

Sustainable Management and Protection of the Transboundary Djeffara/Jifarah Aquifer System

Review PIF and Make a recommendation

Basic project information

GEF ID
12282
Countries
Regional (Libya, Tunisia)
Project Name
Sustainable Management and Protection of the Transboundary Djeffara/Jifarah Aquifer System
Agencies
FAO
Date received by PM
2/16/2026
Review completed by PM

Program Manager
Taylor Henshaw
Focal Area
International Waters
Project Type
MSP

GEF-8 PROJECT IDENTIFICATION FORM (PIF) REVIEW SHEET

1. General Project Information / Eligibility

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

Secretariat's Comments

22nd of April 2026 (thenshaw and eborgomeo):

(a) Yes

(b) (i) Please consider some national entity project execution to ensure project outcome sustainability.

(ii) Project Sector. Please remove "Mixed & Others". CCM only.

(iii) Please see Tunisia LOE comment below. (now addressed).

Please check formatting throughout Portal submission.

26th of May 2026 (thenshaw and eborgomeo):

(i) Please note Government of Tunisia and Government of Libya as "TBD"

(ii) Not addressed. Please leave this section blank (remove "Climate Change Adaptation Sector"). This field is for CCM projects only.

(iii) Addressed

6th of June 2026 (thenshaw): Addressed

Agency's Comments

(b) (i) Addressed.

(ii) Addressed

(iii) Addressed.

Formatting has been checked.

29th May 2026

(i) Addressed.

(ii) Addressed.

2. Project Summary

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

Secretariat's Comments

22nd of April 2026 (thenshaw and eborgomeo):

(i) At the beginning of the summary, please describe the importance/significance of this aquifer system to the two countries before noting the environmental problems. Include a brief description of the system.

(ii) The GEBs for this investment are too low. Please include terrestrial Core Indicators 3 and/or 4 and possibly 6. "Traditional and/or novel practices to address management issues demonstrated in

priority areas of the Djeffara Aquifer System, including sustainable agricultural practices (e.g., crop diversification and smart/precision agriculture) and water practices (e.g., non-conventional water use, aquifer recharge, and irrigation efficiency technologies)" should be able to target these GEBs.

(iii) Is there anything new for the IW aquifer portfolio that is being tested through this investment? If so, please describe.

26th of May 2026 (thenshaw and eborgomeo):

(i) In transitioning from constraints/barriers to the project objective, please note that the project is designed to overcome these identified barriers, then state the objective.

In the Component 2 description "develops a jointly agreed Strategic Action Programme (SAP)", please include "endorsed by the two countries".

Please remove "M&E: gender-sensitive adaptive monitoring, evaluation, and learning processes". This applies to all projects so is not needed in the summary.

Please define what "no regret" means for the casual reader.

Again, Component 4 needs to be renamed. It is not a standalone component for stakeholder engagement and gender mainstreaming. Please revise.

Rather than simply listing the four components as a summary of the project, please instead present a flowing summary narrative of the project and how the components, outcomes and outputs connect to realize the project goal.

The last paragraph of the project summary (?by combining ??) can be deleted.

(ii) Please see Core Indicator comments below.

(iii) Addressed

6th of June 2026 (thenshaw): Addressed

Agency's Comments

(i) Thank you. The comment has been addressed.

(ii) Thank you. The project GEB targets have been revised to include CI-4. During PPG, the project will further assess reporting against Core Indicator 3 and 6.

(iii) Thank you. The project introduces innovative elements for the GEF IW aquifer portfolio by combining science-to-policy and demonstration-to-scaling approaches in a transboundary coastal aquifer context. The project will test integrated approaches - further refined during the PPG and project implementation phases - linking climate-resilient agricultural water management, non-conventional water use, groundwater recharge, and monitoring systems to reduce groundwater stress and salinization risks. It will also generate data, practical lessons, and management approaches relevant to Mediterranean LME-related and coastal management initiatives.

29th May 2026

(i) A transition from constraints/barriers to the project objective has been introduced.

Specific to the component 2 description, "Endorsed by the two countries" have been added?

?M&E: gender-sensitive adaptive monitoring, evaluation, and learning processes? have been removed.

?No-regret? actions are those that deliver benefits for groundwater management and reduce risks - such as over-abstraction, pollution, etc.- while remaining effective under a wide range of future climate, socioeconomic, and policy scenarios.

Thank you. The Component 4 title now reads ?Knowledge management, learning and communication?.

In terms of presenting a flowing summary narrative, please note that the component description has been re-casted to address this comment, while maintaining the requested edits, e.g., ? Endorsed by the two countries?.

Finally, the last paragraph of the project summary (?by combining ??) has been deleted.

3 Indicative Project Overview

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

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

Secretariat's Comments

22nd of April 2026 (thenshaw and eborgomeo):

(a) Please remove "The main objective of the project is" and start with "To...."

The project objective captures the key ambition of the project. However, it's not concise and it partly conflates means and ends. The phrase ?by strengthening knowledge, governance, and investment frameworks" describes the mechanism, not the objective?. The objective could be rephrased to:

To enable science-based national and transboundary management of the Djeffara/Jifarah Aquifer System, reducing groundwater overexploitation and salinization risks across Tunisia and Libya.

(b)

(i) The project overview table presents the Components out of order. Please revise.

(ii) "Output 2.1.2: A Strategic Action Programme (SAP) for the Djeffara Aquifer System jointly developed and presented for high-level endorsement." Please adjust to "A Strategic Action Programme (SAP) for the Djeffara Aquifer System jointly developed and endorsed by the countries".

(iii) "Output 2.1.4: Options for a bilateral institutional arrangement for coordinated management of the Djeffara Aquifer System developed and presented to the two countries for consideration". Please adjust to "Output 2.1.4: Options for a bilateral institutional arrangement for coordinated management of the Djeffara Aquifer System developed and presented to the two countries for consideration and early operationalization". The GEF grant must support more than presenting options for consideration.

