ADAPTATION FUND

AFB/PPRC.37/Inf.15
16 March 2026

Adaptation Fund Board
Project and Programme Review Committee
Thirty-seventh Meeting
Bonn, Germany, 7-8 April 2026

PROPOSAL FOR FIJI

ADAPTATION FUND BOARD SECRETARIAT TECHNICAL REVIEW OF PROJECT/PROGRAMME PROPOSAL

PROJECT/PROGRAMME CATEGORY:

Country/Region: Republic of Fiji
Project Title: Fiji Rewa River Catchment Adaptation Programme
Thematic Focal Area: Rural Development
Implementing Entity: Secretariat of the Pacific Regional Environment Programme (SPREP)
Executing Entities: Ministry of Public Works, Meteorological Services and Transport, Fiji
AF Project ID: AF00000427
IE Project ID:
Requested Financing from Adaptation Fund (US Dollars): 10,056,905
Reviewer and contact person: Ahmad Ghosn
Co-reviewer(s):
IE Contact Person: Rupeni Mario

Technical Summary	The project "Fiji Rewa River Catchment Adaptation Programme" aims to enhance inclusive resilience and adaptive capacity in targeted communities in the Rewa River Catchment through infrastructure upgrades, livelihoods enhancement, and institutional strengthening. This will be done through the three components below: Component 1: Climate proofing of infrastructure through Nature Based Solutions USD 6,310,000 Component 2: Ecosystem Conservation and Livelihoods Enhancement USD 761,771 Component 3: Capacity Building & Institutional Strengthening USD 1,393,103 Requested financing overview: Project/Programme Execution Cost: USD 804,163 Total Project/Programme Cost: USD 9,269,037 Implementing Fee: USD 787,868 Financing Requested: USD 10,056,905 The proposal includes a request for a project formulation grant of USD 149,947 The initial technical review raised several issues, such as the need for a more detailed initial gender assessment, justification for full cost of adaptation reasoning, alignment with the Adaptation Fund's Strategic Results Framework (2019), among others, as is discussed in the number of Clarification Requests (CRs) and Corrective Action Requests (CARs) raised in the review.

	The second technical review finds that most of the CRs/ CARs raised in the first review are addressed. However, few others warrant further clarification including cost-effectiveness comparison with other options; applicable national standards; consultation outcomes consideration in project design; project outcomes and O&M sustainability aspects; alignment with AF RF table; among few others indicated the second review comments. *Please be advised that the findings of the AFB Secretariat's review of the funding proposal(s) do not reflect, indicate, or prejudge the outcome of the reaccreditation process currently underway. The Implementing Entity (IE) shall acknowledge that the funding proposal will not be approved by the Board if the IE's accreditation has expired, and reaccreditation has not been achieved at the time of the Board's decision. Notwithstanding this potential risk, the IE has elected to proceed with the development of the funding proposal.*
Date:	**20 January 2026**

Review Criteria	**Questions**	**First Technical Review Comments March 13, 2025**	**Second Technical Review Comments 20 January 2026**
Country Eligibility	1. Is the country party to the Kyoto Protocol, and/or the Paris Agreement?	**Yes.**	-
	2. Is the country a developing country particularly vulnerable to the adverse effects of climate change?	**Yes.** Fiji qualifies as particularly vulnerable to climate change under the Adaptation Fund's criteria. Specifically, the proposed project is seeking to build resilience to salt water intrusion, extreme weather events and flooding.	**-**
Project Eligibility	1. Has the designated government authority for the Adaptation Fund endorsed the project/programme?	**Yes.** The Letter of Endorsement (LOE) dated 14th January 2025 is included in the proposal package.	**-**
	2. Does the length of the proposal amount to no more than Fifty pages for the	**Yes.** However, additional amendments are required.	**CAR1: Not fully cleared.**

	project/programme concept, including its annexes?	**CAR1:** 1. Please amend the cover page to indicate the PFG amount as US$149,936 instead of the current US$150,000. 2. Please clarify if the PFG will be executed by SPREP or by Ministry of Public Works and Meteorological Services and Transport, Fiji. If it will be executed by SPREP please amend the PFG template to reflect SPREP as the EE for the PFG. 3. Please utilize the correct format for the Project/Programme Components and Financing table (currently presented as table 5 in the proposal). The template is available at Template for Concept Note Project Proposals (181 kB, DOC) 4. Alignment with fund outcomes section 3 is missing. Please complete Part III A of the concept note template.	**1.** PFG total is now $149,947. and it will be executed by SPREP (see PFG form). However, p.1 of the CN shows a different total of $149,747. Please revise. **2.** In the PFG request from Workshop costs 50persons x 1 day x 55 conferencing charges per person add up to $2,750 not 4875 as presented in the cost column. Please address. **CAR1 New:** Kindly address the following: 1. In the project components financing table, provide allocated budgets at output and outcome levels. 2. The letter numbering of the consultations section in Part II should be “H”. Please revise and adjust the letter numbering of following sections accordingly. 3. Please provide numbers and headings to all tables (e.g., project components financing, project calendar, etc.), and adjust table numbering after accordingly. 4. In Part IIA, please change the tables on activities and outputs into text. Text layout should indicate output first followed by activity/ies under it. **Also, to improve the clarity and quality of the document, please consider the following:**

			1. Add table of contents and lists of acronyms, tables and figures. Spell out abbreviations when first used in and refer to figures, tables and annexes in related discussions. Also add page numbering. 2. Conduct a round of proofreading after addressing review comments.
	3. Does the project / programme support concrete adaptation actions to assist the country in addressing adaptive capacity to the adverse effects of climate change and build in climate resilience?	**Not cleared.** Overall, the proposal is well-organized and develops a strong rationale for climate adaptation in the Rewa River Catchment in Fiji. However, to ensure a strong adaptation rationale, we recommend providing further clarification on how the proposed measures specifically address projected climate change impacts rather than just existing flood risks. However, for future iterations, we support the proponent to: ● further substantiate the need for the activities as a climate adaptation intervention, ● (ii) improve the Theory of Change to better articulate causal linkages among project elements, ● and (iii) ensure concrete and measurable outcomes that reflect Adaptation Fund mission **CAR2:** Please elaborate on how the selected flood control measures—such as levee upgrades, telemetry stations, and floodgates—are designed with future climate projections in mind. This would help demonstrate their adaptation value rather	**CAR2: Cleared.** See pp. 9-10, p. 18, <u>and IE response below:</u> *"As climate change drives more intense storms, heavier rainfall, and rising sea levels, traditional flood protection approaches based on historical data are no*

		than them being standard flood risk management interventions. **CR1:** It would be helpful to provide additional justification in Section 2: Climate and Flood Analysis (Pages 3-5) to directly link these risks to existing climate	*longer sufficient. The proposed interventions…….have been deliberately designed using future climate projections of 2050 and 2090, ensuring they deliver long-term adaptive value rather than standard engineering responses.* *1. …….. Levees are being elevated and reinforced beyond historical flood benchmarks using IPCC-aligned projections for 2050 and 2090. These incorporate anticipated sea level rise and extreme rainfall, with safety margins (e.g. 0.5 to 1.0 meters above past levels) factored in to protect homes, roads, and farmlands ……...* *2. …… Solar-powered telemetry systems will provide real-time monitoring of rainfall, streamflow, and water levels across key points in the Rewa Catchment. This live data is essential under more volatile rainfall regimes, enabling early warnings, faster emergency response, and informed, climate-responsive flood management.* **3.** *……Outdated, vulnerable gate designs are being replaced with climate-resilient sliding or pivoting systems built to withstand higher pressure from both fluvial and tidal floods. These upgrades are critical to counter backflow risks as sea levels rise…….".* **CR1: Cleared.** See pp. 9-10.

		projections. This would strengthen the case for adaptation funding. The proposal outlines important activities, but some key details on how success will be measured are missing. **CAR3:** Please include clearer metrics to measure success. For example: 1. The repair of four floodgates is an important action, but the proposal does not specify how much flood risk reduction is expected or the anticipated lifespan of the repaired structures. Please indicate any initial estimation or if this will be provided at the fully developed proposal phase. **CR2**: Could you clarify how strengthening sub-national institutions and governance mechanisms will directly contribute to long-term resilience beyond the project's lifespan? This would be especially useful in Section 3.2, Page 21 as well as the sustainability section on page 36.	**CAR 3: Cleared.** See p.18 and IE response. Full proposal will provide more information on expected flood risk reduction and lifespan of repaired structures. At this stage, preliminary estimates indicate that the floodgates lifespan will be extended by 25 years. **CR2: Cleared.** See p. 24-25.
	4. Does the project / programme provide economic, social and environmental benefits, particularly to vulnerable communities, including gender considerations, while avoiding or mitigating negative	**Yes.** However, amendments are required. The proposal contains a structured approach to enhancing climate resilience through improved infrastructure, ecosystem conservation, and capacity strengthening. However, additional details are needed on how economic benefits will be equitably distributed.	

	impacts, in compliance with the Environmental and Social Policy and Gender Policy of the Fund?	**CAR4:** Please expand on how the project will ensure equitable benefits for all target groups, particularly marginalized and vulnerable communities. For instance: Training sessions for women, youth, and persons with disabilities (PLWDs)—please quantify expected income gains, job creation, or improvements in resilience (p. 14). The proposal identifies 8,428 beneficiaries across 40 villages (Page 4) but does not provide metrics on how different vulnerable groups (women, youth, PLWDs, and elderly individuals) will be prioritized. **CR3:** Please include disaggregated data by gender and vulnerability status to show how benefits will be distributed. The proposal acknowledges that all project beneficiaries belong to indigenous iTaukei communities (Page 14), but more clarity is needed on how indigenous knowledge systems will be actively integrated into adaptation strategies. **CR4:** Kindly provide more details on how the Divisional Yaubula Working Group will ensure meaningful participation of indigenous leaders in governance and adaptation decision-making p. 14-15, p. 32. The proposal outlines strong environmental benefits (e.g., mangrove restoration, riverbank stabilization, biodiversity	**CAR4: Cleared.** See pp. 28-31. **CR3: Cleared.** See p. 30 & IE response. **CR4: Cleared.** See pp. 30-31.

		conservation) and social benefits (e.g., community participation, institutional strengthening). However, economic benefits remain underdeveloped. **CAR5:** Kindly specify the expected income increases for beneficiaries engaged in: Climate-smart agriculture and sustainable aquaculture p. 20, job creation estimates and productivity gains from the adaptation measures. The proposal addresses several risk factors, but a more detailed maladaptation risk assessment would strengthen the submission. For instance, the project proposes levee upgrades and floodgate repairs pp.16-18, but it is unclear whether these measures could inadvertently redirect flood risks to neighboring areas. **CAR6:** Please strengthen Part II Section I on the assessment of these risks and potential mitigation strategies. Similarly, for new agricultural or aquaculture practices, please evaluate their long-term sustainability and confirm that they do not negatively impact existing livelihood strategies. While the proposal incorporates gender-sensitive elements, such as targeted training for women and youth (p. 19), it does not include a formal gender analysis. It is noted that the supporting PFG application includes Gender Action Plan /ESMP	**CAR5:** Cleared. Sufficient for CN stage. See p.30, and TOC, pp. 25-26. Further details need to be provided at full proposal stage. **CAR6**: **Cleared.** See p. 43 and IE response. More detailed assessment and mitigation of risks associated with infrastructure upgrades will be provided at full proposal stage.

		development to support the fully developed proposal. **CAR7**: Please strengthen the initial gender assessment by making it more specific to the project area and the gender issues identified, and how these are anticipated to be addressed.	**CAR7**: **Cleared.** See pp. 10-11. A comprehensive Gender Analysis along with associated Gender Action Plan will be provided at full proposal stage.
	5. Is the project / programme cost effective?	**Unsure.** While keeping criteria with respect to Cost-effectiveness and sustainability in mind, the proposal demonstrates a clear rationale for the chosen flood adaptation management interventions involving infrastructure-based measures (flood control infrastructure), nature-based solutions (ecosystem-based measures), and capacity-building measures. These steps fit well within the project's climate resilience goals. However, this would also need to be supplemented by clarifications to the cost-effectiveness approach behind the proposed interventions by demonstrating that they provide the best use of resources. **CAR8:** Please provide a comparative analysis of examined alternative adaptation measures over the project design phase to justify your approach to most efficient in terms of long-term impact, maintenance costs, and sustainability.	**CAR8**: **Not fully cleared**. Please include a tabulated summary of the document "*CAR 8 Examined alternative adaptation Measures",* in Part IIC.
	6. Is the project / programme consistent with national or sub-national sustainable development	**Yes.** The project demonstrates alignment with key national document including NAP and NDC.	**-** Note: Other possible related national plans/ strategies should be double

	strategies, national or sub-national development plans, poverty reduction strategies, national communications and adaptation programs of action and other relevant instruments?		checked and provided at full proposal stage.
	7. Does the project / programme meet the relevant national technical standards, where applicable, in compliance with the Environmental and Social Policy of the Fund?	**Yes.** However, additional information is required. The proposal provides critical flood protection system comprising levees, floodgates, and telemetry stations. **CAR9:** Please supplement the information in table 10 with standards and measures for compliance with standards for activities 2.2. as well as activities 1.2 to 1.5. Currently only 1.2 and 1.4 are addressed. This proposal provides no reference to Fiji's water quality or hydrological standards for flood risk management and watershed protection. **CAR10:** please elaborate on the compliance of water-related interventions with the national water quality, hydrological, and pollution control regulations. The proposal does not explicitly demonstrate compliance with AF's Environmental and Social Policy (ESP).	**CAR9: Not cleared**. See pp. 36-37. Please reflect IE response, as appropriate, in Table 10 and/or Part IIE. **CAR 10: Not cleared.** Please reflect IE response, as appropriate in Table 10 and/ or Part IIE.

