Independent Terminal Evaluation

Improve the Health and Environment of Artisanal Gold Mining Communities by Reducing Mercury Emissions and Promoting Sound Chemical Management

UNIDO Project No.: GF/RAF/12/001 - 100336
GEF Project ID: 4569

UNITED NATIONS
INDUSTRIAL DEVELOPMENT ORGANIZATION

UNIDO INDEPENDENT EVALUATION DIVISION

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ABBREVIATIONS AND ACRONYMS

Acronym	Meaning
AFEMIB	Mining Association of Women of Burkina
AGC	Artisanal Gold Council
ARM	Alliance for Responsible Mining
ASGM	Artisanal and Small-Scale Gold Mining
CONAPEM	National Corporation of Small-scale Miners
FGEF	French Global Environment Facility
GEF	Global Environment Facility
GIE	Groupement d'Intérêt Economique
HQ	Head Quarters
M&E	Monitoring and Evaluation
MOE	Ministry of Environment
MOH	Ministry of Health
NGO	Non-governmental Organization
NAP	National Action Plan
NPC	National Project Coordinator
PRF	Project Results Framework
PSC	Project Steering Committee
TOR	Terms of Reference
UNIDO	United Nations Industrial Development Organization
USDOS	United States Department of States

GLOSSARY OF EVALUATION-RELATED TERMS

Term	Definition
Baseline	The situation, prior to an intervention, against which progress can be assessed.
Effect	Intended or unintended change due directly or indirectly to an intervention.
Effectiveness	The extent to which the development intervention's objectives were achieved or are expected to be achieved.
Efficiency	A measure of how economically resources/inputs (funds, expertise, time, etc.) are converted to results.
Impact	Positive and negative, intended and non-intended, directly and indirectly, long term effects produced by a development intervention.
Indicator	Quantitative or qualitative factors that provide a means to measure the changes caused by an intervention.
Lessons learned	Generalizations based on evaluation experiences that abstract from the specific circumstances to broader situations.
Logframe (logical framework approach)	Management tool used to facilitate the planning, implementation and evaluation of an intervention. It involves identifying strategic elements (activities, outputs, outcome, impact) and their causal relationships, indicators, and assumptions that may affect success or failure. Based on RBM (results-based management) principles.
Outcome	The likely or achieved (short-term and/or medium-term) effects of an intervention's outputs.
Outputs	The products, capital goods and services which result from an intervention; may also include changes resulting from the intervention which are relevant to the achievement of outcomes.
Relevance	The extent to which the objectives of an intervention are consistent with beneficiaries' requirements, country needs, global priorities and partners' and donor's policies.
Risks	Factors, normally outside the scope of an intervention, which may affect the achievement of an intervention's objectives.
Sustainability	The continuation of benefits from an intervention, after the development assistance has been completed.
Target groups	The specific individuals or organizations for whose benefit an intervention is undertaken.

EXECUTIVE SUMMARY

A. Introduction

The medium size project "*Improve the Health and Environment of Artisanal and Small-Scale Gold Mining Communities by Reducing Mercury Emissions and Promoting Sound Chemical Management"* funded by the Global Environment Facility was implemented from January 2012 to June 2017 by the United Nations Industrial Development Organization. The project was nationally implemented by the Ministry of Environment of the participating countries (Burkina Faso, Mali and Senegal) and executed by the Artisanal Gold Council, an international NGO based in Canada.

The objective of the project was to strengthen national and local capacity in the three countries to effectively manage and reduce mercury use, emissions and exposure in artisanal gold mining communities. Due to political unrest since early 2012, activities were not carried out in Mali. The evaluation was carried out by Mr. Nee Sun CHOONG KWET YIVE and Ms. Marie Clémence NDOUR and it covered only the components financed by GEF grant.

B. Evaluation findings and conclusions

The evaluation was conducted in-depth that included a review of project documents and a field visit to Burkina Faso and Senegal to interview project personnel, intended beneficiaries, project partners, and other stakeholders involved in the project by using a participatory approach. Based on the information available and the findings of the discussions held, the evaluation made the following conclusions.

Relevance: The project is in line with the GEF 5 Focal Area Strategy for the Chemicals focal area in particular to promote the sound management of chemicals throughout their lifecycle. It is also relevant as artisanal gold mining using mercury is prevalent in the participating counties, and they have all signed the Minamata Convention, which they have already ratified/accessed[1].

Efficiency: The project encountered administrative and management issues resulting in significant delays that required more than double the time for project completion. Nevertheless, quality outputs have been satisfactorily delivered within the planned budget. The management costs were also kept within planned budget. However as activities could not be carried out in Mali and all GEF budgets have been spent, efficiency is considered as not very effective.

Effectiveness – Achievement of expected outcomes: The expected outcomes were not achieved. Despite that relevant and appropriate recommendations were made by the projects, a national action plan for the sound management of mercury in the artisanal gold mining sector was not developed for Burkina Faso or Senegal. Similarly, although a mercury gold free processing equipment was successfully installed, mercury is still being used by the miners to extract gold at the project site in

[1] Ratified for Mali and Senegal, accessed for Burkina Faso

Senegal. This is due to the fact that the person who was trained to extract gold using a mercury free method from the concentrate, obtained after processing the ores by the equipment, moved to another place.

Sustainability: The countries have already secured international support for follow-up projects to develop their national action plan for the sound management of mercury in the artisanal gold mining sector. However, as some risks have been identified, chances for sustainability of project outcomes are considered moderately likely.

Catalytic or replication effect: There is great scope for replication of the pilot project. The gold processing system was successfully installed at the project site and fully operational. Despite some minor technical failures that the miners themselves could repair, the processing equipment is currently being used by miners to process their ores to extract gold in Senegal.

Project implementation and management: The implementation approach outlined in the project document was adopted. According to information gathered, there is clear evidence that the regional project steering committee played its role in influencing project management. It is also clear that the project logical framework was used as basis for implementation and the verifiable indicators therein were used for reporting and to track progress.

Country ownership and driven-ness: The national counterparts were involved in the project formulation but were mainly involved in the national project steering committee during the implementation phase. At the project site, the involvement of the local stakeholders was very satisfactory and contributed to the successful and sustainable installation of the gold processing equipment.

Financial planning and management: The standard procedures of the executing agency was applied. According to information available, the GEF funds were effectively managed and all the outputs were satisfactorily delivered within planned budgets.

UNIDO supervision and backstopping: Although the UNIDO project manager changed due to staff movement, this did not negatively impact on the project. The project managers attended all the regional steering committee meetings and based on the information gathered from documents available and feedback during field mission, there are indications that the PMs provided adequate supervision, guidance and backstopping. Guidance and supervision of the PMs were highly appreciated by the national counterparts.

Monitoring and evaluation: The monitoring & evaluation plan proposed contained some weaknesses. The plan was not properly costed and some key monitoring and evaluation activities such as the inception workshop or the terminal evaluation were not mentioned. However, information gathered clearly indicates that the monitoring and evaluation system was operational and facilitated the tracking of results and monitoring of progress.

Criterion	Evaluator's rating
Attainment of project objectives and results (overall rating), sub criteria (below)	**S**
Project implementation	
Effectiveness	**MS**
Relevance	**S**
Efficiency	**MS**
Sustainability of project outcomes (overall rating), sub criteria (below)	**ML**
Financial risks	**L**
Sociopolitical risks	**ML**
Institutional framework and governance risks	**ML**
Environmental risks	**L**
Monitoring and evaluation (overall rating), sub criteria (below)	**MS**
M&E Design	**MS**
M&E Plan implementation (use for adaptive management)	**S**
Budgeting and Funding for M&E activities	**MS**
Project management - UNIDO specific ratings	
Quality at entry / Preparation and readiness	**S**
Implementation approach	**S**
UNIDO Supervision and backstopping	**S**
Gender Mainstreaming	**S**
Overall rating	**MS**

C. Recommendations

For continued relevance and sustainability of project outcomes, the evaluation proposes the following recommendations:

i. The project has been successful in delivering tangible results. In particular, the gold processing equipment has been successfully installed and the miners have been adequately trained for its operation. The system is fully operational and is currently being used by the miners to treat their ores. However, as the person who was trained to recover gold from the concentrate using a mercury free method left, the miners are still using mercury for gold mining. To ensure that mercury is no longer used at the project site, it is recommended that the operators of the system is trained to use the mercury free method for gold extraction.

ii.	The miners were very satisfied with the gold processing system, and they are currently using it to process their ores. They indicated that there is great scope for replication in the region. However, given the relative high initial investment cost required, they indicated that they would need financial assistance if they were to have such a system. It is therefore recommended that a financial mechanism be set up to assist the miners to purchase this system.
iii.	The project have made recommendations to the countries for the development of a national action plan for the sound management of mercury in the artisanal gold mining sector. However, the plan has not yet been developed, but the countries have already secured international financial assistance to develop those plan, which are currently being developed. It is recommended that the recommendations of the project be considered for development those national action plans.
iv.	As the miners stated there is great scope for replication of the pilot project. To ensure good visibility and replication, the project outcomes and results could be summarized and disseminated to other small-scale miners' communities of other areas/regions of the country.

D. Lessons Learned

The project has been successfully completed and the following useful lessons can be learned.

i.	At the project site in Senegal, initially the miners were reluctant to participate in the project. However, with the right approach and adequate communication, AGC was able to convince the Foukhaba GIE to participate in the pilot project. The lesson that can be learned is that good and early communication contribute to gain trust of partners / beneficiaries and secure their engagement in projects.
ii.	In Senegal, the delays encountered during project implementation was partly due to the lack of support from the Ministry of Mines to rapidly deliver the mining license required to run the pilot project. Securing early full support of all key stakeholders would avoid delays in project execution.

I. Evaluation objectives, methodology and process

This Terminal Evaluation (TE) was undertaken from March to June 2017 by a team of two independent external evaluators[2] based on the terms of reference by the United Nations Industrial Development Organization (UNIDO) Independent Evaluation Office.

The purpose of the evaluation was to assess the project performance in terms of relevance, effectiveness, efficiency, sustainability and impact. The objective was also to develop a series of lessons and recommendations for enhancing the design and implementation of future UNIDO projects.

The key question of the evaluation is whether the project has achieved or is likely to achieve its main objective of strengthening the national and local capacity in mercury management. The TE covered the whole duration of the project from its starting date in December 2012 to the completion date in June 2017. This TE did not however assess all the components of the project, it assessed only the components that were financed by the Global Environment Facility (GEF)[3] and not those financed by the United States Department of States (USDOS)[4] and the French GEF (FGEF)[5]. This evaluation exercise was conducted as required by the UNIDO Evaluation Policy[6] and in accordance with the UNIDO Guidelines for the Technical Cooperation Programme and Project Cycle.[7] For this assessment, the GEF Guidelines for GEF Agencies in Conducting Terminal Evaluations[8] and the GEF Monitoring and Evaluation Policy[9] were followed.

For this in-depth assessment, a participatory approach was used whereby key stakeholders were kept informed and consulted throughout the process. The field visit to Senegal and Burkina Faso took place from 4 to 11 April 2017. To ensure an evidence-based qualitative and quantitative assessment, different evaluation tools were used to determine project achievements against project outputs, outcomes and impact. The methodological mix included extensive desk study of relevant documents provided by UNIDO (see Annex 2), semi-structured interviews, focal group discussions and direct observation. Interviews were conducted in the form of open discussions following the guiding questions in the TOR, complemented by additional questions developed by the evaluators based on the desk review and the briefing with the project team. For crosschecking and validation purposes, specific

[2] International consultant Dr. Nee Sun CHOONG KWET YIVE and national consultant Ms. Marie Clémence NDOUR.
[3] GEF funds were used for part of component 1 and part of Component 2
[4] USDOS funds were used for technology transfer in Burkina Faso (part of Component 2)
[5] FGEF funds were used for part of Component 1 and whole of Component 3.
[6] UNIDO (2015). Director General's Bulletin: Evaluation Policy (UNIDO/DGB/(M).98/Rev.1).
[7] UNIDO (2006). Director-General's Administrative Instruction No. 17/Rev.1: Guidelines for the Technical Cooperation Programme and Project Cycle (DGAI.17/Rev.1, 24 August 2006).
[8] GEF (2008). Guidelines for GEF Agencies in Conducting Terminal Evaluations (Evaluation Office, Evaluation Document No. 3, 2008).
[9] GEF (2010). The GEF Monitoring and Evaluation Policy (Evaluation Office, November 2010).

questions were asked to different categories of stakeholders. A list of organizations and persons met is included in Annex 3.

The findings, conclusions and recommendations of this TE were discussed in details at UNIDO Head Quarters in Vienna, Austria on 24 April 2017. The purpose of this de-briefing was a factual verification of key findings and an in-depth discussion of evaluation results.

This final version of the report takes into account all factual corrections and comments received from UNIDO and other stakeholders.

Some limitation for this evaluation exercise was the non-availability of some documents. For example, some minutes of national and regional Project Steering Committee meetings were not available despite requests made by the evaluation. Otherwise, the evaluation could get copies of all other documentation such as progress reports, technical reports and financial sheets (for GEF funds).

II. Country and project background

II.1 Brief country context on mercury use and initiatives

Artisanal small-scale gold mining (ASGM) is one of the most significant sources of mercury release into the environment in the developing world, and, according to the artisanal gold council, accounts for about 15% of the world's annual gold production. Mercury is often used in ASGM to help separate gold from sediments using rudimentary processing methods. Workers combine mercury with gold-laden silt to form an amalgam, which is heated, often in or near homes, to evaporate the mercury and leave gold. The mercury is released into the air, where it is directly inhaled by workers and their families. It is particularly threatening to children, pregnant women, and women of childbearing age. The emissions from ASGM can also travel long distances around the globe, contributing to global mercury pollution and contaminating the world's fisheries. This is because under certain conditions in sediments, bacteria can transform elemental mercury into methylmercury, a far more toxic form which bio-accumulates up the food chain. In its final report from the GEF-financed Global Mercury Project, UNIDO estimates that nearly 100% of all mercury used in ASGM is released into the environment. Such practices release at least 1,000 tons of mercury per year, and account for 30% of total annual anthropogenic mercury emissions. This has been growing over the last decade along with the rise in price of gold. In the same report, UNIDO estimates that of the 12-15 million people working in ASGM, around 4.5 million are women and 600,000 are children.

ASGM is particularly common in West Africa, especially Francophone Africa, where it has been traditional livelihood. However, with the rise in the value of gold, ASGM has become even more widespread. Most artisanal gold miners are from socially and economically marginalized communities and turn to mining to escape extreme poverty and unemployment.

In **Burkina Faso**, gold deposits are present throughout the country. Official data estimates 300,000 people are actively involved in the gold mining sector with an annual production of 500 to 600 kg of gold. National experts agree that this amount represents at best only 25% of real output. Mercury is not officially approved for artisanal mining. It is reserved for larger operations. As a result, little information is available on the smaller and informal operations. However, it is recognized that many sites use as mercury and cyanide. Many miners are organized in associations such as the National Corporation of Small-scale Miners (CONAPEM) and the Mining Association of Women of Burkina (AFEMIB). In the past few years, UNEP implemented a project aiming at assessing the mercury issue in Burkina Faso. The result of this assessment was that ASGM represent one of the major issues in the country.

Mali is currently the third largest producer of gold in the continent, and the fourteenth largest in the world. An estimated 200,000 people are employed in artisanal gold mining, produce four tons of gold annually. Centuries of gold mining in Mali has resulted in a network of gold shops, mostly located in Bamako, where ASGM gold is refined into bullion. As a result, Bamako has become a major hub for gold purification, and a substantial amount of gold produced in neighbouring countries is also purified in Bamako. It is likely that Malian gold production figures reflect this fact. Because the gold produced by ASGM still contains a large amount of mercury (up to 20%), gold shops is an important mercury emission point source in urban centres, which underscores the public health problem of burning amalgam. Gold mining in Mali takes place mainly in three regions: Kayes, Koulikoro and Sikasso. Kayes, located in western Mali, bordering Senegal and Mauritania, features famous industrial mines of Sadiola, Yatela, Tabakoto, Loulo, and Kodieran, along with small scale mining in Kenieba. Koulikoro, located near Bamako, features semi-industrial mining in Kangaba, but small-scale mining takes place in Kokoyon and Dabala, as well as along the Niger River. Sikasso, located on the border with Burkina Faso and Cote d'Ivoire, has an industrial mine at Syama, and small-scale mining in Bougouni, Yanfolila, and Matiogo Kadiolo.

In **Senegal**, gold mining is concentrated in Kédougou and Tambacounda, the eastern part of the country bordering Mali that is home to one of the largest gold deposits in West Africa, the Sabodala Deposit. The region employs approximately 50,000 miners. Currently, annual production is at 2.5 tons per years and is expected to increase to 4 tons per year. Although sale of mercury is illegal, it is still accessible to miners, and at a relatively cheap price (100FCFA per gram). From 2008-2010, the US Environmental Protection Agency provided support to the Blacksmith Institute, a nongovernmental organization and partner of UNIDO, to conduct a mercury reduction project. The project educated miners in 11 villages from Kedougou Prefecture about the health risks of mercury, especially effects on children and pregnant women, and trained miners on low-cost and low mercury technologies. The introduced technologies were successful in reducing mercury emissions and in increasing miners' productivity and economic return. Affected communities embraced the technologies introduced by the project. Significant potential exists for replication, as the heath and economic benefits of the technologies provide considerable incentives. In fact, a model of retort designed by local project partners in Senegal has been found in use in Mali, Burkina Faso and Guinea. Awareness regarding the environmental and health problems of mercury has been considerably raised throughout Senegal as a direct result of this project. With government support, these risks have been broadcast on public radio in various indigenous languages. However, Senegal still lacks general background information about ASGM such as number of active ASGM sites, risk assessments, and baseline emissions. As indicated by the national strategic plan for ASGM, the government has expressed interest to determine the extent of mercury contamination in the country and to conduct an industry study. Results from that study would enable policy makers to make effective decisions about artisanal gold mining.

Between 2002 and 2007, UNIDO executed for UNDP a GEF-funded Global Mercury Project. This was the first initiative of this scale trying to address the problems of mercury use in ASGM globally. The project was successful in raising awareness, locally and globally, introducing cleaner and more efficient processing technologies to the 10 project sites and assisting participating government in amending regulations to better address the sector at the policy level. Overall, the project managed to successfully reduce mercury consumption in the project sites but also revealed the extent of the issue.

In 2009, to compensate the fact that Francophone African countries, in spite of being important artisanal gold producers, had not benefited from international assistance in the sector, UNIDO organized a workshop in Bamako with representatives from Burkina Faso, Côte d'Ivoire, Guinea, Mali, Niger and Senegal. The meeting brought together representatives from the ministries in charge of the environment, mining and NGOs and UNIDO experts presented the problems facing the sector and the various solutions available. Discussions during the workshop led to the realization that the issues in the sub-region are very similar from country to country and a regional approach would be very useful. Following the workshop, draft action plans have been developed in all countries. It was in this context that this regional project was developed.

