

Towards a better understanding of the Amazon Aquifer Systems for its protection and sustainable management

Review PIF and Make a recommendation

Basic project information

GEF ID

11108

Countries

Regional (Bolivia, Brazil, Colombia, Ecuador, Guyana, Peru, Suriname, Venezuela) **Project Name**

Towards a better understanding of the Amazon Aquifer Systems for its protection and sustainable management

Agencies

UNEP, IADB

Date received by PM

4/10/2023

Review completed by PM

4/20/2023

Program Manager

Taylor Henshaw

Focal Area

International Waters

Project Type

FSP

GEF-8 PROJECT IDENTIFICATION FORM (PIF) REVIEW SHEET

- 1. General Project Information / Eligibility
- a) Does the project meet the criteria for eligibility for GEF funding?
- b) Is the General Project Information table correctly populated?

Secretariat's Comments 21st of April 2023 (thenshaw):

GEF ITS has fixed the portal formatting.

- (a) Yes
- (b) Partly, please address the following:
- (1) The ratio of GEF financing to co-financing is 1:2, which is well below the GEF Co-Financing Policy target of 1:7. Please secure additional co-financing to bring this ratio closer to the 1:7 mark. Consider co-financing from ACTO, GEF Agencies, and other key actors/stakeholders that constitute the project baseline per GEF incremental cost reasoning.
- (2) Please adjust the GEF Project Grant figure down to a level commensurate with indicative project co-financing (see comment 1 above). Please adjust the fees and secure new LOEs (in the new GEF-8 format) accordingly.
- (3) Please explain in the review sheet the need for two Implementing Agencies, as well as how the two IAs will coordinate IA tasks.

15th of May 2023 (thenshaw):

(1) Addressed.

(2) Partly addressed. LOE from Brazil includes an error in the finance table. Focal Area Source must be IW. Please secure a new letter and upload to the portal

			Amount (in US\$)					
Source of Funds	GEF Agency	Focal Area Source	GEF Project Financing	GEF Project Financing Agency Fee	Project Preparation Grant (PPG)	Project Preparation Grant (PPG) Agency Fee	Total	
GEF TF	UNEP	BD STAR Allocation	6,865,349	617,881	153,000	13,770	7,650,000	
GEF TF	IADB	STAR IP Matching Incentives	6,596,119	593,651	147,000	13,230	7,350,000	
Total GEF Resources		13,461,468	1,211,532	300,000	27,000	15.000.000		

(3) Addressed.

16th of May 2023 (thenshaw):

(2) Addressed.

Agency's Comments Agencies' Comments 28 April 2023

- (1) The co-financing ratio has been increased to 1:9 with a revised total co-financing amount of USD 131 M. Consequently, the indicative co-financing table in Annex A has been adjusted including a description on how the investments were mobilized.
- (2) In conversations with the GEF Sec, it was agreed that the GEF Project Grant would be reduced to USD 15M inclusive of fees and PPG. The PIF was revised accordingly and the LoEs following the GEF-8 template were resecured.
- (3) a) It is believed that a partnership between IDB and UNEP is very well suited to address the challenges associated with advancing transboundary cooperation and coordinated management of the Amazon Aquifer System. UNEP, whose core mandate is the environment, generally supports normative work and transboundary cooperation and has historically been supporting the design of TDA/SAPs in large watershed in the Americas, while IADB brings innovative financing mechanisms, investment planning strengths and on-the-ground project development expertise. Moreover, IADB contributes with the experience, knowledge and lessons learned in the region, especially from its Amazon Coordination Unit and its recently structured Amazon Bioeconomy Fund (GCF funded) as well as the experience in designing and implementing both technical cooperation and investment loans in the eight riparian countries through a cross-sector policy dialogue at both national and subnational levels. In addition, the IADB has an ongoing water sector portfolio with OTCA, through which it is strengthening the countries? institutional and technical capacities via technical assistance support while facilitating access to additional concessional lending resources for program implementation (i.e. a GCF funded proposal for Water Security and Resilience in the Amazon Basin, currently moving forward to Funding Proposal design). This collaboration will help oversee the formulation of a robust SAP with a portfolio of prioritized bankable multisector investments for the region, in alignment with regional and national investment plans and

priorities. In order to optimize and maximize the impact of the SAP and fast track investments such partnership is needed at the SAP formulation stage. Engagement with IFIs once the SAP is formulated while much less efficient will also cause delays in investments. This blended approach of intimately involving an IFI from the initial TDA/SAP planning stage has also been considered the preferred approach to help elevate the traditional TDA/SAP process. Generally, the SAP is a classic strategic document with lines of intervention and general budgets. This project will deliver a robust multisectoral master plan with a prioritized bankable portfolio focused on groundwater, thereby offering countries a fast-track process to secure investments.

UNEP and IDB have had a historical successful relationship initiated on wastewater management through the CREW, continued in the Pantanal as well as in the UNEP/GEF Trifinio project, supporting the design and capitalization of the first transboundary Water Fund.

b) While the implementing agencies will work collaboratively, the project will be executed by one single Executing Agency? ACTO-, thereby enhancing coordination. For accountability, there will be a split of responsibility per component. The specific roles will be further defined during the PPG phase as activities are further developed, assigning tasks according to the expertise and strengths of each agency.

2. Project Summary

Does the project summary concisely describe the problem to be addressed, the project objective and the strategies to deliver the GEBs or adaptation benefits and other key expected results?

Secretariat's Comments

21st of April 2023 (thenshaw): Partly, please address the following:

- (1) A TDA-SAP for the Amazon was already supported with GEF funding. Please explain why another TDA-SAP is being proposed when the current one could be updated. Please explain why an integrating/updating of the current TDA-SAP as a single project approach that combines Components 1 and 4 (with an appropriately reduced budget) is not a better alternative.
- (2) Please recast the project summary to include the barriers to be addressed and briefly summarize the project outcomes and outputs under the project that will address the barriers. How is this investment transformative? Importantly, please include all GEBs in the summary. A \$6M GEF investment and \$14M in co-financing for Component 3 pilots to deliver only 2,450 ha of landscapes under improved practices (which is not included in the summary) seems quite low. Here in the review sheet, please explain why the pilots are not more targeted toward the Core Indicators (or explain how they are).
- (3) Core Indicator 11 on Direct beneficiaries. The number is very large. Please review the number to ensure it includes only direct beneficiaries. Pages 24-25 of the GEF-8 Results Measurement Framework Guidelines (GEF/C.62/Inf.12/Rev.01) provide examples of what might be counted as direct beneficiary.