		CR6: To ensure conformity with AF requirements, please include a clear ESP compliance framework detailing environmental and social risk monitoring and mitigation throughout the project life. Please consult guidance document Guidance document for Environment and Social Policy.	**CR6: Cleared.** See pp. 45-51 & IE response.
	8. Is there duplication of project / programme with other funding sources?	**Yes.** However additional information is required. There is some demonstration of lessons drawn from previous projects which were incorporated into the design of this one. **CAR11:** Please strengthen this element in the section and consider whether the project listing is exhaustive for example how has GEF climate change allocations for Fiji laid any foundations that this project can/may build upon.	**CAR11: Cleared**. Sufficient for CN stage. See pp. 38-40.
	9. Does the project / programme have a learning and knowledge management component to capture and feedback lessons?	**Yes.** However, additional information is required. **CAR12:** Please strengthen the learning and sharing under component 3 by explaining how knowledge gained from trainings, Talanoa sessions, and community documentation will be analyzed, shared, and used for project refinement and add the information under Component 3. **CR7:** Please clarify how knowledge management activities (videos, workshops, and Talanoa sessions) will be monitored to assess their effectiveness in changing	**CAR12: Cleared.** See pp. 40-41. Further details would be needed at full proposal stage. **CR7: Cleared**. Based On IE response. The full methodology and tools for tracking knowledge uptake and

		practices and informing future adaptation efforts. Please indicate whether post-training evaluations will be conducted or whether there will be follow-up surveys? The project does not outline how gender-disaggregated lessons will be documented and integrated into adaptation planning. **CR8:** Please consider including gender-specific learning indicators in the proposal in the Results Framework, p. 25-27.	behavioral change will be detailed at the full proposal stage. **CR8: Cleared.** See p. 24 & IE response.
	10. Has a consultative process taken place, and has it involved all key stakeholders, and vulnerable groups, including gender considerations in compliance with the Environmental and Social Policy and Gender Policy of the Fund?	**Yes.** However additional information is required. The proposal lack of detailed documentation of stakeholder feedback. While consultations were conducted, it does not provide a summary of key concerns raised by communities and how they were incorporated into the project design. **CAR13:** please provide a summary of key concerns raised during stakeholder consultations and how they influenced the project design, kindly supplement table 11 to reflect this.	**CAR13: Not cleared.** See pp. 41-42. Please add a column table 11 to reflect the outcomes/ concerns raised during the consultations and how they are considered in project design.
	11. Is the requested financing justified on the basis of full cost of adaptation reasoning?	**No.** Although information is presented in the section, the section falls short of addressing the full cost of adaptation question. **CAR14:** Please provide an indication on how this project solely with the AF funding will be able to deliver on its outcomes.	**CAR14: Cleared.** See pp. 42-43.
	12. Is the project / program aligned with AF's results framework?	**No.** **CAR15:** Please complete Part III section A of the concept note template. Demonstrate	**CAR15: Not Cleared.** Please revise Table in Part III to reflect grant amounts

		how the project/programme aligns with the Results Framework of the Adaptation Fund	at AF outcome and output levels (not a lumpsum), among others. Also, update the alignment table based on the updated guidance found at Results Framework Alignment Table (Amended in November 2025) (77 kB, DOC).
	13. Has the sustainability of the project/programme outcomes been taken into account when designing the project?	**Yes.** However additional information is required. **CAR16:** Please explain how the project benefits and output will be maintained beyond the project lifespan, including whether government agencies or local communities have financial or institutional mechanisms in place to ensure continued functionality **CR9:** Clarify how adaptation interventions would generate economic benefits for the communities by, for example, sustainable agriculture, eco-tourism, or incentives for conservation. (Suggest elaborating this in p. 36.)	**CAR16: Not cleared.** Please revise Part IIJ on sustainability to further clarify how the project outcomes can be sustained, replicated/ scaled up after its end. Key areas of sustainability should be addressed under dedicated headings (economic, social, environmental, institutional, financial, etc.) including O&M of facilities to be developed (e.g., component 1 activities). Arrangements through which the above would be achieved, should be explained. **CR9: Cleared.** See p. 29 & IE response.
	14. Does the project / programme provide an overview of environmental and social impacts / risks identified, in compliance with the Environmental and Social Policy and Gender Policy of the Fund?	**Yes.** The project lists information at pages 36-39 including identifying the project risk category as C. However, amendments are required. **CAR17:** 1. Please remove the "no further requirement beyond monitoring in column 2. Based on the current inclusion for all ESS principles, the response should be yes for all.	**CAR 17**: **Cleared.** See Table 12, pp. 46-51. However, see CAR17 New below. **CAR17 New:** Align Table 12 first row titles with those of the AF CN template available at Template for Concept Note

		2. Please elaborate and strengthen the mitigation measures by saying how the various departments will address the proposed risks, and how these will be monitored.	Project Proposals (181 kB, DOC) and revise column 2 text accordingly.
Resource Availability	1. Is the requested project / programme funding within the cap of the country?	**Yes.** However, prioritization needs to be made by the DA for Fiji. Although the current balance is US$ 10,056,905, Fiji has one endorsed concept with WMO valued at US$5,560,000 and now have submitted this concept for $10,000,000. There would be a shortfall of US$4,496,905 if the WMO concept is approved prior to this current proposal.	**Cleared** based on IE response. *"WMO Concept has been retracted by Fiji AF DA. Hence the balance remains at USD10,056,905. We have now adjusted the total budget of this proposal to maximise the country cap of USD 10,056,905. The letter cancelling the Fiji Met WMO Concept Note will be submitted".*
	2. Is the Implementing Entity Management Fee at or below 8.5 per cent of the total project/programme budget before the fee?	**No.** The current IE fee is at 9.25%. **CAR18:** Please amend the IE fees downwards.	**CAR18: Cleared.** Revised IE fee (USD 787,868) is now 8.5% of total project cost (USD 9,269,037)
	3. Are the Project/Programme Execution Costs at or below 9.5 per cent of the total project/programme budget (including the fee)?	**Yes.** The current EC costs is at 9.5%.	**-**
Eligibility of IE	1. Is the project/programme submitted through an eligible Implementing Entity that has been accredited by the Board?	**No.** SPREP, is currently in the process of reaccreditation. Please be advised that the findings of the AFB Secretariat's review of the funding proposal(s) do not reflect, indicate, or	**-**

		prejudge the outcome of the reaccreditation process currently underway. The Implementing Entity (IE) shall acknowledge that the funding proposal will not be approved by the Board if the IE's accreditation has expired, and reaccreditation has not been achieved at the time of the Board's decision. Notwithstanding this potential risk, the IE has elected to proceed with the development of the funding proposal.	
Implementation Arrangements	1. Is there adequate arrangement for project / programme management, in compliance with the Gender Policy of the Fund?	n/a at concept stage	
	2. Are there measures for financial and project/programme risk management?	n/a at concept stage	
	3. Are there measures in place for the management of for environmental and social risks, in line with the Environmental and Social Policy and Gender Policy of the Fund?	n/a at concept stage	
	4. Is a budget on the Implementing Entity Management Fee use included?	n/a at concept stage	

	5. Is an explanation and a breakdown of the execution costs included?	n/a at concept stage	
	6. Is a detailed budget including budget notes included?	n/a at concept stage	
	7. Are arrangements for monitoring and evaluation clearly defined, including budgeted M&E plans and sex-disaggregated data, targets and indicators, in compliance with the Gender Policy of the Fund?	n/a at concept stage	
	8. Does the M&E Framework include a break-down of how implementing entity IE fees will be utilized in the supervision of the M&E function?	n/a at concept stage	
	9. Does the project/programme's results framework align with the AF's results framework? Does it include at least one core outcome indicator from the Fund's results framework?	n/a at concept stage	

	10. Is a disbursement schedule with time-bound milestones included?	n/a at concept stage	

ADAPTATION FUND

CONCEPT NOTE PROPOSAL FOR SINGLE COUNTRY

PART I: PROJECT/PROGRAMME INFORMATION

Title of Project/Programme:	Fiji Rewa River Catchment Adaptation Programme
Country:	Republic of Fiji
Thematic Focal Area:	Rural Development
Type of Implementing Entity:	Regional Implementing Entity
Implementing Entity:	Secretariat of the Pacific Regional Environment Programme (SPREP)
Executing Entities:	Ministry of Public Works, Meteorological Services and Transport, Fiji
Amount of Financing Requested:	10,056,9025 (in U.S Dollars Equivalent)

Project Formulation Grant Request (available to NIEs only): Yes ☐x No ☐

Amount of Requested financing for PFG: 149,747 (in U.S Dollars Equivalent)

Letter of Endorsement (LOE) signed: Yes ☐ X ☐ No ☐ ☐

NOTE: LOEs should be signed by the Designated Authority (DA). The signatory DA must be on file with the Adaptation Fund. To find the DA currently on file check this page: https://www.adaptation-fund.org/apply-funding/designated-authorities

Stage of Submission:

☐X☐ This concept has been submitted before

☐☐ This is the first submission ever of the concept proposal

In case of a resubmission, please indicate the last submission date: 20 January 2025.

Please note that concept note documents should not exceed 50 pages, including annexes.

Project/Programme Background and Context:

Summary

Fiji faces significant climate change challenges, including rising sea levels, extreme weather events, flooding, and saltwater intrusion, threatening livelihoods, infrastructure, and ecosystems. The Fiji Rewa Catchment Adaptation Programme aims to build resilience and ensure sustainable development by implementing socially inclusive and people centered strategies in the Rewa catchment, Fiji's largest river basin. Benefiting 8,428 people across four provinces, the project integrates climate resilience with green, grey, and blue infrastructure, sustainable livelihoods, health and wellbeing. Its three key components are climate-proofing grey infrastructure, ecosystem restoration, and strengthening institutions to address flooding. The project also prioritizes economic opportunities for women and youth, and supports training and community participation, aligning with Fiji's National Adaptation Plan for long-term climate resilience.

Overview of Fiji Islands and its climate vulnerabilities

Fiji, an archipelago of 332 islands, is a Pacific economic hub but highly vulnerable to external shocks, particularly climate change. Situated approximately at 17.7134° south and 178.0650° east, the archipelago consists of two main islands, Viti Levu and Vanua Levu. Fiji is divided into four administrative divisions, including the Central, Northern, Eastern and Western Divisions (World Bank, 2023)[1]. The population of Fiji is 933,154 (Fiji Bureau of Statistics, 2023[2]), with the majority comprising Indigenous Fijians (56.8%) and Indo-Fijians (37.5%), along with smaller communities of Rotumans, Chinese, and Europeans. Classified as a middle-income country, Fiji's Gross Domestic Product (GDP) was USD 5.49 billion in 2023 (International Monetary Fund (IMF), 2024[3]). The economy is primarily driven by the services sector, which includes tourism, transportation, and financial services (Fiji Bureau of Statistics, 2023).