II.2 Project summary

Overall Objective

The overall objective of the project was to reduce the impacts of mercury on human health and the environment of artisanal gold mining communities in Burkina Faso, Mali and Senegal by promoting sound chemical management. More specifically, the project sought to strengthen local and national capacity to effectively manage and reduce mercury use, emissions and exposure in ASGM communities in the three countries. Burkina Faso, Mali and Senegal. To achieve these objectives, the following components were designed:

Component 1: Developing National Strategy Action Plans for changes in policy framework in Burkina Faso, Mali, and Senegal.

Component 2: Implementing pilot projects (technology transfer) and training on health education and low mercury/mercury free programs to reduce mercury use and emissions.

Component 3: Building capacity to manage and monitor mercury increased through fair trade and new regulations.

Project duration and costs

Table 1 gives all relevant information as regards project costs and co-financing, donors, duration, implementing and executing agencies.

Table 1: **Information on Project**

Implementing agency: Government coordinating agency: Senegal: Burkina Faso: Mali:		UNIDO Direction de l'Environnement et des Etablissements classés, Ministère de l'Environnement et du Développement durable Ministère de l'Environnement Ministère de l'Environnement
Planned project duration:		36 months
Planned start date Actual start date		16 August 2011 16 January 2012
Planned completion date Actual completion date		1 January 2015 30 June 2017
Project costs (USD)	**GEF grant**:	**990,000 (excluding support costs)**
	Co-funding: UNIDO (cash): UNIDO (SAICM QSP, Mali) (cash) Government (in-kind): French GEF (cash) US EPA through UNEP (cash) US State of Department (cash) European Commission (cash) **Sub-total**	 30,000 220,000 310,000 1,085,000 120,000 198,000 487,000 **2,450,000**
	Total	**3,440,000** (excluding support costs)

II.3 Project implementation arrangements and implementation modalities

UNIDO was responsible for the overall project implementation, monitoring and reporting. UNIDO would also be responsible to provide a coordinating role between ongoing initiatives with UNEP, SAICM, the Basel Convention and other ASGM projects in the region and globally (including those funded by US Department of State and US Environmental Protection Agency).

The Blacksmith Institute, an international non-profit organization (NGO) involved in the cleaning up of contaminated sites and soil in developing countries, and located in New York, USA, was identified during the preparatory phase to be the main executing partner agency. Together with UNIDO, they were supposed to be jointly responsible for overall project implementation, coordination of stakeholders and management of pilot remediation projects. Blacksmith Institute was also supposed to coordinate provision of technical expertise and guidance, and to be responsible for day-to-day activities in country. However, during the inception workshop held on 18 - 19 May 2012, in Ouagadougou, Burkina Faso, the participating countries argued that, as the Artisanal Gold Council (AGC) and the Alliance for Responsible Mining

(ARM) were responsible to execute the different components of the project, the technical support of Blacksmith Institute was no longer required. Furthermore, the countries highlighted that contracting the Blacksmith Institute would not add value to project implementation as UNIDO would fulfill this role. It was thus unanimously agreed by stakeholders during this meeting that the Blacksmith Institute would not be contracted for project execution.

Originally, the Artisanal Gold Council (AGC) was identified to provide technical expertise and guidance regarding pilot projects and the development of formal health education and technology training programs (Component 2) only. During implementation, AGC was additionally contracted to execute Component 1 of the project. The pilot project in Burkina Faso was funded by the USDOS and not covered by this evaluation (see footnote 3). The Alliance for Responsible Mining (ARM) was responsible to implement activities related to fair trade certification (Component 3) funded by the FGEF and also not covered by this evaluation (see footnote 4).

In Senegal, the lead Ministry was the Ministry of Environment with strong involvement from the Ministry of Mines. Africa Clean was supposed be the main partner organization and would have been responsible for day to-day management of the pilot project. However, this did not materialize. Instead a former member of the NGO Association Kédougou Action et Développement, was recruited as National Technical Expert (NTE) by UNIDO in January 2014. He was responsible to coordinate activities for the pilot project and, in close collaboration with the Ministry of Environment, he was also involved in the organization of workshops and meetings. He eventually left AKAD to become a staff of AGC. The NGO La Lumiére was supposed to be responsible for project elements related to education and awareness. Instead the NGO SADEV was engaged by ARM to be involved in the activities funded by the FGEF.

In Burkina Faso, the Ministry of Environment was the main partner but other partners included the Ministry of Mines, National Corporation of Small-scale Miners (CONAPEM) and the Mining Association of Women of Burkina (AFEMIB). In Mali, the main partners were the Ministry of Environment and Sanitation, the Ministry of Mines and Miner's Associations. The NGOs Réseau Afrique Jeunesse and association pour la facilitation du développement communautaire were engaged by ARM to be responsible to link with the miner's communities at the project sites. In the three countries, the Ministry of Health was also involved in the activities related to awareness about the health risks of mercury.

Major changes during project implementation

As discussed earlier (cf. paragraph 19), one major change was the exclusion of the Blacksmith Institute from the project. Furthermore, due to political unrest in Mali since early 2012, activities were not carried out in Mali. However, the focal point of Mali (from the Ministry of Environment) did participate in the regional PSC meetings.

II.4 Positioning of the UNIDO project

Considering the history of ASGM in the three countries (cf. paragraphs 11, 12 and 13), the widespread use of mercury in this sector and the paucity of information for this sector, the project sought to produce detailed information on the sector, promote mercury free techniques and raise awareness on the health impacts upon exposure to mercury. In so doing, the project would contribute to mercury elimination thus minimizing ASGM's environmental and human health impacts. The proposed free mercury technique for gold extraction in the project would also enable faster and more efficient processing, thus improving gold return.

II.5 Counterparts

As described in Section II.3, in the three countries the project was hosted by the Ministry of Environment from which a National Project Coordinator (NPC) was nominated. In Senegal and Burkina Faso[10], the NPC was responsible to organize national project steering committee meetings. They facilitated the execution of project activities (by AGC and ARM) by providing the necessary administrative support. For instance, to establish the national Project Steering Committee (PSC), not planned in the project document, a ministerial decree was issued by the Minister of Environment in both countries. The Ministry of Mines in the two countries were also involved in the project. Besides being member of the PSC, they provided information on the ASGM sector, for example the number of individual miners or on the mining sites. While in Burkina Faso, the Ministry of Mines facilitated the authorization to implement the pilot project at the selected mining site. In Senegal however, it was reported that it took more than 7 months for the Groupement d'intérêt économique (GIE) of Foukhaba to obtain a mining permit for a 50 hectares parcel of land (within the legal mining corridor at Bantaco, in the Kédougou region located about 700 km in the South East of Dakar), where the pilot project was to be run. Despite numerous requests made by the project, the UNIDO Senegal ministry Representative, and the UNIDO focal point at the Ministry of Environment to the Ministry of Mines, the process to obtain this permit was very slow, which delayed the implementation process significantly.

The Ministry of Health (MOH) was member of the PSC. While they were not directly involved in health education component, the MOH facilitated contacts between AGC and the beneficiaries (health care workers) at the project sites. Regional officers of the MOH at the project sites participated in the awareness and health education training workshops

[10] In Mali the project was not run due to political instability.

III. Project assessment

A. Project design

The interest of the three countries to develop a project on ASGM was manifested in the UNIDO Global Mercury Partnerships Sub-Regional Workshops on gold mining in Bamako, Mali in December 2009. Considering that they had similar problems, the three countries agreed to have a regional approach rather than an individual project for each country.

The situation of ASGM was well documented and the project has been developed taking into consideration the gaps and needs of the three countries. In particular, it was found that despite the existing political will, the governments of Burkina Faso, Mali and Senegal did not have the resources or the capacity to address the mercury problem in the ASGM sector effectively, nor did they fully understand the scope of this problem in their countries. More information was needed to better understand the extent of ASGM, the severity of mercury contamination, and how many people were affected.

Stakeholder mapping and analysis was adequately done. The major stakeholders that included the Ministries of Environment, Mines and Health, NGOs, and main executing partners (AGC, ARM and Blacksmith Institute) were already identified during the preparatory phase. Many of these stakeholders were invited to participate in the development and design of the project. However, as mentioned earlier (cf. paragraph 19) the Blacksmith Institute was excluded from the project.

The project document contains relevant information to achieve the project development objective, which was to strengthen local and national capacity to effectively manage and reduce mercury use, emissions and exposure in ASGM communities in the three participating countries. The evaluation considers that at the time of the design this objective was realistic and achievable given that UNIDO was co-leading the ASGM sector of the Global Mercury Partnership and was implementing similar projects in other regions including in Latin America (Ecuador and Peru) and Asia (Philippines).

The local as well as global benefits have been satisfactorily described in the project document. In particular, it is mentioned that ASGM is the major anthropogenic source of mercury in the environment. Being a metal, once released mercury will remain in the environment indefinitely, affecting organisms far away from the emission point. By reducing the mercury emissions to the environment by 50% at the project sites, the project will contribute to the global reduction of mercury load in the environment

The expected outcomes, outputs as well as activities are described in the comprehensive Project Results Framework (PRF) given as annex A of the project document. The indicators and sources of verification proposed in the PRF for the activities, outputs and outcomes are, in general, adequate to monitor progress. The evaluation, however, considers that an actual target value could have been given for many of the indicators, which were too vague. For instance, for the health education component, instead of “Number of trainers and individuals trained”, the indicator could have read as follows “At least 20 trainers and individuals trained in each country”. Nevertheless, most of the proposed indicators could be easily verified. Realistic assumptions that would allow successful project implementation are described in the PRF.

Potential risks have been identified and described and adequate mitigation measures have been proposed. However, governments giving full support to this project in the ASGM sector was identified as an assumption but not as a risk. According to information available, in Senegal the ASGM sector is not yet formalised (structured) and therefore not fully recognized as an economic sector (due to the use of mercury) on which more than 50,000 miners depend for their livelihood.

According to information available, while there was no particular problem to implement the other components of the project, it was difficult however to obtain a mining permit in order to undertake the pilot project component (use of mercury free technology for gold extraction) at Bantaco the identified project site in the Kédougou province. It appears that for this component the project did not get full support as the relevant authorities were reluctant to deliver this permit. This is confirmed in the final report of AGC, which mentioned that despite their best efforts very little assistance was obtained from the Ministry of Mines.

Appropriate project implementation arrangements and roles of key partners have been clearly described. In particular the two main project executers, AGC for the part financed by GEF funds and US-DOS parts (components 1 and 2), and ARM for the FGEF funded part (component 3) were already identified during the preparatory phase (cf. paragraph 19). The proposed monitoring and evaluation (M&E) plan and the associated costs associated seem appropriate to effectively monitor progress.

Despite some short comings regarding indicators and risks, the rating on project design is **Satisfactory**.

B. Relevance

Relevance to the countries

This project is very relevant as ASGM is particularly common in West Africa including the three participating countries. More than 650,000 people from the three countries, which include women and children, are estimated to be involved in this sector for their livelihood. The mercury used in ASGM is released into the air and affect the miners and their families. The emissions from ASGM can also travel long

distances around the globe, contributing to global mercury pollution and contaminating the world's fisheries. ASGM is considered one of the most significant sources of mercury release into the environment, and according to the report of the Global Mercury Project, UNIDO estimated that nearly 100% of all mercury used in this sector is released into the environment. This project, which was a request from the government of the three countries during the 2009 Bamako workshop (cf. paragraph 27), and designed to strengthen local and national capacity to effectively manage and reduce mercury use and release in the ASGM sector, is set not only to protect the miners and their families from mercury exposure, but is sought also to assist the three countries to fulfill their obligations towards the Minamata Convention which they are parties to[11]. Mali and Senegal ratified the Convention on 27 May 2016 and 3 March 2016 respectively while Burkina Faso accessed it on 10 April 2017.

Relevance to GEF

The proposed project is directly in line with the GEF 5 Focal Area Strategy for the Chemicals focal area, "*to promote the sound management of chemicals throughout their lifecycle in ways that lead to the minimization of significant adverse effects on human health and the environment*," in particular Objective 3 to "*pilot sound chemicals management and mercury reduction*." It also aligns with Outcome 3.1 "*country capacity build to effectively manage mercury in priority sectors*" and Outcome 3.2 to "*contribute to the overall objective of the SAICM of achieving sound management of chemicals throughout their lifecycle in ways that lead to the minimization of significant adverse effects on human health and the environment*." This project sought to support the GEF Chemicals program area by strengthening local and national capacity to effectively manage and reduce mercury use, emissions and exposure in artisanal gold mining communities in Senegal, Mali and Burkina Faso. Specifically, it was expected to assist the three governments to develop national strategic action plans for sound mercury management in ASGM and build the capacity of local and national stakeholders to implement successful mercury reduction/elimination projects.

Country ownership

In the three countries, the Ministry of Environment hosted the project and a National Project Coordinator (NPC) was nominated from this Ministry. The NPC was responsible to organize the national PSC meetings, and facilitated the implementation of the project, which was mainly done by AGC and ARM. The Ministry of Mines provided data and information to the project for the component 1. The involvement of other government officials that included the Ministry of Mines, Ministry of Health and the Ministry of Labour were mainly as members of the national PSC.

[11] The three countries signed the Minamata Convention on 10 October 2013 when it was open for signature.

At the project sites, the main beneficiaries were the miners' communities. Active involvement was seen from the local authorities that included the Mayor of the province, the local representatives of the Ministry of Environment, the village chief and the head of miners' communities. While high ownership was observed at local level, at national level ownership was satisfactory.

The rating on relevance is **Satisfactory**.

C. Effectiveness

(i) *Achievement of expected outcomes*

Six outputs, organized under three components, were expected to be delivered that would contribute to 3 outcomes. As mentioned earlier (cf. paragraph 4), this assessment covered only the components (component 1 and component 2 for Senegal) funded by GEF, and not those financed by FGEF (Component 3) and USDOS (pilot project in Burkina Faso of Component 2). As planned, AGC was contracted to undertake the components funded by GEF grant. Due to political unrest, activities were not carried out in Mali. The following paragraphs discuss the achievement of outputs and outcomes for the components 1 and 2 that were financed by GEF funds.

Outcome 1: *National Strategy Action Plans are utilized for developing policy framework in Burkina Faso and Senegal*
For this outcome, two outputs were planned and the following paragraphs describe how successful delivery was.

Output 1.1: *Scope of ASGM in the two countries evaluated and better understood*
The scope of ASGM in Burkina Faso and Senegal have been satisfactorily evaluated using different approaches such as semi-structured interviews with miners, interviews with key informants and experts, measurements, physical counts, and direct observations. Relevant information was also obtained from the Ministry of Mines of the two countries. In both countries, members of the small-scale miners' union were trained on data collection to improve local capacity in this area.

In Senegal, there are 16 corridors designated for gold panning and approximately 75 informal gold-mining sites, half of which are considered very rudimentary, of the colluvial type. For the year 2014, it was estimated that approximately 73,000 miners were working directly in the gold panning sector. The annual gold production from gold panning was estimated at 3.7 tons, and the use of mercury was estimated at 4.4 tons.

In Burkina Faso, 243 legal gold mining concessions were inventoried and several hundreds of informal gold mining sites estimated. It is estimated that about 200,000 gold miners were working in the sector, and that more than 1 million people worked in the secondary economy. Annual gold production was estimated at about 27 tons,

and was almost entirely produced using mercury corresponding to an annual use of 35 tons of mercury in the ASGM sector. AGC, responsible for this assessment, recommended that the database should be updated regularly, due to the rapid growth of the sector and also to the migratory nature of the populations of miners in Burkina Faso.

Output 1.2: National strategy action plans to promote sound management of mercury in ASGM developed in all three countries

Based on information gathered for output 1.1 and lessons learned from output 2.2, a series of recommendations has been developed by AGC to assist the Governments of Burkina Faso and Senegal in the establishment and implementation of a National Action Plan (NAP) on the use of mercury in gold panning in accordance with Article 7 of the Minamata Convention. According to information available, these NAPs have not been developed yet. However, both countries have secured GEF funding to develop them. For Burkina Faso, the NAP will be developed through the GEF funded project entitled "*National capacity and capability improved for prevention and management of mercury use, through the preparation of a National Action Plan (NAP) for the artisanal and small-scale gold mining (ASGM) sector*" (GEF ID: 9711), which was approved in the fiscal year 2017. It will be implemented by UNIDO and executed by AGC. For Senegal, the NAP will be developed through a regional project with Mali: "*To protect human health and the environment from the risks posed by the emissions and releases to the environment of mercury from artisanal and small-scale gold mining and processing in Mali and Senegal by developing NAPs in compliance with Annex C of the Minamata Convention*" (GEF ID: 9533). This project was approved in the fiscal year 2017 and will be implemented by UNEP and executed by AGC.

Conclusion for Outcome 1: While the scope of ASGM has been satisfactorily assessed, the NAPs have not yet been developed despite recommendations made by the project. As such, the project has not been successful to achieve outcome 1 which was: NAPs used to develop policy framework. It is anticipated however that the recommendations made by the project would be considered during the development of the NAPs in the two countries (cf. paragraphs 46).

Outcome 2: *Pilot projects are replicable and knowledge gained from health and technology trainings can be adopted and behavior changed*

For this outcome, two outputs were also planned. While output 2.1 for both countries was funded by GEF grants, output 2.2 for Senegal was financed by GEF grant and that for Burkina Faso was funded by USDOS. As mentioned earlier, the evaluation would cover only the components covered by GEF grants, and not those financed by USDOS or FGEF.

Output 2.1: *Comprehensive health education and technology training programs to reduce / eliminate mercury are developed*

The health education training program was satisfactorily undertaken by AGC in Senegal and Burkina Faso. In Burkina Faso the project was well received by the health sector and the authorities agreed to integrate ASGM-specific data for health surveillance. Health professionals as well as health instructors were trained. In Senegal, there was some reluctance to accept the project. Indeed, despite AGC meeting with the *Chef du service national de l'information sanitaire et sociale, Ministère de la Santé et de l'action sociale* on several occasions, there was little interest from the national authorities to integrate ASGM into the regular monitoring system for health surveillance. Nevertheless, the trainings were undertaken at the project sites in both countries (Dano, in Burkina Faso, and Kédougou, in Senegal), and also in Ouagadougou for academic instructors in Burkina Faso with the following achievements:

- 29 health professionals (nurses, physicians) trained in Dano, Burkina Faso
- 22 nurse-instructors from the Ecole Nationale de Santé trained in Ouagadougou
- 19 ASGM leaders from the Syndicat des Orpailleurs and 10 miners trained on Occupational Health and Safety in Burkina Faso
- 25 health professionals (nurses, nurse-assistants, physicians) trained in Kédougou, Senegal
- Recommendations submitted to improve the health surveillance system

The following manuals/tools were developed by AGC and exist in both French and English languages:

- *Health Issues in Artisanal and Small-Scale Gold Mining: Training for Health Professionals*
- *Health and Artisanal and Small-scale Gold Mining: Training Aid Tool*
- *Health in Artisanal and Small-Scale Gold Mining: A training manual for health instructors*
- *Using retorts to Reduce Mercury Use, Emissions, and Exposures in Artisanal and Small-Scale Gold Mining: A practical guide*

Despite efforts made during the field mission, it was not possible to meet the health care workers who participated in the training workshops. In Burkina Faso for example, the NPC informed that she did not have the contact information of those who attended the workshops although the list of participants was available as annex in the final report of the health training component

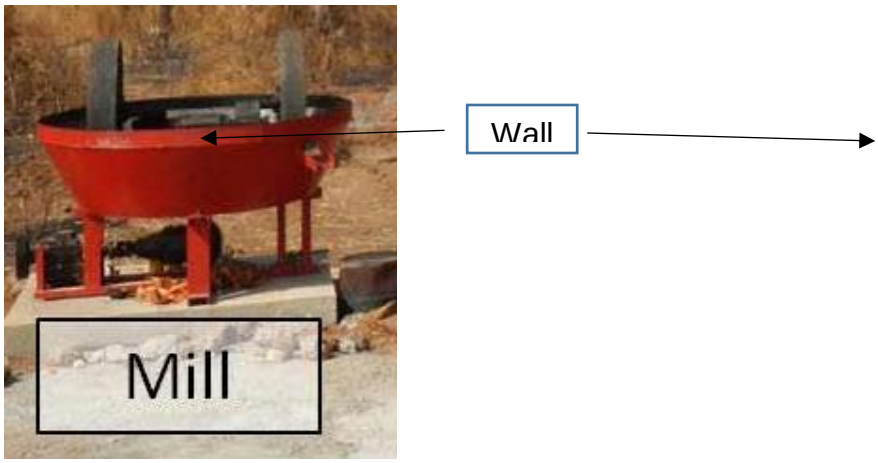
The training on free mercury technology was closely linked with output 2.2. In both countries, Senegal and Burkina Faso, a team of 6 technicians and a foreman were trained to run and manage the mercury free system to extract gold at the project sites. The miners were also trained to use the retort method to reduce emissions of

and exposure to mercury. However, the miners indicated that this retort method was complicated and tedious to put to practice. As a result this method has never been used by the miners at the project sites in both countries[12].