15th of May 2023 (thenshaw):

- (1) Addressed.
- (2) Addressed.
- (3) Not fully addressed. Please justify the high number of direct beneficiaries through an evaluation against the criteria on pages 24-27 here. Please describe this in the core indicator field and here in the review sheet.

https://gef9.extcc.com/sites/default/files/documents/2022-06/EN_GEF_C.62.Inf_.12.Rev_.01_GEF-8%20Results%20Measurement%20Framework%20Guidelines%20%28003%29.pdf

Details: This indicator captures the number of individual people who receive targeted support or assistance from a given GEF-financed project or program and/or who use the specific resources that the project maintains or enhances. Direct beneficiaries are all individuals receiving either³⁹:

- Targeted support. This includes individuals whom can be identified as receiving direct support or assistance, can be counted individually and are aware they are receiving support in some sort and/or use the specific resources. This implies a high degree of attribution to the project.
- **High intensity of support.** This means receiving a high level of support/effort provided per person, assessed on a continuum with broad levels from Low to Medium and High, where only high intensity of support qualifies as direct beneficiary as per Table 1.

Table 1. Direct beneficiaries receive a high intensity of support

High intensity Direct beneficiary	Medium intensity Not a direct beneficiary	Low intensity Not a direct beneficiary				
Conserving & sustainably using biodiversity						
People working in a strengthened agency managing a protected area	People with access to protected areas	People living in a community where other members have been receiving training services by the project				
Sustainably managing and restoring land						
People receiving training on climate-smart agriculture	People provided with access to information on sustainable forest management	People living within a land or water area targeted by a management plan supported by the project				
Reducing GHG emissions						
People provided with access to clean energy or receiving payment for avoided emissions	People made aware of electric mobility opportunities	People living within an administrative area of an institution targeted by the project				
Strengthening transboundary water management						
People working in an organization responsible for facilitating transboundary water management	People whose livelihoods depend on area being placed in sustainable fishery management	People living within a river basin subject to a water resources management plan				
Reducing chemicals & waste						
People working as a miner who received training on creating a sustainable mining operation	People who consume crops grown without hazardous pesticides	People living within an administrative area of an institution targeted by the project				

Further considerations in identifying the direct number of beneficiaries include:

• Professional judgement should be applied when identifying direct beneficiaries in instances where it may be challenging to assign the appropriate level of intensity.

- In case data is available by households, Agencies may estimate the number of individual direct beneficiaries by using local or national data on household size.
- Direct beneficiaries should be counted only once if several activities of the same project support the same person in different ways.
- Disaggregation by male and female should be grounded on actual data to the extent possible, rather than estimated.

16th of May 2023 (thenshaw):

(3) Addressed.

Agency's Comments Agencies' Comments 28 April 2023

- (1) a) The existing TDA/SAP (GEF ID 9770) focuses on the watershed and remains at a macrolevel, lacking quantification of the TDA issues including details about the response measure in the SAP. It scantily refers to groundwater pollution and access issues as part of the 9 TDA priority transboundary issues, and generally calls for developing a coordinated groundwater use and a protection program for public supply in the Amazon Region. Both documents, endorsed at the ministerial level, only cover those matters very superficially due to the lack of data and information. Indeed, as stated in the PIF, several studies ((Frappart, y otros, 2019) (Fan & Miguez-Macho, 2010) (Ferreira, Custodio, & Cardoso, 2016) (Miguez-Macho & Fan, 2012) (Pokhrel, Fan, Miguez-Macho, Yeh, & Han, 2013) (Pfeffer, 2014) (Lin, 2015) (Porter, Kendall, Coe, & Hyndman, 2020)) also suggest that groundwater in the Amazon basin plays a major role in the hydrological and ecological cycles, but to understand better these relationships and better manage this transboundary resource, in response to an altered climate and landscape, more studies are required ((Frappart, y otros, 2019) (Porter, Kendall, Coe, & Hyndman, 2020) (Miguez-Macho & Fan, 2012)). The AAS TDA/SAP will serve as the deep dive into the groundwater ?chapter? of the update watershed TDA/SAP contemplated in the GEF IW project (9770).
- b) The focus of the proposed project will be on understanding the aquifer system, consolidating and expanding the current knowledge base, as per component 1 (TDA), and testing potential management and remedial approaches as per component 3 (Pilots) to inform the design of a groundwater SAP (component 4), hence the separation of components with the culmination of all the components information into component 4 with a SAP and its investment portfolio. As such component 4 is best kept as a standalone component focusing on the SAP formulation and its socialization to ensure endorsement at the ministerial level including the development of a financial strategy and an investment portfolio to ensure sustainability.
- (2) The summary has been recast accordingly, including barriers, outcomes and GEBs, however exceeding the word limit. As described in the Theory of Change, this investment is considered transformative. It will deliver significant changes and global environment benefits at a regional scale in an area of global environmental concern such as the Amazon Region. As

per STAP guidance on transformation[1]¹, the project will: 1) work with sectoral institutions strengthening their capacity for change, for example, the Geological Service of Brazil (Component 5); 2) enhance regional groundwater governance (Component 4), identify and assess policy gaps (Component 2); 3) promote multi-stakeholder dialogues (national, subnational, sectoral agencies, etc.); 4) promote innovation and learning through the pilots and 5) develop an action plan to leverage investments.

The series of pilots are indicative at this stage and will be further developed with quantified information during PPG. Hence, at this stage, given that the project is funded by IW, in the absence of more specific information, potential co-benefits and contributions to Core Indicator 4 on landscapes under improved practices were estimated very conservatively.

(3) As explained below the core indicators table, Core indicator 11 was indeed estimated based on the number of direct beneficiaries considering direct beneficiaries as those people living in areas where pilot projects are planned to take place. However, estimated values were revised and adjusted in the PIF. A more detailed assessment of the Core Indicators will be conducted during the project preparation phase when specific areas and activities are made more explicit.

Agencies' Comments 16 May 2023

(3) Following https://gef9.extcc.com/sites/default/files/documents/2022-06/EN GEF C.62.Inf .12.Rev .01 GEF-

8%20Results%20Measurement%20Framework%20Guidelines%20%28003%29.pdf guidance, we have revised the total beneficiaries number to strictly cover the high intensity direct beneficiaries within national and local government agencies as well the ACTO who will be directly impacted by the improved ground water management practices engendered through this project. We have accounted for an average of 30 people within national and sub-national government organizations as well as 250 persons within the pilot related national executing agencies. The revised figure also includes 15 staffers at ACTO. Hence the new direct beneficiaries total is 2,255.