Climate change has significantly impacted Fiji with a sea level rise of approximately 210-240 millimetres since 1880 (Weber, 2024)[4] and an annual increase of about 3 millimetres per year. This rise has resulted in coastal erosion, flooding, and saltwater intrusion, which adversely affect agriculture and freshwater supplies. Additionally, average maximum temperature has increased by nearly 1°C since 1950, with a current rate of about 0.16°C per year (Shiiba et al., 2023)[5]. Rainfall patterns have also become more variable, with an average of 250-400 mm per month during the wet season and 80-150 mm per month during the dry season. Periods of drought are common during El Niño events, further stressing water resources (World Bank, 2023).

These climatic changes have led to increased risks of tropical cyclones, floods, siltation in rivers and landslides, which have significant socioeconomic impacts on the country. The Fijian government and local communities are working on adaptation measures, but the challenges remain substantial. Fiji has implemented several policies and frameworks to address development and climate change, focusing on sustainability and resilience. The National Climate Change Policy (NCCP) aims to protect Fiji's development priorities from climate change risks, while the Climate Change Act 2021 provides a legal framework for climate action (Fiji Ministry of Economy, 2019)[6]. The Green Growth Framework (GGF) promotes sustainable development (Fiji Ministry of Strategic

[1] World Bank. (2023). Climate Vulnerability and Fiji's Geography. Climate Change Knowledge Portal. Retrieved from https://climateknowledgeportal.worldbank.org/country/fiji/vulnerability

[2] Fiji Bureau of Statistics. (2023). Population and Demographic Indicators. Retrieved from Fiji Bureau of Statistics.

[3] International Monetary Fund (IMF). (2024). Republic of Fiji: 2024 Article IV Consultation—Press Release; Staff Report; and Statement by the Executive Director for Fiji (IMF Country Report No. 24/159).

[4] Weber, E. H. (2024). Climate Change and Human Health in Fiji: Policies and Equity. In Global Perspectives on Health Geography (pp. 33–47). SpringerLink

[5] Shiiba, N., Singh, P., Charan, D., Raj, K., Stuart, J., Pratap, A., & Maekawa, M. (2023). Climate change and coastal resiliency of Suva, Fiji: a holistic approach for measuring climate risk using the climate and ocean risk vulnerability index (CORVI). Mitigation and Adaptation Strategies for Global Change, 28(9), 9656

[6] Fiji Ministry of Economy. (2019). Republic of Fiji National Climate Change Policy 2018 - 2030. Suva, Fiji: Ministry of Economy.

Planning, National Development and Statistics, 2014)[7], while the National Adaptation Plan (NAP) enhances resilience to climate impacts (Government of Fiji, 2018)[8].

Rewa Catchment

Fiji consists of high volcanic islands with barrier reefs, atolls, sand cays, and raised coral islands, featuring numerous well-watered rivers and streams, including five large rivers (the Rewa, Navua, Sigatoka, Nadi and Ba rivers) on Viti Levu and several short rivers including the 55km long Dreketi River in Viti Levu (SPREP, 2016[9]).

The Rewa River, Fiji's longest and widest river, originates from Tomanivi, the highest peak (1,260m asl) in Fiji, and flows southeast for 145 kilometres from the central highlands to a delta at Laucala Bay near Suva. The Rewa River's tributaries are the Waidina, Waimanu, Wainimala and Wainibuka rivers, which all contribute to its extensive drainage basin and help sustain the rich agricultural lands of Fiji's Rewa Delta. The combined catchment area is approximately 3,059km^2, and the tributaries areas are Wainibuka River with an area of 919km^2, Wainimala River (980km^2), Waidina River (546km^2) and Waimanu River with an estimated area of 200km^2 and the lower Rewa tributaries 415km^2 (Water Authority of Fiji, 2023)[10].

The Rewa Catchment supports commercial forestry, cattle, pasture, and vegetable farming, and provides critical drinking water for Suva and Nausori. It includes key hubs like Nausori Town and Airport, and several Fijian villages, making it economically and culturally significant. The densely populated area is highly vulnerable to climate change, facing sea level rise, storm surges, and king tides, requiring adaptation measures. Issues like siltation, poor catchment management, erosion, and aging infrastructure exacerbate flooding risks. Protecting this area is crucial for economic stability and growth, given its importance to Fiji's major economic hubs, Suva and Nausori. For this project, we have selected 40 villages within Rewa Catchment, out of a total of around 117 villages. The villages were selected using purposing selection and the total population of the 40 villages selected in Rewa Catchment is 8,428 (4,331 male, 4,097 female) (Table 1).

The catchment's terrain has an average slope of about 14 degrees. Its landscape transitions from narrow floodplains bordered by well-rounded hills in the middle catchment to a broad river plain downstream. Near its lower reaches, the river meanders and eventually forms a delta. The Rewa Catchment has an average stream gradient of 18.9 m/km, which is relatively steep. This steep gradient significantly impacts the flow regime, particularly in the upper catchment, where flash floods are common. In contrast, slower riverine floods occur along the floodplain closer to the river's mouth (Dept. of Meteorology, 2024[11]).

Table 1 Village and population data for Rewa Catchment

No#	Catchment	Selected Villages	Male	Female	Total
1	Rewa	21	2,446	2,375	4,821
2	Wainibuka	11	807	715	1,522
3	Wainimala	3	682	677	1,359

[7] Fiji Ministry of Strategic Planning, National Development and Statistics. (2014). Green Growth Framework for Fiji: Restoring the balance in development that is sustainable for our future. Suva, Fiji: Government of Fiji.

[8] Government of Fiji. (2018). Republic of Fiji National Adaptation Plan: A pathway towards climate resilience. Suva, Fiji: Ministry of Economy.

[9] SPREP. 2016. State of conservation in Fiji : country report 2013.Online publication available at https://www.sprep.org/attachments/Publications/BEM/soco-fiji.pdf?form=MG0AV3 Accessed on 4 Jan 2025.

[10] Water Authority of Fiji. (2023). Rewa River Water Supply Scheme to Address Intermittent Supply. Retrieved from https://waterauthority.com.fj/rewa-river-water-supply-scheme-to-address-intermittent-supply/

[11] Dept. of Meteorology. 2024. Unpublished data. Government of Fiji.

4	Waimanu	1	80	50	130
5	Waidina	4	316	280	596
Total		**40**	**4,331**	**4,097**	**8,428**

Source of data: Provincial Council Offices of Rewa, Tailevu, Naitasiri and Ra.

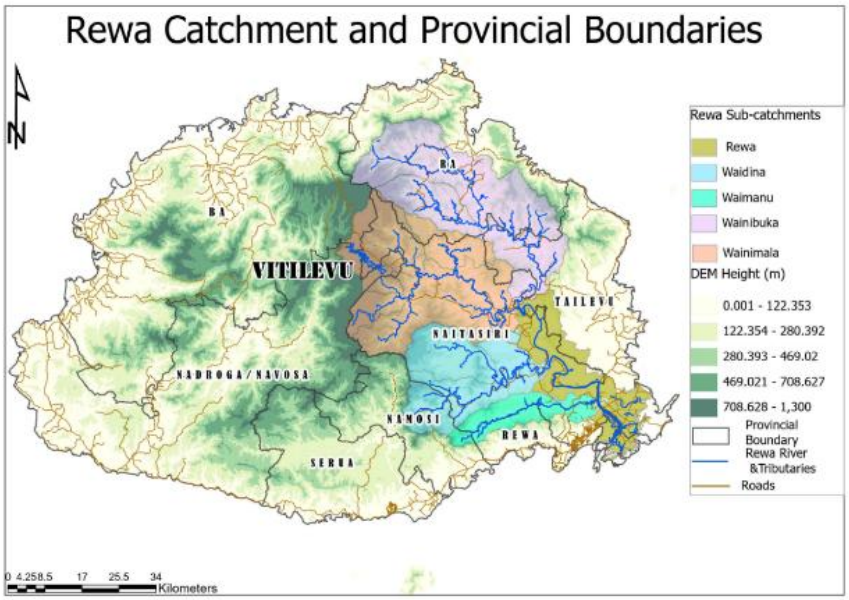


Figure 1 Map showing Rewa River Catchment and Provincial boundaries in Viti Levu

Provinces in Rewa Catchment

The Rewa River Catchment comprises of the provinces Ra, Ba, Naitasiri, Tailevu, Namosi and Rewa. Provinces of Ba and Namosi are not included in this project because their area within the catchment is not significant, and therefore project focuses on Ra, Naitasiri, Tailevu and Rewa Provinces only. Here is a summary of socio-economic status of these provinces.

The Province of Ra

The Province of Ra, in the north-east of Fiji's Western Division, comprises of 93 villages and 20 districts (Tikinas[12]) with a population of 30,416 (7,229 males and 6,158 females) covering an area of 134,100 hectares

[12] Tikinas are districts comprising of many villages.

with 4,537 households (Fiji Bureau of Statistics, 2018)[13]. The major livelihood activity is subsistence farming and local markets where weekly sale of produce such as sugarcane, cassava, taro (Dalo), plantain (vudi), vegetables (taro leaves, *Abelmoschus manihot*, Duruka (Fijian asparagus)), and fruits (bananas, citrus, pineapples, pawpaw) takes place (Ibid, 2018). In 2016, villages in Ra were devastated by Category 5 Tropical Cyclone Winston which destroyed 327 buildings with total cost of damages amounting to FJD$526M and total loss of production (agriculture, fisheries and forest) stood at FJD$142million with an estimated recovery period of 5-10 years (Government of Fiji, 2016)[14]. Flooding and prolonged heavy rain contributes to landslides and sediments washed into the waterways and farm areas (Institute of Applied Science, 2016)[15]. A study on the 2012 flooding (January and March flooding) in Ba and Ra determined the cost of damages of flooding from one catchment in Ra estimated at FJD $20.6million (Daigneault et al., 2014)[16]. Given the figure presented above and the fact that poverty rates in the rural western division was recorded at 42.7% (Fiji Bureau of Statistics, 2021)[17] makes the Ra community one of the most vulnerable in Fiji.

The Province of Naitasiri

The Province of Naitasiri located in the Central Division, consists of ninety-one (91) villages and sixteen (16) districts (Tikinas) covering a land area of 166,200 hectares. The province has a population of 14,644 people, (8,174 males, 6,470 females) with a total household count of 4,335 (Fiji Bureau of Statistics, 2018). The people of Naitasiri rely on subsistence farming for their sustenance as well as a source of livelihood through the weekly sale of produce at the market. Apart from Kava (*Piper methysticum*), Cassava, Taro (Dalo) and Plantain (Vudi) are farmed (Ministry of Agriculture and Waterways, 2020)[18]. Vegetables such as taro leaves (rourou), *Abelmoschus manihot* (Bele), wild fern (Ota) and Duruka (Fijian asparagus) as well as fruits such as Banana, pawpaw, pineapple and mangoes are also grown. Villages of Naitasiri face the impacts of sea level rise as the saltwater moves inland during periods of heavy rain and exacerbates flooding and riverbank erosion. In early 2014, severe flooding in the Central Division of Fiji resulted in damages amounting to FJD$11.5million with FJD$10million being the bill for damages to the road network affecting access and mobility of rural communities in the Division. Crop loss from the 5 provinces in the Central Division amounted to over FJD$1million with Naitasiri province being severely affected with crop damage of up to FJD$584,491 (The Fiji Times, 2014)[19].

The Province of Tailevu

Tailevu is located on the south-eastern fringe of Viti Levu with 141 villages located within its 22 Tikinas (districts). Tailevu is the fifth largest province in Fiji with a population of 64,552, with 68.5% (44,232) living in a rural setting. The province has 12,974 hectares of arable land, approximately 23% of its total land area. Tailevu boasts different geography with mountainous, coastal, river and flat lands, and is home to two of the largest river systems in the country – the Rewa and Wainibuka rivers. It also hosts one of the main inter-island jetties on Viti Levu at Natovi, and smaller boat landings in Bau and Nakelo. Nausori International Airport also sits in Tailevu (Fiji Bureau of Statistics, 2018). The province has individual Integrated Village Development Plan (IVDP) for every village and a Provincial Strategic Plan covering 2022-2050. The sustainable development of the 141 villages in the 22 Tikinas is the core of this strategic plan and “Environment and Climate Change” is part of it. The Strategic Plan states that climate change and disaster is a threat to biodiversity, food security and home environments. The Village Profile and field observations reveals that saltwater intrusion into farms threatens crops and improper

[13] Fiji Bureau of Statistics. (2018). 2017 Population and Housing Census: Administrative Report and General Tables. Suva, Fiji: Fiji Bureau of Statistics. Retrieved from https://sdd.spc.int/collection/2017-population-and-housing-census-fiji-republic

[14] Government of Fiji (2016). Fiji Post-Disaster Needs Assessment: Tropical Cyclone Winston, February 20, 2016

[15] Institute of Applied Science (2016). RESCCUE Climate Change Impacts in Ra and Kadavu Province. March 2016.

