

Enhancing sustainability of the Transboundary Cambodia - Mekong River Delta Aquifer

Review PIF and Make a recommendation

Basic project information

GEF ID

10520

Countries

Regional (Cambodia, Viet Nam)

Project Name

Enhancing sustainability of the Transboundary Cambodia - Mekong River Delta Aquifer

Agencies

FAO

Date received by PM

3/20/2020

Review completed by PM

4/9/2020

Program Manager

Astrid Hillers

Focal Area

International Waters

Project Type

FSP

PIF

Part I – Project Information

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

(3-25-2020)

The project is aligned with the GEF IW focal area objective 3 - water security. Please consider a split of the IW resources across the three sub-objectives (3.5 information; 3-6 institutions; and 3-7 investments (incl. pilots)).

(4-7-2020) Comment addressed. **Cleared.**

Agency Response

A new split has been adopted in Table A as follows:

3-5: 4,500,000

3-6: 5,950,000

3-7: 4,550,000

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

(3-25-2020) Overall yes and have been discussed upstream. For detailed comments on the components please see Part II/qu.3.

1. Please include a component or sub-component on M&E activities (as part of the project execution).
2. Component 2 should be labeled as investments (pilots) not TA.

(4-7-2020) Both comments are addressed. By endorsement, please note that there needs to be an elaborated and costed M&E plan. Note/recall at that point please that project M&E is done by the executing entity/ies and is commonly costed within a component (here component 5) and not part of the PMC (with exception of the audit costs which are part of PMC).

Cleared.

Agency Response

1. M&E now appears in Component 5 (page 3 and 18)

2. Component 2 now labelled as investments

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

(3-25-2020)

Sources of co-finance are documented.

- Please explain the use of the category "Public Investment"
- Please make sure that at endorsement, MTR and TER there is transparent alignment of co-finance and components.
- Please confirm that the World Bank ICRSL co-finance and is new and additional and not already counted as co-finance towards the WB GEF 6 Mekong Delta Integrated Climate Resilience and Sustainable Livelihoods project (GEF ID 9265) which was recently endorsed.
- You may want to explore possible co-fiance with the BGR efforts on groundwater/groundwater quality at selected sites of the delta.

(4-7-2020)

1. We understand that there is a fine-line when to call it loan or public investment (once the loan is with the country, funds are theirs and a letter of co-finance will come from the country government). Please note that "Loans" (or at least the majority of it) are not "recurrent expenditures", but are "investment mobilized" (whereas the "in-kind" contributions are correctly labeled as "recurring expenditures"). **Please address.**
2. Noted for the alignment across various components at endorsement. cleared.
3. Noted for the government investment from Viet Nam. Again, one would assume that most of this would be "investment mobilized" and not all "recurrent expenditures". **Please comment/address.**
4. We agree to continue to coordinate and seek co-finance from BGR during PPG. cleared.

(4-9-2020)

We note the relabeling of co-finance and split of the Viet Nam government co-finance. It will be important to revisit how this is best labeled *by endorsement*. **Cleared.**

Agency Response

9 April

Thanks - this is now done. In fact, many of those co-financing do fit the definition of IM but were not labelled properly. Note that we have also split the co-fin from MARD Vietnam as part of those resources will be dedicate to relevant investment projects funded by MARD with own budget . MARD will invest approx USD 406 millions in total over the period 2021-2026. Part of this will be new Investment Mobilized.

Earlier response:

The category Public Investment was used because these investments are new investments under Vietnam's upcoming five-year development plan and in Cambodia from recently started investments.

FAO will continue to ensure the transparent alignment of co-finance with components at endorsement.

In consultation with Viet Nam and the World Bank, the ICRSL project has been replaced with government investment from MARD in Viet Nam.

Co-finance with BGR was explored, and given the high investment of the Vietnamese government already secured we decided to not specifically list the BGR investment. However we will continue to coordinate with this important initiative.

