



# Ecosystem based adaptation for improved livelihood in Tuvalu

Review CEO Endorsement and Make a recommendation

## Basic project information

**GEF ID**

10926

**Countries**

Tuvalu

**Project Name**

Ecosystem based adaptation for improved livelihood in Tuvalu

**Agencies**

UNEP

**Date received by PM**

6/23/2023

**Review completed by PM**

7/11/2023

**Program Manager**

Yuki Shiga

**Focal Area**

Climate Change

**Project Type**

## PIF

### CEO Endorsement

#### Part I ? Project Information

##### Focal area elements

**1. Does the project remain aligned with the relevant GEF focal area elements as presented in PIF (as indicated in table A)?**

##### Secretariat Comment at CEO Endorsement Request

2023.10.2:

Cleared.

2023.7.11:

Rio Markers: In principle, LDCF projects should be marked as principal or scored ?? for climate change adaptation. Currently, this is scored ?1?. Please reconsider, or provide justification. PIF had a score ??.

##### Agency Response

2023.08.11:

Thank you, the RIO Marker for climate change adaptation has been changed to ??.

##### Project description summary

**2. Is the project structure/design appropriate to achieve the expected outcomes and outputs as in Table B and described in the project document?**

##### Secretariat Comment at CEO Endorsement Request

2023.10.5:

Cleared.

2023.10.2:

Please number project 'component' as indicated in the earlier comment.

2023.7.11:

please number project component (1, 2, 3?) accordingly

## B. Project description summary

### Project Objective

To reduce vulnerability to climate change through adaptive agricultural practices and ecosystem management in Tuvalu.

Project Component	Financing Type	Expected Outcomes	Expected Outputs	Trust Fund	GEF Project Financing(\$)	Confirmed Financing
Identifying and implementing integrated land management and ecosystem restoration strategies for increased resilience.	Investment	1.1. Restoration and increased resilience of 46 ha of agricultural systems on 8 islands against the impacts of climate change and salt-water intrusion through innovative land management and agricultural practices.	1.1.1. National pulaka pit health and groundwater assessment undertaken on all 8 target islands.  1.1.2. 449 raised concrete beds introduced to 8 target islands to upscale the Climate Proofing Project. 1.1.3. Alternative irrigation strategies, including drip irrigation,	LDCF	2,192,208.00	4,244
X	Investment	1.2. Groundwater infiltration and flood-risk reduction services improved on 8 islands through SLM practices that include the restoration and conservation of degraded atoll ecosystems.	1.2.1. 534 ha of coastal ecosystems restored or conserved to enhance the provision of associated ecosystem services, including flood reduction and storm surge attenuation.  1.2.2. Groundwater recharge zones in and around ~62 active pulaka pits areas protected using EbA buffer zones to improve	LDCF	922,988.00	

Agency Response

2023.08.11:

The highlighted discrepancy in the assignment of outcomes has been corrected on the portal.

2023.10.04:

Outcomes and numbers added on the portal.

**3. If this is a non-grant instrument, has a reflow calendar been presented in Annex D?**

Secretariat Comment at CEO Endorsement Request NA

Agency Response

**Co-financing**

**4. Are the confirmed expected amounts, sources and types of co-financing adequately documented, with supporting evidence and a description on how the breakdown of co-financing was identified and meets the definition of investment mobilized, and a description of any major changes from PIF, consistent with the requirements of the Co-Financing Policy and Guidelines?**

Secretariat Comment at CEO Endorsement Request 2023.10.2:

Cleared.

2023.7.11:

Please elaborate on how three investment mobilized co-financing sources have been identified.

Agency Response

2023.08.11:

More details on the process for the identification of investment mobilised in the co-financing projects has been included in Section C of the CEO Endorsement Request. The process involved discussions with the Executing Entity and a detailed comparison of each project?s outcomes to identified complementarities.

**GEF Resource Availability**

**5. Is the financing presented in Table D adequate and does the project demonstrate a cost-effective approach to meet the project objectives?**

Secretariat Comment at CEO Endorsement Request yes

Agency Response

**Project Preparation Grant**

**6. Is the status and utilization of the PPG reported in Annex C in the document?**

Secretariat Comment at CEO Endorsement Request yes

Agency Response

Core indicators

**7. Are there changes/adjustments made in the core indicator targets indicated in Table E? Do they remain realistic?**

Secretariat Comment at CEO Endorsement Request

2023.10.26:

Cleared.