(iv) "Output 4.1.4: A gender-responsive stakeholder analysis and engagement plan, together with a strategic communication and outreach plan, developed and implemented". A Stakeholder Engagement Plan should not be a project output, but rather a crosscutting plan to support project outputs. Please remove from project architecture.

(v) Gender mainstreaming and "stakeholder engagement" should not be only targeted in Component 4 as "gender mainstreaming" and "stakeholder engagement" outcomes. They must be embedded in outputs across the components. Please revise.

(vi) See M&E comments below. Please number M&E Outputs as "5" or do not number. M&E should not be grouped together with the KM Component 4. M&E budget exceeded. Please lower to 5%.

26th of May 2026 (thenshaw and eborgomeo):

(a) (i) Addressed

(b) (i) Addressed

(ii) Addressed

(iii) On second read ""Output 2.1.4: Options for a bilateral institutional arrangement for coordinated management of the Djefara Aquifer System developed and presented to the two countries for consideration and early operationalization" is not clear. Instead, please consider "Options for a bilateral institutional arrangement for coordinated management of the Djefara Aquifer System developed and presented to the two countries for consideration and inclusion in the SAP."

Related, for "Output 2.2.1: Financing framework to support implementation of Strategic Action Program", please include an action word i.e. "Financing framework developed [or built] to support implementation of the Strategic Action Program".

(iv) Addressed

(v) Not addressed. "Component 4: Knowledge management, learning, gender mainstreaming, and stakeholder engagement" still remain as a Component title. Gender mainstreaming and stakeholder engagement are crosscutting and should not be marked to a standalone project component. Please remove and revise accordingly. Similarly, please adjust the outcome language. Please adjust TOC diagram and associated narrative accordingly.

(vi) Addressed, but please add "PIRs completed" to Output 5.1.2.

6th of June 2026 (thenshaw):

(b)(iii) Not fully addressed

"Outcome 2.2: Financing frameworks and investment pathways for sustainable management of the Djefara/Jifarah Aquifer System strengthened" is now missing from the project overview table. Please include. Please space Outputs 2.1.3 and 2.2.1, as they read as one output due to formatting.

Comment on Output 2.2.1 not addressed. "Output 2.2.1: Financing framework to support implementation of Strategic Action Program", please include an action word i.e. "Financing framework developed [or built] to support implementation of the Strategic Action Program".

The phrasing for Output 2.1.1 is still vague. What does "agreed and supported" mean? Who is agreeing? What does support mean? Can this be clarified in the phrasing? "Output 2.1.1: No-regret national-level policy and management actions identified, agreed, and supported for initial implementation, informed by gender-responsive and socially inclusive governance approaches, to address urgent groundwater pressures with transboundary implications."

(v) Addressed

(vi) Not addressed. Please include "PIRs completed"

9th of June 2026 (thenshaw): Addressed

Agency's Comments

FAO 7th of June 2026

(b) (iii) The project overview table has been updated accordingly to reflect "Outcome 2.2: Financing frameworks and investment pathways for sustainable management of the Djeffara/Jifarah Aquifer System strengthened".

A space has also been added between Outputs 2.1.3 and 2.2.1, so they should now appear clearly separated.

Following the indications of GEF Sec, the text of Output 2.1.1 was modified as: "No-regret national-level policy and management actions identified and agreed upon, with their initial implementation supported by countries and relevant stakeholders. These actions will be informed by gender-responsive and socially inclusive governance approaches and will address urgent groundwater pressures with transboundary implications".

Following the indications of GEF Sec, the text of Output 2.2.1 was modified as: "Financing framework built to support implementation of the Strategic Action Program".

(vi) reference to "PIRs completed" has been added to output 5.1.1 in the project overview table and project description, now reading: "Output 5.1.1: A gender-responsive project monitoring, evaluation and adaptive management system established and operational, including annual PIRs completed".

(a) Thank you. The project objective has been revised to better distinguish the intended development objective from the mechanisms and enabling approaches used to achieve it.

(b):

(i) Addressed, the components are in order now

(ii) Thank you. The output has been revised to strengthen the formulation and better reflect the intended country-led development and endorsement of the SAP.

(iii) Thank you. The output has been revised to better reflect the project's intention to support not only the development of institutional arrangement options, but also initial steps toward operationalization.

(iv) Thank you. The stakeholder engagement plan has been removed from the formal project architecture and will instead be treated as a cross-cutting implementation instrument supporting project delivery.

(v) Thank you. Gender has been further strengthened in targeted outcome/output titles and/or descriptions, including output 1.1.2; 1.1.3; 2.1.1; 2.1.2; 3.1.1; output 4.1.1; 4.1.2 and 4.1.4. In addition, the Coordination and Cooperation with Ongoing Initiatives and Projects section has been strengthened to include coordination with relevant Tunisia/Libya gender specific projects

and initiatives. Further, the 'Stakeholder mapping' table has been strengthened to include Tunisia Ministry of Women, Family, Childhood and Seniors (MFFCES) and Libya Ministry of Social Affairs / gender-related functions.

Finally, stakeholder engagement have been further integrated within the ToC section, relevant output descriptions etc. to better reflect the expected roles and participation of stakeholders across project components and activities. During the PPG phase, stakeholder engagement and gender-related activities and indicators will be further detailed.

(vi) Addressed

29th May 2026

(iii) Output 2.1.4 (Output 2.1.3): the output title is now changed to reflect into the title the reviewer proposed. The description of the output changed to reflect the new title.

Output 2.2.1: Done as advised.

(v) Thank you. Component 4 has been retitled as 'Knowledge management, learning and communication' and no longer includes 'gender mainstreaming' or 'stakeholder engagement' in the title. The Component description, Outcome 4.1 title and associated narrative have been revised accordingly to clarify the component's knowledge management, communication, and learning support role. Gender mainstreaming and inclusive stakeholder engagement are now reflected as cross-cutting approaches applied across all project components. The ToC figure and associated narrative have also been adjusted accordingly.

