Co-financier	Type of Cofinancing	Amount (\$)
Recipient Government	See details in child projects	In-kind	23,031,328
CSO	See details in child projects	In-kind	17,560,810
Donor Agency	See details in child projects	Grants	40,760,000
GEF Agency	See details in child projects	In-kind	8,180,000
Private Sector	See details in child projects	Grants	30,842,818
Others	See details in child projects	In-kind	14,800,000
Total Cofinancing			135,174,956

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

GEF Agency	Type of Trust Fund	Country Regional/Global	Focal Area	Programming of Funds	(in \$)		
					Program Amount (a)	Agency Fee (b)*	Total c=a+b
UNIDO	GEF TF	Burkina Faso	Chemicals and Wastes	Mercury	2,000,000	180,000	2,180,000
UNDP	GEF TF	Colombia	Chemicals and Wastes	Mercury	6,000,000	540,000	6,540,000
CI	GEF TF	Guyana	Chemicals and Wastes	Mercury	2,652,294	238,706	2,891,000
UNDP	GEF TF	Indonesia	Chemicals and Wastes	Mercury	6,720,000	604,800	7,324,800
UNDP	GEF TF	Kenya	Chemicals and Wastes	Mercury	4,200,000	378,000	4,578,000
UNEP	GEF TF	Mongolia	Chemicals and Wastes	Mercury	3,900,000	351,000	4,251,000
UNIDO	GEF TF	Mongolia	Chemicals and Wastes	Mercury	1,950,000	175,500	2,125,500
UNDP	GEF TF	Peru	Chemicals and Wastes	Mercury	3,990,000	359,100	4,349,100
UNEP	GEF TF	Philippines	Chemicals and Wastes	Mercury	3,900,000	351,000	4,251,000
UNIDO	GEF TF	Philippines	Chemicals and Wastes	Mercury	1,950,000	175,500	2,125,500
UNEP	GEF TF	Global	Chemicals and Wastes	Mercury	8,000,000	720,000	8,720,000
Total Grant Resources					45,262,294	4,073,606	49,335,900

* Please indicate fees related to this Program. Refer to the [Fee Policy for GEF Partner Agencies](#).

E. PROGRAM'S TARGET CONTRIBUTIONS TO GLOBAL ENVIRONMENTAL BENEFITS⁴

Provide the expected program targets as appropriate.

Corporate Results	Replenishment Targets	Indicative Program 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	hectares

³ 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.

⁴ Provide those indicator values in this table to the extent applicable to your proposed program. Progress in programming against these targets for the program 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.

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 this Programme amount to reduction of global mercury emissions directly resulting from the child projects implementation is 123 tonnes. However, with an expectation of in-country replication of each child project, this amount is expecting to double within the following 2-3 years. Additionally, with the implementation of the global child project, the replication potential will again be doubled including countries not benefitting directly from the Programme but through the knowledge management and results disseminations activities planned. Therefore, the total potential for global mercury reduction of this GOLD Programme is **369 tonnes**.

PART II: PROGRAMMATIC JUSTIFICATION

1. Program Description. Briefly describe: a) the global environmental and/or adaptation problems, root causes and barriers that need to be addressed; b) the baseline scenario or any associated baseline program/ projects, c) the proposed alternative scenario, GEF focal area strategies, with a brief description of expected outcomes and components of the program, d) [incremental/ additional cost reasoning](#) and expected contributions from the baseline, the GEFTF, LDCF, SCCF, and [co-financing](#); and e) innovation, sustainability and potential for scaling up.

a) The global environmental and/or adaptation problems, root causes and barriers that need to be addressed;

Artisanal and small-scale gold mining (ASGM) is the largest global source of anthropogenic mercury releases into the environment with about 35% of total releases from a multitude of sites in over 70 countries (UNEP Global Mercury Assessment, 2013), and accounts for about 17-20% of the world's annual gold production (Estelle Levin Limited, 2014).

It occurs almost entirely in developing countries and countries with economies in transition. Mercury is often used in ASGM to help separate gold from sediments or ore using rudimentary processing methods. When workers combine mercury with gold-laden material, mercury forms an amalgam with gold and some other precious metals, allowing their extraction from the mixture. The amalgam is then heated, often in or near homes, to evaporate the mercury and recover the gold.

During the process described above, mercury losses to the environment occur at two stages:

- During the amalgamation process, miners, because of misunderstanding of the techniques, use excess mercury or worse, apply mercury to whole ore (the raw output of the crushing step without pre-concentration). Because of poor awareness on the dangers of mercury, miners do not attempt to recover the

excess mercury and it is released directly into the environment. The ratio of mercury use to gold produced, in case of whole ore amalgamation has been reported to reach 20kg of mercury used for 1kg of gold produced (20:1) but figures as high as 50:1 have been reported in extreme case (Practical Guide: Reducing mercury use in Artisanal and Small-Scale Gold Mining, AGC, 2012).

- During the amalgam roasting process, mercury is released into the air and the surrounding environment, and is directly inhaled by workers and their families. Mercury inhalation is particularly threatening to small children, the child in utero, pregnant women, and women of childbearing age, as mercury is passed on from the mother to the child and fetuses and children are most susceptible to developmental effects from mercury exposure. In this step of the process, because the amalgam is about 50% mercury – 50% gold, the mercury loss to the atmosphere when no control mechanism is used is equivalent to the amount of gold produced. However, higher values have been reported when the excess mercury is not properly removed from the amalgam or when silver is occurring with gold in the ore as the mercury will form an amalgam with both metals.

