

## Enhancing the sustainable management of Senegalo-Mauritanian Aquifer System to ensure access to water for populations facing climate change (SMAS)

### Basic Information

**GEF ID**

10784

**Countries**

Regional (Gambia, Guinea-Bissau, Mauritania, Senegal)

**Project Title**

Enhancing the sustainable management of Senegalo-Mauritanian Aquifer System to ensure access to water for populations facing climate change (SMAS)

**GEF Agency(ies)**

UNEP

**Agency ID**

**GEF Focal Area(s)**

International Waters

**Program Manager**

Astrid Hillers

# PIF

## Part I – Project Informatic

### Focal area elements

#### 1. Is the project/program aligned with the relevant GEF focal area elements in Table A, as defined by the GEF 7 Programming Directions?

##### Secretariat Comment at PIF/Work Program Inclusion

(9/23/2021 - AH)

- Please revise the title of the PIF to more clearly reflect the aspects of cooperation and a wider nexus focus incl. the ecosystems dimension. For now it reads somewhat like a WASH type project (access to water for people).
- Table A elements and the overall project scope are aligned with the IW focal area.

(10/18/2021)

Comments addressed.

(10/21/2021)

With the arrival of the 2 new LoEs, we saw that all LoEs have a different title than the one included in Portal. In portal we have “*Sustainable transboundary management of shared SMAS for ecosystem protection, enhancing cooperation and reconciling competitive uses*”. In the LoEs we now have “*Enhancing the Sustainable Management of the Senegalo\_Mauritania Aquifer System to Ensure Access of Water for Populations Facing Climate Change (SMAS)*”. Please modify the title in Portal by using the previous title in the LoEs. The title can be changed later.

(10/26/2021) Comment addressed. **Cleared.**

## Agency Response

15/10/2021

**The new proposed title for the project is:**

Sustainable transboundary management of shared SMAS for ecosystem protection, enhancing cooperation and reconciling competitive uses.

A: This has now been changed in the GEF portal according to the original title also found in the LoEs.

## Indicative project/program description summary

**2. Are the components in Table B and as described in the PIF sound, appropriate, and sufficiently clear to achieve the project/program objectives and the core indicators?**

### Secretariat Comment at PIF/Work Program Inclusion

(9/23/2021 - AH)

1. PDO: Please tighten the PDO to something less conceptual and ambitious and less vague. Verbs such as "Enhance ..." are not useful for PDO (it may aid to think about what would work if you wanted to formulate a PDO indicator). Please include ecosystems dimension as for now you mention all but the ecosystems and their services in the PDO. "Cooperation " or "Transboundary" or "shared resource" is not mentioned either.

2. Component 1 seems ambitious in terms of GEF finance, It lists quite uneven tools in terms of complexity and effort, incl. hydrological and transport models which by themselves are complex and may for now may lack sufficient data (please comment) incl. even an accurate water balance; monitoring protocols (technical or formally agreed?); and data sharing mechanisms (again, make clear if you mean joint databases or commitments to exchange data and an agreed and signed protocol among the countries?).

The indicator seems to indicate a technical focus (please confirm) but would count very uneven issues and is as such to be developed further during project preparation. Merely counting a model is not accounting for scope, complexity, or capacity to be taken up by country and regional stakeholders.

3. Approval of the TDA: Please assure relevant approval within countries besides the PSC

4. Comp 2.1.1. Please explain what you mean and rephrase. The RWG is not a legal framework. What is to be "consolidated" ? Groundwater and surface water management ? Both on national and regional scales ?

5. Above relates or may even overlap with 2.1.3 (please also note that the numbering is off; there are two outputs 2.1.2): How would one

expand the mandate of the RBOs through an unrelated regional working group that seems to be comprised of countries and development partners? Would this not have to work through the COMs of the RBOs and even the *process* to expand the mandates of the organizations would need to be endorsed by the countries in order to be received by the COM? Also, adoption of recommendations is not synonymous with amending the mandates of OMVS and OMVG (see underlying agreements which to my knowledge do not mention groundwater). Please clarify the envisioned process and expected outcomes.

6. Indicator 3 and target below: this mixes the issue of a legal framework with SAP endorsement by at least one minister of each country. SAP should better be kept separate.

7. Component 3: Please be careful with timing of the selection, design and implementation of pilots. If that process has to await the finalization of the TDA, the pilots are unlikely to be implemented within the project timeframe.

8. Scope of pilots: 2 pilots of 250 K would be very different than a small grants type mechanism. This needs to be clearer from the onset and we assume the countries would want to be aware too. The number of direct beneficiaries are likely to be very different for either case. Please clarify in the project component text.

9. Component 4: Not needed to be mentioned in table 4, but nevertheless can you please indicate if there will some initial capacity building and training needs assessment?

10. Comp 4.1.4 : Who do you want to reach with the lessons learned? if these are more on national/district levels than dissemination only through some sort of formal national, regional and international events may not be the only or the best way to reach people. Please consider to design dissemination and interactive learning to cater for different audiences.

11. Please include cooperation with IW-Learn (incl. participation in regional IW:Learn meetings and global IW Conferences; delivery of results notes; a project website or webpages within the sites of the RBOs, etc.)

12. The indicator under component 4 seems too complex in what it would need to measure to show that behavior and practice improved measurably so as to lead to sustainable utilization of water resources in the basin.

**(10/18/2021)**

1. Comments 1, 3, 7, 9, 10, 11, and 12 have been addressed.

2. re. previous comment 2.: Component 1.1. remains extremely ambitious and will also highly depend on the availability and quality of available data to underpin the modeling. It is well noted that there are IAEA data sources that will aid the flow model. Transport modeling will be even more complex across non-conservative compounds mentioned that tend to sorb and transform in the subsurface to various degrees and depending on the soil, redox etc. conditions. The PPG phase will need to evaluate and take stock of the available information and develop a strategy on how the project will proceed to achieve its outputs on models, protocols and other outputs. The now expected co-finance from AfDB is well noted and will aid to achieve the outcome. (no action needed at PIF stage)

3. Re . Comments on 4. , 5 and 6. As discussed these comments still need to be addressed and the component scope and achievable outcomes and outputs clarified (see also Part II of the review sheet; qu. 3). Especially the repeated formulation of 'consolidation of legal



frameworks" leaves it open which legal framework needs to be consolidated with which other, why, and by whom. The text of component 2 (esp. Outputs 2.1.1., 2.1.2, and 2.1.3) needs to be revisited and clarified what this project aims to facilitate and deliver on technical, strategic and legal/institutional side and where on the other hand the proposed project likely can only formulate recommendations to the RBOs which do have their own governance structures and especially as e.g. for the Senegal Basin the riparian countries of that basin and the SMAS countries do not entirely overlap. Please revisit the component 2 text and then align table B to it.

4. Re previous comment 8. That comment remains to be addressed *INDICATIVELY*: Are the anticipated pilots in the USD tens-of thousand or hundred-thousand/s range? The mechanisms to implement these in either case would very much have to differ.

(10/26/2021) Comments addressed. **Cleared.**

## Agency Response

### Responses to comments (10/18/2021)

A2: The point about the complexity of the transport modelling across non-conservative compounds is well noted and in the PPG phase the team will ensure the necessary expertise is available to work on developing a baseline which will be part of the implementation strategy on how to best achieve outputs on models, protocols and other outputs. The development of activities in the PPG will be participative and activities will be shared between the required international consultant expertise and the extensive expertise of the project team will also be mobilized. The expected co-finance from AfDB will aid to leverage the achievements of this outcome.

**A3:** This has now been addressed in the PIF revision both under section "the regional context" where a diagram has been added to outline not only the governance cooperation framework that is currently under development under the Regional working group of the SMAS but also the synergies between the work of the RWG and this project. The alignment is also now reflected in the ToC.

A4: A: The choices on potential pilots under component 3 may be the two transboundary pilots in Guiers Lake (Senegal) and Rkiz Lake (Mauritania):

**The 2 potential Pilot Demonstrations are identified as the following:** Improving water availability through preservation and protection actions for water and land degradation in the Guiers Lake (Senegal) and Rkiz Lake (Mauritania) area :

***Mirrors of Lake Guiers (Senegal) and Rkiz Lake (Mauritania):*** The two zones adjacent to the lakes of Guiers and Rkiz are suitable for agricultural activities. The intensification and multiplication of uses around these lakes have led to the shrinking and degradation of related water and soil resources.