Output 2.2 *Mercury reduction/elimination pilot projects are implemented in Burkina Faso and Mali and expanded in Senegal with local and national stakeholders. Overall mercury use, emissions and exposure are reduced in pilot sites.*
The pilot project in Senegal was funded by GEF while the Burkina Faso part was financed by USDOS. As mentioned previously (cf. paragraph 4), the evaluation will cover only the components funded by GEF grant, thus only the Senegalese pilot project has been assessed. For comparison, some reference will be made to the Burkina Faso pilot project.

The pilot project using a mercury-free processing system[13] was implemented first in Zopal, Burkina Faso as from March 2014 through to the beginning of 2015, and was financed by USDOS. In Senegal, the mining village of Bantaco, located about 35 km from Kédougou, itself found about 700 km South East of Dakar, was selected to be project site. The village is located in one of the 16 gold mining corridors designated by the Ministry of Industry and Mining of Senegal. A partnership was formed between AGC and the Groupement d'Interêt Economique (GIE) of Foukhaba, based in Bantaco, for the installation and operation of the system similar to the one used in Burkina Faso. This GIE is constituted by 46 persons (26 males and 20 females)[14], and is led by a chair assisted by a secretary and a treasurer. The project provided assistance to the GIE to obtain a gold-mining license and a concession within the gold-mining corridor. However as mentioned earlier (cf. paragraph 33), it took more than 7 months to get the mining license. Consequently, the mercury-free processing equipment (referred to as system), which was purchased from China through an international bidding exercise, arrived in Dakar in May 2014 and had to be stored until the beginning of November due to bureaucratic delays (to obtain permit) and also due closure all the mining sites from May 2014 to March 2015 through a Presidential Decree. However, the project was authorized to start the installation of the system in November 2014, but they were not allowed to operate the system before March 2015 although the installation was completed by December 2014 / January 2015. For the mounting of the system, all the support material required to install the system was purchased locally, either in Dakar, Kédougou, or in the village of Bantaco. Compared to the system installed in Zopal, Burkina Faso, one major improvement was made to the one installed in Bantaco. The height of the container wall of the mill for the Senegal system was increased, as it was observed that ores were lost during milling in the Burkina Faso system because the wall of the container was not high enough (see Figure 1).

[12] Data interview from miners
[13] The mercury-free processing system will be referred to as "system"
[14] Most of the females are the wives of the miners.



(a)* *Picture (a) was taken from an AGC report .

(b)

Figure 1: Increased height of container wall of mill for the Senegal system (picture b) compared to the Burkina Faso system (picture a) to reduce loss of ores during milling.

After the re-opening of the mines in March 2015, the project could start the operation of the system but was faced was a number of technical problems such numerous failures of the generator. These technical failures caused more delays to the implementation process, and the miners started to lose faith in the pilot project. However, once the system was fully operational and started to produce gold, the miners changed their mind and totally adhered to the project. 7 persons of the Foukhaba GIE were trained on its operation and management and were able to produce the first grams of mercury free gold by mid-2015. After the departure of AGC, the responsibility to manage and operate the system was handed over to the Foukhaba GIE. According to feedback during the evaluation field mission, the beneficiaries that included members of the Foukhaba GIE, president of ASGM community, and the miners were very satisfied with the pilot project. Not only they became aware of the risks associated with exposure to mercury, but they also realize that the system was much more efficient. For example, they can process 25

bags[15] of ores daily whilst it would have required about 1 man week work to process one bag of ore, and it is much harder as every step to extract the gold is done manually. All the miners (more than 5000) in the vicinity of the project site have their ores processed by the system against a fee of CFA 7,500 per bag. This fee is used to pay the salary of the system operators, to buy diesel[16] to operate the generator and to maintain the system. During the field mission, the evaluation however found out that mercury was still being used despite the system having been installed. Indeed, to recover the gold after the milling, sluicing, and panning the ores, the concentrate need to be heated with borax using an oxy-acetylene flame (the last step). The person who was trained for this last step left. As a result, this last step was not done, and after treatment of the ores by the system, the miners collect the concentrate and recover the gold using mercury.

However, according to information available, the amount of mercury used was much less (reduced by two-fold at least). As a result, the price of mercury in the informal sector has decreased from CFA 20,000 to CFA 10,000[17]. The miners indicated that with adequate assistance (financial and technical) this system could be replicated in other mining sites and would be sustainable. For example, despite numerous technical difficulties (e.g. generator failure or mechanical failure), which were solved thanks to locally available technicians, since its installation in 2015, the system is still in good operating condition, and running more than 15 hours daily.

Conclusion on Outcome 2: Although the outputs have been satisfactorily delivered and awareness of the main stakeholders (in particular the miners) have been raised, it appears that there have been no or very little behavioral change regarding the use of mercury. Indeed, although in much lower quantity, mercury is still being used by the miners to recover gold from the concentrate, and they are not using the retort method proposed by the project to reduce emission and exposure to mercury (cf. paragraph 50). The project should consider training of the operating personnel of the system on the use the borax – oxyacetylene flame method to avoid the use of mercury to extract gold from the concentrate in the last step. Furthermore, it is recommended that the national authorities and UNIDO should ensure that lessons learned and experience gained from this project should be considered in the follow up initiatives being implemented in the two countries (see paragraph 46).

Outcome 3: *Capacity to manage and monitor mercury increased through fair trade certification and new regulations*
This component was financed by the FGEF and therefore is not covered by this evaluation[18].

[15] 1 bag of ores weighs about 25 kg.
[16] One day of operation requires about 40 L of diesel
[17] Interview data
[18] The FGEF will carry its own evaluation for the components it financed.

(ii) ***Quality of outputs and target beneficiary groups***

The outputs produced were generally of good quality. AGC, which was responsible to deliver the outputs, is an NGO based in British Columbia, Canada, and part of its focus is to train miners to adopt more responsible, environmentally friendly methods of mining and gold processing. Prior to executing this project, AGC implemented similar projects in Africa (e.g. in Nigeria, Ghana and Tanzania) and in other parts of the world (e.g. in Mongolia, Nicaragua and Philippines). Furthermore, AGC contributed significantly to develop the document "*Developing a National Action Plan to Reduce, and Where Feasible, Eliminate Mercury Use in Artisanal and Small-Scale Gold Mining*", which was adopted as an official UNEP document at INC 7 of the Minamata Convention held from 10 to 15 March 2016 at the Dead Sea in Jordan. The recommendations made by AGC to the governments of Burkina Faso and Senegal for NAP development for the ASGM sector was largely based on this document.

Whereas it was not possible to discuss with the participants of the health education training workshops (cf. paragraph 51), the miners, who were reluctant to participate in the project at the start, unanimously agreed that the installation of the gold processing system greatly improved their livelihood. The system is much more efficient, allowing to process up to 25 bags of ores daily (against barely one bag weekly if processed manually), thereby increasing their income significantly. Moreover, the hardship of their work decreased as most of the processing is done by the system including the milling and panning of the ores, which is very demanding physically and tedious when done manually. Currently, their work consist of extracting the ores from the mines and transporting them to the processing site, and recovering the gold from the concentrate using mercury. Although the miners indicated that there was room for improvement such as having a system in place to transport the ores from the mines (which could be kilometers away) to the project site, or increasing the capacity of processing of the system, they otherwise were very satisfied with the pilot project. In particular, they highly appreciated the technical guidance and support provided by AGC.

(iii) ***Longer-term impact***

The impact of the project was to reduce the impacts of mercury on the environment and health of artisanal gold mining communities by promoting sound chemical management. To achieve this goal, the project sought to strengthen local and national capacity to effectively manage and reduce mercury use, emissions and exposure in the ASGM sector. While the training on health education were satisfactorily undertaken, there is no indication of any behavioral change either at national or at local level. The miners are still using mercury to extract gold, and they are not using the retort method to decrease mercury exposure as proposed by the project (cf. paragraph 50). On the other hand, the running of the pilot projects has allowed the reduction of mercury use at the project sites. It is however anticipated

that with the NAP development projects, the recommendations of the project would be considered and thus impact would likely be achieved in the longer term.

(iv) ***Catalytic or replication effect***

At the project site, the evaluation team met with the president of the small-scale gold miners of Senegal, who is also 1st Deputy Mayor of Kédougou. He indicated that the miners were generally very satisfied with the pilot project and there is great scope for replication for the following reasons: the processing system proposed in the pilot project is very effective, more gold is recovered, less time required to process ores and less mercury used. Given the initial relatively high invest cost[19] required, he nevertheless indicated that some kind of financial system must be put in place to assist the miners or GIEs that are willing to have such a system. He also added that assistance would also be required for the purchase and installation of the system. The president finally mentioned that the ASGM sector must be formalized and this sector must get full support from the authorities, especially with regards to mining permits that took very long to be delivered before the pilot project could start.

Although quality outputs have been delivered, miners are still using mercury to extract gold. For these reasons effectiveness is rated **Moderately Satisfactory**.

D. Efficiency

The project was supposed to start on 16 August 2011 (CEO endorsement date), but the actual start date was 16 January 2012. The project was slow to start, for example the contract with AGC, the main executor of the project, was signed only in October 2012, the launching of the project in Burkina Faso was done in 2013 and the Project Steering Committee in Senegal was officially set up through a ministerial decree of 5 December 2013. The official closure date was 1 January 2015. Due to the slow start and delays encountered, the project was granted a no cost extension up September 2016 during a meeting in Paris, in February 2015. This meeting was attended by UNIDO, FGEF, the French Ministry of Foreign Affairs and ARM. Subsequently, a further no cost extension was granted to allow for completion of activities, and the actual closure was June 2017. Other than slow administrative procedures, no reasons were given to justify the slow start of the project.

In Senegal, the delays were mainly due to external factors such the closure of mines for almost one year through a presidential decree (cf. paragraph 54) and slow administrative procedures to deliver the mining permit (cf. paragraph 33). Technical failures of the generator during system installation (cf. 54) was also responsible for some delays. In Burkina Faso, political unrest that started in October 2014 and closure of mines during 3 months due to heavy rain caused delays to project implementation. For example, a national PSC meeting that was scheduled in November 2014 in Ouagadougou had to be rescheduled in February 2015.

[19] The free mercury gold processing system costs about USD 40,000.

According to information available, at November 2016, a total of USD 940,395.90 of the total USD 990,000 GEF grant has already been disbursed. As mentioned previously (paragraph 23), activities were not carried out in Mali due to political unrest. Based on the planned costs of the different project components, a total of USD 261,670 should have been left unspent, which would correspond to activities not undertaken in Mali (Table 2). The evaluation was told however that the unspent funds in Mali was used for activities in the two other countries. This was evidenced for the recruitment of national and international experts for example. While the costing for national and international experts in the project document were USD 173,000 and USD 135,000 respectively (for the three countries), at November 2016 a total of USD174,723 and USD 141,376 was disbursed respectively for these two categories of experts (for two countries only).

The planned cash co-financing materialized and contributed to the successful delivery of outputs (cf. paragraph 94). For example, the USDOS co-financing was used for the pilot project in Burkina Faso while component 3 of the project was totally funded by the FGEF co-finance. Similarly, the SAICM QSP funds for Mali (USD 220,000) was available and was used a draft NAP including a preliminary inventory in the ASGM sector. Although the Malian counterparts participated in the regional steering committees and in regional trainings, the evaluation considers that the implementation of the project was not cost effective given that the project was run only in two countries while most of GEF grant has been disbursed. For these reasons, rating on efficiency is **Moderately Satisfactory**.

Table 2: Planned costs of different components

Project outcomes	GEF (USD)	Malian Share (USD)*
1. Improve understanding of scope of ASGM in Burkina Faso, Mali and Senegal by conducting rapid risk assessments and baseline estimates	120,000	40,000
2. Finalize and implement national strategic action plans in each country to promote sound management of mercury in ASGM	140,000	46,670
3. Develop comprehensive health education and technology training programs based on previous successful pilot projects in the region and other parts of the world	125,000	41,670
4. Implement mercury reduction/elimination pilot projects with local and national stakeholders, and provide technical guidance and support.	300,000	100,000
5. Evaluate opportunity for fair trade certification; develop and submit applications	100,000	33,330
6. Extract and use lessons learned to inform national policy makers and contribute to the revision of national strategic action plans in each country.	120,000	40,000
Project Management	85,000	
Total	**990,000**	**261,670**

*Malian share is taken as 1/3 of total cost for each component

E. Sustainability of project outcomes

Financial risks

Despite recommendations made by the project, the NAPs have not yet been developed in Burkina Faso and Senegal (paragraph 46). The two countries have however already secured financial assistance from GEF for their development (paragraph 46).

In Senegal, the gold processing system installed at Bantaco in the context of the pilot project is already sustainable. Given that the system is more efficient and requires less man labour, all the miners in the region have their ores treated by the system against a fee of CFA 7,500 per bag of ores processed. Moreover, the operating team indicated that since taking over from AGC, they have been able to keep the system running despite some technical failures, which they have been able to repair thanks

to expertise (of an electrician and a mechanic) available locally. For replication however, the beneficiaries (miners, GIE and local communities) indicated other than technical assistance to install the system, they would also require financial assistance as the initial investment is relatively high, the whole processing system costs about USD 40,000.

Socio-political risks

As reported in one of AGC's report[20], Burkina's political context was favorable for expanding positive changes to the ASGM sector. The Ministry of Mines was revising its mining code and was eager to receive recommendations on the ASGM sector. Furthermore, the *Syndicat des Orpailleurs* was also very active in its dialogue with the government and awareness-raising activities for the miners. On the other hand, in Senegal there are indications that the project did not get the full support from the authorities, more specifically from the Ministry of Mines. As previously reported despite repeated efforts, very little assistance was obtained from the Ministry of Mines (cf. paragraph 33). It was also reported that this ministry was unfortunately absent at most meetings and remained for the most part uninterested in meeting and discussing the project[21]. There exist some risk in Senegal that follow up projects in the ASGM sector may not benefit from the full support of all national authorities.

Institutional framework and governance risks

In both Burkina Faso and Senegal, mercury is strictly regulated and is not officially permitted for use in artisanal mining. Moreover, national committees/commissions exist in both countries for the sound management of chemicals (that include mercury). For example, in Senegal the *commission nationale de gestion de produits chimiques* (CNGPC) and its three sub-committees for pesticides, industrial chemicals and pharmacovigilance, are responsible for the nationwide management of chemical products that include their manufacture, importation, use and disposal. For instance, to import any chemical product including mercury, a permit should be obtained from the CNGPC.

For small scale mining, in both countries there are some regulations pertaining to this sector. In Senegal, it is regulated under Article 40 of the Mining Code 2003. In Burkina Faso, small-scale mining is regulated by Mining Code of May 2003, which is implemented via Decree No. 2005-047 / PRES / PM / STM 1 February 2005. The Decree also manages provision of mining titles and permits for artisanal, small-scale and industrial mining.

Despite these existing regulations, mercury is still available in the informal sector and significant amounts are being used in ASGM, which tend to indicate a lack and / or insufficient of enforcement capacity.

[20] Jan – June 2014 Progress report of AGC
[21] See footnote 18

Environmental risks

The project is ecologically sound as it is aiming to eliminate or reduce mercury emissions in the ASGM sector of the two participating countries. Furthermore, as no environmental risk that can influence or jeopardize the project outcomes and future flow of project benefits has been identified, this risk is considered low.

Given that some risks have been identified, the rating on sustainability is **Moderately Likely**.

F. Project coordination and management

UNIDO was the GEF implementing agency, and was responsible for overall project implementation, monitoring and reporting. A project manager was nominated from the Emerging Compliance Regimes Division, Department of Environment, UNIDO Head Quarters, Vienna, and was assisted by a full-time supporting staff. Due to staff movement, the PM changed in 2015. The current PM indicated it was not a problem to take over this on-going project as he was already managing similar projects on mercury. While the former PM attended the first three regional PSC meetings, the current PM attended the last meeting that was held in Kédougou, Senegal, 24 – 25 May 2016. During these meetings, they provided useful guidance for the implementation of the project. For example, during the 3rd regional PSC meeting held in Dissin, Burkina Faso, in February 2015, the UNIDO PM stressed on the need to include a number of essential elements in the NAP such as an inventory of artisanal gold mining sites, a legal study on formalization, elimination of the worst practices or a costed action plan for the reduction of mercury use in the ASGM sector.

According to information available, it is clear that the regional project steering committee played its role in influencing project management. It is also clear that the project logical framework was used as basis for implementation and the verifiable indicators therein were used for reporting and to track progress.

At national level in the two countries, the Ministry of Environment (MOE) hosted the project and was the lead Ministry. In both countries, the national PSC was established through a decree issued by the MOE. A NPC was nominated within MOE and was the focal point of the project. Amongst its duties, the NPC was responsible to organize the national PSC meetings, and to assist AGC, the main executing partner of the project, to establish contacts with the major stakeholders and the beneficiaries (e.g. miners and health care workers). A National Technical Expert (NTE) was recruited to provide assistance during execution of the pilot project. In Senegal, in general other than the late delivery of the mining permit to the Foukhaba GIE, there was no major problem during the implementation of the project. A good working collaboration was established between the NPC and AGC. In Burkina Faso, however some communication issues were noted. While the outputs were satisfactorily delivered, the NPC and other stakeholders (e.g. representative of the Ministry of Mines) were not aware of the details of the activities executed by AGC. For example, as mentioned previously (cf. paragraph 51), the NPC was not

aware where and when the health education activities were run and had no idea who the participants of the training workshops were. Furthermore, although not covered by this evaluation (as financed by USDOS), the NPC and other stakeholders (e.g. Ministry of mines) are not aware about the fate of the system installed at the project site in Zopal. They know that the system has been dismantled but they do not know about its fate. According to information gathered[22], AGC informed the NPC that the system would be dismantled and is currently operational in another location.