(vi) 'PIRs completed' has been added to output 5.1.1.

3.2 Are gender dimensions, knowledge management, and monitoring and evaluation included within the project components and appropriately funded?

Secretariat's Comments

30th of March 2026 (thenshaw and eborgomeo):

Gender: No. Gender aspects must be mainstreamed across the components, not just as part of a KM and stakeholder engagement component. Please revise.

Please include women empowerment activities as part of the Component 3 demonstrations.

Please ensure that dedicated knowledge products on lessons learned and best practices in advancing women's empowerment are developed/documented and widely disseminated.

KM: Yes

M&E: Output 4.2.1 is too vague. Example M&E outputs are : 5.1. A gender-responsive project Monitoring and Evaluation System designed and operational; 5.2. Annual binational review and grievance mechanism developed & implemented. PIRs completed and independent project evaluations conducted

26 of May 2026 (thenshaw and eborgomeo)

Gender: Partially addressed.

For Output 3.1.1: Gender-responsive traditional and/or novel practices to address management issues demonstrated in priority areas of the Djeffara/Jifarah Aquifer System, including sustainable agricultural practices (e.g., crop diversification and smart/precision agriculture) and water practices (e.g., non-conventional water use, aquifer recharge, groundwater level monitoring, and improved irrigation water management approaches)". Gender responsive does not go far enough. Please also include "women empowerment" in the output phrasing.

M&E: See comment above. Please include "PIRs completed" in the project output language.

New Comment

"Output 3.1.2: Project and investment fiches developed for the implementation of priority climate resilient water and food security infrastructure investments". What happens after they are "developed". Please include language in output. Are they presented to the governments? Annexed to the SAP for SAP implementation?

6th of June 2026 (thenshaw):

Gender: Addressed

M&E: Not addressed. PIRs missing from output phrasing.

Output 3.1.2: Addressed. However, if there is alignment between fiche and SAP completion, annexing the fiches to the SAP is encouraged.

9th of June 2026 (thenshaw): Addressed

Agency's Comments

FAO 7th of June 2026

PIRs completed has been added to output 5.1.1

Output 3.1.2: in the project description, the following sentence has been added to capture the donor's suggestion: "The fiches will be annexed to the SAP"

Thank you. This comment has been addressed.

Thank you. Women empowerment activities and framing have been strengthened under output 3.1.1.

Thank you. Output 4.1.3 has been revised to include dedicated knowledge products on lessons learned and best practices in advancing women's empowerment.

M&E: addressed and revised

Output 3.1.1: Thank you. The output title have been edited to start with "Gender-responsive and women-empowering traditional and/or novel practices to...". PIF sections and figures have been revised accordingly. The PIF included already text as follows "Where feasible and appropriate, the project will explore opportunities for selected demonstration activities to be women-led or specifically designed to strengthen women's participation and leadership in climate-resilient groundwater and agricultural water management practices." In line with the reviewers' comment,

we have added the following criteria for the selection of demonstration sites "criteria that prioritize women-led agricultural businesses or farms".

M&E: Comment addressed? please see also response in the reviewers' comment above.

29th May 2026

Output 3.1.2: Thank you. The downstream use of Output 3.1.2 has been clarified through addition of a new activity under the output: "(v) Identification of, in cooperation with the governments of the two beneficiary countries, and through targeted engagement with donors and financing partners, opportunities for mobilizing support for implementation of priority projects." The revised text clarifies that project and investment fiches are intended to support government dialogue, investment prioritization, and financing mobilization. While linkages with SAP implementation will be pursued where feasible, the project does not commit to formal annexation of fiches to the SAP, as the respective preparation and implementation timelines may not fully align.

3.3 a) Are the components adequately funded?

b) Are the GEF Project Financing and Co-Financing contributions to PMC proportional?

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

Secretariat's Comments

22nd of April 2026 (thenshaw):

(a) Partly.

The GEF Resources allocated to M&E are 5.25% - for projects up to \$5 million, the recommended threshold is 5% - please revise.

(b) No. The co-financing contribution to PMC is 1.69%. The GEF financing is 4.76%. Please revise.

(c) Yes

26th of May 2026 (thenshaw and eborgomeo):

(a) Addressed

(b) Not addressed. The co-financing contribution to PMC is 1% higher than GEF grant contribution to PMC. Please ensure proportionality.

6th of June 2026 (thenshaw): Addressed

Agency's Comments

(a): Addressed and revised

(b): Addressed

29th May 2026

(b) co-financing contribution to PMC has been revised to ensure standard proportionality

4 Project Outline

A. Project Rationale

4.1 SITUATION ANALYSIS

a) is the current situation (including global environmental problems, key contextual drivers of environmental degradation, climate vulnerability) clearly and adequately described from a systems perspective?

b) Are the key barriers and enablers identified?

Secretariat's Comments

22nd of April 2026 (thenshaw and eborgomeo):

(a) Yes

(b) Yes

Barrier 1 should be expanded to also include lack of knowledge around the benefits of cooperation. Barrier 4 should be amended as irrigation efficiency improvements do not lead to reductions in water withdrawals.

26th of May 2026 (thenshaw and eborgomeo): Addressed

Agency's Comments

(b) Thank you. Barrier 1 has been revised to better reflect limited awareness and evidence regarding the benefits of transboundary cooperation and coordinated groundwater management. Barrier 4 has also been revised to avoid framing irrigation efficiency improvements as a standalone mechanism for reducing groundwater withdrawals, and instead emphasizes broader groundwater demand management, conjunctive water use, governance, monitoring, and climate-resilient agricultural water management approaches.

4.2 JUSTIFICATION FOR PROJECT

a) Is there an indication of why the project approach has been selected over other potential options?

b) Does it ensure resilience to future changes in the drivers?

c) Is there a description of how the GEF alternative will build on ongoing/previous investments (GEF and non-GEF), lessons and experiences in the country/region?

d) are the relevant stakeholders and their roles adequately described?