Actions to conserve water and soil resources would be carried out in both zones of the lakes through social and technical innovations

Actions to conserve water and soil resources would be carried out in both zones of the lakes, through social and technical innovations. These would involve:

- The identification of pilot sites (1ha) for study and representative of the issues of the 2 lakes;
- Adaptation, through participatory multi-stakeholder approaches (including farmers, livestock breeders, local authorities, etc.), of innovative agro-system management techniques and solutions at these pilot sites;
- The study of the transfer of run-off water from the Senegal River to lakes, through natural or artificial channels, or pipes. This can be done by gravity according to the topography of the places or by pumping. This technology allows for the irrigation of vulnerable zones near watersheds with the advantage of rehabilitating soils; support the extension of pastoral and agricultural practices and improve groundwater recharge.
- Topographic surveys will be conducted to identify suitable sites. Raising the awareness of local communities and building their capacity to adapt to climate change will significantly reduce the risk of conflicts related to resource use.
- Agricultural advice on these pilot sites for common management of water resources (surface and groundwater) for agricultural purposes and for combating land degradation.

15/10/2021

Answer 1: Project development objectives revision and inclusion of ecosystem dimensions were added on pages 1 of the PIF as follows:

**Project Objective :** Foster multi-country cooperation and institutional capacity for the protection and sustainable management of the transboundary Senegalo-Mauritanian aquifer system and its dependent ecosystems in order to improve water and food security, and resilience to climate change

**Answer 2:** Data collection from countries and establishing regional Database; this will feed the hydrological model; The transport model will also connect water quality data to study sea water intrusion and fluoride. OSS will be able to contribute with their internal expertise on Database and modelling and will be available to assist experts in order to remain cost effective.

The unsaturated zone (surface to groundwater) is an important area to study with reference to Nitrogen concentration in the Aquifer as well as in irrigated areas, pesticides and velocity to get to groundwater. Data collection in the case of rice agriculture the use of agro-chemicals and on concentration of Nitrogen and fluoride to be introduced in transport model;

Proposed changes to component 1, International Atomic Energy Agency (IAEA). Data from IAEA investigations in the countries will be gathered and used (see page 8).

In PPG there will be a clear differentiation between the tools, the indicator will be refined in PPG;

For instance, there will be 1 regional database, 1 hydrogeological model and transport model, etc.

3: The countries representatives in the PSC are key officials and competent authorities from countries that are entitled to approve the TDA. Additionally, the OMVS and OMVG will engage in the necessary stakeholder involvement for TDA approval. This process will be reinforced and supported by the regional governance framework of the RWG. (page 20)

4: Component 2.1.1. Consolidation will be achieved both at the technical level (i) to integrate TDA/SAP for the Guinea Basin to arrive at a comprehensive conjunctive water resources approach for the SMAS, as well as (ii) supporting the consolidation of the regional governance framework established between OMVS, OMVG and the participating countries with the RWG. The RWG has been established by countries to be their regional governance platform and in this sense, component 2.1.1. intends to consolidate that governance structure to be developed for the SMAS (declaration decided by Ministers to put in place RWG) (see Ministerial declaration of 29/09/2021).

5.The numbering was corrected.

Underlying agreements do not cover the whole SMAS groundwater resources. The investigations work on developing relevant recommendations in this regard (pages 21 & 22).

6. Yes, we agree we will separate, and detailed indicator will be differentiated and separated for SAP during the PPG phase. (page 21)

7: We will anticipate the selection and the design of the pilots while awaiting finalization of the TDA in order to prepare for implementation. (page 22)

8: Yes, we are aware that this will be an important point to clarify during PPG. Each pilot will identify all stakeholders, end users, civil society, rural communities.

9: For component 4 yes there will be an initial capacity building and training needs assessment in the inception period of the project with emphasis on TDA/SAP training as requested by RBO and countries.

10: Yes, this will be integrated into the Knowledge Management Strategy taking into dissemination and interactive training as well as emphasis on awareness raising of all the key stakeholders including the district and national level. This is also reflected in page 23 of the PIF.

11: Yes, as reflected in page 23 of the PIF

12: This will be defined more precisely during PPG. One possibility would be the number of persons impacted by the project results

## Co-financing

**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, with a description on how the breakdown of co-financing was identified and meets the definition of investment mobilized?**

### Secretariat Comment at PIF/Work Program Inclusion

(9/23/2021 - AH) No.

1. Please revise the description of co-finance. If the co-finance type is concurrent with the definitions of "in-kind" co-finance than it is usually NOT to be counted as "investment mobilized" but to be classified as ***recurring expenditures***. For further details, please refer to the Co-Financing Guidelines. Please note that the description on how these co-financiers were identified is not enough to support that all the co-financing sources to be classified as "investment mobilized". Please revise.

When revising please then also change or delete the description under the table (if none of the sources is classified as investment

mobilized).

- 2. Please spell out all the acronyms when stipulating the name of co-financier so that we can properly assess if they have been appropriately categorized.
- 3. Given the project description and synergy with the RWG one would need to assure that indeed the work and funding aligns and supports a common objective. Do you expect co-finance from the Geneva Water Hub and UNECE ? If not, please explain.
- 4. PMC Proportionality of co-finance (see table B): there is not proportionality in the co-financing contribution to PMC. If the GEF contribution is kept at 5.0%, for a co-financing of \$54,600,000 the expected contribution to PMC must be around \$2,730,000 instead of \$0 (which is 0%). As the costs associated with the project management have to be covered by the GEF portion and the co-financing portion allocated to the PMC, the GEF contribution and the co-financing contribution must be proportional, which means that the GEF contribution to PMC might be decreased and the co-financing contribution to PMC might be increased to reach a similar level. Please amend PMC either by increasing the co-financing portion and/or by reducing the GEF portion. A more definitive estimation of PMC can be presented and adjusted at CEO Endorsement stage.

(10/18/2021)

Comments addressed. **Cleared.**

## Agency Response

15/10/2021

1. This was addressed in pages 4 & 5
1. This was addressed in pages 4 & 5
- 3: Additional exchanges took place with UNECE and Geneva Water hub and IGRAC and it was at this stage too short a time span to be able to receive written support letters. They did however provide strengthened text on synergies and complementarities between the project and the work of the RWG and these comments were integrated into the latest version of the PIF.
- 4.This was addressed in page 4 of the PIF

## GEF Resource Availability

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

Secretariat Comment at PIF/Work Program Inclusion

(9/23/2021 - AH)

1. The resources currently are available under GEF-7 IW envelope.

2. The agency fee percentage for the PIF grant amount is 9% while for PPG 9.5%, PPG fee should be the same as Agency fee level for the project.

(10/18/2021)

Comments addressed. **Cleared.**

Agency Response

15/10/2021

2: PPG and Fee have been adjusted to the same amount (9.5%) UNEP, page 6  
It is 9.5% ( $150\,000 \times 9.5\% = 14\,250$ ) ; The % is the same for the PPG and the PIF

The STAR allocation?

Secretariat Comment at PIF/Work Program Inclusion N/A

Agency Response

## **The focal area allocation?**

### **Secretariat Comment at PIF/Work Program Inclusion**

SH (2.2.21): Please note that UNEP should discuss with GEF the size of the funding envelope for this project. This discussion should happen prior to UNEP collecting the missing LOEs.

(9/23/2021 - AH) Yes.

Cleared.

### **Agency Response**

**Response 14/09/2021**

Discussion with GEF has taken place on the funding envelope and has been reflected in the PIF resubmission.

## **The LDCF under the principle of equitable access?**

**Secretariat Comment at PIF/Work Program Inclusion N/A**

### **Agency Response**

The SCCF (Adaptation or Technology Transfer)?

Secretariat Comment at PIF/Work Program Inclusion N/A

Agency Response

Focal area set-aside?

Secretariat Comment at PIF/Work Program Inclusion N/A

Agency Response

Impact Program Incentive?

Secretariat Comment at PIF/Work Program Inclusion N/A

Agency Response

Project Preparation Grant

5. Is PPG requested in Table E within the allowable cap? Has an exception (e.g. for regional projects) been sufficiently substantiated? (not applicable to PFD)

#### Secretariat Comment at PIF/Work Program Inclusion

(9/23/2021 - AH) Yes.

Cleared.

#### Agency Response

#### Core indicators

**6. Are the identified core indicators in Table F calculated using the methodology included in the corresponding Guidelines? (GEF/C.54/11/Rev.01)**

#### Secretariat Comment at PIF/Work Program Inclusion

(9/23/2021 - AH) No.

1. Please the name and relevant WPDA ID and IUCN category for sub-indicator 1.2.
2. Indicator 11 appears too high as it should only account for DIRECT beneficiaries.
3. Please explain why the Rio Marker for mitigation is chosen and the number assigned to it.

(10/18/2021)

**1. re. comment 1:** if there is a delivery against core indicator 1 (protected areas), then these numbers are needed. Else please use core indicator 4 (biodiversity mainstreaming/outside protected areas)

Comment 2: The indicator is not relevant for the project. Please delete it from the table.