The uncontrolled loss of mercury, especially released from whole ore amalgamation in ASGM can travel long distances around the globe, contributing to global mercury pollution and contaminating the world's ecosystems and fisheries. Under certain conditions, bacteria and micro-organisms can transform elemental mercury into methylmercury, a far more toxic form which bioaccumulates up the food chain. High levels are seen in predatory fish, a major source of high quality protein for many people around the world and poor subsistence fishing communities in particular. Mercury intoxication manifests in neurological and kidney impairments and autoimmune effects. Symptoms may intensify and/or become irreversible as exposure duration and concentration increase. Methylmercury intoxication is known as Minamata disease, after a bay in Japan where methylmercury releases were the source of severe and irreversible effects on human health. Methylmercury, when circulated throughout the body, crosses the blood-brain barrier and accumulates in the central nervous system. Methylmercury has also been found to cross the placenta with ease, directly affecting fetuses in utero (Artisanal and small-scale gold mining and health, WHO, 2016).

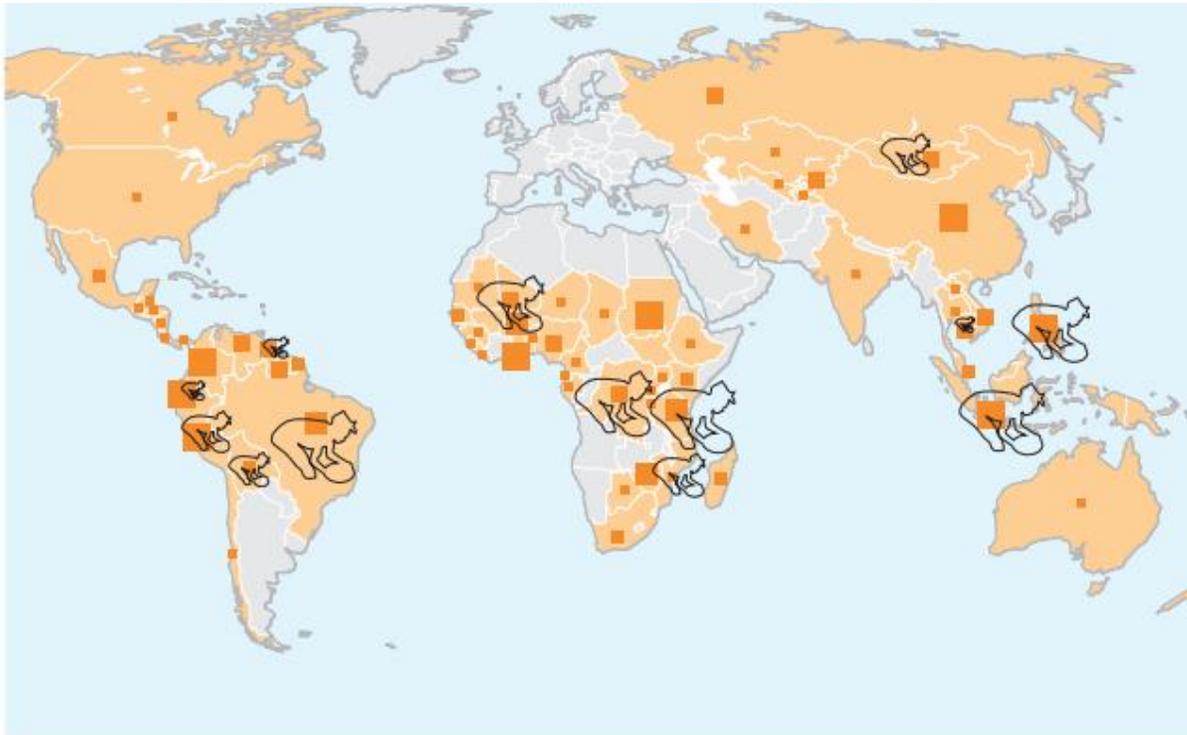
In the processes described for ASGM, it is estimated that nearly 100% of all mercury used is released into the environment (Global Mercury Project, UNIDO 2007). According to the latest figures from the UNEP Global Mercury Partnership, the amount of mercury used by the sector annually is conservatively evaluated at 1,500 tonnes, making the ASGM sector the largest user and emitter of mercury to the environment, accounting for 35% of total annual anthropogenic mercury emissions to air (UNEP Global Mercury Assessment, 2013).

With the succession of economic crises and the overall high price of gold, the sector has attracted more and more people in the last 15 years, especially in rural areas where few alternative livelihoods exist that offer similar levels of compensation. Experts have reported a presence of ASGM activities in over 70 countries (see figure below) and it is estimated that 12-15 million people are currently involved in the sector, of which 4.5 million are women and 600,000 are children. Studies have found that in some localities, the majority of female miners work in the amalgam-processing stage, where they, and therefore their accompanying children, are most at risk of toxic exposure from mercury. In addition, women and children who are not directly involved in mining activities but who live in communities where ASGM takes place are also at risk of exposure due to amalgam roasting taking place close-by. They also rely on contaminated water and food sources, and live in close quarters with people who might have mercury on their hands, body and clothes..

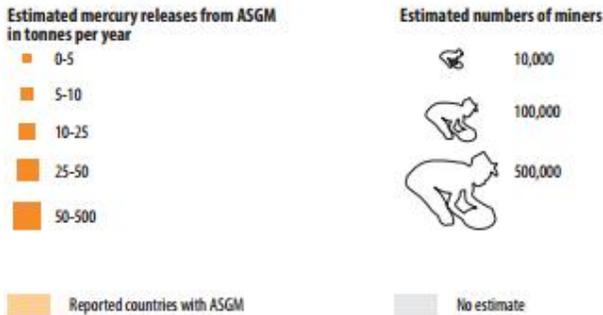
The processes described previously and the general ease of access and cheap price of metallic mercury means that mercury amalgamation is the technique of choice for poor rural populations with low technical training on mining. The fact that miners are not aware of the risks associated with mercury use also reduces community led drivers to move to alternative techniques. In many countries, limited health resources are concentrated in urban areas. Despite improvements in recent years, overall, many people still do not have access to improved drinking water or sanitation facilities let alone proper health care facilities and well trained professionals that can identify and treat mercury poisoning.