Secretariat's Comments

22nd of April 2026 (thenshaw and eborgomeo):

(a) Yes

(b) Yes

(c) Yes

(d) Yes

Broadly yes, however, the section on 'stakeholders' should clarify whether there are specific CSOs already working to advance sustainable aquifer management in the two countries.

26th of May 2026 (thenshaw and eborgomeo): Addressed

Agency's Comments(d): Thank you. The Stakeholder Mapping Table has been revised to include Civil Society Organizations (CSOs) already working to advance sustainable aquifer management, including ACDD Gab's, ASOC Chenini, ADD M'denine, and APEDD Tataouine, REWAD Dev. Organization and LECAO Organization. This list and the roles of CSOs will be further expanded during PPG.

5 B. Project Description

5.1 THEORY OF CHANGE

a) Is there a concise theory of change that describes the project logic, including how the project design elements will contribute to the objective, the expected causal pathways, and the key assumptions underlying these?

b) Are the key outputs of each component defined (where possible)?

Secretariat's Comments

22nd of April 2026 (thenshaw and eborgomeo):

(a) Yes

LTO specified in the ToC is different from the project's objective as stated in the PIF. This should be harmonized.

(b) Please fix formatting for Component 3 heading.

Please see comments above on output/outcome structure and revise accordingly.

Component 1.

? Page 29 mentions 'collection of available field and secondary data'. The type of secondary data needs to be specified (e.g., remote sensing?)

? Under outcome 1.1 and output 1.1.3, reference to the source-to-sea continuum is not necessary, not least because Component 1 focuses on characterizing the hydrogeological characteristics of an aquifer, not coastal and marine health.

? Output 1.1.2 seems to assume that countries will agree to data sharing and to the groundwater monitoring program. This assumption needs to be supported or alternatively the ambition of this output reduced to having a transnational groundwater monitoring system designed for consideration by countries. Also, if countries have to agree to an information sharing mechanism, this would likely require a legal agreement, which would have to be an additional output.

Component 2.

? Outcome 2.1 bundles together outcomes at the policy and investment level. It would make sense to have a separate outcome area focused on investment framework and pipeline, with output 2.1.3 as the sole key output.

? Emphasis on no-regret actions under Output 2.1.1 is welcome. However, the proposed activities (e.g., recharge area protection or abstraction permitting) are difficult to implement in practice because of political economy constraints. The project should set realistic expectations as to what can be achieved through no-regret rapid interventions, and identify mitigation strategies for political economy risks (i.e., abstraction permitting is a difficult measure to implement). Emphasis should be placed on first identifying potential mechanisms to manage the political economy risks, and then implementing the no-regret solutions (test the feasibility of remote sensing based groundwater abstraction monitoring, for example).

? Output 2.1.3 emphasizes WEFE nexus; however, it is suggested that the PIF either explains why a WEFE approach is needed in this context (i.e., are countries interested in solar irrigation, or solar powered desalination to recharge aquifers?) or drops the reference to the WEFE nexus to focus on an investment program for sustainable aquifer management. To reduce jargon and streamline language and clarity, this output should simply be labeled ?Financing framework to support implementation of Strategic Action Program?.

? Under Output 2.1.3, activity (ii) intends to map existing financing sources. This mapping is arguably already available for the water sector in Libya and Tunisia, hence this activity should focus on matching specific SAP priorities to specific financing sources.

? Under Output 2.1.4, project intends to identify cooperation scenarios along the ?cooperation continuum?, whilst under output 1.1.2 the project already assumed that countries will agree on a groundwater monitoring and information management programme. These two outputs need to be harmonized and, as suggested earlier, outputs under component 1 should be made more realistic in light of the challenges inherent in getting countries to agree on data management systems and protocols.

? Under Output 2.1.4., the approach to promoting cooperation should focus on explaining the benefits of cooperation: rather than explaining to countries HOW they can cooperate, the output should focus a lot more on WHY they should cooperate (i.e., benefit sharing, issue linkages). The information will be available through the TDA, and should form the basis for discussions on the institutional arrangements for cooperation (in setting-up a joint institution or information exchange protocol, countries would start by explaining why they want to cooperate).

Component 3.

? Under Outcome 3.1, the proposed activities need to be revised to remove irrigation efficiency, which does not lead to reduced water consumption as demonstrated through several experiences (including FAO?s own reports, see here: <https://openknowledge.fao.org/server/api/core/bitstreams/4416ca40-cebf-4272-a847-bdadf377a1df/content>). The other proposed activities are more aligned to international best-practice, including the emphasis on conjunctive use.

? Under Outcome 3.1, selection criteria for pilot sites should be presented, beyond generic reference to participatory approaches, additional criteria for selecting pilot locations may include security, accessibility and feasibility.

26th of May 2026 (thenshaw and eborgomeo):

New Comments:

Thanks for having revised the ambition under Output 2.1.1. While some examples of the ?no-regret? actions are provided on page 30, it would be important to briefly explain what it is meant by ?no-regret? action. Does no-regret mean that the actions will generate benefits whether or how climate change unfolds (pg. 46, under climate risk)? A concrete definition will also help with the project stakeholder consultation where the list of actions will be finalized, and understand how the no-regret actions help with management of political and governance risks (pg. 46). Additional clarity at this stage will help avoid confusion further down the line.

Please fix the title of Component 4. Remove stakeholder engagement and gender mainstreaming as these are crosscutting, not standalone.
Similarly, please adjust the outcome language.

6th of June 2026 (thenshaw): Addressed

Agency's Comments

Thank you. The LTO and project objective have been further harmonized while maintaining the intended Theory of Change hierarchy, with the project objective focusing on the direct management outcome and the LTO reflecting the broader long-term contribution to water security, food security, and ecosystem resilience.

(b) Addressed

Component 1:

(1) Thank you. Secondary data is now specified. The following data categories are included as text ?such as meteorological and climatic, geological, socio-economic, land use, hydro-chemical, ecosystem related, geospatial (including remote sensing) etc.?

(2) Thank you. Done as advised.