2. **re. comment 2.:** during the project lifetime it is highly unlikely that the entire population will benefit DIRECTLY. Please scale to direct beneficiaries such as from pilots or training or to other target groups directly benefitting from project interventions.

3. comment 3: noted/addressed.

4. Please REVISE indicator 7 to "1 shared water system" (not 3 shared water systems).

5. Indicator 3: please round to next integer to have consistent formats.

(10/26/2021)

Please address comment 1: if there is a delivery against core indicator 1 (protected areas), then these numbers are needed. If the area is not a protected area then use indicator 4.

(10/27/2021) Comment addressed. **Cleared.**

## Agency Response

### Responses to comments (10/18/2021)

A1: In the revision it is the core indicator 4 that has been chosen.

A 2: These figures have to be adjusted to reflect the direct beneficiaries in the core indicators table on page 6

The basin includes the biggest towns of the countries supplied by the Senegalo-Mauritanian aquifer system (The source of information is the TWAP study) **Core-indicator 11:** In the aquifer area, the total population is estimated to about 16,000,000 according to the TWAP/UNESCO Report<sup>[1]</sup>. Based on data from the United Nations (World Population Prospects 2019)<sup>[2]</sup>, the average gender ratio for the four countries is 96.5 over the last decade. In accordance with these assumptions, the number of beneficiaries by gender is estimated at: **Female:** 8,142,500 and **Male:** 7,857,500. There is no doubt that this population will have benefits from the project. Nevertheless, these values will be refined at the project development stage.

It is expected that 1,630,647 direct beneficiaries including populations in the pilot areas (lake guiers: 40,000) and lake Rkiz : 70,451), 40% of Dakar population (1,520,000) are supplied by lake guiers water. NGOs are targeted to benefit capacity building on the pilot sites (estimated at 100 people). At least 96 technicians from the countries will benefit from training sessions. From this total of 1,630,647 direct beneficiaries, the number of beneficiaries by gender is estimated at: Female: 831,630 Female and 799,017 Male. These values will be refined at the project development stage.

[1] ILEC, UNEP-DHI, UNESCO-IHP, UNESCO-IOC and UNEP (2016). Water System Information Sheets: Western & Middle Africa. In: Talaue-McManus, L. (ed). Transboundary Waters: A Global Compendium, Volume 6-Annex F. United Nations Environment Programme (UNEP), Nairobi. 344p

[2] <https://population.un.org/wpp/Download/Standard/Population/>

A4: This has now been revised to 1 in table F (page 6 of the PIF)

A.5. This has now been addressed: 4,636.7 rounded to 4,637 in table F (page 6 of the PIF)

**15/10/2021**

1.The categories were not detailed as this International Waters project does not address protected areas.

2.The number in the current PIF reflects the fact that the project deals with the management of the whole aquifer, hence all the population of the region will eventually "directly" benefit from it. (In table F on page 6 of the PIF. ). This can be further fine-tuned in the PPG phase.

3.The Rio Marker for mitigation has been removed

## **Project/Program taxonomy**

**7. Is the project/program properly tagged with the appropriate keywords as requested in Table G?**

**Secretariat Comment at PIF/Work Program Inclusion**

(9/23/2021 - AH). Yes.

**Cleared.**

**Agency Response**

**art II – Project Justification**

**1. Has the project/program described the global environmental/adaptation problems, including the root causes and barriers that need to be addressed?**

**Secretariat Comment at PIF/Work Program Inclusion**

(9/23/2021 - AH)

Overall this is addressed. Please consider to consider:

1. Water Quality: please review literature with regard to the nutrient loads in the aquifer system and contribution to coastal waters.
2. Some major urban centers - such as Dakar etc. - get over 50 % of their water from groundwater. Would this not be an opportunity to engage in them in discussions on the TDA and SAP and interests to maintain the cities water resource (quantity and quality)
3. Does a map exist to map out hazardous levels of fluoride ?
4. Climate change: bullet 2 mentions a 50 % of decrease in flow. Is that referring to river flow ? Also, would it be worth to refer to more than one model and literature source? The margins of error given the more limited records in Africa usually differ and span a significant range.
5. Root causes: you mention the weakness of policies and strategies, but neither here or in the 'national context' section later in the PIF is there an analysis of the applicable policies and regulations pertaining to groundwater in each country. e.g. who 'owns' groundwater in each country - e.g. is it a public good or associated to land rights? Is the permit system? Is quantity of use regulated ? What about quality ?
6. Soil salinization: the region relies a lot on small holder farming and irrigation. Please confirm. If not what is the relative importance of large ag businesses and where? Engagement and entry points of the project with agriculture on groundwater will differ significantly among these groups.

(10/18/2021)

- Re comment 4. Climate Change: Please use some more recent reference and studies (and incl. reference to IPCC) than the 2010 reference cited in footnote 11 .

- Re comment 5. so while groundwater is not privately owned (e.g. rights to gw are not tight to land rights) there is no permit for its use nor any regulations on pollution of soil and groundwater ?

- other comments have been addressed

(10/26/2021) Comments addressed. **Cleared.**

## Agency Response

### Responses to comments (10/18/2021)

A.4: This has now been addressed in the PIF (page 10):

Adefisan (2018): Climate Change Impact on Rainfall and Temperature Distributions Over West Africa from Three IPCC Scenarios. J Earth Sci Clim Change 2018, 9:6; Federal University of Technology Akure Akure, Nigeria

IPCC (2021) : Climate change 2021. The physical science basis; summary for policy makers. Working Group I contribution to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change

A.5: Even if there are regulations in place, these are not really applied on the ground. The permit system may exist but it is not inspected and verified and the quantity of use is not regulated. The water quality is in general good in the Basin (lower than 500mg/l salinity) but concentrated in some areas such as fluoride concentrations and industrial pollution (pesticides, agro-chemicals...).

### 15/10/2021

1: Yes, this is an important point and a literature review will be addressed in PPG in order to ensure to build on the latest scientific findings

2: Yes, this is an important point and will be part of water pollution/water degradation as one of the major transboundary risks and is part of the TDA/SAP process

3. There are only local maps available at this point (see example in page 9)

4. Yes, bullet 2 is referring to river flow. Additional references have been made to the text of the PIF on page 10.

Additional references will be identified during PPG phase and further explored to update available information

5. Yes, ground water in each of the participating countries is a public good. The quantity of use is not regulated and policies and strategies are not applied.

6. Yes, the region relies a lot on small holder farming and irrigation.

## 2. Is the baseline scenario or any associated baseline projects appropriately described?

### Secretariat Comment at PIF/Work Program Inclusion

(9/23/2021 - AH)

1. Regional context: Please provide clarity on both the membership/composition and the "ministerial mandate" of the RWG. This must be spelled out in writing in e.g. a letter of minutes of a meeting. Please send for information and clarification. Across the project that relation to RWG seems to have recently grown and dialogue intensified, but there are still some areas to clarify to avoid duplication of efforts and

coordination. (see also section on coordination)

2. GEF is also funding the Senegal Delta project with IUCN as implementing agencies. Cooperation esp. around the area of the biosphere reserve and the city of St Louis would be beneficial.

3. Please also explore the linkages to the cities IAP/IP in Senegal.

3. OMVS and ANBO: OMVS is also hosting ANBO which covers shared surface and groundwater and hosts a Africa Water Information system. GEF and SIWA have supported ANBO. The GEF/UNDP project recently closed.

4. Please provide the range of years of implementation for all baseline projects (from 20XX to 20XX)

5. National context: there is a long list of projects. Are these government or outside funded? Are all of these GEF projects (again: Please provide start and end dates) and provide a few words on how these are linked to the proposed project.