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

(3-25-2020) Please revise the entry in table C and put "regional" or "regional (Cambodia, Viet Nam)" instead of only one of the countries.

(4-7-2020) Addressed. Cleared.

Agency Response

GEF financing in table D is listed as “Regional”.

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 (3-25-2020) yes.

Agency Response

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

(3-25-2020) Yes.

cleared.

Agency Response

Core indicators

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

Secretariat Comment at PIF/Work Program Inclusion

(3-25-2020) While the GEF only monitors the number of direct beneficiaries:

Please reevaluate the total number of people DIRECTLY benefiting from project (physical) interventions. The number of >20 million by that definition is way to high; please revise.

(4-7-2020)

1. For indicator 7: the shared water system should NOT be the Mekong. It is the **Mekong Delta Aquifer. Please correct.**
2. The change in direct beneficiaries has been noted. It still appears high in terms of *direct* beneficiaries. Please refine in more detail by endorsement when pilot areas and project interventions have been defined. Cleared.

(4-9-2020)

Aquifer labeled correctly now. Comment addressed. **Cleared.**

Agency Response

9 April

1. Done
2. Well noted and will do

Earlier comments

Done – Direct beneficiaries would be the population in districts where pilot projects will be implemented during the project and where new institutional arrangements (e.g. transboundary aquifer management plan) will create immediate benefits (e.g. wetland protection, productivity improvements). This is likely to benefit at least 10% of the population (e.g. coastal districts, groundwater dependent agriculture), or 2.5 million people. Indirectly, due to the positive impacts effective transboundary aquifer management has, a large part of the entire population dependent on the Mekong Delta aquifer (~25 million people) will benefit as water security will be enhanced and land subsidence rates will slow down.

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

(3-26-2020) Please fill the Rio Marker on Adaptation.

(4-7-2020) **See above.** Please let us know if there are any portal related issues. Value still appears to be zero.

(4-9-2020) Comment addressed. Cleared.

Agency Response

Apologies- the portal didn't save Rio Marker in first place - it did it now

Done.

Part 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

(3-26-2020) Yes, the root causes and barriers are described adequately at PIF/concept stage.

Cleared.

Agency Response

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

Secretariat Comment at PIF/Work Program Inclusion

(3-26-2020) Yes, the baseline projects and initiatives are adequately captured at PIF stage.

Please note that the GEF project connected to ICRSL , the *Mekong Delta Integrated Climate Resilience and Sustainable Livelihoods project* (GEF ID 9265) which is listed as *planned in table I* has recently been endorsed.

By *endorsement*, please complete the picture incl. the few missing entries on implementation period and investment amounts.

Cleared.

Agency Response

The GEF-funded ICRSL project is now listed in Table 1 under “current projects”.

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

Secretariat Comment at PIF/Work Program Inclusion

(3-26-2020)

The alternative overall is well described at concept/PIF stage and has responded to upstream discussions and suggestions with GEFSEC.

- Suggest to restate the PDO in the first para. Also, the first para under the heading of the *GEF alternative* misses to recap briefly what is described in detail in the justification, namely WHY there is a need for transboundary cooperation and why it is necessary to look at the entire aquifer across both countries in order to sustain both recharge and sustainability of ecosystems and their functions and aquifer uses in both countries. It would be useful to state this briefly upfront (~one sentence).
- Table 2 is good and meant to show both what is already happening and then the gaps that this project will fill (blank boxes; BTW shading them would make that even more clear). For the ongoing projects, please indicate which are only in Viet Nam and/or Cambodia.

Component 1:

- The typical TDA is built on existing/readily available data. In this case this is different and the component will field a number of assessments (listed under points (i) to (vii)) on which the TDA will build on and also justifying the funds (4.5 million of the GEF grant plus co-finance) going into this. As some of these studies/assessments listed under the points mentioned are substantive outputs, please list the main ones (not necessarily all under (i) to (vii)) as outputs under this component in addition to the TDA.