[1] Based on https://stapgef.org/sites/default/files/2022-11/STAP Achieving%20Transformation web.pdf

3 Indicative Project Overview

3.1 a) Is the project objective presented as a concise statement and clear?

b) Are the components, outcomes and outputs sound, appropriate and sufficiently clear to achieve the project objective and the core indicators per the stated Theory of Change?

Secretariat's Comments 21st of April 2023 (thenshaw): Partly

- (1) Please explain how past evaluations and implementation reports of the past GEF IW Amazon projects (ID 2364 and 9770) have been incorporated into the design of this proposal.
- (2) Please sharpen the objective. The syntax is slightly off.
- (3) Please explain why Outputs 2.4 (road map) and 2.5 (documented framework) only focus on Suriname and Guyana and not the other project countries.
- (4) The proposal calls for \$8.8M in GEF-financed studies for an aquifer system that is somewhat well studied. Please upload a visual diagram with accompanying text to explain what the proposed studies are, how they build on one another and on existing studies, and how they feed into strengthening regional governance and enhancing water security in the region. In other words, why are they each necessary for transformative change? Please consider uploading the proposal consultation reports that cover the discussions that led to the inclusion of the selected studies in this proposal. It would also be helpful to also understand the indicative cost of each study.
- (5) For Component 3, it seems logical to include an output that consolidates and scales the pilot testing results. Please consider adding or please explain how the pilots will be otherwise scaled.
- (6) Please explain why some pilots are national and not all multi-country. Pilot (vii) does not have an identified geography. Please explain why. Please also explain how the pilots were selected. Were they selected strategically? What is the sum of these pilot parts? How will they be sustained?
- (7) M&E in the table must also be associated with an outcome and outputs. Please revise

accordingly.	
15th of May 2023 (thenshaw):	
(1) Addressed.	
(2) Addressed.	
(3) Addressed.	
(4) Addressed.	
(5) Addressed.	
(6) Addressed.	

(7) Addressed.

Agency's Comments Agencies' Comments 28 April 2023

- (1) Project ID 2364 formulated the watershed TDA and SAP and project ID 9770 is looking into initiating SAP implementation. The proposed AAS project will facilitate implementation of the SAP and its broad-based groundwater directives by developing a specific action agenda on groundwater (GW SAP) as well as a robust quantified TDA (GW TDA). It is thus a direct response to those two projects. The proposed PIF intends to capitalize on the ground water information and lessons learned from the Amazon SAP implementation project and will build on tools developed in the previous projects, such as the Amazon Regional Observatory.
- (2) The objective statement has been finessed.
- (3) Guyana and Suriname are comparatively less advanced in terms of groundwater management and need specific dedicated attention as captured in those two outputs. Given the reduced funding, these two countries have been combined as a new output 2.4. Moreover, proposed activities reflect countries? priorities identified during the development of the PIF in the consultation instances.
- (4) As stated in the PIF in the project rationale section, the major impediment to advancing sustainable management of the aquifer is the lack of quantified information on its geographical scale, its hydrogeological dynamic (including the dynamics among surface and groundwater supporting aquifer recharge and the aquifer eco-hydrologic functionalities) and the extent of its transboundary nature. Groundwater in the Amazon region is threatened mainly by uncontrolled exploitation, pollution (from urban settlements and economic activities), and climate change effects all affecting aquifer levels, recharge patterns and changes in groundwater regimes. The lack of understanding of these complex climate-ecological-socioeconomic vulnerabilities of the aquifer system is the major challenge for water security for many urban areas and communities within the Amazon system who rely on groundwater resources for water supply. The lack of access to safe water supply and sanitation services has been exacerbated by climate change and global crisis as proven during the COVID -19 pandemic. A flow diagram showing the linkages between the components and how the studies feed into the TDA has been added (figure 3 in the PIF). Additional information on the consultation process with 15 communications to member countries, 2 regional workshops and a bi-lateral meetings (more than 5 per country) has been included as Appendix 2 (Details of stakeholder engagement participation mechanisms). However, the consultation reports are all in Spanish or Portuguese and too many for uploading. Such documents are considered working papers, containing strategic country information, not initially prepared for disclosure. Finally, costings were estimated on the basis of past similar studies done in Brazil, inputs from countries and generic proforma information and will be further refined during PPG.
- (5) As per the TDA/ SAP approach, lessons learned from the implementation of the pilots, which will test at a small-scale, costs and feasibility of remedial measures and innovative solutions, are upscaled into the SAP facilitating the design of a strategic agenda of action grounded in field practical hands- on type experience.
- (6) While extensively discussed with countries and based on guidance shared by the IAs, at this stage, the list is indicative and will be further revised during PPG, especially given the reduced level of funding. While pilots are generally transboundary (for instance, pilots i, iv, vi, viii), given the extent of the Aquifer, testing innovative solutions can also be done nationally for further replication and upscaling in similar environments. The current list is meant to address a series of known problems such as on governance, management, access

to safe drinking water, aquifer recharge, pollution, etc. As incubators of solutions, in addition to the small-scale interventions under project 9770, they will provide a sizeable and representative body of work to support the formulation of the SAP. Sustainability and upscaling will be ensured, as described above, through SAP implementation. Pilot (vii) will take place in Suriname, presumably in 2 small indigenous border communities.

- (7) M&E outcome and outputs were added.
- 3.2 Are gender dimensions, knowledge management, and monitoring and evaluation included within the project components and appropriately funded?

Secretariat's Comments

21st of April 2023 (thenshaw): Partly, please address the following

- (1) M&E: Please see GEF Sec comment above. M&E in the table must also be associated with an outcome and outputs. Please revise accordingly.
- (2) Gender: Gender dimensions are only captured via a gender action plan in component 5 and through the use of gender-targeted indicators. Please explain where gender dimensions also fall within the other project components and/or could be added (i.e., a Component 1 study/a Component 3 pilot).

15th of May 2023 (thenshaw):

- (1) Addressed.
- (2) Addressed.

Agency's Comments Agencies' Comments 28 April 2023

- (1) M&E an outcome and outputs were added.
- (2) As per the new GEF-8 PIF template, gender dimensions are discussed throughout the project description as it is a cross cutting issue. For instance, gender aspects are included in Project rationale (briefly describing identified gaps and context), Project Description (with a gender-responsive stakeholder approach), and through the narrative description of components, covering gender-sensitive recommendations for mainstreaming and gender studies. During PPG, gender aspects will be further developed, designing a communication strategy that will serve as input for the Gender Action Plan to be elaborated in Component 5, which will address actions using a cross-cutting approach and considering all components of the project.

3.3 a) Are the components adequately funded?