(10/19/2021)

1. Please add the members/membership of the RWG in the box titled: Synergies between the Regional Working Group and the SMAS project

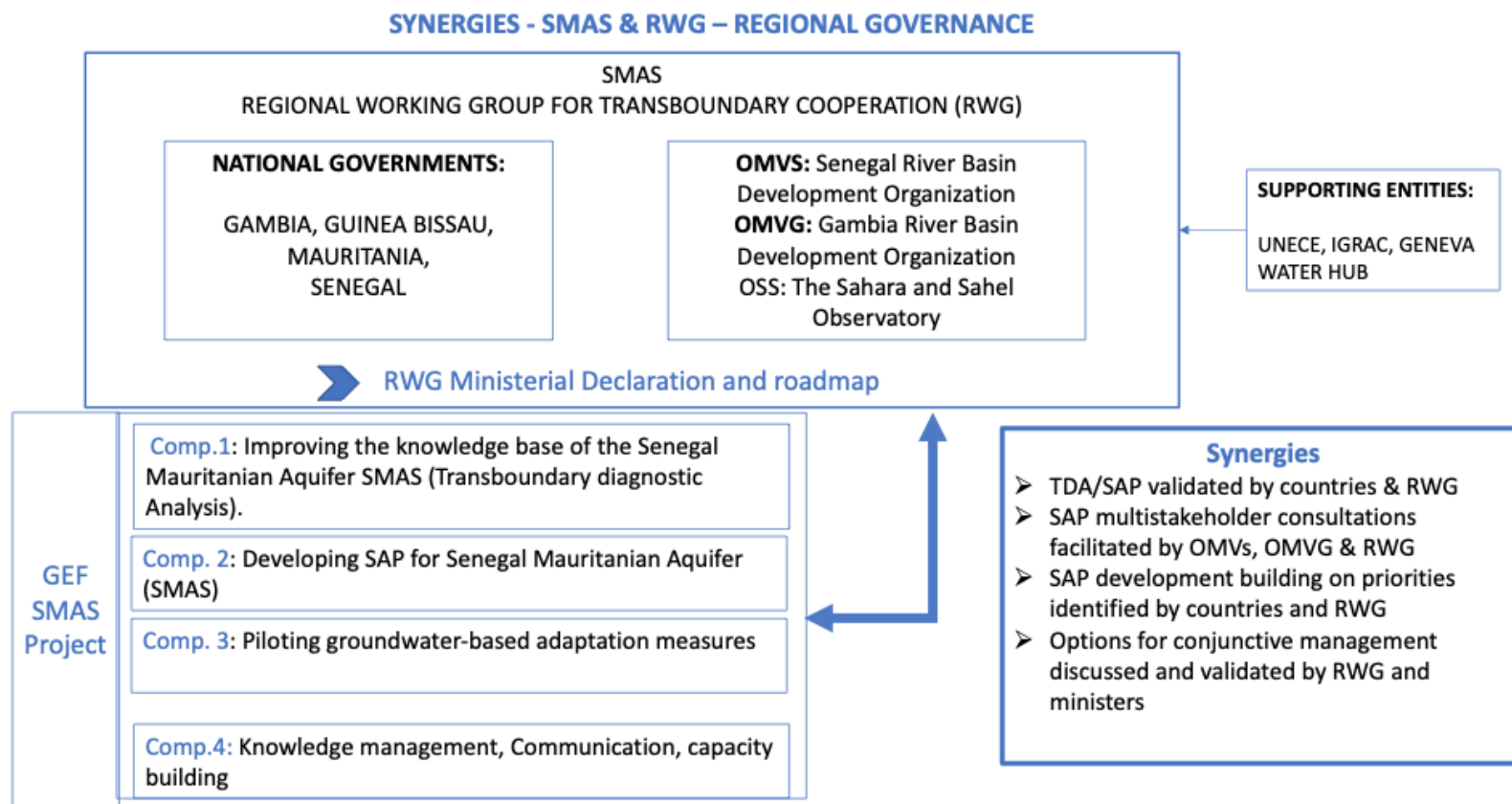
Comments 2.- 5. have been addressed.

(10/26/2021) Comments addressed. **Cleared.**

## **Agency Response**

### **Responses to comments (10/19/2021)**

A 1: This has now been addressed in the revised PIF, this diagram has now been added under the Synergies box in the regional context section.



**15/10/2021**

1.UNEP and OSS have been part of a number of extraordinary meetings of the Regional Working Group (June and September 2021) in order to update and align the GEF project to the road map of the Regional Working Group. In that context both activities and the coordination and implementation arrangements have been developed together and updated in the PIF (page 12&13).

A Ministerial Declaration was signed by Ministers on the 29<sup>th</sup> September 2021 (to be attached in the portal for information) and includes reference to the UNEP led GEF project:

Remercions le PNUE et l'Observatoire du Sah'ara et du Sahel (OSS) pour la soumission d'une proposition de projet au Fond pour l'Environnement Mondial qui, si finance, pearmettra de mettre en oeuvre certains éléments de la vision et du projet du Groupe de travail régional ;

OSS is also now formally a member of the RWG (see page 5 of the Declaration).

Additional wording has been introduced with the support of UNECE, Geneva water hub and IGRAC in the Prodoc on page 12 & 13).

2: well noted

3: yes this will be explored in PPG

4: these partners will be closely involved in the PPG phase and information updated in this sense , information was added to the PIF in that sense.

5. These are outside funded projects. Addressed on page 16

### **3. Does the proposed alternative scenario describe the expected outcomes and components of the project/program?**

#### **Secretariat Comment at PIF/Work Program Inclusion**

(9/23/2021 - AH)

Please note that this section is linked and should be looked at together with the earlier comments on table B.

1. Please provide a theory of change that links the PDO to the logic of the proposed components and outputs. Please provide both a narrative and a diagram.
2. Please clarify the short introductory text: "This coordination across participating countries will work through a clearly described consultation mechanism..." yet, throughout the project this mechanism does not seem all that clear across executing actors and roles, including that of the role of OSS, OMVS and OMVG and the RWG. While there has been effort to further consult among these actors, this still needs further clarity on roles of each across project activities.
3. Outcome indicator 1: Please refine this in PPG phase. Simply counting e.g. databases and models or data exchange mechanisms is not real meaningful.
4. Output 1.1.1: Bullet 5 states to develop a climate prediction model for the sub-region. Would it not be sufficient to use existing models for the purposes of this project?
5. Output 1.1.2. TDA - please refer to the [IW:Learn](#) guidance to emphasize the participatory nature and process involved in the development of the TDA. This is an important step for countries to develop a common understanding of common opportunities and threats and moving towards the SAP.
6. Main activities : under anthropogenic and marine intrusion impacts on the SMAS, please include nutrient transport (both into SMAS and to the coastal zone via groundwater outflows)
7. Component 2: The text states that the aim under this outcome is to "establish a planning tool for efficient and coherent allocation of

water resources in general and groundwater resources in particular at the SMAS scale ...". This seems a loaded set of words and in most experiences cooperation around shared resources does not start or go far if started from a goal of allocation (the Senegal river basin is a special and unique case with its allocation formula).

8. Legal framework for the transboundary cooperation and the SAP for endorsement ? This is packing a lot in one item: please separate SAP endorsement (by one Minister from each country) from the need for a larger legal and institutional framework for cooperation on groundwater. The latter may even be one of the concrete priorities countries may bring forward in the SAP.

9. Output 2.1.1 Please explain what is meant with "Legal framework for consolidating existing cooperation mechanisms (RWG) for the protection and sustainable management of the transboundary groundwater resources of the SMAS." Who is to be consolidated with who and how is the RWG a legal framework ? Somehow this is hard to follow as written.

Later on (same page), it is stated that this outputs would benefit from a process on developing a legal and institutional mechanism supported by UNECE and the Geneva water hub.

Again, there appears to not a clear delineation on who does what and based on requests by countries. The relation between this outcome of the project and the country efforts facilitated by UNECE and the Geneva water hub need additional clarification. (see also coordination section).

10. Output 2.1.3 Same confusion here as there is mention of recommendations through the RWG, but the RWG is not shown in the organogram for the project (in the section on coordination, yet is shown in figure 2). It may aid to label the connection and arrows in the diagrams to clarify execution and reporting relations.

11. Component 4. Outcome 4.1: please revisit the formulation of this outcome. The logic that through enhanced knowledge and capacity stakeholders *commit to joint action* seems odd.

12. Indicators 4.1: Please do not forget to indicate that wherever applicable indicators will be gender differentiated.

13. Output 4.1.1 - it mentions a database for conjunctive water resources management. Please explain. How will this related to existing modeling and data and information systems of the regional RBOs and on national level.

14. Output 4.1.3 - see earlier question on a training needs assessment which would also aid to define the target groups in the countries.

15. Output 4.1.4 - ditto - please see part I, question II and including some idea of exchanges with other RBOs in Africa and elsewhere engaged in working on integrating groundwater into the river basins and in some cases legal agreements - e.g. Niger-Ittas; Orange-Senqu and Stampriet; Limpopo basin and underlying aquifers; etc.

(10/19/2021)

1. The Theory of change/diagram is noted. Please explain what "concerted" management means in this context or use a different word. Please extend the narrative to explain the ultimate outcome and how this is underpinned by the components.

2. Response noted. Please explain in component 2 or elsewhere the role of the RWG in the project activities and/or outline the role of the



project in the overall program of work of the RWG.

Comments 3. - 7. addressed.

8. Mostly addressed but please do so also for the targets

9. and 10. Comments not sufficiently addressed. It is essential to make it much more clear what the project intends to achieve here.

*Consolidation* of various legal frameworks is very vague - see previous comments.

As discussed the entirety of 2.1.1 to 2.1.3 needs to be clarified. Please also note that - as discussed - the project does not include all riparians of the two river basin organizations and while recommendations can be made to expand the mandates of OMVS with regard to the inclusion of groundwater in general and to the SMAS in particular (based on the assessment and findings of component 1 incl. the SMAS TDA), it appears beyond the project to do lead to an expansion of the mandates of OMVS.