[16] Daigneault, Adam J. & Brown, Pike. (2014). Costs and Benefits of Ecosystem-based Adaptation for Flood Risk Reduction in Fiji. (2014). accessed at https://ideas.repec.org/p/ags/aaea14/169398.html on 8 Jan 2025.

[17] Fiji Bureau of Statistics (2021), 2019-20 Household Income and Expenditure Survey Main Report. August 2021.

[18] Ministry of Agriculture and Waterways. (2020). Fiji Agriculture Census 2020: Key Findings. Suva, Fiji: Ministry of Agriculture and Waterways.

[19] The Fiji Times (2014): $11.5M Flood Bill, The Fiji Times, 12 March, 2014. Accessed at https://www.fijitimes.com.fj/11-5m-flood-bill/ on 08/01/2025

waste management is an issue. The Strategic Plan emphasizes reviving traditional conservation practices, like the “tabu” system (no-take zones or prohibited fishing areas) to sustainably manage land, river, and ocean resources.. These areas are temporarily closed to fishing and other extractive activities to allow marine life to replenish and thrive. Climate and disaster resilience are key, with replanting mangroves along the coastline being a priority to protect both people and marine life (Govt. of Fiji, 2022)[20].

The Province of Rewa

The Province of Rewa consists of fifty-five (55) villages and nine (9) Tikinas (districts) covering a land area of 27,200 hectares and fourteen (14) Qoliqoli[21] area, namely, Sawau, Kulu, Nukunitabua, Naduruvesi, Nacurumoce, Raviravi, Suva, Nakurulevu, Navakavu, Vuninokonoko, Bativudi, Toga, Noco and Buregasaga. There are seven (7) Traditional Tabu Vakavanua Qoiliqoli areas and nil gazetted Marine Protected Areas (MPA). The Province of Rewa consists of 26,350 people (3,796 males and 12,554 females) with just over 2,666 households.

Integrated Village Development Profile (IVDP) formed the baseline for the development issues, priorities and development and investments needs. The main source of food is subsistence farming of root crops and vegetables, fisheries, municipal markets and processed food from retail shops. The main sources of income are employment and remittances, supplemented by subsistence farming of Dalo (taro) and ~~&~~ yaqona *Piper methysticum*), fishing, harvesting of crustaceans such as mana (mud lobster), qari (crab), tuba, moci (prawns) and molluscs such as kaikoso, kai, sici, dio (thus both freshwater & marine), canteen operations, small business operations and ecotourism. Some villages in the Tikina of Rewa, Sawau and Raviravi still use the river as their source of water supply whilst villages on the island of Beqa are powered by generators and solar energy source (Fiji Bureau.of Statistics, 2018).

Annex III provides the map of Rewa Catchment showing the various sub catchments and provinces. Next, the specific flood vulnerabilities are described as this project focuses on addressing flood risk in Rewa Catchment. Climate change is exacerbating flood risk in Fiji through several mechanisms. Rising sea levels lead to higher coastal erosion and more frequent coastal flooding, particularly in low-lying areas. Increased rainfall intensity results in higher runoff and river flows, raising the likelihood of riverine flooding. More intense tropical cyclones bring powerful storm surges that inundate coastal areas. Rapid urbanization reduces natural flood absorption areas, making urban regions more susceptible to flooding. Furthermore, the underreporting of smaller-scale flood events underestimates the true scale of flood risk. These factors combined make Fiji highly vulnerable to climate change and related disasters.

Climate and Flood Analysis

The Rewa Catchment falls under the Koppen-Geiger climate classification of hot and humid tropical rainforest. This means its coolest month has an average temperature of 18°C or higher, and the driest month receives at least 60 mm of rainfall. The catchment experiences a mean annual precipitation of 3,932 mm, with approximately 80% of this rainfall occurring between November and April during Fiji's hot and wet season. The lower catchment, represented by data from Nausori Airport Station, receives an average annual rainfall of 2,968 mm, while the upper catchment, based on data from Monasavu Station, receives 4,896 mm annually. Although rainfall decreases during the drier months (May to October), the catchment maintains a significant amount of precipitation throughout the year compared to catchments on the leeward side of the mountains. The average temperature across the catchment is approximately 23.6°C, with cooler conditions prevailing in the interior

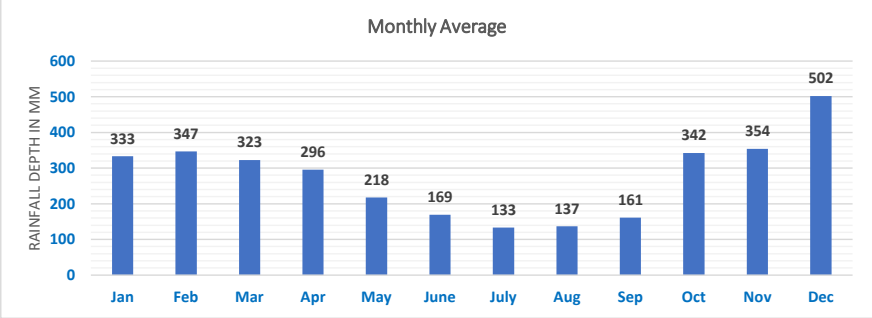
[20] Govt. of Fiji. (2022). Tailevu Strategic Plan 2022- 2050, Tailevu Provincial Council, Nausori, Fiji.

[21] The term "Qoliqoli" refers to traditional fishing grounds or marine areas in Fiji. It encompasses not just the seabed, but also the waters, sand, reefs, mangrove swamps, rivers, and streams associated with these areas. Qoliqoli rights are deeply rooted in Fijian culture and are tied to the customary ownership and usage rights of indigenous Fijians.

(upper) areas. Seasonal temperature variation is minimal, though the cooler months are from May to October, and warmer months are from November to April (Dept. of Meteorology, 2024[22]).

With five main rainfall stations within its sub-basins, the following is the rainfall characteristics and statistical data for Rewa Catchment. Major rainfall can be observed between October and March which correlates with the rainy and cyclone season in Fiji (Ibid, 2024). The catchment is vulnerable to flooding and in the past decade from 2011 to 2021, there have been 49 recorded flood events as observed at operating telemetry stations during high to extreme rainfall events directly correlating to river stage. From the total recorded events, 33 flood events were categorized as extreme where water level or river stage rose beyond warning thresholds with major impacts in terms of flooding of residential and low-lying areas and destruction of infrastructure and agricultural lands. According to SPC (2020[23]), flood events analysis between the years 1964-2014 reveals that impacts have been significant, with loss of life and economic losses running to millions of US Dollars.

Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Average Rainfall in mm	333	347	323	296	218	169	133	137	161	342	354	502



Annual Mean	3317mm
Annual Maximum	3854mm
Annual Minimum	2350mm

Figure 2 Rainfall average for Rewa Catchment

The following figure below provides data on major and minor flood peak values recorded at different telemetry stations within Rewa catchment during heavy rainfall events within the Rewa basin and its subbasins for the past decade. Highlighted red are extreme events that exceeded warning threshold that resulted in major flooding of low-lying and flood prone areas with major impacts. Early warning thresholds were established for Flood forecasting and early warning mechanisms to be utilized for severe rainfall and floods events (Dept. of Meteorology, 2024).

[22] Department of Meteorology. (2024). Unpublished data. Ministry of Public Works, Meteorological Services and Transport.
[23] Pacific Community (SPC). (2020). Pacific Damage and Loss (PDalo) Factsheet. Retrieved from Pacific Data Hub: https://pacific-data.sprep.org/dataset/pacific-damage-and-loss-pDalo-factsheet

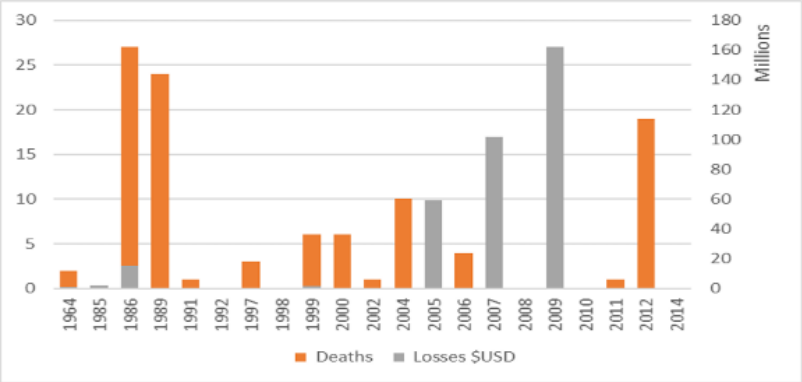


Figure 3 Impact of floods in Fiji (deaths and economic losses) between 1964-2014)

Increased rainfall and storm surges have led to more frequent and severe flooding in this area. Communities are faced with impacts of rising sea level which is inundating low-lying areas and disrupting livelihoods. Changes in sediment supply and increased wave action has accelerated erosion, threatening infrastructure and habitats. The high population density in deltas means that climate change impacts can lead to significant social and humanitarian issues, loss of livelihoods, and health risks. Anecdotal evidence from site visits done during Concept Note preparation indicate that communities used to grow rice in their farms 30 years ago and can no longer grow rice due to saltwater intrusion. The Village Headman of Matanimoli Village in Rewa Catchment said that the community including school children have to walk far distances to catch a bus as the buses do not come to the road near their village due to frequent flooding. Damaged and malfunctioning floodgates in the area is leading to increased flood risk, while siltation is affecting water supply infrastructure. Addressing these challenges is crucial for ensuring the well-being and resilience of these communities.

Table 2 Flood events in Rewa Catchment (2011-2021)

Tropical Cyclone season	No of Flood Events	Early Warning Thresholds	Extreme Events
2011-2012	12m Nayavu - Dec 12, 2011 5.11m at Nabukaluka -17 Nov 2011 4.3m at Nabukaluka-30 Mar 2012 6.8m & 6.6m at Navolau- 20 Nov & 1 Dec 2011 9.3m at Nayavu – 23 Jan, 13.5 on 24 Jan 2012 13.3m on 30 Mar 2012 15.6m on 1 Apr 2012	*Alert Threshold:* Nabukaluka:4m Navolau: 6m Nayavu: 5m *Warning Threshold:* Nabukaluka:5m Navolau: 8m Nayavu: 8m	6
2012-2013	4.6m at Nabukaluka- 2 Oct 2012 4.6m on 19 Oct 2012 6.0m on 17 Dec 2012 4.5m on 6 Jan 2013 9.1m at Navolau – 25 Jan 2012 13.4m at Navolau 1 Apr 2012 3.7m on 20 Feb 2013, 3.6m on 2 Mar 2013 17.6m on 18 Dec 2012		4

2013-2014	5.5m at Nabukaluka- 29 Nov 2013 8.3m on the 6th of Feb 2014 14.7m at Navolau – 18 Dec 2012 7.9m at Navolau – 18 May 2014		4
2014-2015	No significant flood incidence		
2015-2016	5.1m m at Nabukaluka- 22 Dec 2015 5.48m – 21 Feb 2015 8.2m at Nayavu – 1 Jan 2016 15.4m on 21 Feb 2016		4
2016-2017	6.1m at Nabukaluka- 18 Dec 2016, 6.0m at Nabukaluka – 19 Dec 2016 11.4m at Nayavu – 18 Dec 2016 14.9m on 19 Dec 2016		4
2017-2018	3.9m at Nabukaluka- 25 Oct 2017 & 5.3m 18 Oct 2018 4.2m at Nabukaluka -1 Apr & 4.45m on 10 Apr 2018 10.2m at Navolau – 15 Jan 2018		2
2018-2019	Nairukuruku -2018 (>7m) 15 Jan Nairukuruku – 21-27 Apr 2019 (4.5m) 3.9m at Nabukaluka – 29 Mar 2018 5.57m at Korovou – 30 Jan 2019 6.1m – 23 Apr 2019 6.8m at Nayavu on 20 Apr 2019 9.0m on 22 Apr, 11.5m on 27 Apr 2019	*Alert Threshold:* Korovou: 2.5 Nairukuruku:4m *Warning Threshold:* Korovou: 3.5m Nairukuruku:5m	4
2019-2020	Nayavu -9.2m 25 Dec 2019, 6.8m 8 Apr 2020 5.1m at Nabukaluka- 21 Apr 2019, 4.6m n 26 Apr 2019 10.6m at Navolau – 28 Dec 2019		3
2020-2021	5.36m at Korovou – 17 Dec 2020 6.27m at Korovou – 30 Jan 2021		2

Climate Projections for Rewa Catchment

Climate projections for Rewa Catchment were derived from data developed by SPREP and the Fiji Meteorological Services under the Pacific Ecosystem-based Adaptation to Climate Change (PEBACC) project first phase between 2015 to 2020. The projections are displaying isothermal distribution for temperature and rainfall variables based on the Australia'sn Commonwealth Scientific and Industrial Research Organisation (CSIRO) and Bureau of Meteorology (BOM) 'updated country projections' in the Pacific region. These projections were mapped spatially across the Fiji group of islands linked to Fiji Meteorological Service's historical (1986-2005) weather station averages. For this Concept Note, we used the Rewa Catchment coordinates to get current climate, and projections for 2050 and 2090.