2023.10.2:

Meta-Information: Cleared.

Indicators:

Core Indicator 2: so the target is 230 ha or 671 ha? 671 ha nor 230 ha is not explained in Section 10 'Benefits'. Please explain this as well as how Core Indicator 3 (policy/plan) were calculated/estimated in Section 10.

2023.7.11:

Meta-Information:

- LDCF should be ?true?
- ?This project involves at least one SIDS? should be marked as ?true?
- Please provide sector coverage ratios.
- Please check the target challenges. At PIF stage, all seven challenges were marked as ?true?. Current CEOER has all seven ?false?.

Indicators:

- Core Indicator 2 is reduced to 49 ha. from 230 ha. at the PIF stage. Please reconsider or provide justification.
- Core Indicators 1 and 4: The proposed project aims to support 4,200 people as direct beneficiaries, thereby targeting the whole rural population of the country. It does not seem likely that the whole rural population would be direct beneficiaries, or, for instance, take part in the trainings offered by the proposed project (Number of people trained 4,300). (comment from Germany)

## Agency Response

2023.08.11:

### Meta-Information:

The Meta-Information elements highlighted have been adjusted as recommended.

- ? LDCF ? marked as ?true?;
- ? This project involves at least one SIDS? marked as ?true?
- ? Sector coverage ratios provided.
- ? All target challenges marked as ?true?.

### Indicators:

The 49 ha relates only to the agricultural area to be placed under climate-resilient management. As shown in the Project Document and PIF, the total area including natural ecosystems is 671 ha, which is an increase from the PIF estimation. This has been corrected in the LDCF Indicator Sheet.

The proposed 4,200 direct beneficiaries is the targeted number confirmed in the PIF. It was increased from initial target to 4,300 based on the Secretariat comments of March 2022. This amounts to ~37% of Tuvalu's population. The majority Tuvalu's rural population is engaged in or dependent on agricultural or natural resource-based livelihoods, meaning that the entire rural population ? which is still relatively small given the country's small population ? is eligible to benefit from the project. With regards to training, multiple community training workshops per island per year have been budgeted to ensure sufficient opportunities for participants to attend. Thus, the benefits will reach the rural population through a suite of EbA interventions to support the agricultural adaptation focus of the project, as well as locally appropriate livelihood diversification options (such as fisheries) strengthened training programmes and knowledge sharing.

### 2023.10.09:

The total for Core Indicator 2 (Total area of land managed for climate resilience) is 567 ha, which is broken down as 47 ha of agricultural land, 430 ha of land restoration and 90 ha of groundwater recharge area. The revised GEF indicator table has the figure of 567ha in core indicator 2. We have inserted Table 2 into Section F of the CEO Endorsement Request to explain the breakdown of the core indicator.

Please note that *Output 1.2.1. 534 ha of coastal ecosystems restored to enhance the provision of associated ecosystem services, including flood reduction and storm surge attenuation* comprises 430 ha of land restoration and 104 ha of Locally Managed Marine Areas (LMMAs) *conservation*. Therefore, together with agriculture and recharge zones, the total area of ecosystems managed or conserved is 671 ha.

This, as well as the number of policies/plans for Core Indicator 3, has been described in Section 10.

## Part II ? Project Justification

**1. Is there a sufficient elaboration on how the global environmental/adaptation problems, including the root causes and barriers, are going to be addressed?**

Secretariat Comment at CEO Endorsement Request

2023.10.2:

Cleared.

2023.7.11:

Figure 7 seems to have a duplicate. Please remove the duplicate.

#### Agency Response

2023.08.11:

The duplicate for Figure 7 has been removed from the portal.

**2. Is there an elaboration on how the baseline scenario or any associated baseline projects were derived?**

#### Secretariat Comment at CEO Endorsement Request

cleared.

#### Agency Response

**3. Is the proposed alternative scenario as described in PIF/PFD sound and adequate? Is there sufficient clarity on the expected outcomes and components of the project and a description on the project is aiming to achieve them?**

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

2023.10.2:

Cleared.