Although there was some confusion regarding the fate of the system in Burkina Faso, in general project coordination and management was adequate, therefore rating is **Satisfactory**.

G. Assessment of monitoring and evaluation systems

Monitoring and evaluation design

Although the monitoring and evaluation (M&E) plan proposed, **Section H** of the project document (ProDoc), contains the main elements (e.g. monitoring and reporting requirements) that would allow for monitoring progress and delivery of results, the evaluation has identified a number of weaknesses that are discussed in the following paragraphs.

The roles and responsibilities have not been clearly described. While it was clear that UNIDO would be responsible for overall project monitoring and evaluation, and reporting progress to the donor. For the programmatic M&E however, the project document (ProDoc) mentioned that the main executing partner, Blacksmith Institute, would be responsible for day-to-day management of the project, reporting quarterly to UNIDO. Further in the ProDoc, it is mentioned that in addition the Project Manager would monitor project activities on a weekly basis. It is not clear whether Blacksmith Institute and Project Manager was the same person/entity. In the same **Section H**, it is also mentioned that progress of activities and outputs against the targets and desired outcomes would be assessed bi-annually using the means of verification and indicators for measurement explained in the Project Results Framework. However, how this would be done and who would be responsible for these monitoring/evaluation activities was not mentioned neither in main text of the ProDoc nor in the annexes.

The involvement of national stakeholders in the M&E activities was not clearly spelled out in the plan. What was planned in the ProDoc and where national stakeholders would have the opportunity to review and discuss project progress was the following meeting: *Following completion of annual project reports, all project partners will meet to review in-country progress and make needed adjustments to the project plan*. Although national PSCs were actually established (but not planned) in the two participating countries, the planning of such committees with clear roles and responsibilities would have definitely improved the design and ensured high ownership of the project.

[22] Information gathered from UNIDO PM

Not planning (and therefore not budgeting) for an inception workshop nor for an independent terminal evaluation constitute another weakness of the design. Although the costing for country coordinators, a Project Manager and an Evaluation / M&E Coordinator was given in the Annex C of the ProDoc[23], a proper costed M&E plan was not developed.

Monitoring & evaluation implementation

As mentioned earlier, the design did not include the creation of PSC. Nevertheless, PSC was established in Senegal and Burkina Faso through ministerial decrees. In both countries, the PSC was constituted by UNIDO, AGC, ARM, Ministry of Environment, Ministry of Health, Ministry of Mines, NGOs and other relevant institutions. The PSC meetings were chaired by the Director of the "Direction de l'environnement" and the NPC acted as secretary in both countries. Also not planned in the design, a regional PSC that was established, and was constituted by the UNIDO PM, the NPC of the three countries, the NTEs, ARM, AGC and co-opted members of the country where the meeting was held.

The inception workshop was held on 18 – 19 May 2012 in Ouagadougou, Burkina Faso. It was during this regional meeting that the countries agreed to exclude the Blacksmith Institute from the project (cf. paragraph 28). According to the minutes of the regional PSC meetings, it appears that monitoring of progress was adequately done. During the four regional PSC meetings that were held, project progress was discussed and recommendations made to improve on implementation and sustainability of project results. For example, during the regional PSC of 2016 in Kédougou, Senegal, the representative of the Ministry of Mines of Senegal proposed the following recommendations for the sustainability of the project: (i) dissemination of tools that are adapted to the financial and productive capacities of the miners; (ii) take into account the interests of indigenous peoples, promote employment of local labor and make provision of basic social infrastructure; (iii) simplification of administrative procedures for the formalization of GIEs; and (iv) strengthen the public health response and communication capacities at the mining sites.

At national level, the PSC meetings were held as planned. For Burkina Faso however, despite numerous requests the evaluation could not get copies of the reports of these PSC meetings. According to information available, 3 to 4 PSC meetings were held in Burkina Faso. In Senegal, six national PSC meetings were held. According to the reports of these meetings, it appears that progress was adequately monitored and discussed during these meetings. For example, during the May 2014 meeting, the president of the miners' association of Kédougou requested the authorities to facilitate the formalization of GIEs. He also inquired why the project chose only one site for the pilot project. During the same meeting, the representative of the Ministry of Labor proposed that the project need to include more professionalism in ASGM and also that the miners should be adequately trained to operate the mercury free processing equipment indicating that they do not want to

[23] ANNEX C of the ProDoc is**:** Costing for consultants to be hired for the project using GEF resources

eliminate/reduce a risk (exposure to mercury) and at the same time getting exposed to another (risk of getting hurt during operation of the system).

Given the delays that the project suffered due to external factors such closure of mines in Senegal and political unrest in Burkina Faso and Mali, reporting was accordingly delayed. Nevertheless, quality progress and annual progress reports were submitted by AGC to UNIDO as per the terms of reference of the contract signed by AGC for the execution of project activities. Similarly, PIR reports were produced and submitted to GEF.

Budgeting and funding for M&E activities

As mentioned earlier, a proper budgeting and funding of M&E activities was not done (cf. paragraph 81). According to information available, a total of USD84,000 of GEF grant was used for project management and M&E, out of which USD 25,000 was used for the terminal evaluation (not planned nor budgeted, cf. paragraph 88) of the project[24].

Given the short comings in the design and budgeting of the M&E plan, the overall rating for **monitoring & evaluation** is **Moderately Satisfactor**y.

H. Monitoring of long-term changes

A long-term monitoring system was not planned in the project design. However, given that all three countries have already secured funding for follow up projects in the ASGM sector (cf. paragraph 46), it is anticipated that strong linkages will be established between the project under evaluation and the follow up projects. Therefore, long term impact of the project would somehow be monitored to some extent.

I. Assessment of processes affecting achievement of project results

Preparation and readiness / Quality at entry

Preparation and readiness is considered satisfactory. As already mentioned earlier (paragraphs 27), the project was developed at the request of the three participating countries during the UNIDO Global Mercury Partnerships Sub-Regional Workshops on gold mining in Bamako, Mali in December 2009. Moreover, the major stakeholders were already identified during the preparatory phase and many participated to its design (paragraph 29). Finally, the ASGM situation was very well documented (paragraph 28). Quality at entry is also considered satisfactory. AGC, the main executing partner for the components funded by GEF, is an international NGO involved in the mining sector. It has extensive experience in training miners to adopt more responsible and environmentally sound methods of gold processing. In particular, they have executed similar projects in other parts of the world (cf. paragraph 58). Additionally, they participated to develop a guidance document for NAP in the ASGM sector that was adopted as an official document at INC 7 of the Minamata Convention (cf. paragraph 58).

[24] Data obtained from UNIDO PM.

Country ownership / driven-ness

National country ownership is considered satisfactory. The establishment of the national PSCs in Senegal and Burkina Faso where activities were undertaken was done through ministerial decrees. The involvement of the national stakeholders in the project was mainly as members of the PSC. However, according to information available[25], their participation in the PSC meetings was very active that clearly indicate a good appropriation of the project. For example, in Senegal, during the 3rd PSC meeting held in Dakar in May 2014, the presentation on the status of ASGM in the country provoked intense discussions on topics such the closure of artisanal gold mining sites, the establishment of corridors for artisanal gold mining, the issuance of artisanal exploitation permits, the granting of gold-mining cards, and the involvement of local authorities in the granting of artisanal mining permits. Similarly, during the 4th PSC meeting held in Kedougou, in October 2014 after lengthy discussions, the PSC made a number of recommendations that include (i) promote more awareness amongst individual artisanal miners (ii) continue awareness on the adverse effects of mercury use on the human health and environmental health (iii) ensure that the local (at project site) monitoring and coordination committee is functioning properly

At local level, ownership is very high. The local authorities as well as the beneficiaries at the project site were very satisfied with the project. In particular, the miners indicated that the implementation of pilot project greatly improved their livelihood. Their work is much less hard and their income have increased significantly.

Stakeholder involvement and consultation

While the national stakeholders were adequately consulted for the development of the project, their involvement in the project was almost limited to participation in the PSC meetings. They indicated that they would have wished to get more involved in the project, for example for the selection of the project site or in the organisation of the training workshops. This would have ensured a better ownership of the project[26]. The Ministry of Mines, however, provided the project with some information for component 1. At the project sites, the local stakeholders was very much involved in the project. For the pilot project, the local authorities were consulted and authorization was obtained to install the mercury processing system. For its installation, all the support material required to install the system was purchased locally, and the project relied on local labor. Finally, the responsibility to operate and manage the system was handed over to the Foukhaba GIE.

Financial planning

UNIDO managed all the GEF funds and internal standard procedures were applied for the disbursement of funds, sub-contracting, procurement of services or equipment, and for payment. All the consultants, both national and international, as

[25] Minutes of PSC meetings and feedback gathered during field mission
[26] Interview data with NPC and Ministry of mines in Senegal and In Burkina Faso

well as service providers were directly contracted by UNIDO HQ, and payment was done upon submission of planned deliverables (or reports) according to the terms of agreement of the respective contract. For example, payment of AGC was done according to the terms of agreement that is upon submission of planned progress or annual reports. Similarly, the NTEs recruited by UNIDO were paid only upon submission of reports of activities. For the expenditures at national level (e.g. for organisation of PSC meetings), funds were transferred to UNDP country offices of the two countries. This full agency mode of execution appeared to be an effective approach as no major problem was identified during implementation. The national counterparts, however, stated some funds could have been managed at country level. In Burkina Faso, there was confusion regarding the sources of funding for the pilot project, it was not clear for them whether the pilot project was financed by GEF or USDOS funds.

Given that costing in the project document was done per component and the actual final project costs available was per item (budget line), it was difficult to reconcile the actual expenditures with planned budget. However, for the items: international experts and national experts, it was possible to get the planned budgets from the project document. The actual expenditures for these two items were quite close to the planned budget (Table 3), which tend to indicate that the funds were adequately managed and have been disbursed for items they were initially planned for.

Table 3: GEF-grant disbursement breakdown at November 2016

Item	2012 (USD)	2013 (USD)	2014 (USD)	2015 (USD)	2016 (USD)	Total (USD)	Planned budget (USD)*
International Experts	16,165	26,720	74,393	15,568	8,479	141,325	135,000
Local travel	4,907	14,572	15,958	4,054	3,568	43,059	
National experts/staff	26,480	56,255	68,176	13,828	10,002	174,740	173,000
Staff travel		47				47	
Contractual services	150,000	100,054	54,943	110		305,107	
Other direct costs	59,161	69,827	109,203	22,931	17,992	276,116	
Total (USD)	256,713	267,477	319,673	56,492	40,042	940,396	990,000

(Source: Budget as of November 2016 included in the TOR for this evaluation); *Figures taken from project document

UNIDO supervision and backstopping

As mentioned earlier (cf. paragraph 74), due to staff movement the UNIDO PM changed during the course of project implementation. This did not impact on the process as the current PM was already involved in the implementation of similar projects. According to information available, the two PMs adequately supervised the project and their guidance was highly appreciated by national counterparts and project partners[27]. They attended all the regional PSC meetings, during which they provided adequate and timely guidance on project implementation. For example, during the 3rd regional PSC meeting, the PM highlighted the main elements that should be included in the NAPs (cf. paragraph 74. During these meetings, they also guided on the elaboration of the work plan of the project. UNIDO supervision and backstopping is considered satisfactory.

Co-financing and project outcomes

As reported in Table 1, the planned co-financing was as follows: FGEF: USD 1,085,000 (cash), US EPA & USDOS: USD 318,000 (cash), UNIDO: USD30,000 (cash), UNIDO SAICM QSP Mali: USD 220,000 (cash), European Commission: USD487,000, National Governments: USD310,000 (in kind). The cash co-funds materialized as planned and contributed for the successful completion of activities (cf. paragraph 66). For example, the USDOS/USEPA and FGEF funds were used for the pilot project in Burkina Faso and component 3 respectively. The UNIDO contribution also materialized (e.g. full time administrative support at UNIDO HQ and country visits) and contributed for a proper management and supervision of the project. Overall the materialization of co-financing is considered satisfactory and contributed to delivery of project outcomes.

Delays of project outcomes and sustainability

As discussed previously (paragraph 64), the delays were mainly due to closure of mines for almost one year through a presidential decree and slow administrative procedures to deliver the mining permit in Senegal, and political unrest and closure of mines due to heavy rain in Burkina Faso. These delays did not impact on effectiveness of the project as quality outputs have been delivered. The delays are also not likely to impact on the sustainability of project outcomes as the countries have already secured international support for follow up projects (paragraph 46).

Implementation and execution approach

The approach described in the project document was adopted for project implementation and execution. UNIDO was the implementing agency and was responsible for overall project supervision and monitoring. AGC was contracted to execute all the components funded by GEF grant. At national level, the Ministry of Environment was responsible to implement the project. A NPC, nominated within the

[27] Interview data with NPCs and AGC

Ministry of Environment, was responsible to coordinate project activities, and was assisted by a NTE recruited by UNIDO.

By involving the major stakeholders in all the phases of project from development to implementation, is an approach that is fully compliant to the Paris declaration, and contributed to satisfactory national and local ownership of the project. Finally, the project, which is very relevant to the participating countries, and is set to strengthen national capacity for the sound management of mercury.

Environmental and Social Safeguards

The project did recognize that existing ASGM practices in the participating countries were involving significant mercury use, which would result in toxic pollution, reduce quality of life, and would be at significant cost to public health. Environmental degradation would aggravate poverty, hinder development effectiveness and make growth unsustainable. People affected by pollution would much more likely get sick, be chronically ill, and would have physical and mental disabilities and a shortened lifespan. By reducing the use of mercury in the ASGM sector, the project anticipated that workers would be less exposed to mercury, and thus their health less impacted and would be more efficient and productive. As mentioned in the next paragraph, the project highlighted the impact of mercury on pregnant women and children.

J. Gender mainstreaming

The project recognized that ASGM is based in areas where little alternatives for income exist, and generally women (and sometimes children) constitute a large portion of the mining force. While men are generally in charge of the extraction and the mercury handling, women are in charge of the processing of the ore as well as general management of the community. The design mentioned that the project would focus on women by training a high proportion of women trainers as well as designing health workshop specifically addressing the needs of the female mining population.

The participants of the health education training workshops were mostly women, qualified nurses. Moreover, part of the content of the health education training material specifically targeted children and pregnant women, who are particularly more affected by exposure to mercury. For example, the training content stressed on the methods and practices for these two categories of the population to avoid getting exposed to vapours of mercury at the mining sites during ore processing.

The involvement of women in the project was satisfactory. For instance, the two NPCs of Burkina Faso and Senegal were women as well as some of the PSC members met during the field mission. At the project sites, the Foukhaba GIE is constituted by 46 persons out of which 20 are women.

Rating on gender mainstreaming is **Satisfactory**

K. Overall Assessment

The following Table 4 summarizes the evaluators' assessment of the project

Table 4: Summary Assessment and Ratings

Criterion	Evaluator's summary comments	Evaluator's rating
Attainment of project objectives and results (overall rating), sub criteria (below)	All project objectives have been achieved and quality outputs have been delivered.	**S**
Project implementation		
Effectiveness	Although all project activities have been completed and outputs satisfactorily delivered, mercury is still being used at project sites to extract gold.	**MS**
Relevance	The project is very relevant as artisanal gold mining using mercury is particular common in Western Africa and it is responding to a request made by the participating countries at a UNIDO Workshop in Bamako, Mali in 2009.	**S**
Efficiency	Despite delays, outputs have been satisfactorily delivered. However, all funds have been disbursed despite activities not run in Mali.	**MS**
Sustainability of project outcomes (overall rating), sub criteria (below)	Some risks have been identified, therefore the sustainability of project outcomes is considered moderately likely	**ML**
Financial risks	NAPs have not yet been developed but countries have already secured GEF funding to develop them. At the project site, operation of the system is already sustainable.	**L**
Sociopolitical risks	In Senegal, the project did not get the full support of the Ministry of Mines, it took more than 5 months for the Foukhaba GIE to obtain the mining permit despite facilitation from project.	**ML**
Institutional framework and governance risks	Mercury is still available in the informal sector despite existence of legislation forbidding such practices. Capacities for enforcing such legislation seem lacking in both Senegal and Burkina Faso	**ML**
Environmental risks	No environmental risk that may jeopardize the project outcome has been identified	**L**
Monitoring and evaluation (overall rating), sub criteria (below)		**MS**
M&E Design	The proposed M&E plan was not costed and the terminal evaluation was not included in the plan	**MS**
M&E Plan implementation (use for adaptive management)	The planned monitoring and evaluation activities were effectively undertaken	**S**
Budgeting and Funding for M&E	Despite not designed in the project	**MS**

Criterion	Evaluator's summary comments	Evaluator's rating
activities	document, the inception workshop, PSC meetings and terminal evaluation were undertaken and funded	
Project management - UNIDO specific ratings		
Quality at entry / Preparation and readiness	Key stakeholders were already identified during the preparatory phase and participated in the design of the project. Moreover, the project benefitted from experienced partners (AGC and ARM) for its execution	**S**
Implementation approach	The approach described in the project document was adopted.	**S**
UNIDO Supervision and backstopping	The UNIDO PMs provided adequate and timely supervision and backstopping to the project implementation.	**S**
Gender Mainstreaming	Participants of health education training workshops were mostly women. Part of the training material targeted specifically pregnant women and children.	**S**
Overall rating	Despite all outputs delivered, efficiency was moderately satisfactory and miners are still using mercury for gold recovery.	**MS**

RATING OF PROJECT OBJECTIVES AND RESULTS
• Highly satisfactory (HS): The project had no shortcomings in the achievement of its objectives, in terms of relevance, effectiveness or efficiency.
• Satisfactory (S): The project had minor shortcomings in the achievement of its objectives, in terms of relevance, effectiveness or efficiency.
• Moderately satisfactory (MS): The project had moderate shortcomings in the achievement of its objectives, in terms of relevance, effectiveness or efficiency.
• Moderately unsatisfactory (MU): The project had significant shortcomings in the achievement of its objectives, in terms of relevance, effectiveness or efficiency.
• Unsatisfactory (U) The project had major shortcomings in the achievement of its objectives, in terms of relevance, effectiveness or efficiency.
• Highly unsatisfactory (HU): The project had severe shortcomings in the achievement of its objectives, in terms of relevance, effectiveness or efficiency.
• Likely (L): There are no risks affecting this dimension of sustainability.
• Moderately likely (ML). There are moderate risks that affect this dimension of sustainability.
• Moderately unlikely (MU): There are significant risks that affect this dimension of sustainability.
• Unlikely (U): There are severe risks that affect this dimension of sustainability.

IV. Conclusions, recommendations and lessons learned

A. Conclusions

The objective of the project was to strengthen local and national capacity to effectively manage and reduce mercury use, emissions and exposure in artisanal/small-scale gold mining communities in Burkina Faso, Mali and Senegal. However, due to political unrest since 2012, activities were not carried out in Mali.

The project was very relevant as small-scale gold mining is common in West Africa and the project was a request from the participating countries. The three participating countries are party to the Minamata Convention. According to information available, the project contributed to its ratification for Senegal and accession for Burkina Faso.