The CSIRO and BOM used data from up to 40 global climate models to develop their updated country projections. These models are based on established physical laws and simulate various climate variables under different greenhouse gas and aerosol emissions scenarios. The projections are tailored for specific regions, including the Pacific, and are presented for multiple time periods.

Forty global climate models were used to develop the projects and a few of them are listed below:

- ACCESS-1.0 and ACCESS-1.3: Australian Community Climate and Earth System Simulator (developed by CSIRO and Bureau of Meteorology, Australia).
- BCC-CSM1-1: Beijing Climate Center Climate System Model (developed by BCC, China Meteorological Administration).
- CanESM2: Canadian Earth System Model (developed by Canadian Centre for Climate Modelling and Analysis).

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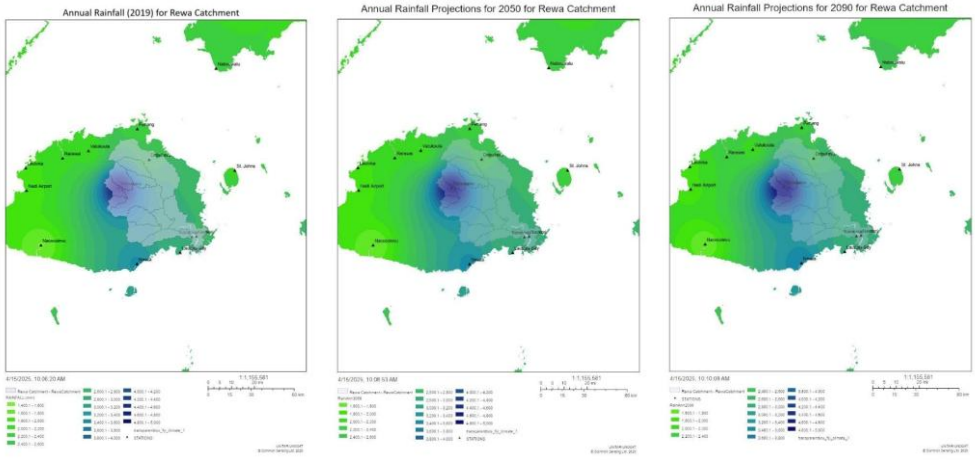
- CNRM-CM5: Centre National de Recherches Météorologiques Climate Model (developed by CNRM-CERFACS, France).
- MPI-ESM-LR: Max Planck Institute Earth System Model - Low Resolution (developed by MPI for Meteorology, Germany).
- HadGEM2-ES: Hadley Centre Global Environment Model version 2 - Earth System (developed by Met Office Hadley Centre, UK).
- MIROC5: Model for Interdisciplinary Research on Climate version 5 (developed by JAMSTEC, Japan).

The models are assessed for reliability based on their accuracy in simulating past climate conditions, consistency of their projected changes, and the scientific validity of the processes driving these changes. The Representative Concentration Pathway (RCP) 8.5 was used for developing climate projection maps for Fiji. RCP8.5 is a high-emission scenario where emissions continue to rise throughout the 21st century. The following maps show current (2019), projected (2050 and 2090) rainfall data spatially with Rewa Catchment highlighted within Viti Levu.



Gendered impacts of climate-induced floods

This preliminary gender analysis draws from Fiji government reports, the most recent being the Beijing Declaration and Platform for Action +30 Fiji Country Progress Report (2024), the Country Gender Assessment (2023), and the (SDG) Voluntary National Review (2023), official statistics and sector or project specific reports. The information, data and indicators from this literature review is invariably at national or Tikina (district) level, and in some cases provinces;. Climate change induced flooding in Fiji, particularly in the Rewa catchment, are intensifying existing gender inequalities. Women's livelihoods are especially exposed in agriculture and fisheries: women dominate post-harvest crop processing, handicraft production (94% women), and over 90% of freshwater fishing, yet flooding, waterlogged soils, and saltwater intrusion are causing crops such as eggplant, cassava, yams, sugarcane, and voivoi (pandanus) to decline in yield. In Serea and Burebasaga, women reported losing agricultural land, lacking space for fish farming, and even seeing village boundaries shift due to erosion, while in Vuci severe flooding has damaged homes and roads, increasing risks to women's safety—highlighted by the recent drowning of two women in the Rewa River during everyday activities like freshwater mussels diving and line fishing.

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Health, care burdens, and safety risks for women are also rising as a result of climate impacts. Women raised concerns that flooding prevents pregnant women from reaching clinics in villages such as Vuci, Serea, and Raviravi, contributing to maternal health risks. Communities reported increases in dengue, leptospirosis, and mosquito breeding linked to standing floodwaters, exposed septic tanks and inadequate water storage. At the same time, gender-based violence remains widespread, with 64% of ever-partnered women experiencing intimate partner violence, and consultations in Tikina Noco flagged concerns about climate change impacts on LGBTQI+ communities. A more detailed Gender Assessment during the proposal preparation stage will provide more 'small area' information as necessary to inform the project Gender Action Plan and budget.

Problem Analysis

The Rewa Catchment is affected by flooding which is exacerbated by climate change induced sea level rise, storm surges and increasing intensity of cyclones. This is causing siltation in rivers, erosion of riverbanks, flooding of farmlands and saltwater intrusion into farmlands. Most of the flood control infrastructure such as floodgates, flap gates, levees, spillways, channels and culverts are aged and need repair. Climate change is thus affecting food and water security affecting people in the Catchment. The poorest and most vulnerable of communities are affected the most. There is limited awareness of climate impacts and their causes at the community level and there are significant limitations in knowledge and action on sustainable adaptation solutions both at community level and across government extension structures. There is also limited data for decision making as there are inadequate flood monitoring networks in the catchment.

The livelihoods of communities in the catchment are dependent on natural resources including forests, mangroves and farmlands. Climate change impacts interact with unsustainable extraction of natural resources leading to increasing vulnerability of communities. There is need for awareness raising amongst communities to address climate impacts but also to follow sustainable practices. Buffer zones along riverbanks are not being followed, with farming done right to the edge of the river, causing erosion, which is further compounded by climate induced storm surges and heavy rains leading to more erosion. Farmers are planting against contours, leading to increasing erosion and runoff during heavy rains, which is increasing in intensity due to climate change. Sea level rise induced saltwater intrusion is affecting farming and many communities have abandoned growing certain crops which they used to (e.g. rice) due to soil salinity. These disproportionately affecting women, who tend to be the anchors of economic activity and community life.

Barrier Analysis

Fiji faces several barriers in implementing climate change adaptation projects. These include a lack of awareness on adaptation measures, insufficient coordination among sub-national entities for catchment management, and a lack of technical capacity at the local level. Additionally, there is inadequate financing for flood control measures, limited community engagement in planning and lack of coordination between Government structures and communities on maintenance of flood control structures. The barriers are summarised in table below.

Table 3 Barrier Analysis including adaptation needs and barrier description

Adaptation need/gap	Barrier	Barrier Description
Inadequate awareness on climate change adaptation measures	B1	Fiji's communities face challenges in climate adaptation due to limited knowledge, capacity, and information dissemination, particularly in rural areas. Media prioritizes immediate news over long-term issues, and climate change education isn't fully integrated into the national curriculum.

Lack of coordination amongst sub-national entities for catchment management	B2	The silo approach has hindered coordination among sub-national entities, leading to overlapping responsibilities and management gaps. Limited funding, technical expertise, and manpower also impede effective coordination. Change in Ministry portfolios have contributed to grey areas and weak coordination.
Lack of technical capacity at sub-national level and community level	B3	Previous government policies setting the retirement age at 55 years led to a significant loss of experienced technical capacity and institutional memory. Furthermore, due to out-migration of highly skilled staff there is currently poor technical capacity in sub-national institutions. Additionally, communities have weak capacity in sustainable natural resources management and livelihoods options that builds resilience.
Lack of data for informed decision making including hydrological observation data	B4	Generally, there is inadequate data on climate impacts, flood risks, exposure risks and vulnerability of critical infrastructure to climate impacts, such as extreme weather events and sea-level rise. There is limited data on the effectiveness of current adaptation measures for infrastructure, making it difficult to plan and implement more resilient solutions. There is limited observation data on surface water flows at Fiji Meteorological and Hydrological Service (FMHS).
Inadequate financing for flood control measures and ecosystem conservation	B5	Fiji faces significant funding challenges for flood control measures due to frequent natural disasters and competing development needs, with 3-4 cyclones annually causing over USD 1.4 billion in damages over the past decade (ADB, 2023). Limited funding has led to temporary solutions like river dredging in the Rewa Catchment. Despite increasing the conservation budget to FJD$31.4 million for 2024-2025, the funds are insufficient for comprehensive reforestation, biodiversity protection, and climate adaptation, essential for mitigating climate change impacts. These financial constraints hinder large-scale conservation initiatives and necessary infrastructure improvements, critical for protecting Fiji's ecosystems and biodiversity.
Limited community engagement in planning	B6	Due to limited community engagement, most projects have taken a top-down approach, often resulting in challenges such as lack of community ownership of projects, mismatch priorities, resistance to implementation, and sustainability issues. Fiji's unique cultural diversity, geographical isolation of some communities, and traditional governance structures add extra layers of complexity to fostering effective community engagement. Addressing these specificities requires tailored approaches that respect and incorporate local customs and practices while enhancing communication and trust between communities and development agencies.

Adaptation Needs

The climate and flood analysis, gender-specific risks, problem analysis, and barrier analysis highlight the challenges faced by communities in Rewa Catchment. The challenges are interlinked and hence solutions need to be holistic. Therefore, this project has three interlinked components, which target solutions for infrastructure upgrades, sustainable livelihoods and ecosystems conservation and, institutional strengthening. The barriers that each activity aims to address are referenced using numbering for barriers provided in Table 3 (B1 to B6).