2023.7.11:

EbA:

Please further elaborate on EbA measures in the proposed project, particularly from the point of view that EbA measures should base on current and projected climate change information. For instance, while the proposal refers to sea level rise (SLR) and aims to address its impacts, it remains unclear, what level of SLR the pulaka cultivation as planned in the proposal would withstand. (comment from Germany)

Livelihood diversification:

While diversification of livelihood can be an effective measure, locals could be reluctant to shift away from their traditional livelihoods. Please elaborate on how this risk is addressed in the project design. For example, what has been considered and are how are the incentives for the change designed?

Geotextiles:

Please elaborate on what has been considered on the plastic disposal plan during PPG per the following comment provided at the PIF stage review:

?in the eventuality that land-use for the pulaka pits changes over the years and the plastic needs to eventually be removed, by CEO endorsement please do include a potential safe disposal plan.?

#### Agency Response

2023.08.11:

EbA:

#### Sea Level Rise:

Walls of up to 1m around the pulaka pits have been tried before successfully. This technology will be adopted to protect crops from the impacts of overland flooding and storm surge, reducing the risk of saltwater inundation. Concrete raised beds have been trialed and constructed on several islands in Tuvalu in the National Adaptation Programme of Action 2 (NAPA II) and Government of Tuvalu (GoT) Climate Proofing Project. The introduction of these beds has been well received by recipient communities on the islands of Nui, Nuitao, Nanumea and Nukulaelae, supporting the rationale for upscaling this intervention across all of Tuvalu's islands.

In addition, replanting and restoring coastal vegetation, such as mangroves, can significantly ameliorate wave impact, with reductions in wave height ranging from 13% to 66% per 100 meters of mangrove coverage. Under this observation, a 200 m restoration belt of mangrove and other littoral species has the potential to reduce storm surge wave height by at least 20% compared with degraded areas.

The potential impact of the proposed EbA measures against sea level rise ? specifically saltwater intrusion and the reduction in storm surge wave height ? has however been expanded in the CEO Endorsement Request and Project Document, based on findings and analyses in Appendices 23 and 25.

At PIF approval, we proposed the option to relocate the pulaka pits to higher grounds. However, during the PPG phase, community members raised concerns regarding the relocation of pulaka pits given the complexities of landownership.

#### Livelihood diversification:

The main approach of the project is to improve the climate-resilience and sustainability of traditionally-practiced pulaka production, benefitting 3400 people. Livelihoods diversification will be implemented for 800 people based on participatory site-specific options analysis to ensure community buy-in for the livelihood options. NGOs will be engaged to support this process, as per the stakeholder engagement plan. This approach has been expanded on in the description of Output 1.2.3. within the CEO Endorsement Request and Project Document. Diversified livelihood options and improved agricultural productivity through the project are expected to increase the income for community recipients which will support their ability to maintain infrastructure in the long-term. This will be further supported by Kaupule annual budgets, which are provided through the Local Government Department. Training and awareness-raising through the project, including through the community training groups, will have an important role in ensuring project intervention sustainability by: i) demonstrating the benefits of the interventions and their maintenance to community members, and ii) providing guidance and training on the appropriate way to implement and maintain the interventions in the long-term.

#### Geotextiles:

Following engagements undertaken during the PPG stage, Output 1.1.1: Rehabilitation of 3 historically degraded pulaka pit areas carried out in the PIF has been changed to Output 1.1.1: National pulaka pit health and groundwater assessment undertaken on all 8 target islands. Geotextiles will therefore not be used in the rehabilitation of degraded pulaka pits because of: i) logistical constraints and risks associated with this approach at scale; and ii) indications from the affected communities of a preference for the project to instead focus on strengthening existing pulaka pits and providing concrete raised beds. The plastic disposal plan for the geotextiles recommended in the PIF, therefore, is no longer applicable. Protocols for the



disposal or recycling of other plastics generated through the project have been elaborated on in the SRIF.

**4. Is there further elaboration on how the project is aligned with focal area/impact program strategies?**

Secretariat Comment at CEO Endorsement Request

Yes, alignment with GEF-7 CCA Strategy is clear; it is aligned with CCA objectives 1 and 2.