(3) Thank you. The ambition is adjusted. The project will develop the tools and present these to the countries to consider for approval. Text is appropriately adjusted.

Component 2:

(1): Thank you. Component 2 has been restructured to better distinguish policy and institutional outcomes from investment-related outcomes. A separate outcome focused on financing pathways has been introduced, with former Output 2.1.3 repositioned as the sole output under the new outcome.

(2): Thank you. The output is revised to set realistic expectations through the implementation of no-regret measures. The output now follows a phased and risk-informed approach to no-regret actions, acknowledging political economy and institutional constraints. Activities will first focus on identifying and testing enabling mechanisms (such as remote sensing-based groundwater monitoring and compliance-support tools) before supporting incremental implementation where conditions allow.

(3). Thank you. The title is revised accordingly. Activities (i) and (ii) are also revised to focus on matching priority SAP actions with suitable financing sources and instruments.

(4): Thank you. Activity (ii) has been revised to focus on matching priority SAP actions and related investment needs with suitable financing sources and instruments.

5): Thank you, the ambition of output 1.1.2 is adjusted (see response to the respective comment above) and harmonized with the new Output 2.1.3.

(6): Thank you. It was assumed that the countries will take into consideration the results of the TDA, including the linkages among drivers and impacts on socio-economy and ecosystems and the benefits in addressing the drivers through national level and transboundary level activities, so as they review, discuss and adopt the SAP (Output 2.1.1) Text is adjusted to include increasing awareness of the countries on the benefits that will stem from improved cooperation and how these can be shared. Experience has shown that the definition of feasible options that support coordinated aquifer management (once the riparian/aquifer states understand the benefits of cooperation) enables the establishment of cooperation processes and mechanisms through appropriate institutional and legal arrangements.

Component 3:

(1) Thank you for the review and reference. The project team agrees that irrigation efficiency improvements alone do not necessarily translate into reduced groundwater abstraction at aquifer scale, particularly where water savings are reallocated to expanded irrigation or increased consumption. The project will therefore avoid framing irrigation efficiency as a standalone water-saving measure and instead position improved irrigation water management approaches within broader groundwater demand management, conjunctive water use, monitoring, and governance approaches. Outcome 3.1 will be revised accordingly.

(2): Thank you. The Component 3 description has been strengthened to clarify that pilot site selection criteria will be further refined during the PPG phase and may include hydrogeological, socioeconomic, institutional, feasibility, accessibility, security, and scaling considerations.

29th May 2026

Thank you. We define 'no-regret' actions are those that deliver benefits for groundwater management and reduce risks -such as over-abstraction, pollution, etc.- while remaining effective under a wide range of future climate, socioeconomic, and policy scenarios. We have introduced this definition in the text under Output 2.1.1

Component 4 title has changed in line with donor comments and this change is reflected in the description of the Component and Outcome 4.1

5.2 INCREMENTAL/ADDITIONAL COST REASONING

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

Secretariat's Comments

22nd of April 2026 (thenshaw): Yes, but please address low GEBs.

26th of May 2026 (thenshaw): Addressed

Agency's Comments Thank you. The incremental/additional cost reasoning section has been strengthened to better reflect the project's enhanced GEB contribution, including through demonstration activities, and scaling of integrated groundwater and agricultural water management approaches. Related refinements were also introduced in the Global Environmental Benefits section to better reflect the project's contribution to Core Indicator 4.

5.3 IMPLEMENTATION FRAMEWORK

a) Is the institutional setting, including potential executing partners, outlined and a rationale provided?

b) Comments to proposed agency execution support (if agency expects to request exception).

c) Is there a description of potential coordination and cooperation with ongoing GEF-financed projects/programs and other bilateral/multilateral initiatives in the project area

d) are the proposed elements to capture and disseminate knowledge and learning outputs and strategic communication adequately described?

Secretariat's Comments

22nd of April 2026 (thenshaw):

(a) No, please include.

(b) N/A

(c) Yes

The Med Programme is ending. Please explain how this coordination would work in different implementation timelines.

(d) Yes

26th of May 2026 (thenshaw and eborgomeo): Addressed

Agency's Comments

(a) Thank you. An 'Indicative Implementation Arrangements' section has been inserted in the PIF.

(c) Thank you. The PIF text has been revised to clarify that, despite differing implementation timelines, the project will seek continued coordination and technical exchange with relevant MedProgramme partners and associated regional initiatives through participation in relevant regional processes, workshops, and knowledge-sharing activities, as appropriate.

5.4 a) Are the identified core indicators calculated using the methodology included in the corresponding Guidelines (GEF/C.54/11/Rev.01)?

b) Are the project's indicative targeted contributions to GEBs (measured through core indicators)/adaptation benefits reasonable and achievable?

Secretariat's Comments

22nd of April 2026 (thenshaw):

(a) Yes

(b) The GEBs for this investment are underwhelming. Please include terrestrial Core Indicators 3 and/or 4 and possibly 6.

Please target CI 7.4 as "1" (engagement with IW:LEARN activities). This should progress to "4" by project closure.

PIF indicates the aquifer system is considered hydrologically distinct from the NWSAS. Please work with GEF ITS to include Djeffara as a shared water ecosystem under Core Indicator 7.

26th of May 2026 (thenshaw and eborgomeo):

(b) Not addressed. The Core Indicator 4 target is missing in the Core Indicator table. Please include.

The project is targeting only one shared system, not two (Core Indicator 7).
"Djeffara/Jifarah,Northwest Sahara Aquifer System (NWSAS)" Please remove NWSAS.

"Northwest Sahara Aquifer System (NWSAS)" is indicated for Core Indicators 7.2, 7.3 and 7.4.
Please switch to "Djeffara/Jifarah".

6th of June 2026 (thenshaw): Addressed

Agency's Comments

(b) Thank you. The project's GEB contribution has been strengthened through Core Indicator 4 reporting linked to pilot demonstrations, improved groundwater and agricultural water management approaches, and associated implementation support. Opportunities to incorporate CI-3 and CI-6 indicators will also be further explored during the PPG phase, as appropriate.