Table 4 Components in the project

Outcome 1: A more resilient and adaptive infrastructure system that protects livelihoods and promotes sustainable development in the face of climate change	Outcome 2: Improved ecosystem health, and economic resilience of communities in Rewa Catchment	Outcome 3: Sub-National Institutions strengthened to incorporate adaptation into their planning, monitoring and reporting processes

Component 1: Climate proofing of infrastructure through Nature Based Solutions	Component 2: Ecosystem Conservation and Livelihoods Enhancement	Component 3: Capacity Building & Institutional Strengthening
Activity 1.1 Conduct an assessment of areas prone to flooding including an assessment of existing infrastructure such as levees, spillways, channels, floodgates, flap gates and culverts	Activity 2.1 Conduct awareness raising and capacity building sessions in communities for sustainable utilization of mangroves	Activity 3.1 Conduct trainings for sub-national institutions on integration of adaptation planning into River Sub-Catchment Management Plans.
Activity 1.2 Repair 4 prioritized floodgates/flap gates to reduce flood risk	Activity 2.2 Provide tools, implements and seedlings to existing mangrove and tree nurseries of Ministry of Fisheries and Forestry.	Activity 3.2 Conduct awareness sessions to Turaga ni Koros[24] and community members on monitoring and reporting of climate impacts on infrastructure B6
Activity 1.3 Upgrade existing levee system, spillways, culverts and channels and improve road drainage networks to reduce flood risk.	Activity 2.3 Document community-led initiatives rooted in indigenous knowledge on climate adaptation.	Activity 3.3 Conduct Talanoa sessions at community level with Government, traditional leaders and stakeholders & establish a Divisional Gender Balanced Yaubula[25] Working Group.
Activity 1.4 Implement riverbank stabilization and erosion control through planting of riparian vegetation.	Activity 2.4 Conduct trainings for women and youth groups in sustainable mangrove aquaculture and value chain. (Participants will be identified through liaising with Tikina and community-based women and youth committees, groups and clubs).	Activity 3.4 Develop a webpage and knowledge products. (including posters, newsletters, videos) which are women and youth friendly for disseminating the project outcomes
Activity 1.5 Install 6 new and repair 4 existing telemetry stations for enhanced weather and flood monitoring.	Activity 2.5 Conduct trainings in climate smart agriculture and sustainable land management practices for farmers. Activity 2.6 Conduct trainings for women's groups and persons living with disabilities on NTFP and value chain for income generation.	Activity 3.5 Conduct national workshops at inception stage, mid project and end of project for dissemination of outputs and outcomes.

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[24] Turaga ni Koros are Village, and this position is usually elected or appointed by the villagers and plays a crucial role in the local governance structure. The Turaga ni Koro acts as a kind of administrator overseeing the day-to-day functions of the village and delegating duties as necessary. For important decisions, the Turaga ni Koro consults with the chief, the Turaga ni Yavusa (head of the clan), and various Turaga ni Mataqali (heads of sub-clans) to ensure smooth village operations.

[25] A Yaubula Committee in Fiji is typically a local governance or community-based committee focused on environmental management and conservation efforts. These committees often work on initiatives related to sustainable forest management, mangrove conservation, and climate change adaptation projects. They play a crucial role in engaging and educating local communities about environmental stewardship and ensuring that conservation efforts are aligned with local needs and practices.

Figure 4 Forty villages within Rewa Catchment which were selected as beneficiaries to this project

Targeted beneficiaries

The proposed project aims to support the Government of Fiji in implementing adaptation measures to address flooding, enhance ecosystem health and livelihoods, and strengthen institutions for climate adaptation. The project area is the Rewa River Catchment, covering 3,059 sq.km, approximately 17% of Viti Levu Island. Interventions will target 40 vulnerable communities in four provinces (Ra, Naitasiri, Tailevu, and Rewa) across the upper, middle, and lower catchment areas to enhance their resilience to climate impacts. These communities are indigenous i-Taukei villages with historical connections to the land, selected for their diverse ecosystems,

high vulnerability to flooding, readiness to collaborate, established committees for project implementation, and prior engagement with NGOs. This strategic selection aims to ensure effective and sustainable adaptation efforts.

Site selection process

To ensure a comprehensive and effective climate adaptation project, we used purposive sampling from discussions with Government entities to select 40 villages (from 117) in the Rewa River catchment in Fiji. This systematic approach allowed us to evaluate and prioritize the villages based on several key criteria. We assessed the ecosystem variety within each village, ensuring our project would encompass diverse ecosystems (upper, middle, and lower catchment areas), enhancing our overall conservation impact. We prioritized villages most at risk to maximize the benefits of our interventions. We evaluated the readiness of the community to work with us, ensuring selected villages were enthusiastic and prepared to actively participate in the project. We identified villages with committees already established to aid in the implementation of climate adaptation strategies, facilitating smoother project execution. By selecting villages that had previous engagements with NGOs, we leveraged established relationships and trust, enhancing the likelihood of project success and sustainability. Through this meticulous process, we identified 40 villages well-positioned to benefit from and contribute to our climate adaptation project, ensuring a strategic and impactful approach to building resilience against climate change.

Consultation Process

The Ministry of Public Works, Meteorological Services and Transport (MPWMST) requested the Ministry of Environment and Climate Change (MECC) to apply for the Adaptation Fund to support flood-prone communities in the Rewa Catchment. The MECC approved this request and set up an interministerial Technical Working Group (TWG) to develop the concept note for a $10 million proposal. The TWG, comprising various ministries and the South Pacific Regional Environment Programme (SPREP), drafted the project components based on national and sub-national reports and priorities.

The TWG selected 40 villages in the Rewa Delta for the project, considering varied topography and vulnerabilities. Eight villages were identified for scoping visits from December 5 to 16, 2024, to understand the impacts of climate change, community needs, and specific vulnerabilities. Meetings were held with Provincial Councils, Turaga-Ni-Koros, Agriculture Officers, Women's Groups, and communities. Field observations on flood hazards were made, and the scoping study report is provided in Annex IV.

During the full proposal development stage, all 40 villages will partake in the following consultation process:

1. MPWMST, SPREP and relevant line ministries technical team will travel to the communities to discuss the project requirements with the community and assess the area's vulnerability to flooding and identity beneficiaries for trainings on livelihoods enhancement activities.
2. All community leaders (Turaga ni Koro or chairman) agree to participate in the project and submit consent letters.
3. Before project implementation, the MPWMST technical team will conduct another round of consultations. All community members will participate in these meetings, where the MPWMST technical team will outline the project approach, the community's role, the expected outcomes, and all relevant safeguards to protect the community.

Given that all 40 villages in this proposal are highly vulnerable, indigenous i-Taukei communities, consultations will be conducted in both English and the local i-Taukei language. This approach ensures that all information is transparent and accessible to the marginalized communities benefiting from this project. The full funding proposal will include minutes from these consultations and all required consent forms, building on the initial screening consultations conducted to date.

Project Objectives

The overall goal of the project is to enhance inclusive resilience and adaptive capacity in targeted communities in the Rewa River Catchment through infrastructure upgrades, livelihoods enhancement and institutional strengthening.

Specifically, the project objectives are divided into three components as follows:

Component 1- Objective is to climate proof flood control infrastructure through repairs and upgrades and reduce riverbank erosion using nature-based solutions

Component 2- Objective is to promote conservation of ecosystems with forests and mangroves and enhance livelihoods through trainings on sustainable fisheries, farming and non-timber-forest-products use

Component 3- Objective is to build institutional capacity for effective climate adaptation and flood control management through facilitating discussions between Government and communities, conducting trainings and awareness raising.

Through the first component, the outcome of a more resilient and adaptive infrastructure system that protects livelihoods and promotes sustainable development in the face of climate change will be achieved. Through the second component, the outcome of improved ecosystem health, and economic resilience of communities in Rewa Catchment will be achieved. Through the third component, Sub-National Institutions will be strengthened to incorporate adaptation into their planning, monitoring and reporting processes, as the outcome. The project will take an inclusive approach and include women, men, youth and marginalized groups.

Project / Project Components and Financing

Table 5 Project Components and their financing

Programme Components	Expected Concrete Outputs	Expected Outcomes	Amount USD
Component 1: Climate proofing of infrastructure through Nature Based Solutions	Output 1.1 Assessment report on areas prone to flooding including existing levees, channels, spillways and culverts in the project area Output 1.2 Four prioritized Floodgates and flap gates repaired Output 1.3 Twenty-five kilometres of Levee system upgraded with repairs done to spillways, culverts and channels & road drainage networks improved to reduce flood risk Output 1.4 Fifty kilometres of riverbank stabilized, and riparian zone rehabilitated with planting of riparian vegetation for erosion control Output 1.5 Six new & four existing telemetry stations installed for weather & flood monitoring	A more resilient and adaptive infrastructure system that protects livelihoods & promotes sustainable development	6,310,000
Component 2: Ecosystem Conservation and Livelihoods Enhancement	Output 2.1 Twenty-one awareness raising and capacity building sessions [26] done in communities for sustainable utilization of mangroves Output 2.2 One existing mangrove and tree nursery supported with tools & implements Output 2.3 One book developed which document community led initiatives rooted in Indigenous knowledge for climate adaptation	Improved ecosystem health, and economic resilience of communities in Rewa Catchment	761,771

[26] In 21 villages located in the Rewa Delta

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	Output 2.4 Ten trainings conducted for women and youth groups on sustainable mangrove aquaculture and value chain Output 2.5 Twenty trainings in Climate Smart Agriculture, Sustainable Land Management & value chain (30% women, 20% youth) Output 2.6 Five trainings conducted for women and PLWD on NTFP and value chain		
Component 3: Capacity Building & Institutional Strengthening	Output 3.1 Eight[27] trainings conducted for sub-national institutions on integration of adaptation planning into River Sub Catchment Management Plans Output 3.2 Eight[28] awareness sessions conducted for Turaga Ni Koros (Village Headmen) and community members on monitoring and reporting of climate impacts on flood control Output 3.3 100 Talanoa (discussion) sessions conducted over 5 years at community level with Government, traditional leaders and various relevant stakeholders and establish a gender balanced Divisional Yaubula Working Group for improved management of flood control & monitoring assets. Output 3.4 One webpage developed, server procured and five knowledge products including posters, newsletters and videos which are women and youth friendly for dissemination of the project outcomes Output 3.5 Five National workshops conducted for inception, progress reporting and dissemination of project.	Sub-National Institutions strengthened to incorporate adaptation into their planning, monitoring and reporting processes	1,393,103
Project Activity Cost			8,464,874
Project Execution cost (9.5% of Total Project Cost)			804,163
Total Project Cost			9,269,037
Project Cycle Management Fee charged by the Implementing Entity (8.5% of Total Project Cost)			787,868
Amount of Financing Requested			**10,056,905**

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Projected Calendar

Table 6 Calendar of the project

Milestones	Expected Dates
Start of Project/Programme Implementation	**January ~~2026~~2027**

[27] Two trainings per Province.
[28] Trainings by Tikinas (districts) and where possible neighbouring Tikinas will be combined for the training.

Mid-term Review	**May ~~2028~~2029**
Project/Programme Closing	**December 2030**
Terminal Evaluation	**February 2031**

PART II: PROJECT / PROGRAMME JUSTIFICATION

A. Describe the project/programme components, particularly focusing on the concrete adaptation activities of the project, and how these activities contribute to climate resilience. For the case of a programme, show how the combination of individual projects will contribute to the overall increase in resilience.

The proposed climate change adaptation project includes three key components: climate-proofing infrastructure through nature-based solutions, ecosystem conservation and livelihoods enhancement, and capacity building and strengthening institutions. By combining infrastructure improvements, ecosystem restoration, livelihood diversification, and institutional capacity building, the project aims to reduce flood risks, protect vital ecosystems, and empower communities with the knowledge and skills needed to adapt to climate change. This comprehensive strategy ensures a resilient and sustainable future for communities, fostering collaboration and collective action to address the challenges posed by a changing climate.

Component 1

Activities under Component 1 aim to create a resilient and adaptive infrastructure system that protects livelihoods and promotes sustainable development in the face of climate change. By assessing flood-prone areas, repairing four prioritized floodgates and flap gates, upgrading 25 kilometres of levee systems, spillways, culverts, and channels, and improving road drainage networks, the project will significantly reduce flood risks. By repairing the floodgates and flapgates, their lifespan will be extended by 25 years, however, analysis done at the full proposal stage will give more metrics to measure success in terms of lifespan increase and reduced flooding. Stabilizing 50 kilometres of riverbanks and rehabilitating riparian zones with vegetation will enhance erosion control and protect vital ecosystems. Installing six new and repairing four existing telemetry stations will provide enhanced data for weather and flood monitoring, enabling timely and informed decision-making. These activities will result in concrete outputs that contribute to a more resilient infrastructure system, mitigate flood risks, enhance biodiversity, and improve the overall adaptive capacity of the community.