- b) Are the GEF Project Financing and Co-Financing contributions to PMC proportional?
- c) Is the PMC equal to or below 5% of the total GEF grant for FSPs or 10% for MSPs? If the requested PMC is above the caps, has an exception (e.g. for regional projects) been sufficiently substantiated?

Secretariat's Comments

21st of April 2023 (thenshaw): Partly,

- (a) No, the GEF financing proposed for this project is not commensurate with the cofinancing level. Please secure additional co-financing and adjust the GEF financing contribution per discussions between UNEP, IADB and GEF Sec.
- (b) In the current table, yes, but please ensure this is reflected when the new GEF grant/co-financing figures are incorporated
- (c) In the current table, yes, but please ensure this is reflected when the new GEF grant/co-financing figures are incorporated

15th of May 2023 (thenshaw):

- (a) Addressed.
- (b) Addressed.
- (c) Addressed.

Agency's Comments

Agencies' Comments 28 April 2023

- a) As described in the PIF, co-financing has been increased and has now reached a 1:9 ratio.
- b) The PMC GEF/non GEF ratio has also been readjusted in the Project Overview.
- c) The PMC GEF/non GEF ratio has also been readjusted in the Project Overview.
- **4 Project Outline**
 - A. Project Rationale
 - 4.1 SITUATION ANALYSIS
 - a) is the current situation (including global environmental problems, key contextual drivers of environmental degradation, climate vulnerability) clearly and adequately described from a systems perspective?

b) Are the key barriers and enablers identified?

Secretariat's Comments

21st of April 2023 (thenshaw): Partly, please address the following:

(a and b) It is not clear why the AAS is not considered a well-studied aquifer. Please clarify why and explain how the proponents determined that the level of AAS information and data management is "very uneven" among the countries sharing it.

15th of May 2023 (thenshaw): Addressed.

Agency's Comments Agencies' Comments 28 April 2023

(a and b) Countries have long realized that the lack of accurate data has proved to be an impediment to the sustainable management of groundwater. Despite having a well-funded and organized Water Agency and a National Geological Service, Brazil amongst other countries has endeavored to finance some hydrogeological explorations as to better understand the aquifer. Those are however expensive and smaller and/or poorer countries like Guyana and Suriname or Venezuela, where groundwater plays a vital role, have not been able to study the aquifer systems at the same rate nor with the same scientific depth, owing to more pressing national priorities. Existing studies, as quoted in the PIF, have all concluded that the paucity of information and the insufficient transboundary aquifer understanding has proved to be the number one barrier to its sustainable management. Its continental scale, the fragmentation of the system and the complex eco-hydrogeological dynamics remain the main challenges when it comes to acquiring the needed sufficient data and scientific knowledge to support effective decision-making in the aquifer system management both at the Amazon Aquifer System level and at the local level. The Aquifer is however subject to increased pressures and for the riparian communities it has become an increasingly important water- food security and health issue. It is thus time for action.

4.2 JUSTIFICATION FOR PROJECT

- a) Is there an indication of why the project approach has been selected over other potential options?
- b) Does it ensure resilience to future changes in the drivers?
- c) Is there a description of how the GEF alternative will build on ongoing/previous investments (GEF and non-GEF), lessons and experiences in the country/region?
- d) are the relevant stakeholders and their roles adequately described?

Secretariat's Comments

21st of April 2023 (thenshaw): Partly, please address the following:

- (a) Please explain why this project is needed when the four Amazon SAP groundwater interventions are presumably being implemented under the ID 9770 project. An assumption can be made that the four SAP interventions are the best identified interventions to tackle groundwater issues in the basin.
- (b) Yes
- (c) Please summarize the GCF submission "Improving Climate Resilience by Increasing Water Security in the Amazon Basin." Will this potential project also focus on groundwater issues? How is the GCF proposal different from this proposal? Please clarify the complementarities.

Please see comment above. Please explain how past evaluations and implementation reports of the past GEF IW Amazon projects (ID 2364 and 9770) have been incorporated into the design of this proposal.

(d) Please better describe the relevant stakeholders and their roles in the project. The beneficiaries are included, but the broad class of stakeholders is not sufficiently described/could be made more explicit in this section.

15th of May 2023 (thenshaw):

- (a) Addressed.
- (c) Addressed.
- (d) Addressed, but please elaborate on the meaning "Worth noting is that CSO was not consulted directly by ACTO, IADB and UNEP but was brought on board by country focal points." What does "brought on board by country focal points mean? Please include this explanation in the submission and the review sheet.

16th of May 2023 (thenshaw):

(d) Addressed.

Agency's Comments Agencies' Comments 28 April 2023

(a) The 4 small scale interventions under the GEF ID 9770 project offer a very limited sample of action and body of work to best advance a strategic agenda of actions to support the sustainable management and protection of the AAS. Given that the focus of the GEF ID 9770 project is on surface water but that the management of surface and groundwater resources cannot be divorced, given that groundwater management is a priority strategic agenda as per the ministerially endorsed SAP, this proposal will provide the knowledge and means to manage the AAS holistically and for understanding better the geo-hydrological and ecological relationship for improved management of the entire system (Biome, Watershed, and Aquifer Systems).

(c) The proposed GCF programme aims to contribute to improving the water security in the Amazon region by increasing the resilience of vulnerable communities and key ecosystems (socio-ecological systems) in the basin to anticipated impacts of climate change on water availability and quality. It will deliver three main outcomes: (i) Increased climate resilience in water resource management through enhanced preparedness and response to climate extreme events (CI-EWS); (ii) Increased resilience and enhanced livelihoods of Amazonian communities from climate-resilient and low carbon investments in water & sanitation, and waste (WSW) services, and (iii) Improved resilience of Amazon ecosystems and ecosystems services.

The Informative Note was presented to and approved to the GCF in November 2021. The Concept Note (CN), prepared building on an extensive consultation process with countries with the support of the GWP, was submitted in November 2022. It has gone through a first review in April 2023 and prospects for approval for moving ahead with the Funding Proposal development are looking good. Should all go well, the Funding Proposal package expected to be submitted in Q4 2023/Q1 2024, aiming to be approved by the GCF Board in 2024.

Both GEF?s AAS PIF and GCF?s CN are highly synergetic, since they both target systemic and long-term improvements in water security conditions in the Amazon Region and, aim to enhance climate adaptation and reduce socio-ecological vulnerability. These proposals also seek to enable private and public investments, promote nature-based solutions interventions and will work towards capacity building and the institutional strengthening of regional, national and sub-national sectoral agencies in the Amazon Basin. When implemented, GEF & GCF funds will advance transboundary cooperation and water governance, and strengthen existing data sharing and management platforms, such as the Amazon Regional Observatory..