Implementation of the project suffered delays in the two countries. While in Senegal, closure of the artisanal mining sites by a presidential decree for almost one year and slow administrative procedures to obtain mining licence were the main reasons for delays. In Burkina Faso, the delays were mainly due political unrest and closure of mining sites for 3 months due to heavy rain. Despite these delays, quality outputs have been successfully delivered. Materialization of all cash co-financing contributed to increased efficiency. However, as activities were carried out in Mali and all GEF funds have been spent, delivery was not very effective.

Despite the completion of all activities and successful delivery of outputs, the desired outcomes have not been achieved. At the project site, the person who was trained to recover gold from the concentrate using a mercury free method[28] left. As a result, although in much lower amount, the miners are still using mercury to recover gold from the concentrate obtained after the processing of the ores by the system. Similarly, although the project has made appropriate and relevant recommendations, a national action plan for the sound management of mercury in the ASGM sector has not been developed yet in the two countries. However, the countries have already secured international financial assistance to develop this action plan. It is therefore anticipated that the recommendations of the project would be considered to develop the action plan.

As planned, the overall project management, supervision and monitoring was adequately done by a UNIDO project manager. Although the project manager changed due to movement of staff, this did not impact of project implementation. At national level, the coordination and supervision of activities was satisfactorily done by a national project coordinator nominated within the Ministry of Environment of the two countries and was assisted by a national technical expert.

[28] Use of borax and oxy-acetylene flame to recover gold from the concentrate obtaining after the processing of the ores.

B. Recommendations

For continued relevance and sustainability of project outcomes, the evaluation proposes the following recommendations:

i. The project has been successful in delivering tangible results. In particular, the gold processing equipment has been successfully installed and the miners have been adequately trained for its operation. The system is fully operational and is currently being used by the miners to treat their ores. However, as the person who was trained to recover gold from the concentrate using a mercury free method left, the miners are still using mercury for gold mining. To ensure that mercury is no longer used at the project site, it is recommended that the operators of the system is trained to use the mercury free method for gold extraction.
ii. The miners were very satisfied with the gold processing system, and they are currently using it to process their ores. They indicated that there is great scope for replication in the region. However, given the relative high initial investment cost required, they indicated that they would need financial assistance if they were to have such a system. It is therefore recommended that a financial mechanism be set up to assist the miners to purchase this system.
iii. The project has made recommendations to the countries for the development of a national action plan for the sound management of mercury in the artisanal gold mining sector. However, the plan has not yet been developed, but the countries have already secured international financial assistance to develop those plans, which are currently being developed. It is recommended that the recommendations of the project be considered for development of those national action plans.
iv. As the miners stated there is great scope for replication of the pilot project. To ensure good visibility and replication, the project outcomes and results could be summarized and disseminated to other small-scale miners' communities of other areas/regions of the country.

C. Lessons Learned

The project has been successfully completed and the following useful lessons can be learned.

i. At the project site in Senegal, initially the miners were reluctant to participate in the project. However, with the right approach and adequate communication, AGC was able to convince the Foukhaba GIE to participate in the pilot project. The lesson that can be learned is that good and early communication contribute to gain trust of partners / beneficiaries and secure their engagement in projects.
ii. In Senegal, the delays encountered during project implementation was partly due to the lack of support from the Ministry of Mines to rapidly deliver the mining license required to run the pilot project. Securing early full support of all key stakeholders would avoid delays in project execution.

ANNEXES

Annex 1: Terms of reference of the terminal evaluation

UNITED NATIONS INDUSTRIAL DEVELOPMENT ORGANIZATION

TERMS OF REFERENCE

Independent terminal evaluation of the UNIDO project:

Improve the Health and Environment of Artisanal Gold Mining Communities by Reducing Mercury Emissions and Promoting Sound Chemical Management

UNIDO Project number: GFRAF12001 - ID: 100336
GEF ID: 4569

FEBRUARY 2016

Contents

I. Project background and overview

1. Project factsheet

Project Title	Improve the Health and Environment of Artisanal Gold Mining Communities by Reducing Mercury Emissions and Promoting Sound Chemical Management
UNIDO project No.	GFRAF12001 - 100336
GEF project ID	4569
Region	Africa
Country(ies)	Burkina Faso, Mali, Senegal
GEF focal area(s) and operational programme	GEF-5: POPs
GEF implementing agency(ies)	UNIDO
GEF executing partner(s)	Artisanal Gold Council and Alliance for Responsible Mining
Project size (FSP, MSP, EA)	MSP
Project CEO endorsement / Approval date	16 August 2011
Project implementation start date (First PAD issuance date)	20 December 2012
Original expected implementation end date (indicated in CEO endorsement/Approval document)	31 December 2015
Revised expected implementation end date (if applicable)	30 September 2016
Actual implementation end date	30 June 2017
GEF project grant (excluding PPG, in USD)	990,000
GEF PPG (if applicable, in USD)	
UNIDO co-financing (in USD)	30,000 (cash)
Total co-financing at CEO endorsement (in USD)	2,450,000 (cash+in-kind)
Materialized co-financing at project completion (in USD)	
Total project cost (excluding PPG and agency support cost, in USD; i.e., GEF project grant + total co-financing at CEO endorsement)	3,440,000
Mid-term review date	N/A
Planned terminal evaluation date	February to May 2017

(Source: Project document)[29]

[29] Project information data throughout these TOR are to be verified during the inception phase.

2. Project background and context

This project aimed to support the Global Mercury Partnership by strengthening local and national capacity to effectively manage and reduce mercury use, emissions and exposure in artisanal gold mining communities. It is a regional project in Africa and participating countries are Senegal, Mali and Burkina Faso. The project aimed to assist the three governments to develop national strategic plans for sound mercury management in artisanal and small-scale gold mining (ASGM), and build the capacity of local and national stakeholders to implement successful mercury reduction/elimination projects.

ASGM is one of the most significant sources of mercury release into the environment in the

developing world. Within the scope of a previous project – Global Mercury Project - UNIDO estimates that nearly 100% of all mercury used in ASGM is released into the environment. Such practices release at least 1,000 tons of mercury per year, and account for 30% of total annual anthropogenic mercury emissions. ASGM is particularly common in West Africa, especially Francophone Africa, where it has been traditional livelihood. However, with the rise in the value of gold, ASGM has become even more widespread. Most artisanal gold miners are from socially and economically marginalized communities, and turn to mining to escape extreme poverty and unemployment.

In Burkina Faso, gold deposits are present throughout the country. Official data estimates 300,000 people are actively involved in the gold mining sector with an annual production of 500 to 600 kg of gold. Mali is currently the third largest producer of gold in the continent, and the fourteenth largest in the world. An estimated 200,000 people are employed in artisanal gold mining, produce four tons of gold annually. In Senegal, gold mining is concentrated in Tambacounda, the eastern part of the country bordering Mali that is home to one of the largest gold deposits in West Africa, the Sabodala Deposit. The region employs approximately 50,000 miners. Currently, annual production is at 2.5 tons per years and is expected to increase to 4 tons per year. Although sale of mercury is illegal, it is still accessible to miners, and at a relatively cheap price (100FCFA per gram).

The project aimed to reduce the impacts of mercury on human health and the environment of artisanal gold mining communities in the participating three countries by promoting sound chemical management and strengthening local and national capacity to effectively reduce mercury use, emissions and exposure.

The project is funded through a GEF grant, amounting to USD 990,000; a UNIDO contribution of USD 30,000 (cash); and the counterparts' co-financing of USD 2,420,000 (cash and in kind), which amount to total project budget of USD 3,440,000.

Project implementation started in December 2012 and the initial project end date was in December 2015. The same was revised to September 2016. Actual implementation end date is June 2017.

The project will be subject to GEF Monitoring and Evaluation rules and practices of the GEF and UNIDO. The terminal evaluation (TE) would take place from January to March 2017.

1. Project objective and structure

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

The following **6 project components** have been developed, in addition to project management, to achieve the project objectives:

Component 1: Improve understanding of scope of ASGM in Burkina Faso, Mali and Senegal by conducting rapid risk assessments and baseline estimates

Component 2: Finalize and implement national strategic action plans in each country to promote sound management of mercury in ASGM

Component 3: Develop comprehensive health education and technology training programs based on previous successful pilot projects in the region and other parts of the world

Component 4: Implement mercury reduction/elimination pilot projects with local and national stakeholders, and provide technical guidance and support

Component 5: Evaluate opportunity for fair trade certification; develop and submit applications

Component 6: Extract and use lessons learned to inform national policy makers and contribute to the revision of national strategic action plans in each country.

2. Project implementation and execution arrangements

UNIDO: is the implementing agency for the project and responsible for overall project implementation, monitoring and reporting

Artisanal Gold Council: provide technical expertise and guidance regarding pilot projects and development of formal health education and technology training programs

Alliance for Responsible Mining (ARM): implement activities related to fair trade certification

US Department of State, US Environmental Protection Agency (USEPA) and United Nations Environment Program (UNEP): project partners

Partners in **Burkina Faso**
Ministry of Environment, Ministry of Mines, National Corporation of Small-scale Miners (CONAPEM), Mining Association of Women of Burkina Faso (AFEMIB)

Partners in **Mali**
Ministry of Environment and Sanitation, Ministry of Mines, Miner's Associations, Ministry of Health

Partners in **Senegal**
Ministry of Environment, Ministry of Mines, Africa Clean, La Mumiére

Stakeholder Group: at each of the selected pilot sites, comprising representatives from mining community (miners, leaders, teachers, doctors, business owners, others), local government, local university, local NGOs, other partner project coordinators

3. Budget information

The project is funded through a GEF grant, amounting to USD 990,000; a UNIDO contribution of USD 30,000 (cash); and the counterparts' co-financing of USD 2,420,000 (cash and in kind), which amount to total project budget of USD 3,440,000.

Some financial details are shown below:

Project outcomes	GEF (USD)	Co-Financing (USD)	Total (USD)
1. Improve understanding of scope of ASGM in Burkina Faso, Mali and Senegal by conducting rapid risk assessments and baseline estimates	120,000	250,000	**370,000**
2. Finalize and implement national strategic action plans in each country to promote sound management of mercury in ASGM	140,000	407,000	**547,000**
3. Develop comprehensive health education and technology training programs based on previous successful pilot projects in the region and other parts of the world	125,000	200,000	**325,000**
4. Implement mercury reduction/elimination pilot projects with local and national stakeholders, and provide technical guidance and support.	300,000	648,000	**948,000**
5. Evaluate opportunity for fair trade certification; develop and submit applications	100,000	550,000	**650,000**
6. Extract and use lessons learned to inform national policy makers and contribute to the revision of national strategic action plans in each country.	120,000	185,000	**305,000**
Project Management	85,000	210,000	**295,000**
Total	**990,000**	**2,450,000**	**3,440,000**

(Source: CEO endorsement document)

Co-financing Source Breakdown is as follows:

Name of Co-financier (source)	Classification	Type	Project
UNIDO (SAICM QSP Mali)	GEF Agency	Cash	220,000
FFEM (FGEF)	Other Multilateral Agency(ies)	Cash	1,085,000
US EPA through UNEP	National Government	Cash	120,000
European Commission	Other Multilateral Agency(ies)	Cash	487,000
Burkina Faso and Senegal Governments	National Government	In-kind	160,000
US Department of State	National Government	Cash	198,000
Mali	National Government	In-kind	150,000
UNIDO	GEF Agency	Cash	30,000
Total Co-Financing			**2,450,000**

(Source: CEO endorsement document)

UNIDO GEF-grant disbursement breakdown:

Item	**Disbursement (expenditure, incl. commitment) in 2012**	**Disbursement in 2013**	**Disbursement in 2014**	**Disbursement in 2015**	**Disbursement in 2016**	**Total disbursement** (in USD) (2012-present) (08 Nov. 2016)
International	16,164.94	26,720.40	74,392.81	15,567.89	8,479.39	**141,325.43**
Local travel	4,906.72	14,572.17	15,958.66	4,054.31	3,567.56	**43,059.42**
Nat.Consult./Staff	26,479.90	56,255.10	68,175.54	13,828.38	10,002.07	**174,740.99**
Staff Travel		47.18				**47.18**
Contractual Services	150,000	100,054.34	54,943	110		**305,107.34**
Other Direct Costs	59,161.02	69,827.43	106,203.36	22,931.11	17,992.62	**276,115.54**
Total (in USD)	**256,712.58**	**267,476.62**	**319,673.37**	**56,491.69**	**40,041.64**	**940,395.90**

(Source: UNIDO database, 8 Nov. 2016)

II. Scope and purpose of the evaluation

The terminal evaluation (TE) will cover the whole duration of the project from its starting date in December 2012 to the estimated completion date in June 2017.

The main objectives of the evaluation are to:

(i) Assess the project performance in terms of relevance, effectiveness, efficiency, sustainability and impact; and
(ii) Develop a series of findings, lessons and recommendations for enhancing the design of new and implementation of ongoing UNIDO projects.

To facilitate learning, the terminal evaluation report should include examples of good practices for other projects in the focal area, country, or region.

The terminal evaluation will provide an analysis of the attainment of the project expected results and the corresponding technical components. It will assess the achievement of global environmental objectives, project objectives, delivery of project outputs, outcomes and impacts based on indicators and against target, and management of risks; and re-examine the relevance of the project objectives and other elements of project design according to the project evaluation parameters defined in chapter VI. Through its assessments, the terminal evaluation will enable the Government, the national GEF Operational Focal Point (OFP), counterparts, the GEF, UNIDO and other stakeholders and donors to verify prospects for development impact and sustainability.

The key question of the terminal evaluation is whether the project has achieved or is likely to achieve its main objective of reducing the impacts of mercury on human health and the environment of artisanal gold mining communities in Burkina Faso, Mali and Senegal and reducing global use and emissions from the ASGM sector.

III. Evaluation approach and methodology

The terminal evaluation will be conducted in accordance with the UNIDO Evaluation Policy[30], the UNIDO Guidelines for the Technical Cooperation Programme and Project Cycle[31], the GEF Guidelines for GEF Agencies in Conducting Terminal Evaluations[32], the GEF Monitoring and

[30] UNIDO. (2015). Director General's Bulletin: Evaluation Policy (UNIDO/DGB/(M).98/Rev.1)
[31] UNIDO. (2006). Director-General's Administrative Instruction No. 17/Rev.1: Guidelines for the Technical Cooperation Programme and Project Cycle (DGAI.17/Rev.1, 24 August 2006)
[32] GEF. (2008). Guidelines for GEF Agencies in Conducting Terminal Evaluations (Evaluation Office, Evaluation Document No. 3, 2008)

Evaluation Policy[33] and the GEF Minimum Fiduciary Standards for GEF Implementing and Executing Agencies[34].

It will be carried out by an independent evaluation team, as an independent in-depth evaluation using a participatory approach whereby all key parties associated with the project are kept informed and regularly consulted throughout the evaluation. The evaluation team will liaise with the UNIDO Independent Evaluation Division (ODG/EVQ/IEV) on the conduct of the evaluation and methodological issues.

The evaluation team will be required to use different methods to ensure that data gathering and analysis deliver evidence-based qualitative and quantitative information, based on diverse sources, as necessary: desk studies and literature review, statistical analysis, individual interviews, focus group meetings, surveys and direct observation. This approach will not only enable the evaluation to assess causality through quantitative means but also to provide reasons for why certain results were achieved or not and to triangulate information for higher reliability of findings. The specific mixed methodological approach will be described in the inception report.

The evaluation team will develop interview guidelines. Field interviews can take place either in the form of focus-group discussions or one-to-one consultations.

The methodology will be based on the following:

1. A desk review of project documents, including, but not limited to:

   (a) The original project document, monitoring reports (such as progress and financial reports to UNIDO and UNIDO-GEF annual Project Implementation Reports (PIRs)), output reports (case studies, action plans, sub-regional strategies, etc.), back-to-office mission report(s), end-of-contract report(s) and relevant correspondence.

   (b) If applicable, notes from the meetings of committees involved in the project (e.g. approval and steering committees).

   (c) Other project-related material produced by the project.

2. The evaluation team will use available models of (or reconstruct if necessary) theory of change for the different types of intervention (enabling, capacity, investment, demonstration). The validity of the theory of change will be examined through specific questions in interviews and possibly through a survey of stakeholders.

3. Counterfactual information: In those cases where baseline information for relevant indicators is not available, the evaluation team will aim at establishing a proxy-baseline through recall and secondary information.

4. Interviews with project management and technical support including staff and management at UNIDO HQ and in the field and – if necessary - staff associated with the project's financial administration and procurement.

5. Interviews with project partners and stakeholders, including, among others, government counterparts, GEF OFP, project stakeholders, and co-financing partners as shown in the corresponding sections of the project documents.

[33] GEF. (2010) The GEF Monitoring and Evaluation Policy (Evaluation Office, November 2010)

[34] GEF. (2011). GEF Minimum Fiduciary Standards: Separation of Implementation and Execution Functions in GEF Partner Agencies (GEF/C.41/06/Rev.01, 3 November 2011, prepared by the Trustee)

6. On-site observation of results achieved by demonstration projects, including interviews of actual and potential beneficiaries of improved technologies.

7. Interviews and telephone interviews with intended users for the project outputs and other stakeholders involved in the project. The evaluation team shall determine whether to seek additional information and opinions from representatives of any donor agency(ies) or other organizations.

8. Interviews with the relevant UNIDO Field/Regional Offices (includes Burkina Faso and Mali - and Senegal), to the extent that it was involved in the project, and members of the project management team and the various national and sub-regional authorities dealing with project activities as necessary. If deemed necessary, the evaluation team shall also gain broader perspectives from discussions with relevant GEF Secretariat staff.

9. Other interviews, surveys or document reviews as deemed necessary by the evaluation team and/or UNIDO, ODG/EVQ/IEV for triangulation purposes.

10. The inception report will provide details on the methodology used by the evaluation team and include an evaluation matrix.

IV. Evaluation team composition

The evaluation team will be composed of one international evaluation consultant acting as the team leader and one national consultant(s). The consultants will be contracted by UNIDO. The tasks of each team member are specified in the job descriptions annexed to these terms of reference.

The evaluation team might be required to provide information relevant for follow-up studies, including terminal evaluation verification on request to the GEF partnership up to three years after completion of the terminal evaluation.

Members of the evaluation team must not have been directly involved in the design and/or implementation of the projects/programme under evaluation.

The UNIDO project manager and the project teams in the participating countries will support the evaluation team. The UNIDO GEF Coordinator and the GEF OFP will be briefed on the evaluation and provide support to its conduct. GEF OFP will, where applicable and feasible, also be briefed and debriefed at the start and end of the evaluation mission.

V. Time schedule and deliverables

The evaluation is scheduled to take place from 13 February to 13 May 2017. The evaluation mission is planned for April 2017. At the end of the field mission, there will be a presentation of the preliminary findings for all stakeholders involved in this project/programme in the participating country.

At the end of the evaluation field mission, a debriefing should also be conducted inviting local stakeholders (incl. government and parties involved in the evaluation). After the evaluation mission, the international evaluation consultant will come to UNIDO HQ for debriefing and presentation of the preliminary findings of the terminal evaluation.