Agency Response

**5. Is the incremental reasoning, contribution from the baseline, and co-financing clearly elaborated?**

Secretariat Comment at CEO Endorsement Request

Yes. The additional adaptation benefits expected to ensue from the LDCF project have been clearly specified.

Agency Response

**6. Is there further and better elaboration on the project's expected contribution to global environmental benefits or adaptation benefits?**

Secretariat Comment at CEO Endorsement Request

2023.10.2 /7.11:

Please see the comment in the indicator section.

Agency Response

2023.08.11:

Comments on indicators have been addressed accordingly.

**7. Is there further and better elaboration to show that the project is innovative and sustainable including the potential for scaling up?**

Secretariat Comment at CEO Endorsement Request

yes.

Agency Response

**Project Map and Coordinates**

**Is there an accurate and confirmed geo-referenced information where the project intervention will take place?**

Secretariat Comment at CEO Endorsement Request

yes

Agency Response

**Child Project**

**If this is a child project, is there an adequate reflection of how it contributes to the overall program impact?**

Secretariat Comment at CEO Endorsement Request

NA

Agency Response

**Stakeholders**

**Does the project include detailed report on stakeholders engaged during the design phase? Is there an adequate stakeholder engagement plan or equivalent documentation for the implementation phase, with information on Stakeholders who will be engaged, the means of engagement, and dissemination of information?**

Secretariat Comment at CEO Endorsement Request

2023.10.2:

Cleared.

2023.7.11:

It is well noted that the project has provided a stakeholder engagement plan. However please provide further details on any stakeholder analysis and consultations carried during project development, specifically related to civil society organizations and local community based organizations.

Agency Response

2023.08.11:

Details on stakeholder engagements undertaken during the PPG stage can be found in tables 19, 20 and 21 in the UNEP project document as well as in Appendix 20.

**Gender Equality and Women's Empowerment**

**Has the gender analysis been completed? Did the gender analysis identify any gender differences, gaps or opportunities linked to project/program objectives and activities? If so, does the project/program include gender-responsive activities, gender-sensitive indicators and expected results?**

Secretariat Comment at CEO Endorsement Request

2023.10.2:

Cleared.

2023.7.11:

Please include gender experts in output 2.1.2

Agency Response

2023.08.11:

Gender experts have been included as recipients of the capacity building under Output 2.1.2.

**Private Sector Engagement**

**If there is a private sector engagement, is there an elaboration of its role as a financier and/or as a stakeholder?**

Secretariat Comment at CEO Endorsement Request

yes

Agency Response

**Risks to Achieving Project Objectives**

**Has the project elaborated on indicated risks, including climate change, potential social and environmental risks that might prevent the project objectives from being achieved? Were there proposed measures that address these risks at the time of project implementation?**

Secretariat Comment at CEO Endorsement Request

yes

Agency Response

**Coordination**

**Is the institutional arrangement for project implementation fully described? Is there an elaboration on possible coordination with relevant GEF-financed projects and other bilateral/multilateral initiatives in the project area?**

Secretariat Comment at CEO Endorsement Request

yes

Agency Response

**Consistency with National Priorities**

**Has the project described the alignment of the project with identified national strategies and plans or reports and assessments under the relevant conventions?**

Secretariat Comment at CEO Endorsement Request

yes

Agency Response

**Knowledge Management**

**Is the proposed Knowledge Management Approach for the project adequately elaborated with a timeline and a set of deliverables?**

Secretariat Comment at CEO Endorsement Request

2023.10.2:

Cleared.

2023.7.11:

- Please further elaborate on how the project will learn from the preceding projects within Tuvalu and other countries. Also please further elaborate on how the project will ensure the experience and knowledge from the project can be effectively shared with other countries.

- The project document includes a set of knowledge management and communications activities, especially as part of Component 2, including knowledge and communications products to share key messages and experiences and disseminate lessons learned as well as training, workshops and an online KM platform. The project document includes references to a communication strategy and the project's results framework lists targeted KM and communications deliverables. However, a timeline and budget for key KM and communications activities have not been provided. The agency is requested to provide a simple table with timelines and a budget for key KM and communications activities. This summary table can be added to the KM section.