In spite of this, ASGM still represents a unique development opportunity for rural populations who do not have many other alternatives for livelihoods. In order to ensure the sector fulfills its development potential by alleviating poverty in rural areas, many ASGM projects have been developed and implemented to focus on the transfer of cleaner and more efficient technologies. However, lessons learnt from these interventions point out two major barriers to ensure

sustainability and replication of the introduced practices: (i) informality and (ii) lack of facilitated access to finance and markets.



Artisanal and small-scale gold mining (ASGM)



Source: Artisanal Gold Council

Informality: The informality in which the sector often operates is one of the root causes of mercury use and more importantly the difficulty for the ASGM communities to apply extraction methods that use less or no mercury. In some countries, ASGM is banned outright and in others, the mining legislation, designed mostly for large-scale operations creates a formidable barrier for small-scale miners. Indeed, what is particularly challenging for miners is that the legislation and application processes are too complicated and they do not have the capacity to understand the processes or submit the required paperwork. This prevents miners from applying for licenses or land tenure and forces them into informality and even illegality in the worst cases. When ASG miners operate in this context, they have to extract gold as fast as possible and with minimal equipment in case authorities visit the area and miners are forced to run. Under these insecure conditions, mercury amalgamation, a rapid and easily transportable technique, is the preferred method. Indeed, mercury is relatively cheap, easily available, the process does not require particular skills or technical knowledge and the process provides the miners with almost immediate revenue (a factor particularly important to subsistence-level miners). Developing tailored legislation and regulations addressing the special needs of the sector would ensure a higher rate of formalization. However, the lack of integration of the mining communities into society, has led some Governments to show little efforts to take steps to address the issue. The informality barrier has caused past interventions to focus their efforts on already formalized communities, limiting the potential for replication of the successes to ASGM communities which are still informal and represent the largest share of ASG miners. Informality also allows ASGM communities to operate in the absence of appropriate environmental impact assessment and oversight, which contributes to deforestation and land-degradation, in turn affecting water resources

and compounding mercury related human health impacts.

Lack of facilitated access to finance and markets: Another barrier to the adoption of better mining practices is the difficulty in accessing capital to finance the initial investments that are needed to switch to low or no mercury alternative techniques and technologies. Due to the lack of proper prospection on the extractable stocks of gold and the fact that ASGM operations are often located in remote areas where support services are not available, miners are not aware of the financing opportunities, cannot communicate investment opportunities with potential investors or cannot provide the guarantees required to secure traditional/commercial bank loans to shift to mercury free technologies. On the other hand, financial institutions often do not have the proper tools to assess the risks of investing in small-scale mining operations as the lack of stock prospects is often synonymous with excessive risk. In addition, because of the remoteness of ASGM operations, there is a long chain of intermediaries the extracted gold has to go through from the initial producer to the refiner and it means miners do not sell their metal at international market prices. A more direct supply chain and de-risking investment of the private sector can significantly increase miner's income.

b) The baseline scenario or any associated baseline programmes/projects

The baseline described here focuses on global level baseline programmes and projects as each individually submitted child projects will expand on the baseline information for its respective country(-ies).

UNDP-UNIDO Global Mercury Project:

From 2002 to 2007, the Global Mercury Project (GMP) was implemented by the United Nations Development Programme (UNDP) and executed by the United Nations Industrial Development Organization (UNIDO) with the overall goal of demonstrating ways of overcoming barriers to the adoption of best practices and pollution prevention measures that limit mercury contamination of international waters from ASGM.

UNEP Global Mercury Partnership area on ASGM

Led by the National Resources Defense Council (NRDC), the United Nations Environment Programme (UNEP) and UNIDO, the UNEP Global Mercury Partnership area on ASGM was set up in 2007 as a voluntary platform to share knowledge and provide information on the sector and its needs. The Partnership responded to a gap in communication between the actors of the sector and led to a better understanding of the outstanding needs to be addressed. Over the last nine years, the Partnership has, inter alia:

- Collected and disseminated information on activities of its partners.
- Identified four worst practices to be eliminated.
- Produced case studies on formalization and practical technical guidance on mercury reduction in gold extraction.
- Organized two Global Fora on ASGM, contributing to experience sharing between practitioners, countries and to dissemination of information on the sector.
- Initiated and piloted the development of National Strategic Plans for countries wanting to deal with and support their ASGM rural communities.
- Informed the negotiators of Minamata Convention by providing technical input for the shaping of Article 7 and Annex C.
- Developed a Guidance Manual for the development of National Action Plans (NAP) in line with Annex C of the Minamata Convention, and contributed technically to the development of a public health strategy guidance document led by WHO for the NAP.

Minamata Convention on Mercury

Between 2010 and 2013, the international community finalized the Minamata Convention on mercury, an internationally legally binding instrument aiming at reducing anthropogenic emissions of mercury to the environment. The Minamata Convention addresses issues of mercury supply, uses and emissions, providing the framework for countries to take coordinated actions to reduce the concentration of this toxic metal in the environment. ASGM is directly addressed by the Convention in Article 7, which requires countries to take steps to reduce the use of mercury by the sector and, if countries recognize the issue as more than insignificant, require the development and implementation of a National Action Plan, according to the requirements of Annex C. The National Action Plan

must stipulate actions to eliminate the four worst practices, and the actions must be implemented in order for the Party to be in compliance with the Minamata Convention. The four worst practices as specified in Annex C are:

- Whole ore amalgamation.
- Open burning of amalgam.
- Roasting of amalgam in residential areas.
- Cyanide leaching of mercury-treated tailings (cyanide has been found to react with mercury, making it soluble and therefore more mobile).