Even though they share the same transformative paradigm, it is expected that this blended finance will serve as a vehicle to address existing barriers under distinct but complementary approaches. For instance, the GCF proposal will be focused on climate resilience at transboundary level with a strong focus on early warning system and climate-resilient investments, while the GEF PIF will focus on advancing scientific understanding of the aquifer for its protection and management and will pilot innovative solutions in support of a SAP. The GCF funds will expand the resources needed to grant access to data, information and decision support-systems to inform the holistic and systemic management of the system/watershed while scaling-up some of these innovative approaches by providing additional concessional and blended finance to support sectorial investments and project implementation.

Component 1 of the GEF proposal will provide relevant scientific data about the Amazon Aquifer System dynamics, feeding Component 1 of the GCF proposal, which is focused on understanding climate change impacts. Best practices and the results of pilots to be implemented in GEF Component 2 and their potential for scaling-up will provide strategic information for GCF Component 2 targeted to catalyze investments and innovative financing mechanisms. Moreover, the work under GEF Component 2 on transboundary governance (regional guidelines, data sharing protocols, among others) will enrich the work of the GCF.

GEF pilot interventions in water and sanitation in component 3 will be complementary to the GCF components 2 and 3 proposing specific investments on solid waste and drainage management (with a focus in recharge areas protection and by promoting land use management, ecosystem conservation and NBSs and SUDSs[1]), which are key for water

quality and therefore for the sustainable management of groundwater resources within the Basin. [2]²

In the PIF, the GCF intervention is summarized below the co-financing table including how it relates to groundwater management and its complementarity.

See above answer (3.1) for the relationship with projects ID 2364 and 9770.

(d) Relevant stakeholders and their roles in the project are described in Section B. As per the new PIF template, stakeholders were consulted during PIF development as required per GEF policy, their relevant roles to project outcomes and plan to develop a Stakeholder Engagement Plan for CEO endorsement has been clearly articulated in the Project Description (Section B). In addition, Appendix 2 is providing a detailed description of stakeholder engagement participation mechanisms, including through official communications, regional workshops, and bi-lateral meetings with member countries. As mentioned in the PIF too, additional bilateral meetings took place, emails and correspondence were exchanged and the PIF content was also discussed in conference calls throughout the formulation process. Worth noting is that CSO was not consulted directly by ACTO, IADB and UNEP but was brought on board by country focal points.

[1] Sustainable Urban Drainage Solutions

Agencies' Comments 16 May 2023

As is described in Section B and Appendix 2, stakeholders have been consulted in different instances, such as regional workshops and bilateral meetings with each member country. ACTO?s official communication mechanism was used for meeting?s announcement through National Foreign Affairs. For this reason, at this point of the PIF development, CSO weren?t directly convened by the implementing agencies. However, it is assumed that their interests were represented by country focal points. During PPG, the stakeholder engagement process will continue and be expanded so as to include other actors.

5 B. Project Description

5.1 THEORY OF CHANGE

- a) Is there a concise theory of change that describes the project logic, including how the project design elements will contribute to the objective, the expected causal pathways, and the key assumptions underlying these?
- b) Are the key outputs of each component defined (where possible)?

Secretariat's Comments

21st of April 2023 (thenshaw): Partly, please address the following:

- (1) Output 1.4 (Targeted Research) is not named as a contributor to TDA development. Please explain why, and if not, what is the purpose of Output 1.4 in the grand scheme of the project
- (2) Please ensure an explanation is provided here in the review sheet on why Outputs 2.4 and 2.5 pertain to Suriname and Guyana only and not the other project countries.
- (3) As one of the pilot activities, please consider including a pilot on the IAEA's new and innovative approach on groundwater and isotopes

(GloWAL) https://www.iaea.org/sites/default/files/23/03/2023-

- 03_iaea_glowal_brochure_en.pdf . GEF Sec would like to see such a pilot, if feasible.
- (4) For pilot (ii) please clarify that other regions which may benefit from the multimunicipal approach will be identified in PPG rather than during project proposal stage.
- (5) Please explain why all pilots are not multi-country activities.
- (6) Please explain how the project will socialize the agreed regional technical guidelines for the protection and sustainable use of the Amazon aquifer system in the project countries.
- (7) M&E: Please include an explanation of the M&E component, outcome and associated outputs in this section of the PIF.

15th of May 2023 (thenshaw):

(1) Addressed.

(2) Addressed.

(3) Addressed.

(4) Addressed.

(5) Addressed.

(7) Addressed.

- (1) As per the TDA/SAP methodology, as to formulate a strong TDA, in addition to analyzing and assembling existing information, based on the gap in the knowledge base, one can also focus the research on key issues, hence the ?Targeted Research? label under Output 1.4 which will indeed contribute to the TDA. The narrative in the project description section has been adjusted accordingly.
- (2) On outputs 2.4 and 2.5? see above response in 3.1.
- (3) A relationship with the IAEA has been established through the Brazilian Geological Service and will come as co-financing in the form of a pilot indeed. This is documented in the narrative below the CF table.
- (4) The narrative in the project description section (Output 3.1) has been adjusted accordingly.
- (5) See above mentioned response in Section 3.
- (6) While this will be further amplified at PPG stage, the agreed regional technical guidelines for the protection and sustainable use of the Amazon aquifer system will be socialized through training, webinars, and will be accessible on the project web portal as per component 5.
- (7) M&E Outcome and outputs were added in this section.

5.2 INCREMENTAL/ADDITIONAL COST REASONING

Is the incremental/additional cost reasoning properly described as per the Guidelines provided in GEF/C.31/12?

Secretariat's Comments

21st of April 2023 (thenshaw): No

(1) The incremental cost reasoning is missed. Please explain how the project will generate GEBs which would not have accrued without the GEF project (additionality).

15th of May 2023 (thenshaw): Addressed.

Agency's Comments Agencies' Comments 28 April 2023

(1) IC reasoning information was added in the project description section.

5.3 IMPLEMENTATION FRAMEWORK

- a) Is the institutional setting, including potential executing partners, outlined and a rationale provided?
- b) Comments to proposed agency execution support (if agency expects to request exception).

- c) is there a description of potential coordination and cooperation with ongoing GEF-financed projects/programs and other bilateral/multilateral initiatives in the project area
- d) are the proposed elements to capture and disseminate knowledge and learning outputs and strategic communication adequately described?

Secretariat's Comments

21st of April 2023 (thenshaw): Partly

- (a) No, please include the institutional setting, including potential executing partners and rationale (including reasoning for two IAs for this project).
- (b) N/A
- (c) No, please add a short explanation (above the core indicators section) to describe cooperation with ongoing initiatives and projects, including potential for co-location and/or sharing of expertise/staffing (max 500 words)
- (d) Yes

15th of May 2023 (thenshaw):

- (a) Addressed.
- (c) Addressed.

