

Strengthening the sustainable management of the Senegal-Mauritania Aquifer System to ensure access to water for the populations facing climate change

TERMS OF REFERENCE

Recruitment of a national socio-economic expert to contribute to the development of the Transboundary Diagnostic Analysis (TDA) for groundwater in the national portion of the Senegal-Mauritania Aquifer System (SMAS) (Gambia, Guinea Bissau, Mauritania and Senegal)

[AC/OSS/SMAS_Socio-economie/160725-30]

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1. CONTEXT AND RATIONALE

The Sahara and Sahel Observatory (OSS) is an international Organization with an African vocation, created in 1992 and based in Tunis since 2000. Its members include 35 countries (28 African ¹ and 7 non-African), 13 regional Organizations, UN Organizations. The OSS mission is to support its African member countries in the sustainable management of their natural resources in a particularly adverse climate change context. Its activities are primarily located in the arid, semi-arid, and dry sub-humid regions of Africa.

As part of its efforts to promote sustainable water resources management, the OSS focuses on the collaborative management of transboundary aquifers in Africa, including the Senegal-Mauritania Aquifer System (SMAS)², shared between Gambia, Guinea-Bissau, Mauritania and Senegal. This aquifer system is crucial for the livelihoods of local populations, particularly in arid regions where water resources are limited. However, overexploitation of the aquifers and the risk of groundwater pollution are major challenges to contend with.

In May 2020, a Regional Working Group (RWG) for transboundary cooperation on the Senegal-Mauritania Aquifer Basin (SMAB) was established. Its members are the four states sharing the basin (Gambia, Guinea-Bissau, Mauritania and Senegal), the Gambia River Basin Development Organization (OMVG)³, the Senegal River Basin Development Organization (OMVS)⁴ and the OSS, which are involved in this regional dialogue. The purpose is to strengthen transboundary cooperation between the SMAB countries and to encourage them and the Transboundary Basin Organizations (TBOs) to establish a sustainable mechanism for collaborative transboundary management of the SMAB. The regional dialogue on the SMAB is currently facilitated and supported by several international Organizations, including the Geneva Water Hub, the Secretariat of the Convention on the Protection and Use of Transboundary Watercourses and International Lakes (UNECE), and the International Groundwater Resources Assessment Centre (IGRAC).

Since its establishment, the RWG has engaged in the design of a joint program and action plan to fulfill its mission. This program was validated by the ministers of the four countries in September 2021.

The "Strengthening the Sustainable Management of the Senegal-Mauritania Aquifer System to Ensure Access to Water for the Populations Facing Climate Change - SMAS project" is part of the RWG program and will be implemented in close synergy with it. The Project Identification Form (PIF) was developed with UNEP and approved by the GEF in November 2021 following a consultation, development, and review process, followed by the development of the SMAS project document, which was approved by the GEF in June 2022. The financing agreement was signed in January 2024, marking the official launch of the project, which is funded by the GEF (Global Environment Facility) through the United Nations Environment Program (UNEP). The project was officially launched in July 2024 in Senegal.

This regional project aims to promote cooperation between the four (04) countries and to strengthen institutional capacity for the protection and sustainable management of the Senegal-Mauritania transboundary aquifer in order to improve water and food security as well as resilience to climate change. THE OSS is the lead executing agency for the project and will work closely with the national agencies of the participating countries, and transboundary basin ORGANIZATIONS such as OMVG and OMVS.

As part of the SMAS project, a Transboundary Diagnostic Analysis (TDA) will be conducted to identify the main challenges and opportunities related to the sustainable management of the Senegal-Mauritania Aquifer System (SMAS). This TDA will provide an essential technical basis for developing the SMAS Strategic Action Program (SAP).

To inform the regional TDA, national TDAs will be developed in each participating country (Gambia, Guinea-

¹ Algeria, Benin, Burkina Faso, Cameroon, Cape Verde, Ivory Coast, Djibouti, Egypt, Eritrea, Ethiopia, Gambia, Guinea-Bissau, Guinea Conakry, Kenya, Liberia, Libya, Mali, Morocco, Mauritania, Niger, Nigeria, Uganda, Central African Republic, Senegal, Somalia, Sudan, Chad & Tunisia

² Senegal-Mauritania Aquifer System: Acronym reserved for the project financed by the GEF

³ Gambia River Basin Development Organization (OMVG)

⁴ Senegal River Basin Development Organization (OMVS)

Bissau, Mauritania and Senegal). These national analyses will be based on several thematic studies covering the impacts of climate change, the environment, socioeconomics and the legal framework. The thematic reports produced in each country will be consolidated to develop regional thematic reports, which will form the basis for preparing the regional TDA.