The draft TE report will be submitted 4 to 6 weeks after the end of the mission. The draft TE report is to be shared with the UNIDO PM, ODG/EVQ/IEV, the UNIDO GEF Coordinator and the GEF OFP and other relevant stakeholders for receipt of comments. The ET is expected to revise the draft TE report based on the comments received, edit the language and form and submit the final version of the TE report in accordance with UNIDO ODG/EVQ/IEV standards.

VI. Project evaluation criteria

The evaluation team will assess the project performance guided by the criteria and evaluations questions provided in this section. Below is the table summarizing key evaluation criteria to be rated by the evaluators.

Evaluation criteria	Evaluator's summary comment	Evaluator rating
1. Industrial development impact (overall rating) Sub criteria below	3 impact dimensions:	Yes
	Safeguarding Environment	
	Economic performance	
	Social inclusiveness	
2. Project design (overall rating) Sub criteria below		Yes
✓ Overall design		Yes
✓ Logframe		Yes
3. Project key performance criteria (overall rating) Sub criteria below		Yes
✓ Relevance		Yes
✓ Effectiveness		Yes
✓ Efficiency		Yes
✓ Sustainability of results		Yes
4. Cross-cutting performance criteria (overall rating) Sub criteria below		Yes
✓ Gender mainstreaming • At entry • During implementation • At exit		Yes
✓ Environmental Management (if applicable)		Yes
✓ Monitoring & Evaluation: • M&E at design • M&E implementation • Budgeting and funding from M&E activities		Yes
✓ Project management		Yes
5. Overall project achievement		**Yes**
6. Performance of partners • UNIDO • Government • Donor		No

In addition to the qualitative assessment based on the evidence gathered in the evaluation, the evaluation team will rate the project on the basis of the **rating for criteria described in the following sub-chapters, A to I.**

Ratings will be presented in the form of tables above with each of the criteria / aspects rated separately and with **brief justifications for the rating** based on the findings and the main analyses. More details on rating can be found in Annex B.

For GEF projects: As per the GEF's requirements, the evaluation report should also provide information on project identification, time frame, actual expenditures, and co-financing in the format in Annex F, which is modelled after the GEF's project identification form (PIF).

A. Project identification and design

Project identification assessment criteria derived from the logical framework approach (LFA) methodology, establishing the process and set up of steps and analyses required to design a project in a systematic and structured way, e.g. situation, stakeholder, problem and objective analyses.
The aspects to be addressed by the evaluation include inter alia the extent to which:

a) The situation, problem, need / gap was clearly identified, analysed and documented (evidence, references). The project design was based on a needs assessment
b) Stakeholder analysis was adequate (e.g. clear identification of end-users, beneficiaries, sponsors, partners, and clearly defined roles and responsibilities in the project(s)).
c) The project took into account and reflects national and local priorities and strategies
d) ISID-related issues and priorities were considered when designing the project
e) Relevant country representatives (from government, industries, gender groups, custom officers and civil society - including the GEF OFP for GEF projects), were appropriately involved and participated in the identification of critical problem areas and the development of technical cooperation strategies.

Project design quality assessment criteria derive from the logical framework approach (LFA) methodology, leading to the establishment of Log Frame Matrix (LFM) and the main elements of the project, i.e. overall objective, outcomes, outputs, to defining their causal relationship, as well as indicators, their means of verification and the assumptions. The evaluation will examine the extent to which:

f) The project's design were adequate to address the problems at hand;
g) The project had a clear thematically focused development objective;
h) The project outcome was clear, realistic, relevant, addressed the problem identified and provided a clear description of the benefit or improvement that will be achieved after project completion;
i) Outputs were clear, realistic, adequately leading to the achievement of the outcome;
j) The attainment of overall development objective, outcome and outputs can be determined by a set of SMART verifiable indicators;
k) The results hierarchy in the LFM, from activities to outputs, outcome and overall objective, is logical and consistent.
l) Verification and Assumptions were adequate, identifying important external factors and risks;
m) All GEF-4 and GEF-5 projects have incorporated relevant environmental and social considerations into the project design / GEF-6 projects have followed the provisions specified in UNIDO/DGAI.23: UNIDO Environmental and Social Safeguards Policies and Procedures (ESSPP).

B. Implementation Performance

Implementation assessment criteria to be applied are shown below and correspond to DAC criteria, as well as to good programme/project management practices.

a) Relevance and ownership

The evaluation will examine the extent to which the project is relevant to the:

i. National development and environmental priorities and strategies of the Government and the population, and regional and international agreements. See possible evaluation questions under “Country ownership/drivenness” below.
ii. Target groups: relevance of the project’s objectives, outcomes and outputs to the different target groups of the interventions (e.g. companies, civil society, beneficiaries of capacity building and training, etc.).
iii. GEF’s focal areas/operational programme strategies: In retrospect, were the project’s outcomes consistent with the GEF focal area(s)/operational program strategies? Ascertain the likely nature and significance of the contribution of the project outcomes to the wider portfolio of POPs.
iv. Does the project remain relevant taking into account the changing environment?

b) Effectiveness

i. Achievement of expected outcomes:
   - What outputs and outcomes has the project achieved so far (both qualitative and quantitative results)?
   - To what extent have the expected outcomes, outputs and long-term objectives been achieved or are likely to be achieved?
   - Has the project generated any results that could lead to changes of the assisted institutions?
   - Have there been any unplanned effects?
   - Are the project outcomes commensurate with the original or modified project objectives?
   - If the original or modified expected results were described as merely outputs/inputs, were there any real outcomes of the project and, if so, were these commensurate with realistic expectations from the project?
   - If there was a need to reformulate the project design and the project results framework given changes in the country and operational context, were such modifications properly documented?
ii. How do the stakeholders perceive the quality of outputs? Were the targeted beneficiary groups actually reached?
iii. Longer-term impact: Identify actual and/or potential longer-term impacts or at least indicate the steps taken to assess these (see also below “monitoring of long term changes”). Wherever possible, evaluators should indicate how findings on impacts will be reported in future.
iv. Catalytic or replication effects: Describe any catalytic or replication effects: the evaluation will describe any catalytic or replication effect both within and outside the project. If no effects are identified, the evaluation will describe the catalytic or replication actions that the project carried out. No ratings are requested for the project’s catalytic role.

c) Efficiency

The extent to which:

i. The project cost was effective? Was the project using the most cost-efficient options?
ii. Has the project produced results (outputs and outcomes) within the expected time frame? Was project implementation delayed, and, if it was, did that affect cost effectiveness or results? Wherever possible, the evaluator should also compare the costs incurred and the time taken to achieve outcomes with that for similar projects. Are the project’s activities in line with the schedule of activities as defined by the project team and annual work plans? Are the disbursements and project expenditures in line with budgets?
iii. Have the inputs from the donor, UNIDO and Government/counterpart been provided as planned, and were they adequate to meet the requirements? Was the quality of UNIDO inputs and services as planned and timely?

iv. Was there coordination with other UNIDO and other donors' projects, and did possible synergy effects happen?
v. Were there delays in project implementation and if so, what were their causes?

d) Assessment of risks to sustainability of project outcomes

Sustainability is understood as the likelihood of continued benefits after the GEF project ends. Assessment of sustainability of outcomes will be given special attention but also technical, financial and organization sustainability will be reviewed. This assessment should explain how the risks to project outcomes will affect continuation of benefits after the GEF project ends. It will include both exogenous and endogenous risks. The following four dimensions or aspects of risks to sustainability will be addressed:

i. **Financial risks**. Are there any financial risks that may jeopardize sustainability of project outcomes? What is the likelihood of financial and economic resources not being available once GEF assistance ends? (Such resources can be from multiple sources, such as the public and private sectors or income-generating activities; these can also include trends that indicate the likelihood that, in future, there will be adequate financial resources for sustaining project outcomes.) Was the project successful in identifying and leveraging co-financing?
ii. **Sociopolitical risks**. Are there any social or political risks that may jeopardize sustainability of project outcomes? What is the risk that the level of stakeholder ownership (including ownership by governments and other key stakeholders) will be insufficient to allow for the project outcomes/benefits to be sustained? Do the various key stakeholders see that it is in their interest that project benefits continue to flow? Is there sufficient public/stakeholder awareness in support of the project's long-term objectives?
iii. **Institutional framework and governance risks.** Do the legal frameworks, policies, and governance structures and processes within which the project operates pose risks that may jeopardize sustainability of project benefits? Are requisite systems for accountability and transparency and required technical know-how in place?
iv. **Environmental risks.** Are there any environmental risks that may jeopardize sustainability of project outcomes? Are there any environmental factors, positive or negative, that can influence the future flow of project benefits? Are there any project outputs or higher level results that are likely to have adverse environmental impacts, which, in turn, might affect sustainability of project benefits? The evaluation should assess whether certain activities will pose a threat to the sustainability of the project outcomes.

e) Assessment of monitoring and evaluation (M&E) systems

i. **M&E design.** Did the project have an M&E plan to monitor results and track progress towards achieving project objectives? The evaluation will assess whether the project met the minimum requirements for the application of the Project M&E plan (see Annex C).

ii. **M&E plan implementation.** The evaluation should verify that an M&E system was in place and facilitated timely tracking of progress toward project objectives by collecting information on chosen indicators continually throughout the project implementation period; annual project reports were complete and accurate, with well-justified ratings; the information provided by the M&E system was used during the project to improve performance and to adapt to changing needs; and the project had an M&E system in place with proper training for parties responsible for M&E activities to ensure that data will continue to be collected and used after project closure. Was monitoring and self-evaluation carried out effectively, based on indicators for outputs, outcomes and impacts? Are there any annual work plans? Was any steering or advisory mechanism put in place? Did reporting and performance reviews take place regularly?

iii. **Budgeting and Funding for M&E activities.** In addition to incorporating information on funding for M&E while assessing M&E design, the evaluators will determine whether M&E was sufficiently budgeted for at the project planning stage and whether M&E was adequately funded and in a timely manner during implementation.

f) Monitoring of long-term changes

The M&E of long-term changes is often incorporated in GEF-supported projects as a separate component and may include determination of environmental baselines; specification of indicators; and provisioning of equipment and capacity building for data gathering, analysis, and use. This section of the evaluation report will describe project actions and accomplishments towards establishing a long-term monitoring system. The evaluation will address the following questions:

i. Did the project contribute to the establishment of a long-term monitoring system? If it did not, should the project have included such a component?

ii. What were the accomplishments and shortcomings in establishment of this system?

iii. Is the system sustainable — that is, is it embedded in a proper institutional structure and does it have financing? How likely is it that this system continues operating upon project completion?

iv. Is the information generated by this system being used as originally intended?

g) Assessment of processes affecting achievement of project results

Among other factors, when relevant, the evaluation will consider a number of issues affecting project implementation and attainment of project results. The assessment of these issues can be integrated into the analyses of project design, relevance, effectiveness, efficiency, sustainability and management as the evaluators deem them appropriate (it is not necessary, however it is possible to have a separate chapter on these aspects in the evaluation report). The evaluation will consider, but need not be limited to, the following issues that may have affected project implementation and achievement of project results:

i. **Preparation and readiness / Quality at entry.** Were the project's objectives and components clear, practicable, and feasible within its time frame? Were counterpart resources (funding, staff, and facilities), and adequate project management arrangements in place at project entry? Were the capacities of executing institution and counterparts properly considered when the project was designed? Were lessons from other relevant projects properly incorporated in the project design? Were the partnership arrangements properly identified and the roles and responsibilities negotiated prior to project approval?

ii. **Country ownership/drivenness.** Was the project concept in line with the sectoral and development priorities and plans of the country—or of participating countries, in the case of multi-country projects? Are project outcomes contributing to national development priorities and plans? Were relevant country representatives from government and civil society involved in the project? Was the GEF OFP involved in the project design and implementation? Did the recipient government maintain its financial commitment to the project? Has the government—or governments in the case of multi-country projects—approved policies or regulatory frameworks in line with the project's objectives?

iii. **Stakeholder involvement and consultation.** Did the project involve the relevant stakeholders through continuous information sharing and consultation? Did the project implement appropriate outreach and public awareness campaigns? Were the relevant vulnerable groups and powerful supporters and opponents of the processes involved in a participatory and consultative manner? Which stakeholders were involved in the project (e.g., NGOs, private sector, other UN Agencies) and what were their immediate

tasks? Did the project consult with and make use of the skills, experience, and knowledge of the appropriate government entities, nongovernmental organizations, community groups, private sector entities, local governments, and academic institutions in the design, implementation, and evaluation of project activities? Were perspectives of those who would be affected by project decisions, those who could affect the outcomes, and those who could contribute information or other resources to the process taken into account while taking decisions?

iv. **Financial planning.** Did the project have appropriate financial controls, including reporting and planning, that allowed management to make informed decisions regarding the budget and allowed for timely flow of funds? Was there due diligence in the management of funds and financial audits? Did promised co-financing materialize? Specifically, the evaluation should also include a breakdown of final actual project costs by activities compared to budget (variances), financial management (including disbursement issues), and co-financing.

v. **UNIDO's supervision and backstopping.** Did UNIDO staff identify problems in a timely fashion and accurately estimate their seriousness? Did UNIDO staff provide quality support and advice to the project, approve modifications in time, and restructure the project when needed? Did UNIDO provide the right staffing levels, continuity, skill mix, and frequency of field visits for the project?

vi. **Co-financing and project outcomes and sustainability.** Did the project manage to mobilize the co-financing amount expected at the time of CEO Endorsement? If there was a difference in the level of expected co-financing and the co-financing actually mobilized, what were the reasons for the variance? Did the extent of materialization of co-financing affect project outcomes and/or sustainability, and, if so, in what ways and through what causal linkages?

vii. **Delays and project outcomes and sustainability.** If there were delays in project implementation and completion, what were the reasons? Did the delays affect project outcomes and/or sustainability, and, if so, in what ways and through what causal linkages?

viii. **Implementation and execution approach.** Is the implementation and execution approach chosen different from other implementation approaches applied by UNIDO and other agencies? Does the approach comply with the principles of the Paris Declaration? Is the implementation and execution approach in line with the GEF Minimum Fiduciary Standards: Separation of Implementation and Execution Functions in GEF Partner Agencies (GEF/C.41/06/Rev.01) and the relevant UNIDO regulations (DGAI.20 and Procurement Manual)? Does the approach promote local ownership and capacity building? Does the approach involve significant risks? In cases where Execution was done by third parties, i.e. Executing Partners, based on a contractual arrangement with UNIDO was this done in accordance with the contractual arrangement concluded with UNIDO in an effective and efficient manner?

ix. **Environmental and Social Safeguards.** If a GEF-5 project, has the project incorporated relevant environmental and social risk considerations into the project design? What impact did these risks have on the achievement of project results?

h) Project coordination and management

The extent to which:

i. The national management and overall coordination mechanisms have been efficient and effective? Did each partner have assigned roles and responsibilities from the beginning? Did each partner fulfil its role and responsibilities (e.g. providing strategic support, monitoring and reviewing performance, allocating funds, providing technical support, following up agreed/corrective actions)?

ii. The UNIDO HQ-based management, coordination, monitoring, quality control and technical inputs have been efficient, timely and effective (e.g. problems identified

timely and accurately; quality support provided timely and effectively; right staffing levels, continuity, skill mix and frequency of field visits)?

i) Assessment of gender mainstreaming

Gender mainstreaming assessment criteria are provided in the table below. Guidance on integrating gender is included in Annex D.

The evaluation will consider, but need not be limited to, the following issues that may have affected gender mainstreaming in the project:

- Did the project/programme design adequately consider the gender dimensions in its interventions? If so, how (at the level of project outcome, output or activity)?
- Was a gender analysis included in a baseline study or needs assessment (if any)?
- How gender-balanced was the composition of the project management team, the Steering Committee, experts and consultants and the beneficiaries?
- Have women and men benefited equally from the project's interventions? Do the results affect women and men differently? If so, why and how? How are the results likely to affect gender relations (e.g., division of labour, decision-making authority)?
- Are women/gender-focused groups, associations or gender units in partner organizations consulted/included in the project?
- To what extent were socioeconomic benefits delivered by the project at the national and local levels, including consideration of gender dimensions?

VII. Deliverables and Reporting

Inception report

These terms of reference (TOR) provide some information on the evaluation methodology, but this should not be regarded as exhaustive. After reviewing the project documentation and initial interviews with the project manager, the evaluation team will prepare a short inception report that will operationalize the TOR relating to the evaluation questions and provide information on what type of and how the evidence will be collected (methodology). It will be discussed with and approved by the responsible in the UNIDO Independent Evaluation Division.

The inception report will focus on the following elements: preliminary project theory model(s); elaboration of evaluation methodology including quantitative and qualitative approaches through an evaluation framework ("evaluation matrix"); division of work between the international evaluation consultants; mission plan, including places to be visited, people to be interviewed and possible surveys to be conducted and a debriefing and reporting timetable[35].

Evaluation report format and review procedures

The draft report will be delivered to UNIDO Independent Evaluation Division (the suggested report outline is in Annex A) and circulated to UNIDO staff, the GEF OFP, and national stakeholders associated with the project for factual validation and comments. Any comments or responses, or feedback on any errors of fact to the draft report provided by the stakeholders will be sent to UNIDO ODG/EVQ/IEV for collation and onward transmission to the project evaluation team who will be advised of any necessary revisions. On the basis of this feedback,

[35] The evaluator will be provided with a Guide on how to prepare an evaluation inception report prepared by the UNIDO Independent Evaluation Division.

and taking into consideration the comments received, the evaluation team will prepare the final version of the terminal evaluation report.

The evaluation team will present its preliminary findings to the national stakeholders at the end of the field visit and take into account their feed-back in preparing the evaluation report. A presentation of preliminary findings will take place at UNIDO HQ after the field mission.

The terminal evaluation report should be brief, to the point and easy to understand. It must explain the purpose of the evaluation, exactly what was evaluated, and the methods used. The report must highlight any methodological limitations, identify key concerns and present evidence-based findings, consequent conclusions, recommendations and lessons. The report should provide information on when the evaluation took place, the places visited, who was involved and be presented in a way that makes the information accessible and comprehensible. The report should include an executive summary that encapsulates the essence of the information contained in the report to facilitate dissemination and distillation of lessons.

Findings, conclusions and recommendations should be presented in a complete, logical and balanced manner. The evaluation report shall be written in English and follow the outline given in Annex A.

Evaluation work plan and deliverables

The "Evaluation Work Plan" includes the following main products/deliverables:

INCEPTION PHASE:

1. Desk review, briefing by project manager and development of methodology: Following the receipt of all relevant documents, and consultation with the Project Manager about the documentation, including reaching an agreement on the methodology, the desk review could be completed.
2. Inception report: At the time of departure to the field mission, all the received material has been reviewed and consolidated into the Inception report.

FIELD MISSION:

3. Field mission: The principal responsibility for managing this evaluation lies with UNIDO. It will be responsible for liaising with the project team to set up the stakeholder interviews, arrange the field missions, coordinate with the Government. At the end of the field mission, there will be a presentation of preliminary findings to the key stakeholders in the country where the project was implemented.
4. Preliminary findings from the field mission: Following the field mission, the main findings, conclusions and recommendations would be prepared and presented in the field and at UNIDO Headquarters.

REPORTING:

5. Data analysis/collation of the data/information collected
6. A draft terminal evaluation report will be forwarded electronically to the UNIDO Independent Evaluation Division and circulated to main stakeholders.
7. Final terminal evaluation report will incorporate comments received.