11. to 15. addressed

(10/26/2021) Comments addressed. **Cleared.**

**Responses to comments (10/19/2021)**

A. 1: The ToC diagram has been reviewed (page 18 of the PIF). The project will put in place the basis for governance mechanism and provide options for long term conjunctive management of the surface and groundwater resources which will be presented to countries and the RWG for discussion and validation (page 17).

A.2: This has now been addressed in the revised PIF under component 2.

A.8: This has now been addressed in the revised PIF.

A.9 and 10: The component 2 has now been revised for clarification in the PIF

The component 2 has now been revised for clarification in the PIF and a table

**15/10/2021**

1. The ToC and linkages in the project objectives have been reinforced in the text of the PIF on page 17 & 18 of the PIF and attached as a separate supporting document in the portal

2. The introductory text on page 12 of the PIF has now been complemented with

**Agency Response**

<p>th additional information on the transboundary cooperation framework provided by the Regional Working group and the recent Ministerial Declaration of 29<sup>th</sup> September 2021 strengthening the commitment of countries, Basin Organizations and partners. OSS is now also formally a member of the RWG. The RWG, as far as the strengthened transboundary cooperation platform for the SMAS, will therefore be a key process at the heart of the development of the project PPG as well as guiding project implementation.</p>
3: yes, this will be addressed in PPG phase.
4. Yes we agree that this is an important option and text has been added to the PIF under output 1.1.1. on page 19.
5. Wording has now been added to emphasize IW:Learn guidance will be drawn upon during TDA development (page 19 and 20)
6. Addressed and checked on page 20
7. This has been reformulated, emphasizing in transboundary cooperation. The text has been modified (pages 19, 20)
8. The legal framework and the SAP have been separated for more clarification (page 21)
9. Text has been added to the description of output 2.1.1. on page 21 of the PIF. The text has been improved. It is the legal framework which will be consolidated by the project
10. Text has been added to Output 2.1.3. (page 22) Figure 2 has also been enriched in this sense
11. Component 4 has been revised to highlight the importance of raising common awareness of the process and tools to be developed particular to the TDA/SAP development. (page 23)
12. This has been addressed for Outcome 4.1.
13. For output 4.1.1. on page 23 of the PIF text has been added to reflect that the RBOs do not have comprehensive data base systems covering the ground water quality and quantity on SMAS on, the data base model to be developed will be feeding into and supporting the OMVS and OMVG information systems
14. The section 4.1.3. on page 23 has now been complemented to reflect training needs assessment.
15. Yes, best case examples and lessons learnt from other RBOs will be an important part of the knowledge sharing in this component ; text to reflect this has been added to the PIF

**4. Is the project/program aligned with focal area and/or Impact Program strategies?**

**Secretariat Comment at PIF/Work Program Inclusion**

(9/23/2021 - AH). Yes.

Cleared.

**Agency Response**

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

**Secretariat Comment at PIF/Work Program Inclusion**

(9/23/2021 - AH). Yes.

Cleared

**Agency Response**

**6. Are the project's/program's indicative targeted contributions to global environmental benefits (measured through core indicators) reasonable and achievable? Or for adaptation benefits?**

#### **Secretariat Comment at PIF/Work Program Inclusion**

(9/23/2021 - AH).

Overall yes.

The project will make very valuable steps towards cooperation among the four countries on the shared groundwater system. Yet the statement that "Ultimately, though project interventions, the Senegalo- Mauritanian aquifer system will be managed as a shared resource by the four member countries." appears quite ambitious. Is it realistic ?

**(10/19/2021)**

In the ToC this has now been listed as a 'long-term goal' beyond the direct outcomes of this project. Addressed/**cleared**.

#### **Agency Response**

### **7. Is there potential for innovation, sustainability and scaling up in this project?**

#### **Secretariat Comment at PIF/Work Program Inclusion**

(9/23/2021 - AH). Yes.

Cleared

#### **Agency Response**

### **Project/Program Map and Coordinates**

**Is there a preliminary map reference to the project's/program's intended location?**

**is there a preliminary geo-reference to the projects/programs intended location?**

**Secretariat Comment at PIF/Work Program Inclusion**

(9/23/2021 - AH). Yes.

Cleared

**Agency Response**

**Stakeholders**

**Does the PIF/PFD include indicative information on Stakeholders engagement to date? If not, is the justification provided appropriate? Does the PIF/PFD include information about the proposed means of future engagement?**

**Secretariat Comment at PIF/Work Program Inclusion**

(9/23/2021 - AH).

1. It is good to have the long-term background of the project in which OSS was asked to coordinate work on the transboundary aquifer system - this is though dating back a while. Can you please provide the date (month/year) and extend of the recent interaction with the countries as well as OMVS and OMVG that lead to the PIF?

Please indicate/explain if there is a parallel "formal mandate" given by the countries to OSS and to the RWG and how the project will reconcile this. There seem to have been constructive discussions in recent weeks and months, yet the PIF needs to be more clear on the respective roles.

2. Please add a table of key stakeholders on regional, national and local levels that have been consulted so far and roles of these and a wider range of stakeholders as the project goes forward. e.g. the pilots will necessarily involve local administrations and user groups. How will there be a process to consult them and define roles in selection, design and implementation of these pilots as well knowledge management, dissemination, and training.

So far information on these groups are missing as well as other influential stakeholders that may have strong interest in the sustainable

So far information on these groups are missing as well as other influential stakeholders that may have strong interest in the sustainable management of groundwater such as some of the large city governments as well as irrigation planning and management incl. the SIIP and CILSS which are mentioned under the coordination section. Will they e.g. be involved in the TDA and SAP formulation?

(10/19/2021)

1. Addressed

2. The reality of not being able to list of all regional, national and local stakeholders is noted as well as the intended full stakeholder mapping during the PIF. There are though a number of entities already mentioned and clear on each of these levels (while other are TBD) and their indicative roles in the project (e.g. approval/review of OR participation in OR co-design of certain activities etc. ) are fairly clear. Could you please attempt an initial table of main stakeholders on regional, national and the type of stakeholders on local level and their expected respective roles ?

(10/26/2021) The preliminary table is noted as well as the fact that the roles in the project will be clarified during the PIF. The information is sufficient at concept stage but roles of key stakeholders need to be mapped out much more clearly when moving forward to project preparation.

Cleared.

## Agency Response

### Responses to comments-10/19/2021

A 1: Table: Stakeholders and their roles has now been added to the stakeholder section in the PIF.

Country	Stakeholders	Regional, National or Local level	Role
Guinea Bissau	Representative of the Ministry of Water Resources - Bissau	National	In charge of water resources management at national level; to define activities and their alignment with national priorities
	Local NGO	Local	Participate to implement

			activities
Gambia	Representative of the Ministry of Water Resources - Banjul	National	In charge of water resources management at national level;
	Local NGO	Local	Participate to implement activities
Mauritania	Representative of the Ministry of Water Resources - Nouakchott	National	In charge of water resources management at national level;
	Local farmers	Local	Implementation of pilot demonstration
	Local NGO	Local	Participate to implement activities
Senegal	Representative of the Ministry of Water Resources - Dakar	National	In charge of water resources management at national level;
	Local farmers	Local	Implementation of pilot demonstration
	Local NGO	Local	Participate to implement activities
OMVS	Representative of the river basin organization - Dakar	Regional	Implementing and facilitating activities
OMVG	Representative of the river basin organization - Dakar	Regional	Implementing and facilitating activities

15/10/2021

1.OSS is exchanging with the countries since 2003. A draft concept note was elaborated with the countries. A first draft was elaborated and

formally endorsed by the participating countries in August-November 2014-February-August 2015, as well as the two main basin organizations (OMVS (24 august 2015) and OMVG (25 august 2015)). In 2017 (25-26 May), the 4 SMAS countries formally mandated OSS with a signed recommendation to prepare a project and seek funding to strengthen the knowledge and management of this aquifer system. A project concept note was elaborated for this purpose and submitted to the countries for approval. On 26 November 2015 UNEP prepared a support letter for the project to be submitted to AfDB for finance. Exchanges continued with UNEP since 2015 up to now. This process leads to the actual PIF (page 26 & 27)

**2.At regional level:** OMVS and OMVG have been consulted. They will facilitate local activities and the cooperation in the basin as they have already legal framework. The Regional working group has also been consulted and contributed to the development of the PIF.

**At National level:** the Country Directors and technicians in charge of water resources have been consulted and contributed to the development of the concept note. University representatives was also involved.

**At local level:** some NGOs has been consulted

All relevant stakeholders will be involved in the TDA and SAP formulation.