Please respond "No" to "Does the GEF Agency expect to play an execution role on this project?"

16th of May 2023 (thenshaw): Addressed.

Agency's Comments

Agencies' Comments 28 April 2023

- (a) An indicative organogram has been added (Figure 4. Indicative organogram) under a new section in the PIF named Overall Project Governance. The rationale for two IAs is described above in section 1.
- (c) A short explanation to describe cooperation with ongoing initiatives and projects, including potential for co-location and/or sharing of expertise/staffing has been added in the PIF ?Coordination and Cooperation with Ongoing Initiatives and Project? section above the core indicators section.

Agencies' Comments 16 May 2023

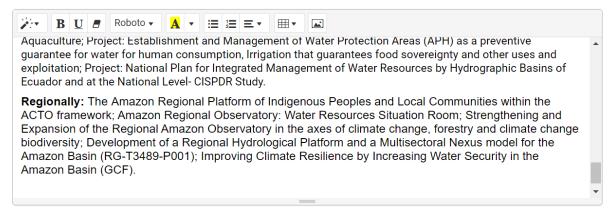
The IA will not play an EA role. The portal however does not offer us the opportunity to tick a "NO" as there is only a "YES" option.

Coordination and Cooperation with Ongoing Initiatives and Project.

Does the GEF Agency expect to play an execution role on this project?

☐ Yes

If so, please describe that role here. Also, please add a short explanation to describe cooperation with ongoing initiatives and projects, including potential for co-location and/or sharing of expertise/staffing (max. 500 words, approximately 1 page)



- 5.4 a) Are the identified core indicators calculated using the methodology included in the corresponding Guidelines (GEF/C.54/11/Rev.01)?
- b) Are the project?s indicative targeted contributions to GEBs (measured through core indicators)/adaptation benefits reasonable and achievable?

Secretariat's Comments

21st of April 2023 (thenshaw): Partly, please address the following:

- (a) Yes.
- (b) Partly. A \$6M GEF investment and \$14M in co-financing for Component 3 pilots to deliver only 2,450 ha of landscapes under improved practices (which is not included in the summary) seems quite low. Are there any additional concrete GEBs that can be generated from the project? Please explain the socioeconomic benefits of this project.

15th of May 2023 (thenshaw):

(b) Addressed.

Agency's Comments

Agencies' Comments 28 April 2023

(b) see above response in section 2. The series of pilots are indicative at this stage and will be further developed with quantified information during PPG. Hence, given that the project is funded by IW, in the absence of more specific information, potential co-benefits and contributions to Core Indicator 4 on landscapes under improved practices were estimated very conservatively. Benefits were included in the Project Summary and expected values of Core Indicators 4 and 11 were revised.

5.5 NGI Only: Is there a justification of financial structure and use of financial instrument with concessionality levels?

Secretariat's Comments N/A

Agency's Comments 5.6 RISKs

- a) Are climate risks and other main risks relevant to the project described and addressed within the project concept design?
- b) Are the key risks that might affect the project preparation and implementation phases identified and adequately rated?
- c) Are environmental and social risks, impacts and management measures adequately screened and rated at this stage and consistent with requirements set out in SD/PL/03?

Secretariat's Comments

21st of April 2023 (thenshaw):

- (a) Yes, but please include a brief explanation of covid-19 risks and opportunities.
- (b) Yes
- (c) Yes, a UNEP SRIF and IADB SF are uploaded to the portal.

15th of May 2023 (thenshaw):

(a) Addressed.

Agency's Comments

Agencies' Comments 28 April 2023

- (a) COVID risk was added in the ?Risks to Project Preparation and Implementation? Table. Moreover, COVID opportunities were mapped and included in the Project Justification section.
- 5.7 Qualitative assessment
- a) Does the project intend to be well integrated, durable, and transformative?
- b) Is there potential for innovation and scaling-up?
- c) Will the project contribute to an improved alignment of national policies (policy coherence)?

Secretariat's Comments

21st of April 2023 (thenshaw):

- (a) Yes
- (b) Yes
- (c) Yes

Agency's Comments

- 6 C. Alignment with GEF-8 Programming Strategies and Country/Regional Priorities
 - 6.1 Is the project adequately aligned with focal area and integrated program strategies and objectives, and/or adaptation priorities?

Secretariat's Comments 21st of April 2023 (thenshaw): Yes

Agency's Comments

6.2 Is the project alignment/coherent with country and regional priorities, policies, strategies and plans (including those related to the MEAs and to relevant sectors)

Secretariat's Comments 21st of April 2023 (thenshaw): Yes

Agency's Comments

6.3 For projects aiming to generate biodiversity benefits (regardless of what the source of the resources is - i.e. BD, CC or LD), does the project clearly identify which of the 23 targets of the Kunming-Montreal Global Biodiversity Framework the project contributes to and how it contributes to the identified target(s)?

Secretariat's Comments N/A

Agency's Comments

7 D. Policy Requirements

7.1 Is the Policy Requirements section completed?

Secretariat's Comments

21st of April 2023 (thenshaw): Partly, please address the following:

- (1) Please explain why Indigenous Peoples and Local Communities, Civil Society Organizations and the private sector were not consulted during the project identification phase and what the plans are to consult these groups in PPG.
- (2) Private sector engagement in the project has been checked yes, and "has its role been described and justified in the section B project description" has been checked yes. The private sector's role in this project is not entirely clear. Please elaborate on the private sector's role.
- (3) The gender dimensions could be strengthened in the Project Description. Could a specific gender-focused study and/or pilot be included in this project? If so, how could it support the project's objective?

15th of May 2023 (thenshaw):

- (1) Addressed.
- (2) Addressed.
- (3) Addressed.

Agency's Comments Agencies' Comments 28 April 2023

- 1) Indigenous Peoples and Local Communities, Civil Society Organizations as well as the private sector were not consulted directly but their views were presented by the respective national focal point teams which participated in the design. At PPG, we normally hold a series of stakeholder engagement workshops to co-create content and validate it ultimately before submission.
- (2) Description about private sector engagement is presented throughout the project description section. Opportunities for private sector related investments in water supply and sanitation (including extraction technologies) are presented mostly in component 3 but also in component 4 which intends to develop a financial strategy for the SAP engaging with prospective donors and the private sector to align investment plans with objectives and goals of the SAP. The identification and prioritization of specific investments with local utilities and municipalities are envisioned. In addition, engagement opportunities with current IADB initiatives to pilot and to mainstream innovative technical and financial mechanisms

to promote water security in the region, with a focus on NBSs (water funds, green/resilient bonds, performance based contracts- PBCs..) will be promoted capitalizing on IDB Invest, IDB Lab mechanisms.