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VIII. Quality assurance

All UNIDO terminal evaluations are subject to quality assessments by the UNIDO Independent Evaluation Division. Quality assurance and control is exercised in different ways throughout the evaluation process (briefing of consultants on methodology and process by the UNIDO, ODG/EVQ/IEV, providing inputs regarding findings, lessons learned and recommendations from other UNIDO evaluations, review of inception report and evaluation report by UNIDO,

ODG/EVQ/IEV). The quality of the evaluation report will be assessed and rated against the criteria set forth in the Checklist on evaluation report quality, attached as Annex D. The applied evaluation quality assessment criteria are used as a tool to provide structured feedback. UNIDO, ODG/EVQ/IEV should ensure that the evaluation report is useful for UNIDO in terms of organizational learning (recommendations and lessons learned) and is compliant with UNIDO's evaluation policy and these terms of reference. The draft and final terminal evaluation report are reviewed by the UNIDO Independent Evaluation Division, which will submit the final report to the GEF Evaluation Office and circulate it within UNIDO together with a management response sheet.

Annex A: Outline of an in-depth project evaluation report

Executive summary

- Must provide a synopsis of the storyline which includes the main evaluation findings and recommendations
- Must present strengths and weaknesses of the project
- Must be self-explanatory and should be maximum 3-4 pages in length

I. Evaluation objectives, methodology and process

- Information on the evaluation: why, when, by whom, etc.
- Scope and objectives of the evaluation, main questions to be addressed
- Information sources and availability of information
- Methodological remarks, limitations encountered and validity of the findings

II. Country and project background

- Brief country context: an overview of the economy, the environment, institutional development, demographic and other data of relevance to the project
- Sector-specific issues of concern to the project[36] and important developments during the project implementation period
- Project summary:
  - Fact sheet of the project: including project objectives and structure, donors and counterparts, project timing and duration, project costs and co-financing
  - Brief description including history and previous cooperation
  - Project implementation arrangements and implementation modalities, institutions involved, major changes to project implementation
  - Positioning of the UNIDO project (other initiatives of Government, other donors, private sector, etc.)
  - Counterpart organization(s)

III. Project assessment

This is the key chapter of the report and should address all evaluation criteria and questions outlined in the TOR (see section VI - Project evaluation parameters). Assessment must be based on factual evidence collected and analyzed from different sources. The evaluators' assessment can be broken into the following sections:

A. Project identification and formulation
B. Project design
C. Implementation performance
   a) Relevance and ownership (report on the relevance of project towards countries and beneficiaries, country ownership, stakeholder involvement)
   b) Effectiveness (the extent to which the development intervention's objectives and deliverables were achieved, or are expected to be achieved, taking into account their relative importance)
   c) Efficiency (report on the overall cost-benefit of the project and partner countries' contribution to the achievement of project objectives)
   d) Likelihood of sustainability of project outcomes (report on the risks and vulnerability of the project, considering the likely effects of sociopolitical and institutional changes in partner countries, and its impact on continuation of benefits after the GEF project ends, specifically the financial, sociopolitical, institutional framework and governance, and environmental risks)
   e) Project coordination and management (Report on the project management conditions and achievements, and partner countries' commitment)

[36] Explicit and implicit assumptions in the logical framework of the project can provide insights into key-issues of concern (e.g., relevant legislation, enforcement capacities, government initiatives)

f) Assessment of monitoring and evaluation systems (report on M&E design, M&E plan implementation, and budgeting and funding for M&E activities)
g) Monitoring of long-term changes
h) Assessment of processes affecting achievement of project results (report on preparation and readiness / quality at entry, country ownership, stakeholder involvement, financial planning, UNIDO support, co-financing and project outcomes and sustainability, delays of project outcomes and sustainability, and implementation approach)

D. Gender mainstreaming

At the end of this chapter, an overall project achievement rating should be developed as required in Annex B. The overall rating table required by the GEF should be presented here.

IV. Conclusions, recommendations and lessons learned

This chapter can be divided into three sections:

A. Conclusions

This section should include a storyline of the main evaluation conclusions related to the project's achievements and shortfalls. It is important to avoid providing a summary based on each and every evaluation criterion. The main conclusions should be cross-referenced to relevant sections of the evaluation report.

B. Recommendations

This section should be succinct and contain few key recommendations. They should be:

- Based on evaluation findings
- Realistic and feasible within a project context
- Indicating institution(s) responsible for implementation (addressed to a specific officer, group or entity who can act on it) and have a proposed timeline for implementation if possible
- Commensurate with the available capacities of project team and partners
- Taking resource requirements into account.

Recommendations should be structured by addressees:

- UNIDO
- Government and/or counterpart organizations
- Donor

C. Lessons learned

- Lessons learned must be of wider applicability beyond the evaluated project but must be based on findings and conclusions of the evaluation
- For each lesson, the context from which they are derived should be briefly stated

Annexes should include the evaluation TOR, list of interviewees, documents reviewed, a summary of project identification and financial data, including an updated table of expenditures to date, and other detailed quantitative information. Dissident views or management responses to the evaluation findings may later be appended in an annex.

Annex B: Rating

RATING OF PROJECT OBJECTIVES AND RESULTS

- Highly satisfactory (HS): The project had no shortcomings in the achievement of its objectives, in terms of relevance, effectiveness or efficiency.
- Satisfactory (S): The project had minor shortcomings in the achievement of its objectives, in terms of relevance, effectiveness or efficiency.
- Moderately satisfactory (MS): The project had moderate shortcomings in the achievement of its objectives, in terms of relevance, effectiveness or efficiency.
- Moderately unsatisfactory (MU): The project had significant shortcomings in the achievement of its objectives, in terms of relevance, effectiveness or efficiency.
- Unsatisfactory (U) The project had major shortcomings in the achievement of its objectives, in terms of relevance, effectiveness or efficiency.
- Highly unsatisfactory (HU): The project had severe shortcomings in the achievement of its objectives, in terms of relevance, effectiveness or efficiency.

Please note: Relevance and effectiveness will be considered as critical criteria. The overall rating of the project for achievement of objectives and results **may not be higher** than the lowest rating on either of these two criteria. Thus, to have an overall satisfactory rating for outcomes a project must have at least satisfactory ratings on both relevance and effectiveness.

RATINGS ON SUSTAINABILITY

Sustainability will be understood as the probability of continued long-term outcomes and impacts after the GEF project funding ends. The evaluation will identify and assess the key conditions or factors that are likely to contribute or undermine the persistence of benefits beyond project completion. Some of these factors might be outcomes of the project, i.e. stronger institutional capacities, legal frameworks, socio-economic incentives /or public awareness. Other factors will include contextual circumstances or developments that are not outcomes of the project but that are relevant to the sustainability of outcomes.

Rating system for sustainability sub-criteria
On each of the dimensions of sustainability of the project outcomes will be rated as follows.

- Likely (L): There are no risks affecting this dimension of sustainability.
- Moderately likely (ML). There are moderate risks that affect this dimension of sustainability.
- Moderately unlikely (MU): There are significant risks that affect this dimension of sustainability.
- Unlikely (U): There are severe risks that affect this dimension of sustainability.

All the risk dimensions of sustainability are critical. Therefore, overall rating for sustainability will not be higher than the rating of the dimension with lowest ratings. For example, if a project has an Unlikely rating in either of the dimensions then its overall rating cannot be higher than Unlikely, regardless of whether higher ratings in other dimensions of sustainability produce a higher average.

RATINGS OF PROJECT M&E

Monitoring is a continuing function that uses systematic collection of data on specified indicators to provide management and the main stakeholders of an ongoing project with indications of the extent of progress and achievement of objectives and progress in the use of allocated funds. Evaluation is the systematic and objective assessment of an on-going or completed project, its design, implementation and results. Project evaluation may involve the definition of appropriate standards, the examination of performance against those standards, and an assessment of actual and expected results.

The Project M&E system will be rated on M&E design, M&E plan implementation and budgeting and funding for M&E activities as follows:

- Highly satisfactory (HS): There were no shortcomings in the project M&E system.
- Satisfactory(S): There were minor shortcomings in the project M&E system.
- Moderately satisfactory (MS): There were moderate shortcomings in the project M&E system.
- Moderately unsatisfactory (MU): There were significant shortcomings in the project M&E system.
- Unsatisfactory (U): There were major shortcomings in the project M&E system.
- Highly unsatisfactory (HU): The Project had no M&E system.

M&E plan implementation will be considered a critical parameter for the overall assessment of the M&E system. The overall rating for the M&E systems will not be higher than the rating on M&E plan implementation.

All other ratings will be on the GEF six-point scale:

HS = Highly satisfactory	Excellent
S = Satisfactory	Well above average
MS = Moderately satisfactory	Average
MU = Moderately unsatisfactory	Below average
U = Unsatisfactory	Poor
HU = Highly unsatisfactory	Very poor (appalling)

Annex C: GEF Minimum requirements for M&E[37]

Minimum requirement 1: Project design of M&E

All projects will include a concrete and fully budgeted M&E plan by the time of work program entry for full-sized projects (FSP) and CEO approval for medium-sized projects (MSP). This M&E plan will contain as a minimum:

- SMART indicators for project implementation, or, if no indicators are identified, an alternative plan for monitoring that will deliver reliable and valid information to management;
- SMART indicators for results (outcomes and, if applicable, impacts), and, where appropriate, indicators identified at the corporate level;
- Baseline for the project, with a description of the problem to be addressed, with indicator data, or, if major baseline indicators are not identified, an alternative plan for addressing this within one year of implementation;
- Identification of reviews and evaluations that will be undertaken, such as mid-term reviews or evaluations of activities; and
- Organizational set-up and budgets for monitoring and evaluation.

Minimum requirement 2: Application of project M&E

Project monitoring and supervision will include implementation of the M&E plan, comprising:

- SMART indicators for implementation are actively used, or if not, a reasonable explanation is provided;
- SMART indicators for results are actively used, or if not, a reasonable explanation is provided;
- The baseline for the project is fully established and data compiled to review progress reviews, and evaluations are undertaken as planned; and
- The organizational set-up for M&E is operational and budgets are spent as planned.

[37] http://www.thegef.org/gef/sites/thegef.org/files/documents/ME_Policy_2010.pdf

Annex D: Guidance on integrating gender in evaluations of UNIDO projects and programmes

A. Introduction

Gender equality is internationally recognized as a goal of development and is fundamental to sustainable growth and poverty reduction. The UNIDO Policy on gender equality and the empowerment of women and its addendum, issued respectively in April 2009 and May 2010 (UNIDO/DGB(M).110 and UNIDO/DGB(M).110/Add.1), provides the overall guidelines for establishing a gender mainstreaming strategy and action plans to guide the process of addressing gender issues in the Organization's industrial development interventions.

According to the UNIDO Policy on gender equality and the empowerment of women:

Gender equality refers to the equal rights, responsibilities and opportunities of women and men and girls and boys. Equality does not suggest that women and men become 'the same' but that women's and men's rights, responsibilities and opportunities do not depend on whether they are born male or female. Gender equality implies that the interests, needs and priorities of both women and men are taken into consideration, recognizing the diversity of different groups of women and men. It is therefore not a 'women's issues'. On the contrary, it concerns and should fully engage both men and women and is a precondition for, and an indicator of sustainable people-centered development.

Empowerment of women signifies women gaining power and control over their own lives. It involves awareness-raising, building of self-confidence, expansion of choices, increased access to and control over resources and actions to transform the structures and institutions which reinforce and perpetuate gender discriminations and inequality.

Gender parity signifies equal numbers of men and women at all levels of an institution or organization, particularly at senior and decision-making levels.

The UNIDO projects/programmes can be divided into two categories: 1) those where promotion of gender equality is one of the key aspects of the project/programme; and 2) those where there is limited or no attempted integration of gender. Evaluation managers/evaluators should select relevant questions depending on the type of interventions.

B. Gender responsive evaluation questions

The questions below will help evaluation managers/evaluators to mainstream gender issues in their evaluations.

B.1 Design

- Is the project/programme in line with the UNIDO and national policies on gender equality and the empowerment of women?
- Were gender issues identified at the design stage?
- Did the project/programme design adequately consider the gender dimensions in its interventions? If so, how?
- Were adequate resources (e.g., funds, staff time, methodology, experts) allocated to address gender concerns?
- To what extent were the needs and priorities of women, girls, boys and men reflected in the design?
- Was a gender analysis included in a baseline study or needs assessment (if any)?
- If the project/programme is people-centered, were target beneficiaries clearly identified and disaggregated by sex, age, race, ethnicity and socio-economic group?
- If the project/programme promotes gender equality and/or women's empowerment, was gender equality reflected in its objective/s? To what extent are output/outcome indicators gender disaggregated?

B.2 Implementation management

- Did project monitoring and self-evaluation collect and analyze gender disaggregated data?
- Were decisions and recommendations based on the analyses? If so, how?
- Were gender concerns reflected in the criteria to select beneficiaries? If so, how?
- How gender-balanced was the composition of the project management team, the Steering Committee, experts and consultants and the beneficiaries?
- If the project/programme promotes gender equality and/or women's empowerment, did the project/programme monitor, assess and report on its gender related objective/s?

B.3 Results

- Have women and men benefited equally from the project's interventions? Do the results affect women and men differently? If so, why and how? How are the results likely to affect gender relations (e.g., division of labour, decision making authority)?
- In the case of a project/programme with gender related objective/s, to what extent has the project/programme achieved the objective/s? To what extent has the project/programme reduced gender disparities and enhanced women's empowerment?

Annex E: Checklist on terminal evaluation report quality

Independent terminal evaluation of UNIDO-GEF project:
Project Title:
UNIDO Project No:
GEF ID:
Evaluation team leader:
Quality review done by:
Date:
CHECKLIST ON EVALUATION REPORT QUALITY

Report quality criteria	UNIDO ODG/EVQ/IEV assessment notes	Rating
A. Was the report well-structured and properly written? (Clear language, correct grammar, clear and logical structure)		
B. Was the evaluation objective clearly stated and the methodology appropriately defined?		
C. Did the report present an assessment of relevant outcomes and achievement of project objectives?		
D. Was the report consistent with the ToR and was the evidence complete and convincing?		
E. Did the report present a sound assessment of sustainability of outcomes or did it explain why this is not (yet) possible? (Including assessment of assumptions, risks and impact drivers)		
F. Did the evidence presented support the lessons and recommendations? Are these directly based on findings?		
G. Did the report include the actual project costs (total, per activity, per source)?		
H. Did the report include an assessment of the quality of both the M&E plan at entry and the system used during the implementation? Was the M&E sufficiently budgeted for during preparation and properly funded during implementation?		
I. Quality of the lessons: were lessons readily applicable in other contexts? Did they suggest prescriptive action?		
J. Quality of the recommendations: did recommendations specify the actions necessary to correct existing conditions or improve operations ('who?' 'what?' 'where?' 'when?'). Can these be immediately implemented with current resources?		
K. Are the main cross-cutting issues, such as gender, human rights and environment, appropriately covered?		
L. Was the report delivered in a timely manner? (Observance of deadlines)		

Rating system for quality of evaluation reports
A number rating 1-6 is used for each criterion: Highly satisfactory = 6, Satisfactory = 5, Moderately satisfactory = 4, Moderately unsatisfactory = 3, Unsatisfactory = 2, Highly unsatisfactory = 1, and unable to assess = 0.

Annex F: Required project identification and financial data

The evaluation report should provide information on project identification, time frame, actual expenditures, and co-financing in the following format, which is modeled after the project identification form (PIF).

I. Dates

Milestone	Expected date	Actual date
Project CEO endorsement/approval date		
Project implementation start date (PAD issuance date)		
Original expected implementation end date (indicated in CEO endorsement/approval document)		
Revised expected implementation end date (if any)		
Terminal evaluation completion		
Planned tracking tool date		

II. Project framework

Project component	**Activity type**	**GEF financing** (in USD)		**Co-financing** (in USD)	
		Approved	**Actual**	**Promised**	**Actual**
1.					
2.					
3.					
4.					
5.					
6. Project management					
Total (in USD)					

Activity types are:

i) Experts, researches hired
j) technical assistance, Workshop, Meetings or experts consultation scientific and technical analysis, experts researches hired
k) Promised co-financing refers to the amount indicated on endorsement/approval.

III. Co-financing

Source of co-financing (name of specific co-financiers)	**Type of co-financier** (e.g. government, GEF agency(ies), Bilateral and aid agency (ies), multilateral agency(ies), private sector, NGO/CSOs, other)	**Type of co-financing**	**Project preparation – CEO endorsement/ approval stage** (in USD)		**Project implementation stage** (in USD)		**Total** (in USD)	
			Expected	Actual	Expected	Actual	Expected	Actual
	…							
Total co-financing (in USD)								

Expected amounts are those submitted by the GEF agencies in the original project appraisal document. Co-financing types are grant, soft loan, hard loan, guarantee, in kind, or cash.

Annex G: Job descriptions

UNITED NATIONS INDUSTRIAL DEVELOPMENT ORGANIZATION

TERMS OF REFERENCE FOR PERSONNEL UNDER INDIVIDUAL SERVICE AGREEMENT (ISA)

Title:	International evaluation consultant, team leader
Main Duty Station and Location:	Home-based
Missions:	Missions to Vienna, Austria, Burkina Faso and Senegal
Start of Contract (EOD):	1 January, 2017
End of Contract (COB):	31 March, 2017
Number of Working Days:	25 working days spread over 3 months

1. ORGANIZATIONAL CONTEXT

The UNIDO Independent Evaluation Division (ODG/EVQ/IEV) is responsible for the independent evaluation function of UNIDO. It supports learning, continuous improvement and accountability, and provides factual information about result and practices that feed into the programmatic and strategic decision-making processes. Evaluation is an assessment, as systematic and impartial as possible, of a programme, a project or a theme. Independent evaluations provide evidence-based information that is credible, reliable and useful, enabling the timely incorporation of findings, recommendations and lessons learned into the decision-making processes at organization-wide, programme and project level. ODG/EVQ/IEV is guided by the UNIDO Evaluation Policy, which is aligned to the norms and standards for evaluation in the UN system.

2. PROJECT CONTEXT

This project aimed to support the Global Mercury Partnership by strengthening local and national capacity to effectively manage and reduce mercury use, emissions and exposure in artisanal gold mining communities. It is a regional project in Africa and participating countries are Senegal, Mali and Burkina Faso. The project aimed to assist the three governments to develop national strategic plans for sound mercury management in artisanal and small-scale gold mining (ASGM), and build the capacity of local and national stakeholders to implement successful mercury reduction/elimination projects.

Detailed background information of the project can be found the Terms of Reference (TORs) for the terminal evaluation.