Component 2:

- While this is at concept stage, it would be useful to provide an indicative/rough number of pilots (number of investment or expected/indicative range of \$\$ investments)

Component 4:

- Environmental quality targets – please ensure that these include quantifiable targets and not simple statements/targets to “improve...”, “enhance...” etc. Please, include some *examples* of such status indicators in the PIF and, by endorsement, include some additional guidance and wording to that effect (i.e. on the need to include quantitative targets).
- Please note in the PIF that the SAP is to be endorsed and signed by a Minister from each country (i.e. the SAP includes a commitment to actions by countries and hence needs more than only technical level endorsement)

By endorsement, please refer to the IW:Learn TDA and SAP guidance which e.g. provides guidance to include local academe and civil society organizations in the TDA process; same for private sector to be involved in the discussions on the TDA and SAP. The private sector will be important in the successful implementation of SAP actions (both following enhanced regulatory measures, finance and investments).

(4-7-2020)

Comments have been addressed.

By endorsement: Please provide further guidance to the project execution team on the type of suitable Environmental Quality targets. We suggest that these do not all relate to groundwater quantity, but also quality (again: quantifiable/numerical targets are important) as well as speaking to the relation between groundwater and its impacts on ecosystems and livelihoods (e.g. impacts on wetlands, fish spawning sites/habitats, water supply rural/urban, and agriculture and aquaculture etc.)

Cleared.

Agency Response

PDO is now restated as suggested.

We added in Table 2 the location of the various investments (VN and/or CA)

Component 1

The main studies/assessments are now listed.

Component 2

Approximately 2-3 pilots per country is now indicated.

Component 4

Examples of status indicators have been added on page 18: “(e.g. groundwater level, land subsidence rate, groundwater recharge target, groundwater extraction quota)”

Ministerial level sign-off is now clearly indicated

Noted on the need to refer to IW:LEARN guidance at endorsement

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

Secretariat Comment at PIF/Work Program Inclusion

(3-26-2020)

Yes, the project is aligned with the GEF 7 IW project strategy.

Cleared.

Agency Response N/A

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

(3-26-2020)

Please expand the clarity of the incremental cost analysis. The para should outline how/why the regional increment leads to much larger benefits/GEBs than current national approaches.

(4-7-2020) Comment addressed at PIF stage. Please expand by endorsement.

Cleared.

Agency Response

More explanation has been added to Section 5 explaining that national interests are currently being pursued in a way that is unsustainable for both countries, and a regional approach will help to quantify potential impacts and take full advantage of collaborative efforts to manage the shared resource.

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

(3-26-2020)

- You may want to be careful in the use of using the wording of promoting “appropriate allocation”
- Please further develop the description of expected GEBs (e.g. drawing from what is already described in the PIF in the *project description* and the section *global environmental problems to be addressed*; Global environmental benefits and co-benefits could include contribution to sustaining fish habitats and migration, sustainability of food systems, and ecosystems functions). The current discussion of GEBs is more focused on process than GEB outcome.

(4-7-2020) Comments have been addressed. Cleared.

Agency Response

The wording around allocation has been amended, using ‘jointly agreed’ allocation

Examples of the GEBs are given including water security enhancements, improved resilience of groundwater dependent ecosystems (e.g. wetlands, fish abundance and diversity); and sustainable food production systems

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

Secretariat Comment at PIF/Work Program Inclusion

(3-26-2020)

Under innovation, you may want to mention that any functioning transboundary aquifer cooperation mechanism is innovative given there are only a handful of those around the globe.

Further, the elucidation of intersectoral interdependencies on groundwater uses and dependency of low flows, coastal flows, sustainability of food systems, wetlands and their functions, and fish habitats etc. on sustainable groundwater uses and improved governance of the resource (both quality and quantity) is still new and innovative not only in the region but globally.

(4-7-2020) Comment addressed. Cleared.

Agency Response This is now revised.