Agency Response

2023.08.11:

Table 2 in the CEO ER highlights lessons learned from past initiatives and how those lessons learned have been integrated into the design of this project. Elaboration to how the project will draw from previous projects has been incorporated in Section 8 of the CEO Endorsement Request. A costed knowledge management plan has also been included in Section 8.

**Environmental and Social Safeguard (ESS)**

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

Secretariat Comment at CEO Endorsement Request

2023.10.2:

Cleared.

2023.7.11:

We understand that the project overall ESS risk is classified as moderate, and UNEP attached the Safeguard Risk identification Form (SRIF). However, there is no environmental and social management plan (ESMP) and monitoring of the ESMP although the project identified that potential consequence as Restricted resources may cause conflicts, economic displacement, reduced income, social and economic inequalities, and a breakdown in social cohesion, and impacts on indigenous communities. Please add clear plan of development of ESMP and monitoring plan in addition to the environmental and social assessment.

Agency Response

2023.08.11:

An ESMP and associated monitoring plan was developed as part of the submitted package. Please find this at annex 18 in the Appendices document.

**Monitoring and Evaluation**

**Does the project include a budgeted M&E Plan that monitors and measures results with indicators and targets?**

Secretariat Comment at CEO Endorsement Request

2023.10.2:

Cleared.

2023.7.11:

Consultants	<ul style="list-style-type: none"> <li>M&amp;E Officer</li> </ul>	Indicative cost: \$ 48,00 (\$9,600 per annum)	Over the lifetime of the project (five years)
Annual Audit	<ul style="list-style-type: none"> <li>CTA</li> <li>PM</li> <li>M&amp;E Specialist</li> </ul>	Indicative cost: \$ 25,000 (\$ 5,000 per audit)	Annually over five years
TOTAL indicative cost			Estimated to cost
Excluding project team staff time and UNEP staff and travel expenses			US\$ 220,810

Please remove audit out of the M&E budget, audit is to be included under PMC:

## Agency Response

2023.08.11:

Well noted. The audit has been removed from the M&E budget in the monitoring and evaluation table. It was already included under the PMC.

### Benefits

**Are the socioeconomic benefits at the national and local levels sufficiently described resulting from the project? Is there an elaboration on how these benefits translate in supporting the achievement of GEBs or adaptation benefits?**

## Secretariat Comment at CEO Endorsement Request

Yes, socio-economic benefits have been adequately discussed.

## Agency Response

### Annexes

**Are all the required annexes attached and adequately responded to?**

## Secretariat Comment at CEO Endorsement Request

2023.10.5:

Cleared.

2023.10.2:

Geo location seems to be still empty.

### GEO LOCATION INFORMATION

The Location Name, Latitude and Longitude are required fields insofar as an Agency chooses to enter a project location under the set format. The Geo Name ID is required in instances where the location is not exact, such as in the case of a city, as opposed to the exact site of a physical infrastructure. The Location & Activity Description fields are optional. Project longitude and latitude must follow the Decimal Degrees WGS84 format and Agencies are encouraged to use at least four decimal points for greater accuracy. Users may add as many locations as appropriate. Web mapping applications such as [OpenStreetMap](#) or [GeoNames](#) use this format. Consider using a conversion tool as needed, such as: <https://coordinates-converter.com>  
Please see the Geocoding User Guide by clicking [here](#)

Location Name	Latitude	Longitude	Geo Name ID	Location & Activity Description
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2023.7.11:

Annex B: There seems to be no response to comments from Germany Council member.

Annex C: Please provide more details on planned expenditure categories/items for the PPG under Professional services. Please indicate if there is expected unused PPG balance to be

returned to Trustee, given disbursed amount and committed amount are less than approved PPG amount:

**ANNEX C: Status of Utilization of Project Preparation Grant (PPG). (Provide detailed funding amount of the PPG activities financing status in the table below:**

PPG Grant Approved at PIF:			
<i>Project Preparation Activities Implemented</i>	<i>GEF/LDCF/SCCF/NPIF Amount (\$)</i>		
	<i>Budgeted Amount</i>	<i>Amount Spent To date</i>	<i>Amount Committed</i>
Workshops	10,000	3,236	2,333
Professional services	110,750		89,454
<b>Total</b>	<b>120,750</b>	<b>3,236</b>	<b>91,787</b>

If at CEO Endorsement, the PPG activities have not been completed and there is a balance of unspent fund, Agencies can continue to undertake the activities up to one year of CEO Endorsement/approval date. No later than one year from CEO endorsement/approval date. Agencies should report closing of PPG to Trustee in its Quarterly Report.