The Water Funds Program, led by IDB and partially funded with GEF resources (with more than 25 WFs created and in operation in around 8 countries in LAC) is already piloting different innovative solutions at urban and sub-urban levels and might prove useful approaches for this project.

(3) The gender dimensions are described throughout the project description section and meet the new PIF requirements with further analysis and definition of actions to be done during PPG. At PPG, one could potentially review how to make gender more mainstreamed in one of the pilots.

7.2 Is a list of stakeholders consulted during PIF development, including dates of these consultations, provided?

Secretariat's Comments

21st of April 2023 (thenshaw): Partly, please address the following:

(1) A detailed list of stakeholders consulted during PIF design is included. There is not indication in the PIF that CSOs have been consulted, yet the list provided indicates that CSOs were consulted. Please explain here in the review sheet and revise the PIF accordingly.

15th of May 2023 (thenshaw): Addressed.

Please check "No" for the following groups:

Were the following stakeholders consulted during project identification phase:

Indigenous Peoples and Local Communities:

Civil Society Organizations:

Private Sector:

Again, It is well noted that the project attached a detail list of stakeholders consulted during PIF design. In the portal section the project has not indicated that it has consulted CSO but from the list provided it looks like they have. Please explain.

16th of May 2023 (thenshaw): Addressed.

Agency's Comments

Agencies' Comments 28 April 2023

(1) As described above, Indigenous Peoples and Local Communities, Civil Society Organizations as well as the private sector were not consulted directly, but their views were presented by the respective national focal point teams which participated in the design of the proposal (Appendix 2).

Agencies' Comments 16 May 2023

YES has been ticked in the portal against consultation with key stakeholders but one cannot tick further CSO, indigenous peoples and local communities as well as private sector. An explanation is however provided in the box below as show in the screenshot.

As is described in Section B and Appendix 2, stakeholders have been consulted in different instances, such as regional workshops and bilateral meetings with each member country. ACTO?s official communication mechanism was used for meeting?s announcement through National Foreign Affairs. For this reason, at this point of the PIF development, CSO weren?t directly convened by the implementing agencies. However, it is assumed that their interests were represented by country focal points. During PPG, the stakeholder engagement process will continue and be expanded so as to include other actors.

Stakeholder Engagement 6

We confirm that key stakeholders were consulted during PIF development as required per GEF policy, their relevant roles to project outcomes and plan to develop a Stakeholder Engagement Plan before CEO endorsement has been clearly articulated in the Project Description (Section B).
Yes
Were the following stakeholders consulted during project identification phase:
□ Indigenous Peoples and Local Communities
□ Civil Society Organizations
☐ Private Sector
Provide a brief summary and list of names and dates of consultations
BUBArial - BEE = E
Appendix 2 (Details of Stakeholder Engagement Instances).
This extensive engagement process has led to the official endorsement of the PIF by all countries (See
Annex B). Finally, it is anticipated that the same level of active stakeholder participation and involvement

will continue through the project cycle, supporting the development of the project during the project preparation phase as to seek feedback and agreement for the proposed actions and ensure alignment of the project with their national plans, programs and aspirations for effective project execution. In due time, appropriate studies will be made to identify the Indigenous Peoples and Local Communities, Civil Society

8 Annexes

Annex A: Financing Tables

8.1 Is the proposed GEF financing (including the Agency fee) in line with GEF policies and guidelines? Are they within the resources available from (mark all that apply):

STAR allocation?

Secretariat's Comments

21st of April 2023 (thenshaw): Not reviewed. Please adjust the GEF Project Grant figure down to the level per discussions between UNEP, IADB and the GEF Secretariat. A full review of the financing table will be conducted following figure adjustments and increased co-financing on resubmission.

15th of May 2023 (thenshaw): Addressed.

Agency's Comments

Agencies' Comments 28 April 2023

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In conversation with the GEF Sec, the level of GEF funding was reduced to 15M inclusive of fee and PPG and the PIF was amended accordingly.

Focal Area allocation?

Secretariat's Comments

21st of April 2023 (thenshaw): No, please see previous comment. A full review of the FA allocation will be conducted following figure adjustments and increased co-financing on resubmission.

15th of May 2023 (thenshaw): Addressed.

Agency's Comments

Agencies' Comments 28 April 2023

In conversation with the GEF Sec, the level of GEF funding was reduced to 15M inclusive of fee and PPG and the PIF was amended accordingly.

LDCF under the principle of equitable access?

Secretariat's Comments N/A

Agency's Comments SCCF A (SIDS)?

Secretariat's Comments N/A

Agency's Comments

SCCF B (Tech Transfer, Innovation, Private Sector)?

Secretariat's Comments N/A

Agency's Comments Focal Area Set Aside?

Secretariat's Comments N/A

Agency's Comments

8.2 Is the PPG requested within the allowable cap (per size of project)? If requested, has an exception (e.g. for regional projects) been sufficiently substantiated?

Secretariat's Comments

21st of April 2023 (thenshaw): Not yet reviewed. A full review of the PPG request will be conducted following figure adjustments and resubmission.

15th of May 2023 (thenshaw): Addressed.

Agency's Comments

Agencies' Comments 28 April 2023

In conversation and as agreed with the GEF Sec, the level of GEF funding was reduced to USD 15M inclusive of fee and PPG and the PIF was amended accordingly.

8.3 Are the indicative expected amounts, sources and types of co-financing adequately documented and consistent with the requirements of the Co-Financing Policy and Guidelines?

Secretariat's Comments

21st of April 2023 (thenshaw): No.

(1) The ratio of GEF financing to co-financing is 1:2, which is well below the GEF Co-Financing Policy target of 1:7. Please secure additional co-financing to bring this ratio closer to the 1:7 mark. Consider co-financing from ACTO, GEF Agencies, and other key

actors/stakeholders that constitute the project baseline per GEF incremental cost reasoning.

(2) Please be more specific on the source (activities) of <u>each</u> indicative co-financing contribution. Please include this information below the Indicative Co-Financing table.

15th of May 2023 (thenshaw):

- (1) Addressed.
- (2) Addressed.

Agency's Comments

Agencies' Comments 28 April 2023

(1) and (2) the CF level was increased to 1:9. The total amount of co-financing has been increased to USD 131 M, as presented in the indicative co-financing table in Annex A, including as well in the below narrative a description on how the investments were mobilized.