Project/Program Map and Coordinates

Is there a preliminary geo-reference to the project's/program's intended location?

Secretariat Comment at PIF/Work Program Inclusion

(4-7-2020) 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

(3-26-2020)

- Comment pertaining to the question above (due to a portal glitch): YES, a map has been provided.

With regard to Stakeholders:

1. Please fill out yes/no for the private sector participation in the development of the PIF

2. Table listing stakeholders, first row: please eliminate typo: delete Lao PDR and instead list Cambodia

(4-7-2020) Comment addressed. Cleared.

Agency Response

Private sector left blank as these consultations are planned for PPG – this is now explained in the PIF.

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

(3-26-2020)

1. The first para has little to do with the project (?) e.g. mentions the role of women in fisheries post-harvest activities and the fisheries value chain. True but hard to relate to the main actions of the project.
2. Gender actions listed in the bullet points are generally well described.
3. There is mention of strengthening women's participation in decision making. During project design and implementation please also assure gender consideration in the design of all project components and especially participation in and access to resources and benefits from pilots.

(4-7-2020) Comment addressed. Cleared.

Agency Response Amended.

Private Sector Engagement

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

Secretariat Comment at PIF/Work Program Inclusion

(3-26-2020) Yes, the description provided aligns with the project design.

Cleared.

Agency Response N/A

Risks

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

(3-26-2020)

While the project justification outlines the climate risks and relevance of the project in increasing resilience, the risk section/table is silent on climate risks. Please summarize key risks and project mitigating actions in responding to these.

(4-7-2020) Comment addressed. Cleared.

Agency Response

Climate risk screening has now been conducted and is included in the PIF.

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

(3-26-2020)

Please also explicitly include coordination with the GEF 6 (now endorsed) Mekong Delta Integrated Climate Resilience and Sustainable Livelihoods project (GEF ID 9265) and the co-finance ICRSL in project design and implementation.

(4-7-2020) Comment addressed for PIF stage.

By endorsement this will need elaboration and practical approaches for coordination and cooperation with the projects and initiatives mentioned here and throughout the document, including, but not limited to the Mekong Delta Resilience initiatives (government and WB), with BGR, ADB work both in Cambodia and Veit Nam, as well as interaction with groundwater work/database at the Mekong River Commission/MRC.

Cleared.

Agency Response

Done – close coordination with this project is planned (but not as project co-finance)

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

(3-26-2020)

Please provide short outlines (short para) of key national sectoral policies, strategies and MEA related action plans for both countries as relevant and refer to alignment of the project with these and/or how the project will inform revision processes .

(4-7-2020) Comment addressed at PIF stage. Please expand and provide concrete examples by endorsement. Cleared.

Agency Response We added food security related policies, which involve livelihood diversification and increased environmental sustainability. We already listed the main policies relevant for the Mekong Delta area and for Cambodia from a sector perspective. We also added how this project aims to support these policies, which involves improved water security for the new livelihood diversification strategies and for increased farm income.

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

(3-26-2020)

By endorsement, please allocate at least 1 % of the GEF grant to [IW:Learn](#) related activities incl. participation in IWCs and regional and thematic meetings.

Cleared.

Agency Response

Noted, and will be taken into account by endorsement.

Part 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

(3-26-2020) Yes.

Agency Response

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

GEFSEC 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

(3-26-2020) Not yet recommended, please address comments provided and resubmit.

(4-8- 2020) Not yet. Please address the remaining and resubmit.

(4-9-2020) Comments have been addressed. The project is recommended for technical clearance and 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

Comments are included throughout the review sheet.

In addition with regard to table C/co-finance:

By endorsement, please disaggregate the ADB loan amounts into the *investment mobilized* loan amount and the *recurrent expenditures* for the loan part that addresses planning and assessment steps only. We understand that FAO at this point(=at PIF stage) has not received a disaggregated budget for these loans yet.