Target CI 7.4 has been changed to ?1?

An email was sent to GEF ITS to include Djeffara as a shared water system under CI-7, this will be adjusted in the portal as soon as it is available.

29th May 2026

(b) Thank you, Core Indicator Table has been revised for CI 4 and 7 as indicated.

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

Secretariat's CommentsN/A

Agency's Comments

5.6 RISKS

a) Is there a well-articulated assessment of risk and identification of mitigation measures under each relevant risk category?

b) Is the rating provided reflecting the residual risk to the likely achievement of intended outcomes after accounting for the expected implementation of mitigation measures?

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

Secretariat's Comments

22nd of April 2026 (thenshaw and eborgomeo):

(a) Yes

(b) Yes

Libya is classified as an institutionally and socially fragile country in the World Bank FY26 list of fragile and conflict affected situations. It is recommended that political and governance risks are raised to high.

(c) Yes

26th of May 2026 (thenshaw and eborgomeo):

The risk section deserves additional reflection. The project targets Libya, a country with security and institutional constraints.

Please add additional elements to the risk matrix. The risk matrix for a recently approved GEF project in Libya (11706) gives several ideas that need to be considered for this project.

Under ?political and governance, please consider whether these mitigation actions are relevant: implement a dynamic risk monitoring system to track political and security developments that could impact project activities; this system should include contingency plans to respond to various scenarios; design project components to be flexible, allowing for adjustments in response to changing political circumstances or governance capacities; implement strict security protocols for project staff and activities, including regular security assessments and collaborating with UN security experts or advisors.

Under ?capacity?, please consider raising to high or substantial. There may be lack of skilled personnel in Libya, particularly for a project like this one involving complex issues (groundwater, innovative practice, transboundary resource management). This is likely to severely undermine the sustainability of the project.

6th of June 2026 (thenshaw): Addressed

Agency's Comments

(b): Thank you. Addressed.

29th May 2026

Thank you. The risk matrix has been strengthened to better reflect the Libya operating context. Political and governance mitigation measures now include adaptive implementation, contingency planning, security-related considerations, and dynamic risk monitoring. Institutional capacity risks have also been reassessed and mitigation measures strengthened accordingly. Minor revisions to the M&E and adaptive management narrative have been introduced to ensure consistency with the revised risk management approach.

5.7 Qualitative assessment

a) Does the project intend to be well integrated, durable, and transformative?

b) Is there potential for innovation and scaling-up?

c) Will the project contribute to an improved alignment of national policies (policy coherence)?

Secretariat's Comments

22nd of April 2026 (thenshaw):

(a) Yes

(b) Yes

(c) Yes

Agency's Comments

6 C. Alignment with GEF-8 Programming Strategies and Country/Regional Priorities

6.1 Is the project adequately aligned with focal area and integrated program strategies and objectives, and/or adaptation priorities?

Secretariat's Comments

22nd of April 2026 (thenshaw and eborgomeo): Partly:

PIF notes "Further, the project builds on the 2013 MoU between Libya and Tunisia on water cooperation." Please explain what the MOU is and how this project builds on it.

Please better contextualize the Barcelona Convention Framework and how this project complements it.

The argument for alignment with the IW Objective 3 is just satisfactory. How can this project be a demonstrator for future GEF IW aquifer projects?

Tunisia and Libya are parties to the UN Watercourses Convention, and this project is a great opportunity to advance the principles of the Convention in the context of a transboundary aquifer. Please explain how.

26th of May 2026 (thenshaw and eborgomeo): Addressed

Agency's Comments

Thank you. The text has been clarified to better reflect the nature of the 2012/2013 Tunisia-Libya cooperation framework, which focused primarily on broader agricultural and natural resource cooperation rather than a dedicated agreement on the Djeffara/Jifarah Aquifer System. The PIF now clarifies that the project builds on the bilateral dialogue and technical exchange mechanisms established through these engagements.

Thank you. Additional text has been added under the "GEF-8 Programming Strategies and Multilateral Agreements" section and the "How the project fits within the current landscape of investments" section, explaining how this project complements the Barcelona Convention Framework.

Thank you. The section has been strengthened to better highlight the project's demonstrator value for future GEF IW coastal aquifer projects.

Thank you. The section has been strengthened to clarify how the project supports practical application of relevant UN Watercourses Convention.

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

Secretariat's Comments

22nd of April 2026 (thenshaw):

Please better detail how the proposed project aligns with the listed policies, strategies and plans (i.e., rather than noting that the project aligns with Water Law No. 3 of 1982 and supports the emerging National Water Security Strategy, please explain what the Water Law and National Water Security Strategy are (their significance in the country) and better present how there is alignment/will be support to implementation). A table would be helpful to this end.

For SDG contribution, please include the 'how' element.

26th of May 2026 (thenshaw and eborgomeo): Addressed

Agency's Comments

Thank you. A table has been added.

Thank you. The SDG section has been strengthened to better explain how the project contributes to relevant SDG targets.

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

Secretariat's Comments

22nd of April 2026 (thenshaw): It seems likely that this project can target the GBF. Please include a sub-section in the PIF on how the project directly or indirectly contributes to some of the 23 targets.

26th of May 2026 (thenshaw and eborgomeo): Addressed

Agency's Comments Thank you. A short table has been added describing the project's contribution to relevant targets of the Kunming-Montreal Global Biodiversity Framework.

7 D. Policy Requirements

7.1 Is the Policy Requirements section completed?

Secretariat's Comments

22nd of April 2026 (thenshaw):

Partly. Please see gender comments and revise outputs and associated descriptions to include gender aspects and women empowerment.

26th of May 2026 (thenshaw and eborgomeo): Addressed

Agency's Comments Thank you. This comment has been addressed.

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

Secretariat's Comments 30th of March 2026 (thenshaw): Yes

Agency's Comments
8 Annexes

Annex A: Financing Tables

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

STAR allocation?