Due Standard for International Production and Trade of Minerals

Modification in the practices used in the international trade of minerals and new standard for extractive industries have been introduced, driven by increased awareness of the wider public on the impact of its consumption habits on the health and environment of poor populations in mineral-rich countries. For example, the Organization for Economic Cooperation and Development (OECD) has developed the "*Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk Areas*"⁵ which provides detailed recommendations to help companies respect human rights and avoid contributing to conflict through their mineral purchasing decisions and practices. The OECD "Due Diligence Guidance is intended for any company potentially sourcing minerals or metals from conflict-affected and high-risk areas". Since its adoption in May 2011, the Guidance has become the leading industry standard for companies looking to live up to the expectations of the international community and customers on mineral supply chain transparency and integrity. The Guidance is widely implemented by the industry, through the development of industry association programmes designed to operationalise all five steps of the Guidance. Industry initiatives estimate that approximately 90% of all refined gold, 95% of smelted tantalum and 75-85% of smelted tin produced every year is covered by industry audit programmes designed to implement the Guidance, although some of these programs have limited geographic scope

One of the main areas of focus of the implementation programme of the Guidance is to ensure that international standards do not further marginalize workers of the informal sector. The OECD Guidance therefore entails an Appendix on "suggested measures to create economic and development opportunities for artisanal and small-scale miners" calling on all stakeholders to engage in legalisation and formalisation programmes of artisanal mining communities. The objective is two-fold: 1/ to build secure, transparent and verifiable supply chains from mine to market and enable due diligence for legitimate artisanal and small-scale mining; 2/ To ensure that legitimate artisanal mining communities can benefit from ongoing trade in conflict-affected and high-risk areas, to support their development and thus contribute to the general improvement of the situation on the ground. To further support interconnections between international buyers and ASGM communities, the OECD Secretariat has released in May 2016 a document called "sourcing gold from Artisanal and Small-Scale miners", which provides practical guidance and answers frequently asked questions relating to sourcing gold from artisanal and small-scale mining (ASM), globally. It clarifies expectations embodied in the OECD Guidance. The OECD is also currently developing a set of Practical Actions for companies to identify and address risks of the worst forms of child labour (a serious human rights abuse listed in the OECD Guidance) in their mineral supply chains.

Better Gold Initiative (BGI)

With four of the largest gold refineries in the world, Switzerland is the world leader in gold refining, processing and consuming (in jewelry and banking). It is estimated that two thirds of gold worldwide is refined in Switzerland. Conscious of this unique position, in 2013, the Government of Switzerland developed the Better Gold Initiative (BGI)⁶ as a pioneering scheme to build transparency, responsibility and profitability in the gold value chain. BGI is a public private partnership between the Swiss Better Gold Initiative and the State Secretariat for Economic Affairs (SECO) and supports efforts on formalization and implementation of cleaner and more efficient extraction methods. The system is based on improved gold prices through the elimination of intermediaries in the gold value chain.

Fairmined/Fairtrade Gold

Other partners include the Alliance for Responsible Mining (ARM) and Fairtrade International which have developed international standards, "Fairmined"⁷ and "Fairtrade Gold"⁸ respectively in a move to raise the public awareness on

⁵ <http://www.oecd.org/corporate/mne/mining.htm>

⁶ <http://www.swissbettergold.ch>

⁷ <http://www.fairmined.org>

the positive impact of their consumer choices. The standards require communities to be formalized and respect social and environmental minimum requirements. Mongolia, with the assistance of ARM, exported its first Fairmined gold bar earlier this year.

c) The proposed alternative scenario, GEF focal area strategies, with a brief description of expected outcomes and components of the programme

The proposal responds to the GEF 6 Chemicals and Waste Focal Area Strategy that aims to achieve the long-term goal “*to prevent the exposure of humans and the environment to harmful chemicals and waste of global importance.*” As designed, the Programme is consistent with the GEF-6 objective CW#2: Reduce the prevalence of harmful chemicals and waste and support the implementation of clean alternative technologies/substances, Programme 4: Reduction or Elimination of anthropogenic emissions and releases of mercury to the environment. The proposal is also informed by various multilateral environmental agreements and global processes including the Minamata Convention on Mercury.

Eight countries in the three major regions where ASGM is present will participate to the Programme. The countries were selected on the basis of their demonstrated interest in addressing the sector positively and on the amount of mercury reported to be used.

In order to address the two key barriers identified in ensuring sustainability and replication of the introduced practices, the Programme will be organized around the following components:

Component 1: Institutional strengthening, policies and regulations

As identified in the barriers to be addressed and as required by the Minamata Convention, formalization is a key step to helping the sector realize its development potential. The Programme will work with participating countries to review their legislation and regulations covering the small-scale mining, in order to ensure they do not form a barrier to formalization. The Programme will then contribute to assisting participating countries in their formalization efforts by working with local enforcement agencies to increase their capacity to support ASGM communities. Along with this, information material and programmes will be developed and implemented to demonstrate the benefits of formalization to the miners. Involvement of experienced partners such as IGOs, NGOs and the private sector will contribute to the success of this component.

In order to reinforce the “ownership” of the formalization efforts, the work undertaken under this component will be included in the development of the National Action Plan in each country. As specified in Annex C of the Minamata Convention, Parties must include in their National Action Plan steps to facilitate formalization or regulation of their ASGM sector.

Component 2: Promotion of investment options and direct market access for artisanal miners and their communities

Several and diverse solutions to facilitate the access to finance for ASGM miners will be piloted in the various child projects of the Programme.