Review Dates

	PIF Review	Agency Response
First Review		
Additional Review (as necessary)		
Additional Review (as necessary)		
Additional Review (as necessary)		

PIF Review

Agency Response

Additional Review (as necessary)

PIF Recommendation to CEO

Brief reasoning for recommendations to CEO for PIF Approval

Background. The lower section of the Mekong River Basin is underlain by a major transboundary aquifer system shared by Cambodia and Viet Nam: *The Cambodia – Mekong River Delta Aquifer*. This transboundary aquifer system connects two ecosystems of global environmental significance and socio-economic importance: the i) Tonle Sap area and the ii) Mekong Delta and includes some major urban areas, including Phnom Penh and Ho Chi Minh. The whole area is approximately 200,000 km² with about 63% lying within Cambodian territory. Tonle Sap, the largest lake in the Peninsular Indochina, is hydraulically connected to the Mekong River and serves as a natural regulating reservoir ensuring adequate groundwater recharge to the aquifer. Groundwater is critical for delta rice production and makes a substantial contribution to the national GDP of Viet Nam, and supports the agricultural sector in Cambodia, accounting for half of the country’s GDP and employing 80–85% of its’ labor force. For these reasons, the aquifer is heavily exploited for irrigation and water supply. The effects of surface and groundwater interactions nourish large tracts of forests and wetlands, which produce building materials, medicines and food, and provide habitats to thousands of species of plants and animals. Groundwater naturally interacts with areas of low-lying land in the delta region where permanent wetlands tend to develop. These wetlands provide habitat for fish, buffer flood events by absorbing huge quantities of excess water, and offer natural water cleansing functions. In addition, groundwater sustains wetlands during the dry season.

The project. The sustainability of water resources and the health of the delta and Tonle Sap ecosystems cannot be achieved without a proper and shared understanding of the regional groundwater flow regimes, especially with regard to the up-gradient recharge zones within the Cambodian territory. The establishment of cooperative management frameworks for this major transboundary aquifer is needed to avoid over-pumping and pollution of the groundwater resources. Within this context, the proposed foundational IW project seeks to strengthen environmental sustainability and water security in the Lower Mekong Basin by focusing, for the first time in the region, on the totality of the Cambodia-Mekong River Delta transboundary aquifer and understanding of its functioning and interactions with surface waters and ecosystems, and on its national and transboundary governance. The project will place emphasis on the enhancement of aquifer recharge, pollution reduction, and optimization of groundwater withdrawals through (i) strengthening transboundary cooperation including joint fact finding and information exchange; (ii) enhancing groundwater recharge; (iii) supporting innovative solutions to optimize groundwater use, reverse salinization trends and increase resilience to climate change; (iv) reducing agri-pollutants contamination of ground and surface waters; (v) and contributing to protecting groundwater dependent ecosystems.

Innovation, sustainability and scale-up. GEBs: The project is for the first time enabling a transboundary view and management of a shared aquifer system that is key to the sustainability of the lower Mekong region which supports one of the major freshwater fisheries on the planet, several major urban centers as well as sustains half of the national rice production in Viet Nam which stands as the third biggest rice exporter globally. The project addresses, amongst others, a challenge faced by many large transboundary aquifers globally, as demonstrated by the findings of the TWAP project: how to implement an aquifer wide harmonized monitoring system

covering both short-term and long-term trends in the quality and the quantity of the water resources of the aquifer. Realizing that a transboundary aquifer cooperation mechanism is innovative in itself considering that only a handful of these exist worldwide. Furthermore, the comprehensive understanding of groundwater dependent systems (e.g. food production, wetlands, fish production) is still innovative for southeast Asia and even globally. The project will also be testing of innovative nature-based solutions and practices aimed at reversing water table lowering trends, and groundwater contamination. The dissemination of the results of these experiences will foster the scaling up and broader adoption of the successful practices promoted by the project to the level of the whole aquifer, and beyond, to other regions.