COMPONENT 1	
Outcome 1- A more resilient and adaptive infrastructure system that protects livelihoods and promotes sustainable development in the face of climate change	
Activity 1.1 Conduct an assessment of areas prone to flooding including and assessment of existing infrastructure such as levees, spillways, channels, floodgates, flapgates and culverts	Output 1.1 Assessment report on areas prone to flooding including existing levees, channels, spillways and culverts in the project area
Activity 1.2 Repair 4 prioritized floodgates/flap gates to reduce flood risk	Output 1.2 Four prioritized Floodgates and flap gates repaired
Activity 1.3 Upgrade existing levee system, spillways, culverts and channels and improve road drainage networks to reduce flood risk.	Output 1.3 Twenty-five kilometres of Levee system upgraded with repairs done to spillways, culverts and channels and road drainage networks improved to reduce flood risk

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Activity 1.4 Implement riverbank stabilization and erosion control through planting of riparian vegetation.	Output 1.4 Fifty kilometres of riverbank stabilized, and riparian zone rehabilitated with planting of riparian vegetation for erosion control
Activity 1.5 Install 6 new and repair 4 existing telemetry stations for enhanced weather and flood monitoring.	Output 1.5 Six new and four existing telemetry stations installed to enhance data for weather and flood monitoring

Figure 5 Component 1 Outcomes, Outputs and Activities

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Activity 1.1 will undertake an assessment of flood risks in the catchment through studies on the existing flood management infrastructure such as levees, spillways, channels, culverts and draw on lessons learnt from past studies by Department of Waterways on floodgates and flap gates. This is necessary as most infrastructure was built during the 1990s and no recent assessment was done. An assessment that is planned by Department of Waterways for the floodgates and flap gates, for early 2025. Activity 1.1 will provide valuable information that will help target interventions for drainage improvements covered under activity 1.3. It addresses the barrier of lack of finance to address flooding through upgrade of drainage infrastructure.

Activity 1.2 is on repair of four existing floodgates/flap gates in Rewa Province. The rationale for this is explained further. In the 1990s, the Ministry of Land, Water, and Resource Management (LWRM) constructed 40 floodgates, including flap gates, in flood-prone areas like Rewa and Tailevu South to protect communities and infrastructure from flooding and saltwater intrusion. These structures have been vital in managing flood risks and enhancing regional resilience. However, due to funding constraints, regular maintenance and upgrades have been neglected, leading to the degradation of these flood mitigation assets. Out of the 40 floodgates in the Rewa delta, the Ministry of Agriculture and Waterways has already repaired 19 floodgates and flap gates. An additional 17 will be repaired by a project which was recently approved by Global Environment Facility under the Special Climate Change Fund (SCCF), while the remaining 4 floodgates and flap gates are set to be repaired by this proposed project through funding from the Adaptation Fund.

Activity 1.2 will address the barrier of lack of finance for flood risk reduction through providing finance to repair floodgates and flap gates. The Ministry of Agriculture and Waterways has selected four floodgates and flap gates for significant repair and upgrading under this project. The upgrades will include replacing four wooden doors/gates with steel ones, replacing mild steel upper brackets, fabricating stainless-steel bottom brackets and ferrules, repairing damaged concrete with epoxy, and replacing rubber seals. This project will involve women, youth, and persons with disabilities in the design, monitoring, and maintenance of infrastructure. The locations of the floodgates are provided in the table below.

Table 7 Location of floodgates/flap gates included in the project for repair

No	Site	Coordinates	Province	Repair needed
1	Navilaca	178°36'34.15"E, 18°6''13.43" S	Rewa	Upgrade door to steel flap gate door, provide erosion control through planting of riparian vegetation.
2	Narocake	178°36'38.45"E, 18°5''55.39" S		
3	Suva Lailai	178°34'52.17"E, 18°6''6.21" S		
4	Nakuruwai	178°36'10.67"E, 18°5''42.04" S		

Based on the recommendations from the assessment done under Activity 1.1, levees, will be upgraded, culverts, channels and spillways will be repaired and thereby drainage in the area improved, through Activity 1.3. A Public Private Partnership (PPP) arrangement will be explored for Ararata Settlement which has three culverts that need repair. As the users of the farm are commercial farmers, hence a PPP will be discussed in this project with the farmers. For remaining areas where subsistence farmers use the land, direct intervention of repairing structures including culverts, spillways, levees, channels will be done. This addresses the barrier of lack of finance for flood control measures through supporting upgrade of this flood control infrastructure.

Activity 1.4 will address erosion of riverbanks which are also affecting communities through flooding of their farms. will reduce flood risk for communities in the area affected. Data is critical to decisions making and, in this regard, Activity 1.5 is essential as it will install 6 new telemetry stations and repair 4 existing ones. This will directly address the barrier of lack of data and the rationale for this is provided below.Initially, five hydrometric stations were installed in the Rewa catchment through the Pacific Hydrological Cycle Observing System (HYCOS) Project in 2008. These stations, located in the main Rewa river and its four tributaries, were later upgraded to communicate via the Iridium satellite network for real-time data transmission to the Fiji Meteorological Service (FMS). Despite this, the quality of hydrological data remains poor due to limited resources for maintenance and quality assurance, vandalism, and access issues. The sparse network of hydro-meteorological stations and limited staff hinder effective flood monitoring and forecasting. To address this, the project proposes installing six new telemetry stations and repairing four existing ones to improve rainfall and flow data collection, enhancing flood monitoring and early warning systems in the Rewa catchment.

Table 8 Proposed telemetry stations in Rewa Catchment

No	Station Name	Catchment	Equipment Type	Location (Latitude/ Longitude)	Upstream Catchment Area	Total Catchment Area
1	Nabukaluka- Existing station to be repaired	Waidina	Water level /rainfall	17 58'15"/ 178 19' 17"	250km^2	550km^2
2	Namosi Secondary School	Waidina	Rainfall	18 02'18"/ 178 08' 14"	150km^2	550km^2
3	Waivaka	Waidina	Water Level	18 02' 03"/ 178 10' 39"	150km^2	550km^2
4	Nairukuruku -Existing station to be repaired	Wainimala	Water Level/Rainfall	17 49'03"/ 178 17'10"	130km^2	980km^2
5	Nabukunivatu Secondary School	Wainimala	Rainfall	17 49' 39"/ 178 07'03"	130km^2	980km^2
6	Laselevu	Wainimala	Water Level	17 45'13"/ 178 07'41"	530km^2	980km^2
7	Wailoa -Existing but need to be repaired	Wainimala	Rainfall	17 44'21"/ 178 06'38"	190km^2	980km^2
8	Nakorovu	Wainibuka	Rainfall	17 42'50"/ 178 22'25"	340km^2	920km^2
9	Wailotua- Wailotua ck	Wainibuka	Water Level	17 45' 31"/ 178 24' 01"	31km^2	920km^2
10	Nayavu- Existing station to be repaired	Wainibuka	Water level/rainfall	17 42'08"/ 178 22'09"	710km2	920km^2

Component 2

Component 2 aims to improve ecosystem health and enhance the economic resilience of communities in the Rewa Catchment. The project will conduct awareness-raising and capacity-building sessions to promote the sustainable utilization of mangroves, crucial for natural flood control. It will support existing mangrove and tree nurseries of the Ministry of Forestry with tools, implements, and seedlings, ensuring resources for reforestation and conservation projects. Additionally, documenting community-led initiatives rooted in Indigenous knowledge will preserve valuable traditional practices effective in climate adaptation.

COMPONENT 2	
Outcome 2: Improved ecosystem health, and economic resilience of communities in Rewa Catchment	
Activity 2.1 Conduct awareness raising and capacity building sessions in communities for sustainable utilization of mangroves.	Output 2.1 Twenty-one awareness raising and capacity building sessions done in communities for sustainable utilization of mangroves

Activity 2.2 Provide tools, implements and seedlings to existing mangrove and tree nurseries of Ministry of Fisheries and Forestry.	Output 2.2 One existing mangrove and one tree nursery of Ministry of Fisheries and Forestry supported with tools implements and seedlings
Activity 2.3 Document community-led initiatives rooted in indigenous knowledge on climate adaptation.	Output 2.3 One book developed which document community led initiatives rooted in Indigenous knowledge for climate adaptation
Activity 2.4 Conduct training for women and youth groups in sustainable mangrove aquaculture and value chain.	Output 2.4 Ten trainings conducted for women and youth groups on sustainable mangrove aquaculture and value chain
Activity 2.5 Conduct training in climate smart agriculture, sustainable land management practices and value chain for farmers.	Output 2.5 Twenty trainings conducted in Climate Smart Agriculture and value chain for farmers (30% women, 20% youth)
Activity 2.6 Conduct training for women's groups and persons living with disabilities on Non-Timber Forest Products and value chain for income generation.	Output 2.6 Five trainings conducted for women's groups and persons living with disabilities on Non-Timber Forest Products and value chain

Figure 6 Component 2 Outcomes, Outputs and Activities

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Communities in the upper catchment rely on forests for natural resources and it supports their livelihoods. While communities in the Delta rely on mangroves for their livelihoods and food. Activity 2.1 will create awareness on sustainable utilization of mangroves, so that over extraction of firewood does not threaten the health of these ecosystems. Mangroves provide a buffer against storm surges, are natural flood control mechanisms and are important habitat for aquatic species and birds. The activity addresses the barrier of lack of awareness B1. Mangrove conservation and sustainable utilization of mangroves is included in Activity 2.1 and Activity 2.2 provides support to Ministry of Fisheries and Forestry's mangrove nurseries. This addresses the barrier of lack of finance for ecosystem restoration, particularly mangroves which are nature's flood control mechanisms. Mangroves provide natural barriers against coastal erosion and flooding, enhance biodiversity, and support carbon sequestration. They also offer sustainable livelihood opportunities for communities, such as fishing and ecotourism, fostering economic resilience. By protecting and sustainably managing mangroves, the project enhances climate resilience, supports local economies, and promotes long-term environmental sustainability.

Fiji signed the Ramsar Convention in 2006 (Ramsar Convention on Wetlands, 2024)[29] and launched its Wetlands Directory in February 2024. Mangrove Forest in Fiji consists of about 4% of Fiji's entire forest (Ministry of Fisheries and Foresty, 2024)[30].The delta is a vast expanse of prime mangrove forest with a vegetation cover of about 35, 393ha (Tuiwawa et al. 2013)[31] and an extent that measures more than 45,000ha (Ministry of Fisheries and Forestry, 2024). The Rapid Biodiversity Assessment of the delta, under the Fiji Mangrove Ecosystems for Climate Change Adaptation & Livelihoods (MESCAL) further identified six vegetation types: Mangrove forest and shrub, Coastal strand and beach vegetation, Freshwater wetland swamps, Lowland rainforest, Non-forest and Water body; and 18 forest/habitat type that make up the entire Rewa delta, namely: Acrostichum swamp, Back of the mangrove forest, Bruguiera forest, Human habitation area, Mixed mangrove forest, Rhizophora forest, Salt marsh, Coastal forest, Freshwater wetlands, Anthropogenic secondary forest, Lowland secondary forest, Agriculture area, Roads, Coral reefs, Deepwater, Intertidal mudflats, and Rivers. (Tuiwawa et al. 2013). Further, the delta is also an important roosting ground for many migratory and land birds, including the nursery ground for a diverse range of marine and brackish water species (Naikatini, 2013; Copeland et al. 2013; Batibasaga et al. 2013). The delta remains the largest and most extensive mangrove stand in Fiji.

[29] Ramsar The Convention on Wetlands. (2024). Fiji. Online publication available at Fiji | The Convention on Wetlands, The Convention on Wetlands

[30] Ministry of Fisheries and Forestry. (2024). Press Release. Online publication available at https://www.forestry.gov.fj/pressdetail.php?id=72

[31] Tuiwawa, M., Pene, S. and Tuiwawa, S. (Eds.) (2013). A Rapid Biodiversity Assessment, Socio- economics Study and Archaeological Survey of the Rewa River Mangroves, Viti Levu, Fiji. IUCN Oceania, Suva, Fiji.

Activity 2.2 will complement Activity 2.1 through supporting Government mangrove nurseries, so that communities (including women, youth and persons living with disabilities) can be supported in mangrove restoration activities. Activity 2.3 is on documenting indigenous knowledge related to climate change adaptation. Documenting community-led initiatives rooted in indigenous knowledge on climate adaptation is important for our project because it ensures that local, traditional practices are recognized and integrated into climate adaptation strategies. This approach enhances the resilience of communities by combining the strengths of indigenous knowledge with modern scientific methods, fostering sustainable and culturally relevant solutions. It also empowers communities by valuing their expertise and promoting ownership of climate adaptation efforts, ultimately leading to more effective and long-lasting outcomes. This activity addresses the lack of data as articulated in barrier B4.