Revolving funds from which ASGM miners/communities can source required investments, which can then be reimbursed at favorable rates and financed from the increased productivity outcome will be implemented in various forms. The Programme will help use or set up such funds and provide support to ASGM communities to build their capacity to access financing. In some countries, the funds will be set-up by the host Government while in others, it will be set up in collaboration with external investors. UNEP Finance Initiative’s experience in setting up revolving funds will be built upon in some countries of the project.

The Programme will also work with gold consumers, and in particular, with industrial users in order to raise their awareness on their possible role of positively influencing gold extraction practices through ensuring implementation and compliance with international standards on responsible mineral supply chains such as the OECD Guidance.

⁸ <http://www.fairgold.org>

Miners will be more incentivized to adopt social and environmental standards if they realize better practices will unlock markets previously inaccessible to them. The Programme will work with industrial partners in order to demonstrate this interaction and implement innovative financing schemes to ensure miners have the necessary means to transition to cleaner and more efficient production methods. The Programme will also benefit from existing projects developed in the framework of the implementation programme of the OECD Guidance to build secure artisanal gold supply chains in conflict and high-risk areas.

Finally, the development of more direct gold value chains through the cooperation between national gold buying institutions and international refiners and gold end-users will ensure miners who respect environment and social standards obtain a better selling price for their production. The incentive presented by this increased revenue will ensure the sustainability of adoption of the cleaner production methods introduced in component 3.

Component 3: Introduction of better and more efficient technologies and practices

In this component, and in compliance with the national NAP development process, low-mercury and preferably non-mercury techniques will be demonstrated to mining communities for them to select the most appropriate to their situation. The Programme will provide geological criteria for the selection of the appropriate extraction and processing techniques but social and cultural aspects will also be an important consideration to ensure the acceptance of the new technologies by the communities.

The Programme will ensure that the miners have been convinced of the increased productivity of the new extraction methods in order to ensure the sustainability of introduced changes. By promoting techniques that not only use less mercury, but also recover more gold, the Programme will help ensure that ASGM fulfills its development potential as a source of livelihood for rural populations.

Component 4: Knowledge management, communication and outreach

A major component of the Programme will be on knowledge management, communication and outreach. This will include enhancing the learning uptake from each child project and maintaining extensive and ensuring continued stakeholder engagement at national and international level to support all components of the Programme. The OECD Implementation programme, which brings together the main industrial actors in the global gold sector (London Bullion Market Association, Dubai Multi Commodities Center, the Shanghai Gold Exchange, the World Gold Council, etc.) and its annual forum on responsible supply chains of minerals will assist and support the communication of best practices and experiences gathered in the child projects. The OECD Guidance implementation programme is also ready to provide a platform to connect with new partners and provide visibility for the Programme.

Financial Access. On the financial access aspect, the Programme will:

- Help further develop, monitor and oversee implementation of financial models in child projects.
- Ensure exchange and coordination among child projects as well as other GEF financed (not part of this Programme) ASGM projects.
- Exchange with other ASGM finance initiatives outside of the Programme portfolio
- Educate investment community, including commercial banks, bullion banks, about ASGM investment.
- Provide a “Matchmaking” platform between interested investors and projects.
- Demonstrate links to Corporate Social Responsibility and corporate initiatives on environmentally and socially responsible gold supply chains.

Knowledge platform. The Programme will also develop and maintain a dedicated platform featuring specific resources and best practices of ASGM. These will be drawn from child projects of this Programme, as well as the ongoing work of the UNEP Global Mercury Partnership. Such resources will include:

- Legal tools (mining codes; taxes/royalties; environmental standards; legal status of mercury use, formalization case studies).
- National planning tools (baseline data gathering methods; legal authorities checklists; institutional mapping; example NAPs).
- Technical tools (mercury free techniques; processing and milling best practices; best practices for use of chemical leaching and other extraction techniques: mercury capture systems and retorts).
- Training tools (videos of sound mining practices, training manuals).

This will be complemented with UNEP tools including the Indicator Reporting Information System (IRIS), an online national reporting system developed by UNEP to facilitate reporting at all levels and to make it easier to take stock of the environment. The use of IRIS is linked to UNEP Live, an on-line knowledge management platform that makes accessible - global, regional and national data and knowledge.

In order to promote information sharing between the child projects as well as with countries not participating in the Programme, an annual ASGM meeting will be held, providing a platform for the ASGM Practitioners' whole community to exchange and learn. The annual meeting will rotate from region to region in order to ensure a broad dissemination of the results.

Outreach and Communication. Special focus will be put on developing stakeholder-specific material for:

- Miners and ASGM communities.
- Investors (commercial banks, development partners).
- Private sector.
- General public.
- Governments.

For outreach and communications to the private sector, the Programme will benefit from the OECD Implementation programme and its annual forum.

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

The Programme will provide incremental funding across the suite of project interventions in environment and the mining sector that focus on supporting improved capacity for effective mercury pollution management. It will also build on work underway by the UNEP Global Mercury Partnership to address mercury use environmental health related risks at the country and regional levels and constraints. With so many interested and active stakeholders (governments, NGOs, multilateral development banks, bilateral financial agencies, etc.), the proposed Programme will be an incredible opportunity to finding an effective way to harness and optimize the delivery of diverse energies and investments.

The information on current activities in each of the participating countries collected by the UNEP Global Mercury Partnership will ensure that the Programme builds upon the work of the partners and contribute to complementing their planned interventions. Similarly, since several NAPs for the countries benefiting from child projects are ongoing or will be implemented in parallel, the Programme is essential to support some activities that will be part of the NAP; and for advanced countries such as Burkina Faso, Mongolia and Philippines the Programme will potentially be crucial in changing/flipping the whole supply/value chain at country level.