Annex D:

In Annex D on Project Map and Coordinates, please consider inserting the geographic location of the site directly under the dedicated data entry field. This includes the Location Name, Latitude and Longitude.

Annex E:

- Please provide a budget table in Portal using the template. Budget table can be cut and pasted in the Portal entry under Annex E.
- Budget table uploaded in Portal: Project Manager position should only be charged to PMC but not to project components.

**ANNEX E: Project Budget Table**

Please attach a project budget table.

Project budget is attached.

**ANNEX F: (For NGI only) Termsheet**

Agency Response

2023.08.11:

Annex B:

Oversight is herewith acknowledged. Comments and responses are reflected in Annex B.

Annex C: Allocations for Professional Services has been divided into categories and more detailed budget allocations provided.

Annex D: The project target geo-locations have been converted to the DD format and inserted to the portal.

Annex E: A budget table will be pasted in the portal in the proposal resubmission. The Project Manager position has been charged to project component costs as he/she will play a central role in technical oversight. The role of the PM in technical oversight has been clarified in the ToRs for that position.

2023.10.04

Geo locations are provided in Annex E (Annex D on portal) and Georeferences for target locations are added to the portal

**Project Results Framework**

Secretariat Comment at CEO Endorsement Request yes

Agency Response

**GEF Secretariat comments**

Secretariat Comment at CEO Endorsement Request

Agency Response

**Council comments**

Secretariat Comment at CEO Endorsement Request 2023.10.2:

Cleared.

2023.7.11:

There seems to be no response to comments from a Council member.

Agency Response

2023.08.11:

Oversight is herewith acknowledged and reflected in Annex B of CEO ER. We have added the review comments made by the German Council member in the revised CEO ER and respective responses can be found there.

**STAP comments**

Secretariat Comment at CEO Endorsement Request

Agency Response

**Convention Secretariat comments**



Secretariat Comment at CEO Endorsement Request

Agency Response

**Other Agencies comments**

Secretariat Comment at CEO Endorsement Request

Agency Response

**CSOs comments**

Secretariat Comment at CEO Endorsement Request

Agency Response

**Status of PPG utilization**

Secretariat Comment at CEO Endorsement Request *yes*

Agency Response

**Project maps and coordinates**

Secretariat Comment at CEO Endorsement Request *yes*

Agency Response

**Does the termsheet in Annex F provide finalized financial terms and conditions? Does the termsheet and financial structure address concerns raised at PIF stage and that were pending to be resolved ahead of CEO endorsement? (For NGI Only)**

Secretariat Comment at CEO Endorsement Request

Agency Response

**Do the Reflow Table Annex G and the Trustee Excel Sheet for reflows provide accurate reflow expectations of the project submitted? Assumptions for Reflows can be submitted to explain expected reflows. (For NGI Only)**

Secretariat Comment at CEO Endorsement Request

Agency Response

**Did the agency Annex H provided with information to assess the Agency Capacity to generate and manage reflows? (For NGI Only)**

Secretariat Comment at CEO Endorsement Request

Agency Response

**GEFSEC DECISION**

**RECOMMENDATION**

**Is CEO endorsement recommended? (applies only to projects and child projects)**

Secretariat Comment at CEO Endorsement Request

2023.10.26:

This CEOER is recommended for technical clearance.

2023.10.5:

Not yet. Please address the review comment in the Core Indicator section.

2023.10.2 /7.11:

Not yet. Please address the review comments.

**Review Dates**

	<b>Secretariat Comment at CEO Endorsement</b>	<b>Response to Secretariat comments</b>
<b>First Review</b>	<b>7/11/2023</b>	<b>9/29/2023</b>
<b>Additional Review (as necessary)</b>	<b>10/2/2023</b>	
<b>Additional Review (as necessary)</b>	<b>10/5/2023</b>	
<b>Additional Review (as necessary)</b>	<b>10/26/2023</b>	
<b>Additional Review (as necessary)</b>		

**CEO Recommendation**

**Brief reasoning for CEO Recommendations**