National consultants will be recruited in each country to conduct these specific studies, with the support of the National Inter-ministerial Committees, to ensure the quality and relevance of the analyses at the local level. This document is the ToRs for the recruitment of a national socio-economic consultant to contribute to the SMAS groundwater TDA.

2. PURPOSE OF THE CONSULTATION

The objective of the mission is to produce an in-depth analysis of the socio-economic dynamics related to the SMAS groundwater resources, with a view to:

- Strengthening understanding of the socio-economic impacts of transboundary issues on the communities and economic sectors;
- Identifying key stakeholders and their interactions with groundwater resources;
- Proposing recommendations for sustainable and inclusive groundwater resources management, integrating socio-economic and gender dimensions.

3. **RESPONSIBILITIES AND DUTIES OF THE CONSULTANT**

Under the supervision of the project coordinator based at the OSS, the national socioeconomic consultant will work closely with national stakeholders and other project experts and will be responsible for:

- Collecting and analyzing existing documents related to the SMAS project, including previous reports and relevant studies on the Senegal-Mauritania aquifer system and the Senegal and Gambia river basins;
- Collecting and analyzing documents developed as part of the RWG works, focusing on improving knowledge and managing the SMAS water resources;
- Analyzing national reports prepared by members of the National Inter-ministerial Committee, related to the SMAS transboundary groundwater;
- Analyzing documents and reports from similar projects or initiatives, focusing on socioeconomic analyses of the impacts of transboundary issues, as well as demographic, economic and legal data;
- Collecting and analyzing (but not limited to):
 - ✓ Demographic information (overall population, population age, migration trends, population growth rate, urbanization rates, number of inhabitants per km²), etc.
 - Public health information (life expectancy at birth, infant mortality, percentage of the population suffering malnutrition, percentage of poverty, and percentage of access to health care), etc.
 - ✓ GDP per capita, employment rate by sector, income per GDP by sector, the GINI index; access rates to drinking water and sanitation.
- Conducting an analysis of stakeholders working on groundwater resources within the framework of the SMAS, at the national level, identifying their roles, interests, and potential contributions;
- Assessing the socio-economic consequences for each priority transboundary issues identified by the members of the Inter-ministerial Committee in the Senegal-Mauritania aquifer basin;
- Analyzing stakeholders at the SMAS level, considering the Senegal and Gambia river basins, with particular attention to gender integration as a key variable, and developing a plan to promote their participation in the TDA/SAP implementation;
- Conducting an analysis of environmental goods and services related to transboundary groundwater in the SMAS, aimed at preventing, reducing and eliminating identified transboundary risks, while ensuring the preservation and sustainability of natural resources, particularly groundwater;

- Analyzing the socio-economic causes (fundamental and root causes) related to transboundary issues affecting groundwater in the SMAS, and assessing their socio-economic consequences and impacts to guide strategic actions;
- Present the thematic report at a national validation workshop.

4. **EXPECTED RESULTS**

- A detailed stakeholder analysis, identifying their roles, interests and potential contributions, with explicit integration of the gender dimension;
- A comprehensive assessment of the socio-economic impacts of priority transboundary issues, providing a solid basis for guiding strategic decisions;
- A compilation of existing socio-economic data, including demographic, economic and public health information, consolidated in an aligned format compatible with regional databases;
- A diagnosis of data and knowledge gaps, supported by concrete proposals to address these gaps and strengthen the quality of future analyses;
- A detailed national thematic report, including an in-depth socio-economic analysis of the impacts of transboundary issues on SMAS groundwater resources, and strategic recommendations tailored to the national context for sustainable and inclusive management.

5. **METHODOLOGY**

The consultant is free to define their methodology; however, a participatory approach is strongly recommended. This approach must actively involve national and local stakeholders, in collaboration with the National Inter-ministerial Committees, the RWG, and other thematic consultants involved in the development of reports and the TDA.

The proposed methodology must be detailed in the offer, specifying the key steps, tools and techniques to be used to ensure quality results aligned with the project's objectives.