Annex B: Endorsements

8.4 Has the project been endorsed by the country?s(ies) GEF OFP and has the OFP at the time of PIF submission name and position been checked against the GEF database?

Secretariat's Comments

21st of April 2023 (thenshaw): LOEs from each project country are uploaded in the GEF-7 format.

- (1) New LOEs are requested to reflect new GEF financing figures. Please secure and upload new LOEs (in the GEF-8 format) on resubmission. A full review of LOEs will then be conducted.
- (2) Please keep in mind the following when securing new LOEs.
 - LoEs from Brazil, Colombia, Peru are signed by an OFP that was not the official OFP by the time of PIF submission.
 - 2. LoEs from Suriname and Colombia used the GEF-7 format, which did not include the Source of Funding? also the second paragraph is not using the text agreed with Agencies.
 - LoEs from Suriname includes a National institution (Ministry of Spatial Planning and Environment), same with Bolivia (Ministry

- of Environment and Water) ? these have to be included in the General Project Information section of executing partners.
- 4. LoE from Peru edited the headings of the columns so it is not possible to find out the allocation to different columns? as a new letter needs to be obtained, please use the correct template without modifying the headings of the columns.

15th of May 2023 (thenshaw):

(1) LOE from Brazil includes an error in the finance table. Focal Area Source must be IW. Please secure a new letter and upload to the portal

			Amount (in US\$)					
Source of Funds	GEF Agency	Focal Area Source	GEF Project Financing	GEF Project Financing Agency Fee	Project Preparation Grant (PPG)	Project Preparation Grant (PPG) Agency Fee	Total	
GEF TF	UNEP	BD STAR Allocation	6,865,349	617,881	153,000	13,770	7,650,000	
GEF TF	IADB	STAR IP Matching Incentives	6,596,119	593,651	147,000	13,230	7,350,000	
Total GEF Resources		13,461,468	1,211,532	300,000	27,000	15.000.000		

16th of May 2023 (thenshaw): Addressed.

Agency's Comments

Agencies' Comments 28 April 2023

New LoEs using the GEF 8 template and reflecting the agreed USD15M GEF grant were resecured.

Are the OFP endorsement letters uploaded to the GEF Portal (compiled as a single document, if applicable)?

Secretariat's Comments

21st of April 2023 (thenshaw): Not reviewed.

(1) New LOEs are requested to reflect new GEF financing figures and GEF-8 format. A full review of LOEs will then be conducted.

15th of May 2023 (thenshaw):

(1) Please secure new LOE from Brazil

16th of May 2023 (thenshaw): Addressed.

Agency's Comments

Agencies' Comments 28 April 2023

New LoEs using the GEF 8 template and reflecting the agreed USD 15M GEF grant were resecured.

Do the letters follow the correct format and are the endorsed amounts consistent with the amounts included in the Portal?

Secretariat's Comments

21st of April 2023 (thenshaw): Not reviewed.

(1) New LOEs are requested to reflect new GEF financing figures. A full review of LOEs will be conducted on resubmission.

15th of May 2023 (thenshaw):

(1) Please secure new LOE from Brazil

16th of May 2023 (thenshaw): Addressed.

Agency's Comments

Agencies' Comments 28 April 2023

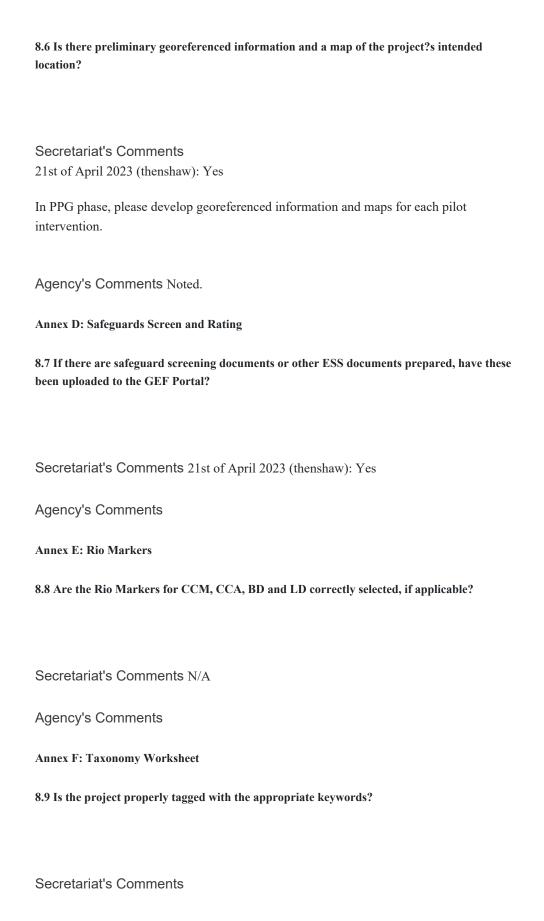
New LoEs using the GEF 8 template and reflecting the agreed USD 15M GEF grant were resecured.

8.5 For NGI projects (which may not require LoEs), has the Agency informed the OFP(s) of the project to be submitted?

Secretariat's Comments N/A

Agency's Comments

Annex C: Project Location



21st of April 2023 (thenshaw): Yes

Agency's Comments

Annex G: NGI Relevant Annexes

8.10 Does the project provide sufficient detail (indicative term sheet) to take a decision on the following selection criteria: co-financing ratios, financial terms and conditions, and financial additionality? If not, please provide comments. Does the project provide a detailed reflow table to assess the project capacity of generating reflows? If not, please provide comments. Is the Partner Agency eligible to administer concessional finance? If not, please provide comments.

Secretariat's Comments N/A

Agency's Comments

9 GEFSEC Decision

9.1 Is the PIF and PPG (if requested) recommended for technical clearance?

Secretariat's Comments

27th of April 2023 (thenshaw): No, please address above comments and resubmit. Thank you.

15th of May 2023 (thenshaw): No, please address above comments and resubmit. Thank you.

16th of May 2023 (thenshaw): Yes.

Agency's Comments

9.2 Additional Comments to be considered by the Agency at the time of CEO Endorsement/Approval

Secretariat's Comments

(1) Please adequately consult during PPG and include IPLCs, CSOs and the private sector in this project. Please document this in a report and upload to the portal.

(2) As noted above, in PPG phase, please develop georeferenced information and maps for each pilot intervention.

Agency's Comments Noted Review Dates

	PIF Review	Agency Response
First Review	4/21/2023	
Additional Review (as necessary)	5/15/2023	
Additional Review (as necessary)	5/16/2023	
Additional Review (as necessary)		
Additional Review (as necessary)		