Governments and project partners, including the private sector, will provide substantial and significant co-financing for the projects related to the proposed interventions including investments in reducing mercury contamination related to the ASGM sector. National level co-financing has been listed in the respective country child projects.

e) Innovation, sustainability and potential for scaling up

The proposed Programme is unique in its geographical and topical scope. With the combined comparative experience that the different GEF implementing agencies bring to the Programme as well as the involvement and contributions made by other internationally recognized partners in ASGM, the Programme will ensure that the barriers identified are addressed through interventions, sourced from a broad range of experience and expertise, that address challenges at national and local level.

A second innovative aspect of this Programme is the approach to integrate financial mechanisms in the interventions and link technology transfer with access to finance. This will build capacity at the community level to develop financing proposal and, at the same time, will raise the interest of financing institutions and private sector partners to invest in the sector.

The systematic documentation of the results and lessons learnt from the interventions in the seven child projects and eight countries in the knowledge management platform will ensure that countries not participating to the Programme will be able to easily identify the management and technical options better fitting their local conditions. The use and reinforcement of the UNEP Global Mercury Partnership will provide the required sustainability to the knowledge management platform.

2. Stakeholders. Will program design include the participation of relevant stakeholders from civil society organizations (yes /no) and indigenous peoples (yes /no)? If yes, identify key stakeholders and briefly describe how they will be engaged in program preparation.

The Programme will build on a far-reaching network of stakeholders at the local, national and regional levels. At the national level, government commitment is key to the success and sustainability of the Program, as described above.

The Programme will provide a platform to magnify its interventions across all branches of government including the Executive, the Legislative, and Ministries of Mines, Ministry Urban Development, Ministry of Health, Ministry of Environment, Environmental Protection Agencies, to name just a few. Detailed list of project partners in the child project countries have been taken up in the individual country child projects, these include among other: national government entities, local authorities, the private sector, NGOs, CSOs, women's organizations, and mining communities/cooperatives, etc.

The ASGM communities which are, at the same time, being affected and benefitting from gold extraction will be a crucial stakeholder. Their participation in the identification and implementation of solutions will be thought at every stage of the Programme and they will be a member of the steering committee meetings in each child projects This will be especially important where indigenous communities are involved in the operations or affected by them.

During the PPG phase, assessments will be conducted to ensure that selected project sites are outside of protected areas and indigenous lands. In case that this is unavoidable, the project will identify issues and associated mitigation/preventive measures (if necessary) related to indigenous people particularly in the context of the impacts of mercury on them (where they are not engaged in ASGM operations) and in the context of the particular issues related to indigenous people if they are engaged in mining. Additional activities and knowledge products will be planned and produced accordingly.

3. Gender Equality and Women's Empowerment. Are issues on gender equality and women's empowerment taken into account? (yes /no). If yes, briefly describe how it will be mainstreamed into program preparation (e.g. gender analysis), taking into account the differences, needs, roles and priorities of women and men.

An estimated 30% of the world's artisanal miners are women who occupy a number of roles ranging from labor-intensive mining methods to the processing aspect of artisanal mining. As such, this Programme presents an opportunity to provide a rationale and strategy for women to maximize potential benefits from participation in the ASGM sector. It has been well documented that inequities in political power, distribution of income, capital assets, and access to education and information have resulted in the increased susceptibility of women to chronic poverty. Despite the diverse and important roles undertaken by women in artisanal mining, limited reliable information is available on this topic. Consistent with the GEF Policy on Gender Mainstreaming and the GEF-6 approach on gender mainstreaming, the proposed Programme recognizes the gender dimensions of mercury use and exposure risks in ASGM. Child projects under the Programme will therefore undertake gender analyses as part of the socio-economic assessment and highlight best practices in mainstreaming gender in mercury management projects. The Programme aims to raise awareness about the linkages between mercury use, exposure, human health, environmental threats, and gender differences in risks and impacts. Awareness programmes on child labour will be implemented and links to existing programmes by the International Labour Organisation (ILO) and its partners will be made should any intervention deemed necessary. Gender considerations will be integrated as part of policy dialogue to ensure that women's and men's, concerns, experiences and risks are taken into account in the design, implementation, monitoring and evaluation of environmental health implications.

The Programme's main approaches to support women's empowerment in the ASGM sector will focus on: i) Addressing environmental health risks. This will require increased and targeted communication and awareness of associated risks, building capacity and supporting adoption of clean technologies (e.g. training, small loans to purchase equipment and protective gear). ii) Increasing the capacity of women involved in ASGM to position them better to reap the benefits of livelihoods the sector can provide. The Programme will consider implementation of targeted training programmes to train women in various aspects of mining and recycling as well as in marketing, management and bookkeeping, including encouragement of gender mainstreaming in lending institutions to support micro-finance opportunities.

4. *Benefits.* Describe the socioeconomic benefits to be delivered by the program at the national and local levels. Do any of these benefits support the achievement of [global environmental benefits](#) (for GEF Trust Fund), and/or adaptation to climate change?

The Programme is designed to provide support to regulatory institutions, sector ministries, municipalities as well as the local communities living next to contaminated areas. The Programme will provide benefits to regulatory and sector institutions, through regulatory review, capacity building, trainings.

The Programme focuses on assisting ASGM communities in their efforts to reduce mercury use. Rolling out this Programme will have immediate and longer term socio-economic benefits for local communities, local and national revenues. Local and national treasuries benefit in two ways: first, increased revenues from ethical gold sold that could be put for a more productive use; and reduced health costs of pollution. The Programme will benefit artisanal and small scale gold miners by reducing their exposure to chemical contaminants and increasing their economic situation by recovering more gold and selling it at better prices.