6. **PROFILE AND QUALIFICATIONS OF THE CONSULTANT**

6.1. Training and academic level

A Master's degree, an Engineering degree or a Ph.D. in economics, rural sociology, or an equivalent field.

6.2. Experience and skills required

- A minimum of ten (10) years of experience in formulating socio-economic studies for development projects related to groundwater resources management;
- Experience in assessing the socio-economic impacts of transboundary issues, particularly in the context of integrated aquifer and river basin management;
- Proven experience in implementing development projects involving the analysis of socio-economic dimensions, particularly in West Africa;
- Experience in conducting socio-economic analyses integrating gender and social inclusion dimensions;
- Knowledge of participatory approaches and stakeholder management in a regional or transboundary context;
- Practical experience in the SMAS project intervention areas or in similar contexts, with an understanding of local and regional dynamics;
- Good understanding of the principles of integrated management of aquifer systems and river basins, particularly in a transboundary context;
- Ability to analyze the socio-economic consequences of transboundary issues and formulate appropriate strategic recommendations;
- Experience in negotiating and facilitating intergovernmental or multi-stakeholder consultations;
- Excellent writing and communication skills in French or English, depending on the national context;

- Demonstrated experience in drafting high-quality technical reports, consolidating complex analyses;
- Ability to work in a team and collaborate effectively with a variety of stakeholders, including national and local authorities and civil society Organizations;
- Proficiency in office software (MS Word, MS Excel, MS PowerPoint);
- Familiarity with specialized software for database management and socio-economic analyses.

7. **DURATION, EXPECTED DELIVERABLES AND PAYMENT TERMS**

7.1. Duration of the assignment

The duration of the assignment is estimated at 75 calendar days.

7.2. Deliverables

- **Deliverable 1**: Inception report including a detailed work plan, a precise timeline, and initial guidelines for the collection and analysis of socioeconomic data. This report is due **fefteen** (15) days after the scoping meeting with the OSS.
- **Deliverable 2**: Interim report presenting a summary of the socioeconomic data collected, a preliminary assessment of the socioeconomic impacts of transboundary issues on SMAS groundwater resources, and an identification of gaps or missing data. This deliverable must be submitted **forty-five (45)** days after contract signature. This report will be presented during a national workshop by the consultant.
- **Deliverable 3**: Final report, detailing the activities carried out, the methodologies used, the results obtained, the gaps identified, as well as strategic recommendations for sustainable and inclusive groundwater resources management. This report must be submitted **twenty (20)** days after validation of deliverable 2.

| Table 1 - List of | deliverables and | deadlines |
|-------------------|------------------|-----------|
|-------------------|------------------|-----------|

| Deliverable | Delivery dates |
|--|---|
| D1: Inception report including a detailed work plan, a precise timeline, and initial guidelines for the collection and analysis of socioeconomic data. | Fefteen (15) days after the scoping meeting |
| collected, a preliminary assessment of the socio-economic impacts, and an | Forty-five (45) days after the contract is signed |
| D3: Final report detailing the methodologies used, the data collected, the gaps identified, as well as strategic recommendations for sustainable management of groundwater resources. | Twenty (20) days after the validation of deliverables 2 and after the national workshop is held |
| Total | |

7.3. Payment Terms

The consultant will receive a maximum lump sum of **USD 7,000** for the entire assignment. Payment will be made in two installments, as follows:

| Installments | Payment terms | Montant |
|---------------|--|----------------------------------|
| Installment 1 | Validation by the OSS of Deliverable 1 (Inception Report) and Deliverable 2 (Interim Report including preliminary analyses and summary of socio-economic data).) | 50% of the total contract |
| Installment 2 | Validation by the OSS of the final report including the adjustments resulting from the national workshop (Deliverable 3) | 50% of the total contract |

Table 2 - Payment terms

PN: the deadlines reserved for the validation of deliverables are not counted

8. **PRESENTATION OF THE FILE**

8.1. Technical proposal

- A technical proposal of no more than 5 pages justifying their qualification to deliver, satisfactorily and on time, high quality services at the end of the consultancy requested, the proposal of a succinct methodology explaining the approach, the way in which the consultancy will be carried out as well as a work plan including the various deliverables whose completion will be linked to the payment terms;
- A Curriculum Vitae setting out the level of training required and the expert's experience in consultancy or similar fields (in accordance with the standard OSS CV template which can be downloaded from the following link: [OSS CV template]);
- A table detailing the references relevant to the proposed expert's mission;
- Other references considered useful;
- Duly completed model declaration on honour (Annex 2);
- Copies of diplomas;
- Other references deemed useful.