Secretariat's Comments 22nd of April 2026 (thenshaw): Yes

Agency's Comments
Focal Area allocation?

Secretariat's Comments 22nd of April 2026 (thenshaw): Yes

Agency's Comments
LDCF under the principle of equitable access?

Secretariat's Comments N/A

Agency's Comments
SCCF A (SIDS)?

Secretariat's Comments N/A

Agency's Comments
SCCF B (Tech Transfer, Innovation, Private Sector)?

Secretariat's Comments N/A

Agency's Comments
Focal Area Set Aside?

Secretariat's Comments N/A

Agency's Comments

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

Secretariat's Comments **22nd of April 2026** (thenshaw): Yes

Agency's Comments

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

Secretariat's Comments

22d of April 2026 (thenshaw):

(i) Please include specific ministries for each Government of Libya and Government of Tunisia co-financing lines.

(ii) Please spell out acronym GWP.

(iii) In the field below the co-financing table, please include the timelines for each co-financing source cited to demonstrate that all co-financing will take place within the project timeframe.

(iv) Please seek additional sources of co-financing during PPG to better demonstrate partner mobilization for this project. Please acknowledge.

(v) Please remove "ANNEX b: Endorsements" from co-financing field below table.

26th of May 2026 (thenshaw):

(i) Addressed

(ii) Addressed

(iii) There are a number of co-financing sources that end in 2027, when the project will only just be endorsed (and will take several months after endorsement before implementation starts i.e., early 2028). Therefore, how can these count as co-financing contributions if they are outside the project period? They should be removed accordingly. This also means the co-financing ratio for this project is too low, with too few sources.

(iv) Acknowledged. To be assessed at PPG. This is critical for CEO endorsement.

(v) Addressed

New Comments:

Please clarify the following source "Resources":

Recipient Country Government	Resources	In-kind	Recurrent expenditures	2,416,660.00
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The FAO investment mobilized "Climate?Water?Energy?Food Nexus Governance Project" appears to be from GCF and not FAO. Please clarify. Regardless, it appears this source will end before the start of project implementation.

6th of June 2026 (thenshaw):

The 2027 expected completions in question now have a "+", which seems improbable. The co-financing letters will be scrutinized to ensure co-financing contributions fall within the project period.

The "Resources" comment has not been addressed.

9th of June 2026 (thenshaw): Addressed

Agency's Comments

FAO 7th of June 2026

Thank you for the comment. Following discussions with the countries and FAO programme managers, we are confident that the projects/strategies referred to in the co-financing table, will, as often happens, be extended beyond 2027 and will therefore overlap with the Djefara project.

In any case, as explained, a thorough exercise will be carried out during the PPG phase to secure solid and verifiable co-financing letters for submission at CEO Endorsement and subsequent assessment by the GEF Secretariat.

Thank you for the comment and apologies for the oversight, this has been revised by correcting the typo in the co-financing table, replacing ?Resources? with ?Libyan Ministry of Water Resources?.

(i) Thank you. Addressed.

(ii) Thank you. GWP has been spelled out.

(iii) Thank you. Timelines for each co-financing source is now added.

(iv) Thank you. The project team acknowledges the importance of strengthening partner mobilization and will continue exploring additional co-financing opportunities during the PPG phase.

(v) Addressed

29th May 2026

(iii) Thank you, we acknowledge the comment and have reviewed the co-financing table accordingly. Several contributions currently reflected with formal end dates in 2027 relate to ongoing government programmes, institutional budget lines, and partner investments that are expected to continue beyond their currently indicated planning horizon and remain relevant throughout the anticipated project implementation period. The table has therefore been updated, where appropriate, to better reflect expected implementation timelines and institutional continuity, including indicative timelines for selected investments such as the Southern Oases Hydraulic Infrastructure Programme supported by EBRD in Tunisia.

In addition, a number of initiatives identified by participating countries and project stakeholders as potential co-financing sources remain subject to further assessment and confirmation. These

will be reviewed during the PPG phase in close consultation with governments and partners to validate their status, timing, scale, and strategic relevance to project objectives.

The PPG phase will place particular emphasis on refining and strengthening the co-financing package. Building on the current conservative PIF-stage assessment, the project is expected to secure additional and more precisely defined co-financing commitments by CEO Endorsement, while ensuring strong alignment with project implementation needs, sustainability objectives, and the expected co-financing ratio.

(v) Thank you for the comment. As in other projects, FAO has the legal and financial responsibility for these funds that have been transferred from GCF to FAO through legal agreements therefore FAO can report it as co-financing.

Annex B: Endorsements

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

Secretariat's Comments

30th of March 2026 (thenshaw):

Partly. The Tunisia LOE is dated more than 3 months before the Portal submission and is thus ineligible. Please secure a new LOE from Tunisia.

22nd of April 2026 (thenshaw): Addressed

Agency's Comments

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

Secretariat's Comments 22nd of April 2026 (thenshaw): Yes

Agency's Comments

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

Secretariat's Comments 22nd of April 2026 (thenshaw): Yes

Agency's Comments

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

Secretariat's Comments N/A

Agency's Comments

Annex C: Project Location

8.6 Is there preliminary georeferenced information and a map of the project's intended location?

Secretariat's Comments

22nd of April 2026 (thenshaw): Please include aquifer system coordinates.

26th of May 2026 (thenshaw): Addressed

Agency's Comments Thank you, approximate coordinates of the aquifer basin have been included.

Annex D: Safeguards Screen and Rating

8.7 If there are safeguard screening documents or other ESS documents prepared, have these been uploaded to the GEF Portal?

Secretariat's Comments

22nd of April 2026 (thenshaw):

We note that FAO has attached Environmental and Social Safeguard Screening document. An overall ESS risk is classified as Moderate.

1. According to several sources, the Djeffara/Jifarah plain and its aquifer system straddle territories with a significant indigenous presence, most notably the Amazigh (Berber) people and, to a lesser extent, semi-nomadic Arab-Berber tribal communities. Water right is a fundamental right of Indigenous Peoples. Please clarify how the project consults with Indigenous Peoples in the project areas to develop project concept and how the project integrates results of the consultations into the project concept particularly Component 2 and 3.