## Gender Equality and Women's Empowerment

**Is the articulation of gender context and indicative information on the importance and need to promote gender equality and the empowerment of women, adequate?**

### Secretariat Comment at PIF/Work Program Inclusion

(9/23/2021 - AH).

Please be more specific on the gender differentiated roles across countries in the use and management of groundwater. e.g. Are water rights (e.g. for irrigation) given to women ?

The current section should be less generic and provide some initial differentiated insights on gender is seen relevant in the project context, objectives and components. In addition, further indicative information on how the project expects to address these inequalities – particularly in relation to the expected measure to closing gender gaps in access to and control over water and natural resources and improving women's participation and decision-making.

(10/19/2021)

Addressed at PIF stage. During PPG and implementation (TDA) please take specific note of unequal access to water and land rights for



women and if and how this may undermine the sustainable management of water in the countries/the areas of the SMAS.

(10/26/2021) Noted. Cleared.

### **Agency Response**

#### **Response to comments 10/19/2021**

This is well noted, unequal access to water and land rights for women in the context of sustainable management of water of the SMAS will be addressed in the PPG stage and guided by the gender specialist for optimal preparation for implementation.

**15/10/2021**

This has been taken under consideration in a final overall revision of the PIF with more differentiated information regarding the way the project will ensure insights into gender roles and identifying gender gaps. Particular attention will be given to the PPG phase where a gender expert is foreseen from the very onset of the consultation and project development phase.

### **Private Sector Engagement**

**Is the case made for private sector engagement consistent with the proposed approach?**

#### **Secretariat Comment at PIF/Work Program Inclusion**

(9/23/2021) Please provide a clearer insight on how the private sector will be involved. E.g. in term of the Dakar Declaration will this mostly be achieved by smallholder or large private farmers? How will the project involve either and what is envisioned role? For now there is mention on their role in "awareness raising" . While details may only be developed in the PPG phase it would be valuable to see a general vision at how, when and why private sector partners will be involved would be useful at PIF stage and aid that these aspects are moved forward during PPG phase ( as defined as relevant).

(10/19/2021) Comment addressed. **Cleared.**

## **Agency Response**

15/10/2021

The project will involve mainly small holders locally and build on their knowledge of water management as well as count on their input into tool and policy development.

The project will encourage the involvement of private sector partners in key consultations related to the TDA/SAP development process.

The PPG phase will be an opportunity to further define the how, when and why private sector partners will be involved in the project. Wording has been added to that effect in the respective section on private sector engagement.

## **Risks to Achieving Project Objectives**

**Does the project/program consider potential major risks, including the consequences of climate change, that might prevent the project objectives from being achieved or may be resulting from project/program implementation, and propose measures that address these risks to be further developed during the project design?**

## **Secretariat Comment at PIF/Work Program Inclusion**

(9/23/2021)

Please revisit the table:

1. High level of water abstraction via agriculture:

Are you sure the risk is low to moderate only? What is the role of the RWG in this aspects and is sentization/awareness raising enough?

2. Political and institutional risks - given the central and essential role of water and groundwater to the economies and limited experience on cooperation on transboundary aquifers the risk suggest to define risk at least as 'moderate' and delete 'low'

3. Climate variability and change impacts on the aquifer - please modify the mitigation measures as CC and CV will likely lead to even

greater use and over-abstraction locally and further salinization due to increasing sea-levels and salt-water intrusion as well as salinization from irrigation.

4. Weak adherence to regional governance structures and failure for national contributions to materialize: why is the risk rated as all three "low-medium- significant" . This maybe a typo?

5. Same in next row: the risk re conjunctive management is rated as" low/significant ". This rating is unclear as written.

(10/19/2021)

1. and 2. addressed

3. Climate risk: Please also update (see earlier comment) and refer in the table to the respective PIF section on a climate risk assessment and also the effort to be made within the project to clarify climate risks (component 1)

4. and 5. addressed

6. Please provide a para or two of text or a text box to summarize how the project is responding to the pandemic: 1. what are risks to the project and how does the project respond to and address these risks and 2. how the project supports recovery and resilience to future pandemics. Thank you.

**(10/26/2021)** Responses noted on climate change and the role of the TDA to identify climate risks to the region in more detail. Climate risks to the implementation of proposed project in itself are low.

**Cleared.**

**Response to comments 10/19/2021**

A.3: This has now been addressed in the PIF. The populations of the Basin, especially in the coastal areas, is exposed to the risks of sea water intrusion and sea level rising affecting coastal habitats. The SMAS Basin is exposed to a combination of rising of the Atlantic, flooding and drought. These issues will be addressed in the TDA.

A. 6. Text has been added under the Risks section to reflect the COVID related risks such as delays of ground activities, adaptive measures for ensuring effective participation in project activities. Strengthening the partners such as the RBOs with knowledge and strategic planning tools to be able to coordinate preventive management. Currently the countries seem to have adapted to minimise the impacts. Revolving plan to adjust each trimester the planning to minimise the delays.

**15/10/2021**

The RWG will contribute to sensitize the populations in the basin. This might not be enough; the politics must help improving their income

The risk category has now been amended to "moderate/significant"

The risk category has now been amended to "moderate"

The risk category has now been amended to "moderate"

The risk category has now been amended to "medium"

**Agency Response**

**Coordination**

**Is the institutional arrangement for project/program coordination including management, monitoring and evaluation outlined?**  
**Is there a description of possible coordination with relevant GEF-financed projects/programs and other bilateral/multilateral initiatives in the project/program area?**

## Secretariat Comment at PIF/Work Program Inclusion

(9/23/2021)

Comments in this regard have mainly already been posted earlier and can be addressed in previous sections/questions, e.g. on

- Roles, mandates and coordination with the RWG
- Consultation and coordination with major water users via e.g SIIP via CILSS and the cities IP and urban governments
- In addition, please revise the project organization structure diagram to be consistent with the text below. e.g. the text mentions a scientific committee which will likely be lead by IGRAC, but the committee is not shown in the diagram. Also, the composition of the RPSC in the diagram could be better aligned with the text.
- For the table of GEF projects: please indicate the most relevant ones and also provide the start and expected closing years of these projects.

(10/19/2021)

1. Executing roles of components/activities: Please confirm that the main executing entity for the PIF is OSS - in line with the LOEs - and other executing roles are indicative at this point and to be confirmed/determined during the PPG phase. This should then be made consistent in Part I of the PIF entry in the portal (as mentioned before).
2. Roles of other entities mentioned under bullet 1 will be addressed in other sections of the PIF once resubmitted (incl the draft/initial stakeholder table in that section of the PIF incl. e.g. the RBOs, the RWG, UNECE and the Geneva Water Hub, BGR ? (much involved in groundwater in West-Africa); SIIP and CILSS; etc.)
3. Please - as mentioned before - reconcile the organogram and the project entities/structure in the text underneath (as mentioned in the Sept. comments).
4. For the table of GEF projects: please indicate the most relevant ones and also provide the start and especially the expected closing years of these projects (see previous comment in Sept.).

**(10/26/2021)** The final choice for of executing agency for the project is noted while OSS will be lead for the PPG phase as per LOEs.