8.2. Financial offer

The financial offer must include the following documents:

• A financial bid submission form in accordance with the form in **Annex 1**;

9. SELECTION PROCESS

The selection of bids will comprise two stages: A first stage relating to the evaluation of the technical offers followed by a second stage relating to the evaluation of the financial offer.

9.1. Technical proposal

CVs will be evaluated and compared separately and independently of any financial considerations. It will be scored out of 100 points on the basis of the criteria set out in the table below.

To be eligible, the candidate's technical offer must obtain a minimum score of 70 out of 100.

| Section | Points |
|---|--------|
| General qualifications / Master's degree, Engineering degree or PhD in economics, rural sociology or equivalent field | 15 |
| Working methodology: clear and coherent approach, structuring of stages, suitability in terms of deadlines and specific project objectives | |
| Experience in formulating socio-economic studies of development projects relating to groundwater resource management ; Experience in conducting socio-economic analyses incorporating gender and social inclusion dimensions. | 30 |
| Experience in assessing the socio-economic impact of cross-border issues, particularly in the context of integrated management of aquifer systems and river basins; Proven experience in the implementation of development projects involving the analysis of socio-economic dimensions, particularly in West Africa | |
| Language skills (French + English) | 5 |
| Total | 100 |

9.2. Financial offer

The financial evaluation will concern only the bids of tenderers pre-qualified after the technical evaluation. The financial offer scores (Nf) will be calculated as follows: Nf = $100 \times Fm/F$, where:

- Nf: Bidder's financial score
- Fm: Lowest financial proposal of the technically successful bids
- F: Tenderer's financial proposal

9.3. Final evaluation

Tenders will be ranked according to their overall score (NG) in accordance with the following formula: NG = $[Nt \times (70\%)] + [Nf \times (30\%)]$

- - NG: Overall score
- - Nt : Technical score
- - Nf: Financial score

The tender with the highest overall score (NG) will be selected.

10. SUBMISSION PROCEDURES AND DEADLINE

Tenders must be sent by e-mail to the following address: procurement@oss.org.tn mentioning the reference: "National Consultant socio-economist contributing to TDA [AC/OSS/SMAS_Socio-economie/160725-30]" in the subject line.

The deadline for receipt of tenders is August 6th, 2025 at 23:59 (Tunis time) and 22:59 (GMT).

Annex 1 - Financial proposal submission form

| Tender addressed to (procurement and disposal entity) : | |
|---|--|
| Date of financial offer : | |
| Procurement reference number: | |
| Subject of the procurement: | |

The total price of our offer is : _

We confirm that the prices indicated in our financial offer are fixed and firm for the period of validity and will not be subject to any revision or variation.

Financial offer authorised by:

| Signature : | Name | |
|----------------------------------|--------|--|
| Position : | Date : | |
| Authorised for and on behalf of: | | |
| The consultant : | | |

Signature and stamp of the consultant's legal representative

Annex 2 - Model declaration of honour

Subject of the call for tenders:

| the undersigned (full name) : |
|--|
| lationality: |
| Acting in the capacity of: |
| Company name: |
| Address : |
| Registered in the Commercial Register under n°thetheatat |
| iscal number: |

• I declare on my honour:

- 1. I have never been in receivership and have never been the subject of any legal proceedings on any grounds whatsoever,
- 2. I undertake not to resort, either personally or through an intermediary, to practices that could be described as embezzlement, fraud or corruption in the various procedures for the award, management and performance of this contract,
- 3. in the event that my tender is selected, to respect the procedures in force at the OSS and the obligation of reserve and professional secrecy for all facts and/or information that I may come to know,
- **Certify** the accuracy of the information contained in this declaration on my honour and in the documents provided in my tender.
- **Certify** that I am not related to any person receiving any remuneration whatsoever from the OSS
- Acknowledge that I am aware that any inaccuracies or errors and any shortcomings that may be found in the content of my offer, as well as any failure to comply with the conditions of participation, will result in my application being rejected.

Done at.....the.....

Signature and stamp of the consultant's legal representative.