Examples of the references of Indigenous Peoples in the areas include following:

- The Indigenous World 2026: Libya (IWGIA 2026) <https://iwgia.org/en/libya/5955-iw-2026-libya.html>
 - The Indigenous World 2026: Tunisia (IWGIA 2026) <https://iwgia.org/en/tunisia/5961-iw-2026-tunisia.html>
 - Khalifa, A. (2018). "Libya's Imazighen: Identity Formation During Conflict." Friedrich-Ebert-Stiftung Libya Office.
 - Ennami, A.K. (1972). *Studies in Ibadism (al-Ib??iyyah)*. PhD dissertation, University of Cambridge. ? A foundational study of Ibadi Islam ? the religious tradition practised by many Amazigh communities in the Djeffara region on both sides of the border
2. Please revise an Environmental and Social Safeguard Screening document and the environmental and social section of the Key risk table based on relevant information about potential risk related to Indigenous Peoples.
 3. Please ensure the project obtained free, prior and informed consent (FPIC) from Indigenous Peoples about project design during PPG and throughout project implementation and monitoring.

4. Please also clarify how the project consults with vulnerable groups in the project areas to identify priority and needs of project concept and how the project integrates results of the consultations into the project concept particularly Component 2 and 3.
5. Please consider Indigenous Peoples and local communities not only as beneficiaries, but also as project partners throughout the project implementation, especially on Component 2 and 3.
6. Please also consider respecting Indigenous Peoples governance and local knowledge and supporting Indigenous Peoples capacity building as a part of the project during PPG.
7. Please consider incorporating monitoring indicators related to integration of traditional and local governance, traditional and local knowledge and capacity building for Indigenous Peoples and local communities in the project during PPG.

26th of May 2026/6th of June 2026 (thenshaw): Addressed

Agency's Comments

Thank you. In response to comment 1, 4, 5 and 6: The project recognizes the importance of Indigenous Peoples and vulnerable groups in the Djeffara/Jifarah region, including the role of traditional and local knowledge in sustainable groundwater management. At PIF stage engagement has primarily focused on national government counterparts and technical institutions. During PPG, the project will undertake targeted stakeholder mapping and culturally appropriate consultations in the identified pilot areas, including with relevant Indigenous Peoples groups, local communities, women, youth, CSOs, and water users, consistent with FAO and GEF environmental and social safeguard requirements and applicable national frameworks. Consultations will inform project design, stakeholder engagement approaches, capacity-building activities, and relevant monitoring indicators, particularly under Components 2 and 3, with attention to inclusive participation and local governance systems.

Comment 2: Thank you. A revised Environmental and Social Safeguard Screening document has been uploaded to the portal.

Comment 3: Thank you. During PPG and project implementation, the project will apply relevant FAO and GEF environmental and social safeguard requirements, including FPIC processes where applicable.

Comment 7: noted, the project will incorporate monitoring indicators related to integration of traditional and local governance, traditional and local knowledge and capacity building for Indigenous Peoples and local communities in the project during PPG.

Annex E: Rio Markers

8.8 Are the Rio Markers for CCM, CCA, BD and LD correctly selected, if applicable?

Secretariat's Comments 22nd of April 2026 (thenshaw): Yes

Agency's Comments

Annex F: Taxonomy Worksheet

8.9 Is the project properly tagged with the appropriate keywords?

Secretariat's Comments

22nd of April 2026 (thenshaw): Yes

Agency's Comments

Annex G: NGI Relevant Annexes

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

Secretariat's Comments N/A

Agency's Comments

9 GEFSEC Decision

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

Secretariat's Comments

22nd of April 2026 (thenshaw and eborgomeo): No, please address above comments and resubmit. Thank you.

26th of May 2026 (thenshaw and eborgomeo): No, please address above comments and resubmit. Thank you.

6th of June 2026 (thenshaw and eborgomeo): No, please address above comments and resubmit. Thank you.

9th of June 2026 (thenshaw): Yes

Agency's Comments

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

Secretariat's Comments

22nd of April 2026 (thenshaw):

Please secure additional sources of co-financing during PPG.

Please ensure that in the development of the results framework, gender-specific indicators are included to facilitate monitoring and reporting. In the development of

the Gender Action Plan, please indicate measures to facilitate and support its implementation (e.g., budgets, staff support, regular monitoring, adaptive management, etc.). Under M&E, please make a reference to include in PIRs, MTRs and TE, reports on gender-specific results, including the implementation of the Gender Action Plan.

6th of June 2026 (for PPG discussion):

Re: IRESA, INGRES, IRA, INAT, and INRAP,

, Would be good to understand if models developed by these institutions are available, what their quality is and if they can be used as foundations for Component 1. An understanding of the state of the art should be briefly provided at CEO endorsement stage, so as to help justify the final costing for Component 1 (i.e., if existing models are already quite good, then this would justify lower resource allocation). We can discuss if helpful.

9th of June 2026 (thenshaw): Please ensure ESS procedures outlined by Agency above are followed during the PPG process and document accordingly.

Agency's Comments

7th of June 2026

Thank you for the comment. We can certainly discuss this during the PPG phase and agree on the final allocation for Component 1, based on model availability and suitability for the project activities.

Thank you. The project team acknowledges the importance of strengthening partner mobilization and will continue exploring additional co-financing opportunities during the PPG phase.

The project will incorporate gender-responsive indicators, implementation support measures for the Gender Action Plan, and reporting on gender-related results and Gender Action Plan implementation through relevant M&E processes during PPG and project implementation.

Review Dates

	PIF Review	Agency Response
First Review	4/22/2026	
Additional Review (as necessary)	5/26/2026	
Additional Review (as necessary)	6/6/2026	
Additional Review (as necessary)	6/9/2026	
Additional Review (as necessary)		