**Cleared.**

## **Agency Response**

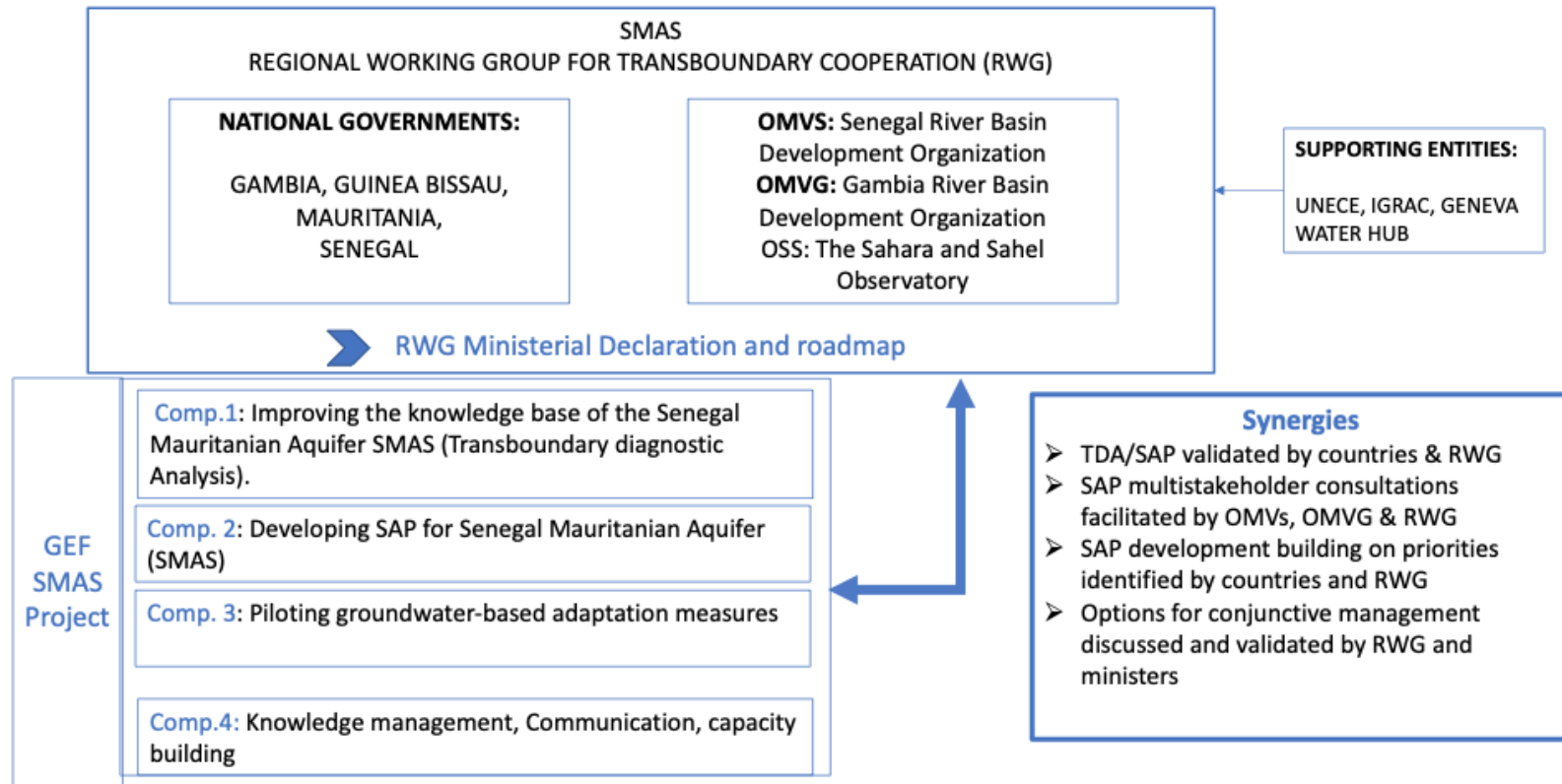
### **Response to comments 10/19/2021**

The above comments have been addressed in the PIF on pages 15 & 16 and in the portal.

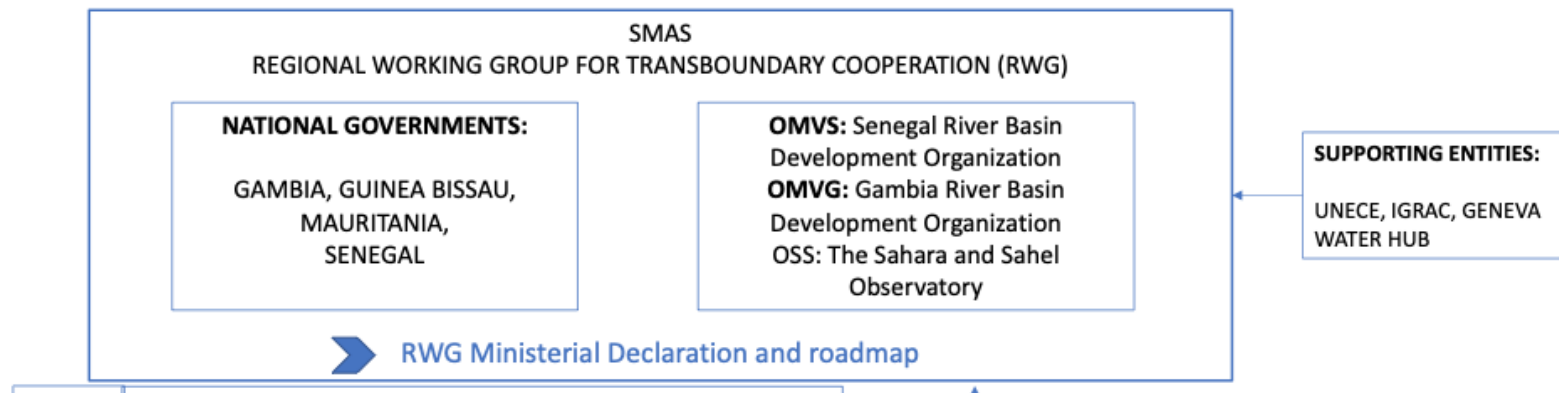
A4: This has now been addressed in page 15 & 16 in the PIF and in the portal

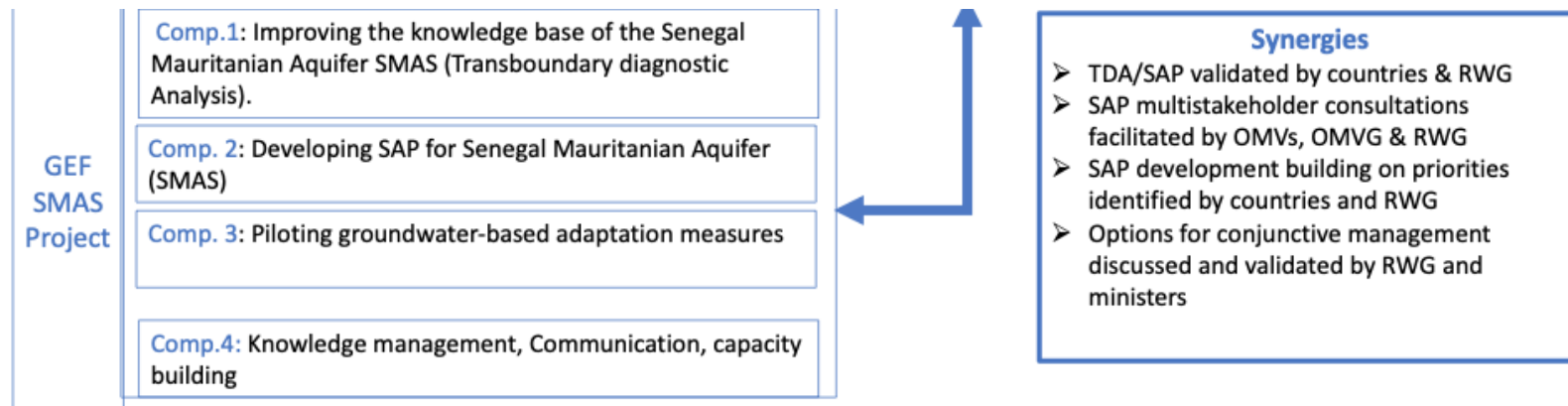
See also reference to figure 2:

## SYNERGIES - SMAS & RWG – REGIONAL GOVERNANCE



## SYNERGIES - SMAS & RWG – REGIONAL GOVERNANCE





15/10/2021

This has now been expanded

Please see page 16.

### Consistency with National Priorities

Has the project/program cited alignment with any of the recipient country's national strategies and plans or reports and assessments under relevant conventions?

Secretariat Comment at PIF/Work Program Inclusion

(9/23/2021) Yes.

Cleared.

Agency Response



## Knowledge Management

**Is the proposed “knowledge management (KM) approach” in line with GEF requirements to foster learning and sharing from relevant projects/programs, initiatives and evaluations; and contribute to the project’s/program’s overall impact and sustainability?**

### Secretariat Comment at PIF/Work Program Inclusion

(9/23/2021) - AH

Please note that usually more than 1 % of the GEF grant is required for meaningful knowledge management activities. The 1 % mentioned is to be allocated to fully participate in [IW:Learn](#) regional and global meetings, to prepare results notes and materials and establish project website. Further funds would be needed to cater to knowledge and information exchanges on more local levels, across countries and with related activities in the region outside those already organized by [IW:Learn](#).

Please therefore provide more detail on: 1) plans to learn from ongoing relevant projects and initiatives, 2) proposed tools and methods for knowledge exchange, learning and collaboration, 3) proposed knowledge outputs to be produced and shared with stakeholders, 4) a discussion on how knowledge and learning will contribute to overall project impact and sustainability, and 5) plans for strategic communications.