The proposed Programme is one of the first integrated attempts to assist countries across developing regions to address mercury use in the ASGM sector using such a broad array of interventions. Such interventions will also assist participating countries in achieving their commitment under the Minamata Convention on mercury and contribute to the reduction of the emission and release of 92 tons of mercury to the environment over the period of implementation.

Additionally the Programme is designed to also assess and lay the groundwork for ensuring that technical assistance and investments are truly supporting green growth through the development of cleaner production and sustainable supply chain initiatives thus enhancing the participating countries ability to deal with the issues related to mercury in ASGM.

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

Risk	Ranking	Mitigation measure
Change in the political and economic situation during the life time of the Programme impacts the its implementation	Low	<p>All countries participating 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.</p> <p>The fluctuation of the international price of gold over the last few year had 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</p>

Finding the right business model for investors and ensuring sustainability once the intervention is over	Moderate	While the Programme will have to develop a strategy to attract investors, the diverse range of investors already on board will allow a broad range of options to be tested
Coordination between various ASGM initiatives on the ground	Moderate	There are a lot of different players working on a number of projects in the countries and regular communication between the various actors will be ensured, especially through the annual ASGM meeting
Armed conflict, armed groups and/or tax-seeking behavior impeding and 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.
Loss of jobs for intermediaries could lead to threats and/or criminal activities	Substantial	Providing job opportunities in the formalized artisanal gold supply chain

6. *Coordination.* Outline the institutional structure of the program including [monitoring and evaluation](#) coordination at the program level. Describe possible coordination with other relevant GEF-financed projects and other initiatives.

The Programme will be coordinated by UNEP in close collaboration with the GEF agencies implementing the various child projects. As lead agency, UNEP will be responsible for the overall Programme supervision, overseeing the progress through monitoring and evaluation of activities and through progress reports, including on technical issues as well as progress towards achieving the objectives of providing access to sustainable financing and reduction of mercury.

A Mid Term Evaluation (MTE) will be organized towards the end of the second year of implementation for each child project under the responsibility of the concerned implementing agency. The MTE will provide an independent assessment of implementation and likelihood of the child project reaching its objectives.

An independent terminal evaluation (TE) will take place at the end of each child project's implementation, latest 6 months after the operational completion of the respective project. The Evaluation Office of the responsible implementing agency will be responsible for the TE. The TE will provide an independent assessment of project performance (in terms of relevance, effectiveness, 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 the partner agencies. An independent Terminal Evaluation of the Programme will also be undertaken by UNEP evaluation office and will focus on lessons learned, technical value and implementation barriers. The Programme TE will be organized after all child projects have been completed.

The ASGM National Action Plan (NAP) is the key policy mechanism by which Parties will identify steps to fulfill their Article 7 obligations under the Convention. In the NAP, Parties must set national objectives and reduction targets, as well as develop actions and strategies for: formalizing or regulating the ASGM sector; eliminating worst practices; reducing (or eliminating) mercury use; managing mercury trade; addressing public health; and disseminating information. In a country where the NAP process has been completed or is well underway, the relevant GEF Gold child project will take into account the established national objectives and reduction targets, as well as stated national strategies, when creating the final design of the project, to ensure consistency with the NAP. In countries where NAP development is concurrent with GEF Gold child project, the project team will participate in the NAP process as a stakeholder and will liaise directly with the agency charged with NAP development. The project

will endeavor, on an ongoing basis, to align activities under the child project with the strategies identified during the NAP process. In addition, the child project will work to ensure that its available resources are taken into account when national objectives and targets are set.

7. Knowledge Management. Outline the knowledge management approach for the program, including plans for the program to learn from other relevant initiatives, and to assess and document in a user-friendly form, and share these experiences and expertise with relevant stakeholders.

Knowledge management will be key to the success of the Programme. The Programme will develop standard and guidelines for KM products coming out of the child projects and ensuring quality control of these KM products for integration in the knowledge hub. Individual child project will collect information and lessons learnt which will then be formatted and made available under the knowledge management platform within the UNEP Global Mercury Partnership. In addition, Knowledge Management for the Programme will utilise UNEP tool including the Indicator Reporting Information System (IRIS), an online national reporting system developed by UNEP to facilitate reporting at all levels and to make it easier to take stock of the environment. The use of IRIS is linked to UNEP Live, an on-line knowledge management platform that makes accessible - global, regional and national data and knowledge. The Programme will make use of the available mapping, search, visualization tools, to ensure project knowledge is captured and disseminated. The Programme will also establish a Community of Practice under the UNEP Live platform, 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 Programme will also benefit from the Extractive Industries hub currently under development in UNEP. 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 under component 4.

The annual global forum on ASGM 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.

8. National Priorities. Is the program consistent with the National strategies and plans or reports and assessments under relevant conventions? (yes /no). If yes, which ones and how: NAPAs, NAPs, NBSAPs, ASGM NAPs, MIAs, NCs, TNAs, NCSA, NIPs, PRSPs, NPFE, BURs, etc.

The activities planned under the Programme are consistent with the national requirements of the participating countries under the Minamata Convention. The Programme supports Article 7 where Parties are required to develop and implement a national action plan (NAP) outlining national objectives and reduction targets, and actions to eliminate whole ore amalgamation, open burning of amalgam, as well as all burning of amalgam in residential areas where many such activities take place in processing centers.

In addition, the OECD Guidance implementation programme has developed or is about to develop activities on the ground in connection with local stakeholders (private sector, government, regional organisations and civil society organisations) in 4 of the partner countries: Burkina Faso, Colombia, Kenya (with its regional partner, the International Conference on the Great Lakes Region) and Peru.