3. DUTIES AND RESPONSIBILITIES

MAIN DUTIES	Concrete/ Measurable Outputs to be achieved	Working Days	Location
1. Review project documentation and relevant country background information (national policies and strategies, UN strategies and general economic data); determine key data to collect in the field and adjust the key data collection instrument of 3A accordingly (if needed); Assess the adequacy of legislative and regulatory framework relevant to the project's activities and analyze other background info.	• Adjust table of evaluation questions, depending on country specific context; • Draft list of stakeholders to interview during the field missions; • Brief assessment of the adequacy of the country's legislative and regulatory framework.	6 days	Home-based
2. Briefing with the UNIDO Independent Evaluation Division, project managers and other key stakeholders at UNIDO HQ. Preparation of the Inception Report	• Detailed evaluation schedule with tentative mission agenda (incl. list of stakeholders to interview and site visits); mission planning; • Division of evaluation tasks with the National Consultant. • Inception Report	2 days	Vienna
3. Conduct field mission to Burkina Faso and Senegal in **April 2017**[38]**.**	• Conduct meetings with relevant project stakeholders, beneficiaries, the GEF Operational Focal Point (OFP), etc. for the collection of data and clarifications; • Agreement with the National Consultant on the structure and content of the evaluation report and the distribution of writing tasks; • Evaluation presentation of the evaluation's initial findings prepared, draft conclusions and recommendations to stakeholders in the country, including the GEF OFP, at the end of the mission.	6 days	Burkina Faso and Senegal
4. Present overall findings and recommendations to the stakeholders at UNIDO HQ	• After field mission(s): Presentation slides, feedback from stakeholders obtained and discussed	2 days	Vienna, Austria

[38] The exact mission dates will be decided in agreement with the Consultant, UNIDO HQ, and the country counterparts.

MAIN DUTIES	Concrete/ Measurable Outputs to be achieved	Working Days	Location
5. Prepare the evaluation report, with inputs from the National Consultant, according to the TOR; Coordinate the inputs from the National Consultant and combine with her/his own inputs into the draft evaluation report. Share the evaluation report with UNIDO HQ and national stakeholders for feedback and comments.	• Draft evaluation report.	6 days	Home-based
6. Revise the draft project evaluation report based on comments from UNIDO Independent Evaluation Division and stakeholders and edit the language and form of the final version according to UNIDO standards.	• Final evaluation report.	3 days	Home-based
	TOTAL	**25 days**	

MINIMUM ORGANIZATIONAL REQUIREMENTS

Education:

Advanced degree in environment, energy, engineering, development studies or related areas

Technical and functional experience:

- Minimum of 10 years' experience in environmental/energy project management and/or evaluation (of development projects)
- Strong experience on environmental/energy and knowledge about GEF operational programs and strategies and about relevant GEF policies such as those on project life cycle, M&E, incremental costs, and fiduciary standards
- Experience in the evaluation of GEF projects and knowledge of UNIDO activities an asset
- Knowledge about multilateral technical cooperation and the UN, international development priorities and frameworks
- Working experience in developing countries

Languages:

Fluency in written and spoken English and French is required.

Reporting and deliverables

1) At the beginning of the assignment the Consultant will submit a concise Inception Report that will outline the general methodology and presents a concept Table of Contents;
2) The country assignment will have the following deliverables:
    - Presentation of initial findings of the mission to key national stakeholders;
    - Draft report;
    - Final report, comprising of executive summary, findings regarding design, implementation and results, conclusions and recommendations.

3) Debriefing at UNIDO HQ:
   - Presentation and discussion of findings;
   - Concise summary and comparative analysis of the main results of the evaluation report.

All reports and related documents must be in English and presented in electronic format.

Absence of conflict of interest:

According to UNIDO rules, the consultant must not have been involved in the design and/or implementation, supervision and coordination of and/or have benefited from the programme/project (or theme) under evaluation. The consultant will be requested to sign a declaration that none of the above situations exists and that the consultants will not seek assignments with the manager/s in charge of the project before the completion of her/his contract with the UNIDO Independent Evaluation Division.

UNITED NATIONS INDUSTRIAL DEVELOPMENT ORGANIZATION

TERMS OF REFERENCE FOR PERSONNEL UNDER INDIVIDUAL SERVICE AGREEMENT (ISA)

Title:	National evaluation consultant
Main Duty Station and Location:	Home-based
Mission/s to:	Travel to potential sites within Burkina Faso/Senegal
Start of Contract:	1 January 2017
End of Contract:	31 March 2017
Number of Working Days:	25 days spread over 3 months

ORGANIZATIONAL CONTEXT

The UNIDO Independent Evaluation Division is responsible for the independent evaluation function of UNIDO. It supports learning, continuous improvement and accountability, and provides factual information about result and practices that feed into the programmatic and strategic decision-making processes. Evaluation is an assessment, as systematic and impartial as possible, of a programme, a project or a theme. Independent evaluations provide evidence-based information that is credible, reliable and useful, enabling the timely incorporation of findings, recommendations and lessons learned into the decision-making processes at organization-wide, programme and project level. The UNIDO Independent Evaluation Division is guided by the UNIDO Evaluation Policy, which is aligned to the norms and standards for evaluation in the UN system.

PROJECT CONTEXT

The national evaluation consultant will evaluate the projects according to the terms of reference (TOR) under the leadership of the team leader (international evaluation consultant). S/he will perform the following tasks:

MAIN DUTIES	**Concrete/measurable outputs to be achieved**	**Expected duration**	**Location**
Review and analyze project documentation and relevant country background information (national policies and strategies, UN strategies and general economic data); in cooperation with the Team Leader: determine key data to collect in the field and prepare key instruments in both English and local language (questionnaires, logic models) to collect these data through interviews and/or surveys during and prior to the field	• List of detailed evaluation questions to be clarified; questionnaires/interview guide; logic models; list of key data to collect, draft list of stakeholders to interview during the field missions • Drafting and presentation of brief assessment of the	7 days	Home-based

MAIN DUTIES	**Concrete/measurable outputs to be achieved**	**Expected duration**	**Location**
missions; Coordinate and lead interviews/ surveys in local language and assist the team leader with translation where necessary; Analyze and assess the adequacy of legislative and regulatory framework, specifically in the context of the project's objectives and targets; provide analysis and advice to the team leader on existing and appropriate policies for input to the team leader.	adequacy of the country's legislative and regulatory framework in the context of the project.		
• Review all project outputs/ publications/feedback; • Briefing with the evaluation team leader, UNIDO project managers and other key stakeholders. • Coordinate the evaluation mission agenda, ensuring and setting up the required meetings with project partners and government counterparts, and organize and lead site visits, in close cooperation with the Project Management Unit. • Assist and provide detailed analysis and inputs to the team leader in the preparation of the inception report.	• Interview notes, detailed evaluation schedule and list of stakeholders to interview during the field missions. • Division of evaluation tasks with the Team Leader. • Inception Report.	6 days	Home-based (telephone interviews)
• Coordinate and conduct the field mission with the team leader in cooperation with the Project Management Unit, where required; • Consult with the team leader on the structure and content of the evaluation report and the distribution of writing tasks.	• Presentations of the evaluation's initial findings, draft conclusions and recommendations to stakeholders in the country at the end of the mission. • Agreement with the Team Leader on the structure and content of the evaluation report and the distribution of writing tasks.	6 days (including travel days)	Burkina Faso/Senegal
Prepare inputs and analysis to the evaluation report according to TOR and as agreed with the Team Leader.	Draft evaluation report prepared.	4 days	Home-based
Revise the draft project evaluation report based on comments from UNIDO Independent Evaluation Division and stakeholders and edit the language and form of the final version according to UNIDO standards.	Final evaluation report prepared.	2 days	Home-based
TOTAL		**25 days**	

REQUIRED COMPETENCIES

Core values:
1. Integrity
2. Professionalism
3. Respect for diversity

Core competencies:
1. Results orientation and accountability
2. Planning and organizing
3. Communication and trust
4. Team orientation
5. Client orientation
6. Organizational development and innovation

Managerial competencies (as applicable):
1. Strategy and direction
2. Managing people and performance
3. Judgement and decision making
4. Conflict resolution

MINIMUM ORGANIZATIONAL REQUIREMENTS

Education: Advanced university degree in environmental science, engineering or other relevant discipline like developmental studies with a specialization in industrial energy efficiency and/or climate change.

Technical and functional experience:

- Exposure to the needs, conditions and problems in developing countries.
- Familiarity with the institutional context of the project is desirable.
- Experience in the field of environment and energy, including evaluation of development cooperation in developing countries is an asset

Languages: Fluency in written and spoken English and French is required.

Absence of conflict of interest:

According to UNIDO rules, the consultant must not have been involved in the design and/or implementation, supervision and coordination of and/or have benefited from the programme/project (or theme) under evaluation. The consultant will be requested to sign a declaration that none of the above situations exists and that the consultants will not seek assignments with the manager/s in charge of the project before the completion of her/his contract with the UNIDO Independent Evaluation Division.

Annex H: Project results framework

HIERARCHY OF OBJECTIVES	BASELINE	TARGET	INDICATORS	MEANS OF VERIFICATION	ASSUMPTIONS
GOAL: Reduce the impacts of mercury on the environment and health of artisanal gold mining communities by promoting sound chemical management.					
PROJECT DEVELOPMENT OBJECTIVE: Strengthen local and national capacity to effectively manage and reduce mercury use, emissions and exposure in artisanal/small-scale gold mining (ASGM) communities in Burkina Faso, Mali and Senegal	Some local and national capacity exists in Senegal but needs to be strengthened in order to effectively manage mercury in ASGM and reduce emissions. Little or no capacity exists in the other two countries.	Local and national stakeholders have a good understanding of the scope of ASGM in their countries. National ASGM strategy action plans are implemented with relevant government agencies in all three countries. Pilot projects significantly reduce mercury use and emissions at pilot sites.	Policy-makers and trained technical experts can serve as leaders for project replication in the Region.	Online Global Inventory Database. Draft plans. Progress and monitoring reports.	
OUTCOME 1: National Strategy Action Plans are utilized for developing policy framework in Burkina Faso, Mali, and Senegal	No national strategy action plans have been implemented in the three countries.	Success implementation of national ASGM strategy action plans are executed in each country.	Policy framework is developed in three countries to effectively manage mercury	List of roles and responsibilities, Implementation schedule.	Local and national stakeholders willing to take on roles and responsibilities.
Output 1.1 Scope of ASGM in the three countries evaluated and better understood	Understanding of scope of ASGM in the three countries is poor. Comprehensive data does not exist.	Inventory expanded to include about 50 sites in the three countries. Three ASGM country reports completed. Scope of ASGM in the three countries better understood.	Number of ASGM sites in the inventory for each country, with estimates of people impacted. Number of country reports completed.	Online Global Inventory Database. Project progress and monitoring reports.	Government and ASGM communities provide continuous support for project activities.
Output 1.2 National strategy action plans to promote sound management of mercury in ASGM developed in all three countries	Some, but not sufficient, effort was made in 2010 to develop national ASGM strategy plans in all three countries.	National ASGM strategy action plans developed with relevant government agencies in each country. Plans include priorities for implementation of site projects.	Number of national strategy action plans drafted.	Draft plans. Meeting minutes. Progress and monitoring reports.	Political will and interest to address management of mercury in ASGM will continue.

OUTCOME 2: PILOT PROJECTS ARE REPLICABLE AND KNOWLEDGE GAINED FROM HEALTH AND TECHNOLOGY TRAININGS CAN BE ADOPTED AND BEHAVIOR CHANGED	No pilot projects and health/technology trainings have been conducted in Burkina Faso and Mali.	Successfully conducted at least one pilot project in each country and raise awareness over the risks and proper management techniques of mercury.	Behavior changed and proper management of mercury at mining sites executed	Progress and monitoring reports, hospital visits, number of death due to mercury poisoning	Technical staff and other stakeholders willing to learn and adopt new behavior and mercury management techniques
Output 2.1 Comprehensive health education and technology training programs to reduce/eliminate mercury are developed	Health education and training conducted in a pilot project in Senegal has successfully transferred knowledge and low-mercury or mercury free locally built technology to local stakeholders.	Health education programs successfully raise awareness of local/national stakeholders and promote behavior change. Training programs equip local and national stakeholders with technical knowledge and tools to reduce mercury use.	Number of materials/manuals produced.	Materials and manual drafts, final products. Progress and monitoring reports.	Pilot project health education and technology training experience and materials can be converted into comprehensive training programs.
Output 2.2 Mercury reduction/ elimination pilot projects are implemented in Burkina Faso and Mali, and expanded in Senegal with local and national stakeholders. Overall mercury use, emissions and exposure are reduced in pilot sites.	A mercury reduction/ elimination pilot project in Senegal has been conducted successfully. Mercury use, emissions and exposure have been reduced, and pilot can be used as a model.	At least one pilot project successfully implemented by local and national stakeholders in Burkina Faso and Mali. Senegal project expanded to additional communities. Measurable reduction of at least 50% in mercury use and emissions at pilot sites.	Number of pilot projects implemented. Number of stakeholder meetings. Number of communities and trainers trained. Number of workshops conducted. Changes in mercury use, emissions and exposure, of at least 50%. Rate of low mercury and mercury free technology usage.	Progress and monitoring reports. Stakeholder group meeting minutes. Before and after surveys indicating changes in behavior/ knowledge. Workshop attendance.	Local and national stakeholders are receptive to health education and training programs. Local communities willing to adopt new technologies that reduce mercury use and health risk, and are economically viable. Technical expertise is available to measure accurately.
OUTCOME 3: CAPACITY TO MANAGE AND MONITOR MERCURY INCREASED THROUGH FAIR TRADE	No system in place to monitor mercury use, emissions, and exposure. No Fair Trade Certification	Effective monitoring of mercury use, emissions, and exposure levels at all three countries.	Number of certified fair trade mining sites and number of new regulations for mercury in each	Support for certified fair trade mining sites, enforcement of new regulations	Policy makers and other stakeholders are cooperative and willing to work together to promote

CERTIFICATION AND NEW REGULATIONS	in the three countries. No national policies in place to effectively manage mercury.	Introduce Fair Trade Certification in all three countries. Lessons learned contribute to policy making.	country		fair trade certification and adopt new regulations for mercury management
Output 3.1 Opportunity for fair trade certification assessed at pilot sites and application for certification developed in selected pilot projects.	No fair trade applications have been awarded in the region.	At least one pilot project per country will be evaluated for fair trade certification opportunities, and applications for certification developed and submitted.	Drafts of reports. Draft of certification applications.	Number of pilot sites assessed. Number of pilot sites eligible. List of actions needed to comply with certification requirements. Number of certification applications developed and submitted.	Fair trade certification schemes are relevant and applicable to pilot projects in the three countries.
Output 3.2 Lessons learned from pilot projects feed back into the national strategy action plans and inform national policies/ regulations on sound management of mercury.	Lessons learned from the Senegalese pilot project are available to inform additional projects, but insufficient to inform national plans/policies.	Site projects results in interesting and valuable lessons learned which are documented and presented to policy-makers to inform national policy on mercury and revise national strategy action plans in each country.	List of lessons learned. Number of recommendations resulting from pilot projects.	Lessons learned report. List of recommendations for effective implementation and enforceable regulations.	Pilot project results are significant, successful and of interest to policy-makers.

Annex 2: List of documents consulted

1.	Project Document
2.	PIR for the period:1 July 2014 – 30 June 2015
3.	PIR for the period: 1 July 2015 – 30 June 2016
4.	Progress report AGC: May 2012 – June 2013
5.	Progress report AGC: June – Dec 2013
6.	Progress report AGC: Jan – Jun 2014
7.	AGC – Final report on Health Component - 2014
8.	AGC Annual Progress Report 2014
9.	AGC - Senegal – Health Component - Progress report Jan - November 2014
10.	Activites realisees par AGC au Burkina Faso
11.	AGC – 2014 update of activities in Senegal
12.	Final Report on training on mercury free method by Telmer
13.	Guide-Health-2014-Problemes de sante-FR-Annex 2
14.	Guide-Health-2014-Retort guide - Annex 3
15.	Guide-Health-2015-LA SANTE DANS LORPAILLAGE-FRENCH
16.	Guide-Health-ASGM-ENG
17.	2 Progress reports of national technical expert for Senegal
18.	Rapport d'activites mai-septembre 2015 au Senegal Cherif Sow
19.	Rapport mission Gombeledougou - Watta Ouedraogo
20.	Minutes of 3rd, 4th, 5th and 6th national PSC meetings of Senegal
21.	Minutes of 3rd and 4th (last) regional PSC meetings
22.	Copy of contract for AGC
23.	Job description for health education training expert

Annex 3: List of persons interviewed

Name	Position	Date / Time	Venue	Email
STUCKI, Jerome	Project Manager, UNIDO	12 December 2016 10H00 – 11H00	Vienna	J.STUCKI@unido.org
Senegal		**5 April 2017**		
TOURE Aminata	Assistant Professor in the Faculty of Medicine, Pharmacy and Dentistry of Dakar and head of the Subcommittee on Toxicovigilance at the National Commission for the Management of Chemicals in Senegal, Member of PSC	10H00-12H00	University of Cheikh Anta Diop, Dakar	amitoure@yahoo.fr
SARR Alioune	Advisor to the Minister of Mines-Ex Head of Division for Monitoring and Facilitation of Mining Projects and is a member of the Steering Committee, a member of the PSC	12H00-14H00	Direction des mines, Dakar	badoucoumba@yahoo.fr
SECK Aita	Head of the Division for the Prevention and Control of Pollution and Nuisance in the Directorate for the Environment and Classified Establishments - Permanent Secretary of the Chemicals Management Commission, NPC	16H00-18H00	Direction de l'environnement et des établissements classés, Dakar	aitasec@yahoo.fr
		7 April 2017		
KEITA Kassa	President of Foubhaba GIE	10H00-12H00	Kédougou-Bantaco	
DANFAKHA Sambou	Secretary of Foubhaba GIE	10H00-12H00	Kédougou-Bantaco	
SAMOURA Fode	Responsible person of the system at the project site	12H00-14H00	Kédougou-Bantaco	
DRAME Mamadou	President of small scale miners' association, and Deputy Mayor of Tomboroncoto	14H00-15H30	Kédougou - Tomboroncoto	
SOW Cherif	Project Manager of AGC Program in West Africa, NTE	16H00-19H00	Kédougou	sowcherife@yahoo.fr

Name	Position	Date / Time	Venue	Email
Burkina Faso		**10 April 2017**		
OUEDRAOGO Watta	Director of Prevention, Pollution and Environmental Risks, Ministry of environment, NPC	10H00-12H00	Ouagadougou-Burkina Faso	ouedwata@yahoo.fr
BARO Roger	Directeur de la promotion de l'éducation environnementale et de l'écocitoyenneté, NTE	10H00-12H00	Ouagadougou-Burkina Faso	baro.roger@gmail.com
DABIRE Patrice	Ex Director of Artisanal and Semi-mechanized Mines, focal point of the project to the ministry of mines, member of PSC	12H00-14H00	Ouagadougou-Burkina Faso	dabpatrice@yahoo.fr
BA Safyatou	Operation Chief, UNIDO country office in Burkina Faso	14H00-15H30	Ouagadougou-Burkina Faso	s.ba@unido.org
		11 April 2017		
OUEDRAOGO Issa	Owner of the pilot site	10H00-12H00	Ouagadougou-Burkina Faso	
SKYPE interviews				
BERNAUDAT, Ludovic	Project Manager, UNIDO	2 May 2017	13H00 – 13H45	Ludovic.Bernaudat@unep.org
TELMER Kevin	Project Manager, AGC	27 May 2017	23h00 – 00H00	ktelmer@artisanalgold.org
RICHARD Myrianne	Health education expert, AGC	8 June 2017	19h00 – 19H30	myrianne.richard@gmail.com