(10/19/2021)

The section remains concise but adequate at PIF stage. It is well noted that text has been added with regard to knowledge management and indicative tools and knowledge products in component 4 of the PIF (which you may want to refer to on this section). **Cleared.**

### Agency Response

15/10/2021

This project will take particular attention to extracting lessons learnt from ongoing relevant initiatives and tools and related knowledge outputs. Exchange of experience and sharing of best practices is an integral part of the project with a dedicated component 4 on capacity development, Communication and Knowledge management where it is planned to learn from ongoing relevant projects and initiatives; training sessions and collaborative participation to international events;

## Environmental and Social Safeguard (ESS)

**Are environmental and social risks, impacts and management measures adequately documented at this stage and consistent with requirements set out in SD/PL/03?**

### Secretariat Comment at PIF/Work Program Inclusion

(9/23/2021) - AH

1. It is well noted that the project overall ESS risk is classified as moderate, and UNEP attached the Safeguard Risk Identification Form (SRIF). In addition, regarding the Safeguard Risk Identification Form (SRIF), there is no screening review by the safeguard team and their recommendations. Please ask Agency to provide completed SRIF with the safeguard team review. Regarding project risks related to indigenous peoples, if "Some of the project locations will be on the indigenous people's lands" as explained in the SRIF, please provide more information about risk regarding indigenous peoples whether project bring only positive impacts and no risk related water resource management in the Senegalo-Mauritanian aquifer system and indigenous' agricultural practices. Please provide, if possible, specific processes to identify risks and mitigation measures related to indigenous peoples and vulnerable communities during PPG including Environmental and Social Impact Assessment, Environmental and Social Management Framework, Indigenous Peoples Plan and others.

2. Please provide an updated and **entirely completed ESS**. The one in the portal shows the wrong GEF amount and is not fully completed with regards to further steps and safeguards screening recommendation.

3. Please explain the sections on indigenous people's. This project besides the pilots (which may only be two) does seem to have little on the ground actions - also due the limited project amount. Please shed some light on what indigenous peoples will be engaged and where - see ESS section copied below and address the overall comments provided above:

"Some of the project locations will be on the indigenous people's lands. The activities involve restoration and conservation of degraded biodiversity, restoration water resources that will contribute to the improvement of the livelihoods of the indigenous people and the community at large. "

4. Are there any other vulnerable groups that need to be further considered in the project design and implementation. What about e.g. potential use conflicts between pastoralists and sedentary farmers over groundwater/wells and land.

(10/19/2021)

The revised and completed SRIF and responses are noted. **Cleared.**

## **Agency Response**

**15/10/2021**

1. The Safeguard Risk Identification Form (SRIF has now been updated to reflect the correct title and budget and the signed copy will be attached in the portal
2. The Safeguard Risk Identification Form (SRIF has now been updated to reflect the correct title and budget and the signed copy will be attached in the portal
3. The project in its PPG phase will focus particularly on identifying innovative action and approaches and show that it is possible to improve the situation with more dialogue, awareness and sensitization.
4.  
Improving the water availability in the pilot areas will contribute to prevent from potential use conflicts between pastoralists and sedentary farmers over groundwater/wells and land.

## **art III – Country Endorsements**

**Has the project/program been endorsed by the country's GEF Operational Focal Point and has the name and position been checked against the GEF data base?**

## **Secretariat Comment at PIF/Work Program Inclusion**

SH (2.2.2021):

Please note that GEF needs a minimum of half of project LOEs to perform a technical review.

Further to the above, please note that a revised LOE specific to Gambia should be submitted. Revisions must include the correct Executing Agency, a table indicating TF, Agency, project grant amount, PPG, fees and total costs in correct format. The total GEF financing should include both PIF amounts and PPG and fees as requested in the PIF entry in the Portal

(9/23/2021) - AH    Not yet fully. Please submit the missing two LOEs as soon as you can (LOEs for Guinea-Bissau and Senegal)

**(10/19/2021)** We note that all four countries now have submitted LOEs.

1. Please upload the revised letter for Gambia (I do not see in the portal).
2. There was an unfortunate typo in the last figure of the project total in the LOE from Guinea-Bissau. Thank you for obtaining the new LOE which addressed this issue.
3. Please change the Executing agency in Part I of the PIF entry form to "OSS, others TBD" to allow consistency across LOEs and the text.

**(10/26/2021)** The final choice for of executing agency for the project is noted while OSS will be the lead for the PPG phase as per LOEs with others TBD. **Cleared.**

## **Agency Response**

### **Response to comments 10/19/2021**

- A.1. The revised letter for Gambia has been uploaded
- A.2. The LoE for Guinea Bissau has been revised and uploaded.
- A.3. This has been addressed in the portal

### **Response 15/09/2021**

A revised Gambia Letter of endorsement has been resubmitted.

Yes, extensive discussions have taken place with beneficiary countries and the River Basin Organisations and the LoEs for Guinea Bissau and Senegal has now also been received and uploaded onto the portal with this resubmission.

## **Termsheet, reflow table and agency capacity in NGI Projects**

**Does the project provide sufficient detail in Annex A (indicative termsheet) 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 in Annex B to assess the project capacity of generating reflows? If not, please provide comments. After reading the questionnaire in Annex C, is the Partner Agency eligible to administer concessional finance? If not, please provide comments.

Secretariat Comment at PIF/Work Program Inclusion

N/A

Agency Response

EFSEC DECISION

RECOMMENDATION

Is the PIF/PFD recommended for technical clearance? Is the PPG (if requested) being recommended for clearance?

Secretariat Comment at PIF/Work Program Inclusion

SH (2.2.21):

Please note that UNEP should discuss with GEF the size of the funding envelope for this project. This discussion should happen prior to UNEP collecting the missing LOEs.

(9/23/2021) - AH

The PIF is not recommended yet. Please address comments provided in the review sheet. Please do not hesitate to contact us for any questions with regard to the comments provided.

(10/19/2021) Not yet. Please address the remaining comments. As time is very tight, please do not hesitate to contact us for any questions with regard to the comments provided.

(10/26/2021) Please address the comment on Core Indicator 1

(10/20/2021) Please address the comment on Core Indicator 1.

(10/27/2021) The comments have been addressed and the project is recommended for inclusion in a future work program.

## ADDITIONAL COMMENTS

Additional recommendations to be considered by Agency at the time of CEO endorsement/approval.

Secretariat Comment at PIF/Work Program Inclusion

Review Dates

	PIF Review	Agency Response
First Review	9/23/2021	9/23/2021
Additional Review (as necessary)	10/19/2021	10/19/2021
Additional Review (as necessary)	10/26/2021	
Additional Review (as necessary)		
Additional Review (as necessary)		

PIF Recommendation to CEO

Brief reasoning for recommendations to CEO for PIF Approval

**Background.** The Senegal-Mauritania Aquifer System (SMAS) is extending over a total area of 300,000 km<sup>2</sup> and is shared by four countries – Gambia, Guinea Bissau, Mauritania and Senegal. The aquifer area/basin is crossed by two important transboundary watercourses, the Senegal and the Gambia Rivers. The aquifer system is composed of three major aquifers and its predominant source of recharge is through precipitation. The natural discharge mechanism is through river base flow in Gambia, through discharge of springs in Mauritania, and through submarine outflow in Senegal. The area is also characterized by a great diversity of terrestrial, river and marine or coastal ecosystems, a very high potential for arable land and groundwater reserves with fairly known potential and renewability. The SMAS, therefore, is of strategic importance to social and economic development for the countries and provides the majority of drinking water to some large urban centers, such as e.g. Dakar. Over-abstraction in the East (Senegal) has resulted in change in the groundwater flow regime and has led to salinization of parts of the aquifer. In addition, the four countries are already experiencing water stress and intense water cycle disturbances due to increasing climate variability which is expected to increase significantly due to the effects of climate change, population growth and urbanization. Currently, there is no regional cooperation framework for the governance and management of the transboundary aquifer system.

**The project** will provide the knowledge and information basis supporting the enhanced, integrated and conjunctive management of the SMAS for sustainable use of water resources and to improve food security and resilience to climate change in the region. SMAS's Strategic Action Plan (SAP), validated and adopted by the countries will provide a valuable planning tool to the relevant competent authorities such as the respective river basin organizations (OMVS for the Senegal and OMVG for the Gambia river) to ensure improved aquifer management and poverty reduction by strengthening adaptation to climate change and resilience. The project will facilitate the development of an options assessment to help identify the optimal regional governance mechanism for long term conjunctive management of the surface and groundwater resources of the SMAS.

**Innovation, sustainability and scale-up.** This project is specifically addressing the sustainable management of an overexploited and threatened transboundary aquifer and supports the establishment of a framework for cooperative and concerted governance for this aquifer. It also will provide an options framework for the conjunctive management of the overlying transboundary basins and the aquifer system which by itself has only limited precedence globally and is even more complex as not all river basin riparians are also sharing the aquifer. In the Western Africa Region, this is the second GEF supported intervention of its kind after the one supporting the shared lullemeden-Taoudéni-Tanezrouft aquifer system and its connection with the Niger basin. Though the region contains more than ten shared aquifers most interventions have so far targeted shared surface water only, while groundwater is of strategic importance for different dependent-ecosystems, for socio-economic activities and community resilience also given that groundwater represents a more drought resilient water source and is less prone to evaporation losses.