All countries participating in the child projects have actively taken steps to address the ASGM issue as demonstrated in the table below:

Country	Minamata Convention	ASGM Notification	NAP development
Burkina Faso	Signed	15 Jun 2016	Pipeline (UNIDO)
Colombia	Signed	23 Jun 2016	National NAP
Guyana	Ratified (24 Sep 14)	29 Jul 2016	Pipeline (UNDP)
Indonesia	Signed	5 Aug 2016	Pipeline (UNEP)
Kenya	Signed	8 Jun 2015	On-going (UNEP)
Mongolia	Ratified (28 Sep 15)	7 Mar 2016	On-going (UNEP)
Peru	Ratified (21 Jan 16)	5 Aug 2015	On-going (UNIDO)
Philippines	Signed	9 Jun 2016	Pipeline (UNEP)

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

Child projects have been selected and designed in order for the Programme to be as representative as possible. In each region, two or three countries with ASGM activities have expressed interest to participate in the Programme and develop their child projects with a GEF agency. The contribution of each child project to the 4 components of the project is described in the table below:

	Component 1	Component 2	Component 3	Component 4
Burkina Faso	\$90,000	\$1,090,000	\$550,000	\$120,000
Colombia	\$800,000	\$2,000,000	\$2,400,000	\$500,000
Guyana	\$400,000	\$1,425,995	\$500,000	\$150,000
Indonesia	\$1,000,000	\$2,500,000	\$2,075,000	\$825,000
Kenya	\$600,000	\$1,600,000	\$1,300,000	\$500,000
Mongolia-Philippines	\$1,400,000	\$5,000,000	\$4,900,000	\$700,000
Peru	\$650,000	\$1,525,000	\$1,175,000	\$250,000

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

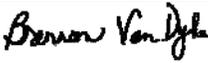
A. **RECORD OF ENDORSEMENT OF GEF OPERATIONAL FOCAL POINT (S) ON BEHALF OF THE GOVERNMENT(S):**
(Please attach the [Operational Focal Point endorsement letter](#) with this template).

NAME	POSITION	MINISTRY	DATE
Ms. Haoua Sary	Permanent Secretary, Operational Focal Point, Burkina Faso	National Council for Environment and Sustainable Development	22 Jul 2016
Ms. Claudia Vasquez Marazzani	Operational Focal Point, Colombia	Ministry of Environment and Sustainable Development	15 Aug 2016
Dr. Indarjit Ramdass	Executive Director, Operational Focal Point, Guyana	Environment Protection Agency	8 Aug 2016
Ms. Ibu Laksmi Dhewanthi	Operational Focal Point, Indonesia	Ministry of Environment and Forestry	12 Aug 2016

Mr Charles T. Sunkuli	Principal Secretary, GEF Operational Focal Point, Kenya	Ministry of Environment, Natural Resources	19 Jul 2016
Dr. Barkhaa Undarmaa	GEF Operational Focal Point, Mongolia	Ministry of Environment, Green Development and Tourism	18 Jul 2016
Atty Analiza Rebuelta-Teh	Undersecretary, GEF Operational Focal Point, Philippines	Department of Environment and Natural Resources	11 Aug 2016
Mr. Jose Antonio Gonzalez Norris	Operational Focal Point, Peru	Ministry of Environment	21 Jul 2106

B. GEF AGENCY(IES) CERTIFICATION

This request has been prepared in accordance with GEF policies⁹ and procedures and meets the GEF criteria for program identification and preparation.

Agency Coordinator, Agency name	Signature	DATE (mm/dd/yyyy)	Program Person	Telephone	Email Address
Mr Miguel Morales, Conservation International		25 Jul 16	Orissa Samaroo	+1 703 341 2550	Osamaroo@conservation.org
Ms Adriana Dinu, Executive Coordinator, UNDP – Global Environment Finance		21 Jul 16	Jacques Van Engel	+1 212 906 5782	jacques.van.engel@undp.org
Ms Brenan Van Dyke, Director, GEF Coordination Office, UNEP		25 Jul 16	Ludovic Bernaudat	+41 22 917 8312	Ludovic.Bernaudat@unep.org
Mr Philippe R. Scholtès, Managing Director Programme Development and Technical Cooperation, UNIDO		22 Jul 16	Jerome Stucki	+43 1 26026 3559	J.Stucki@unido.org

C. Additional GEF Project Agency Certification (Applicable Only to newly accredited GEF Project Agencies)

For newly accredited GEF Project Agencies, please download and fill up the required [GEF Project Agency Certification of Ceiling Information Template](#) to be attached as an annex to the PFD.

⁹ GEF policies encompass all GEF managed trust funds, namely: GEFTF, LDCF, and SCCF

LIST OF CHILD PROJECTS UNDER THE PROGRAM FRAMEWORK

Child Projects under the Program^{a/}				
<u>Country</u>	<u>GEF Agency</u>	<u>GEF Amount (\$)</u>	<u>Agency Fee (\$)</u>	<u>Total (\$)</u>
Colombia	UNDP	6,000,000	540,000	6,540,000
Guyana	CI	2,652,294	238,706	2,891,000
Indonesia	UNDP	6,720,000	604,800	7,324,800
Kenya	UNDP	4,200,000	378,000	4,578,000
Mongolia/ Philippines	UNEP UNIDO	11,700,000	1,053,000	12,753,000
Peru	UNDP	3,990,000	359,100	4,349,100
Global	UNEP	8,000,000	720,000	7,720,000
<u>Subtotal</u>		43,562,294	3,920,606	47,482,900
Burkina Faso	UNIDO	2,000,000	180,000	2,180,000
<u>Subtotal</u>		2,000,000	180,000	2,180,000
<u>Total</u>		45,262,294	4,073,606	49,335,900

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