Activity 2.4 builds on Activities 2.1 and 2.2, as it supports sustainable utilization of mangroves for livelihoods improvement. Livelihoods improvement helps with climate adaptation by enhancing the economic resilience of communities, enabling them to better withstand and recover from climate impacts. Improved livelihoods (for all including women, youth and persons living with disabilities) provide economic stability, enabling communities to invest in adaptive measures, infrastructure, and technologies, while increasing access to resources and knowledge for effective climate adaptation and long-term resilience. This addresses the barrier of lack of awareness (B1).

Activities 2.5 and 2.6 also focuses on livelihoods and directly addresses barrier B1 which is lack of awareness in climate change adaptation methods. Training women and youth groups in sustainable mangrove aquaculture and value chains, as well as educating farmers in Climate Smart Agriculture and Sustainable Land Management will diversify livelihoods and enhance community resilience to climate change. Additionally, providing training for women's groups and persons living with disabilities on Non-Timber Forest Products (NTFP) and value chains will create inclusive economic opportunities which will incentivize forest conservation, as NTFPs can thrive in health forests. Maintaining healthy ecosystems are necessary for communities who are dependent on them for their livelihoods. Training in value chains is essential for farmers and fishers as it enhances efficiency, productivity, and market access, while enabling value addition and sustainable practices. This leads to increased income, economic resilience, and long-term sustainability of their livelihoods.

Climate-smart agriculture (CSA) in Fiji has evolved significantly since the early 2010s, focusing on sustainable practices to address the impacts of climate change. Key initiatives include crop diversification, agroforestry, and water management. Despite challenges such as inconsistent production and supply, there has been a growing uptake of CSA practices like contour farming, organic agriculture, and the use of resilient crop varieties. Upscaling CSA in Fiji is essential to mitigate the increasing impacts of climate change on agriculture. The government's 10-year strategic plan aims to develop and promote CSA, diversify crops and livestock, build capacity, and provide policy support. By implementing integrated strategies and fostering collaborations, Fiji seeks to build more resilient, inclusive, and sustainable agrifood systems. This upscaling effort is crucial for ensuring food security, enhancing economic stability, and mitigating climate change impacts in the long term. The training materials will be gender sensitive and we will ensure that training sessions are accessible for women, youth, and persons with disabilities.

Fiji's forest ecosystems are governed by the Convention on Biological Diversity (CBD), which aims to conserve biodiversity, promote sustainable use of its components, and ensure fair sharing of benefits arising from genetic resources. Fiji's forests cover approximately 52.6% of the landmass, estimated at 1.8 million hectares. These forests are categorized into preserved, protected, and multiple-use forests, with over 80% of native forests communally owned. Activity 2.2 supports forest conservation and Activity 2.6 provides training (including women, youth and persons living with disabilities) to communities on utilization of non-timber forest products. Fiji's forest ecosystems are governed by the Convention on Biological Diversity (CBD), which aims to conserve biodiversity, promote sustainable use of its components, and ensure fair sharing of benefits arising from genetic resources (CBD, nd)[32]. Fiji's forests cover approximately 52.6% of the landmass, estimated at 1.8 million hectares. These

[32] Convention on Biological Diversity. (n.d.). Fiji - Country Profile. Retrieved from https://www.cbd.int/countries/profile/default.shtml?country=fj

forests are categorized into preserved, protected, and multiple-use forests, with over 80% of native forests communally owned (Ministry of Forestry, nd)[33]. However, Fiji's biodiversity faces threats from deforestation and timber exploitation. Therefore, this project includes awareness raising on forest conservation and capacity building in non-timber forest products as a livelihood's enhancement activity.

Component 3

Component 3 aims to strengthen sub-national institutions by incorporating climate adaptation into their planning, monitoring, and reporting processes. By conducting training sessions and awareness programs for local leaders and community members, the project will enhance the capacity to identify and mitigate climate risks effectively. Establishing collaborative working groups and facilitating Talanoa sessions will foster a unified approach to managing flood control assets and other climate impacts. Additionally, creating youth-friendly knowledge products and conducting national workshops will ensure widespread dissemination of project outcomes, promoting informed decision-making and sustained climate resilience efforts across all levels of governance.

COMPONENT 3	
Outcome 3: Sub-National Institutions strengthened to incorporate adaptation into their planning, monitoring and reporting processes	
Activity 3.1 Conduct trainings for sub-national institutions on integration of adaptation planning into River Sub-Catchment Management Plans.	Output 3.1 Eight trainings conducted for sub-national institutions on integration of adaptation planning into River Sub Catchment Management Plans
Activity 3.2 Conduct awareness sessions to Turaga ni Koros and community members on monitoring and reporting of climate impacts on infrastructure including from flooding.	Output 3.2 Eight awareness sessions conducted for Turaga Ni Koros (Village Headmen) and community members on monitoring and reporting of climate impacts on flood control assets to protect community and public utilities infrastructure.
Activity 3.3 Conduct Talanoa sessions at community level with Government, traditional leaders and stakeholders and establish a gender balanced Divisional Yaubula Working Group.	Output 3.3 100 Talanoa (discussion) sessions conducted over 5 years at community level with Government, traditional leaders and various relevant stakeholders and establish a gender balanced Divisional Yaubula Working Group for improved flood control & monitoring of assets.
Activity 3.4 Develop a webpage and knowledge products (including posters, newsletters, videos) which are women and youth friendly for disseminating the project outcomes	Output 3.4 One webpage developed, server procured and five knowledge products including videos which are youth friendly for dissemination of the project outcomes
Activity 3.5 Conduct national workshops at inception stage, mid project and end of project for dissemination of outputs and outcomes.	Output 3.5 Five national workshops conducted for inception and dissemination of project.

Figure 7 Component 3 Outcomes, Outputs and Activities

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Activity 3.1 aims to address the lack of awareness (B1) on climate adaptation measures by conducting trainings for sub-national institutions on integrating adaptation planning into River Sub-Catchment Management Plans. This will enhance local capacity for climate resilience by equipping these institutions with the necessary skills and knowledge to incorporate climate change projections and risk reduction strategies into their management plans. As a result, local communities will be better prepared to handle climate-induced hazards such as flooding and cyclones, contributing to more sustainable and resilient development. This also supports the implementation of Fiji's National Adaptation Plan (NAP).

The Office of the Commissioner Central is at the divisional level, and which serves the provinces of Naitasiri, Rewa and Tailevu, oversees projects by various line ministries such as Agriculture, Waterways, Forestry, Fisheries, Environment, Climate Change, Public Works, Meteorological Services, and Rural Development. The village hierarchy, including the Yaubula committee at village level, led by the Turaga ni Koro, assesses and

[33] Ministry of Forestry. (n.d.). Press Release: Forest Conservation with Fiji's Forestry ER Program. Retrieved from https://www.forestry.gov.fj/pressdetail.php?id=120

reports on issues like flooding and agricultural needs, which are then compiled at the Tikina level (district) and directed to the national level, bypassing the divisional level (Provinces). This often delays progress due to competing priorities and funding constraints. The proposed training aims to enhance sub-national institutions to incorporate adaptation into their planning, monitoring, and reporting processes.

Activities 3.1 and 3.2 are designed to build lasting resilience by embedding climate adaptation planning into the daily functions of local institutions and at village level. By aligning with national frameworks and ensuring post-project support, such as digital reporting tools and partnerships with the Provincial Office and NDMO, these activities will continue delivering impact and strengthening governance long after the project ends. Strengthening sub-national institutions and governance mechanisms directly contributes to long-term resilience by enhancing local capacity in adaptation planning at sub-river catchment level, promoting sustainable governance practices, and fostering community engagement and ownership. These efforts ensure adaptation is integrated into planning and that decision-making processes are transparent, accountable, and inclusive, leading to more resilient outcomes. Additionally, strengthened institutions develop robust institutional memory, enabling continuity and adaptation of resilience strategies over time. Long-term monitoring systems established through improved governance allow for continuous evaluation and adjustment of adaptation measures. Integrating adaptation planning into River Sub-Catchment Management Plans through targeted trainings ensures that these strategies are effectively implemented and sustained, benefiting the Rewa Catchment and its communities beyond the project's lifespan.

Activity 3.2 addresses the barrier of weak community engagement in flood risk management. Awareness sessions for Turaga ni Koro (village leaders) and community members on monitoring and reporting climate impacts on infrastructure, including flooding will enhance local capacity for climate resilience. Awareness raising and training key community figures will ensure they can better identify, monitor, and report climate-related damages, ensuring timely and effective responses to protect infrastructure and livelihoods resilience beyond the project's lifespan in several ways. Equipping local institutions with the knowledge, tools, and resources to manage environmental and socio-economic challenges, they become self-sufficient in sustaining project outcomes during and after the project. Strengthened governance structures can embed resilience-building measures into policies, ensuring continued implementation and enforcement even after project funding ends. Sub-national institutions, when empowered, can engage communities effectively in decision-making, fostering local stewardship and adaptive management practices as they are the first point of contact for communities. Well-governed sub-national bodies can better advocate on-behalf of communities their issues as well as secure funding and integrate resilience measures from the national government. Strengthened governance mechanisms facilitate collaboration between government agencies, private sector actors, and civil society, and communities ensuring holistic and integrated responses to environmental and socio-economic challenges. Institutionalizing best practices within sub-national structures ensures that technical expertise and lessons learned are passed on, reducing reliance on external support ensuring a bottom-up approach and ownership of project activities.

Activity 3.3 tackles the barriers of lack of finance and weak community engagement in flood risk management by organizing Talanoa sessions at the community level with government officials, traditional leaders, and stakeholders. These sessions foster inclusive and transparent dialogue about climate change impacts, building mutual trust, sharing experiences, and developing collective solutions. Currently, Yaubula committees exist at Village and Tikina levels. Through Talanoa sessions, gender balanced Yaubula Committees will be established at the Divisional level, enhancing the capacity of committees at both the village and Tikina levels to work together and improve coordination with the divisional level. This will accelerate development by resolving issues at the divisional level and only escalating high-level matters to the national level. The project will ensure women, youth, and marginalized groups have safe spaces for them to voice their perspectives. This will address barriers of lack of coordination (B1) and lack of community engagement (B6).

Activity 3.4 involves developing a customized, user-friendly, and scalable Content Management System (CMS) for the Climate Change Portal in Ministry of Environment and Climate Change, The CMS will feature a dynamic website with in-house management capabilities. It will include a full-stack development using the latest web

technologies and integration of interactive features to enhance user engagement. The package will also provide comprehensive training for Ministry staff on using the CMS, with two workshops for skill enhancement. Additionally, it covers the procurement of a dedicated server and provide 5 years of technical support, updates, and security patches. Furthermore, it includes development of knowledge products which can range from banners to brochures to booklets. Hence this activity addresses barrier B1 of lack of awareness.

Activity 3.5 will be national workshops which will help with dissemination of project outputs and will address the barrier of lack of awareness (B1) on adaptation matters in Fiji.

Assessment and mitigation of potential risks, particularly related to infrastructure upgrades such as floodgates and levees, will be done in the full proposal. Risk analysis, mitigation, site selection and engineering designs will be guided by historical flood data, local knowledge, and site inspections. Nature-based solutions, including open buffer zones, maintenance of natural drainage pathways, and preservation of floodplain connectivity, will be integrated with structural works to reduce the risk of unintended consequences, such as the redirection of floodwaters to adjacent areas. The project will coordinate with community representatives, Divisional Offices, and the Fiji Meteorological Services to monitor post-implementation effects and adapt future planning accordingly. This project will apply gender-specific learning indicators to ensure that training, capacity-building, and knowledge-sharing activities are inclusive and equitable. Data will be disaggregated by gender to monitor participation, learning outcomes, satisfaction, and behavioral change across all groups—including women, men, youth, and marginalized individuals. These indicators will evaluate whether diverse stakeholders are gaining relevant climate adaptation skills, adopting resilient livelihood practices, and participating meaningfully in decision-making processes. Qualitative and quantitative methods will be used to assess how learning interventions empower participants, strengthen agency, and promote gender-responsive resilience throughout the project lifecycle.

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Project Monitoring, Evaluation and Learning

The project aims to develop a comprehensive monitoring and evaluation (M&E) framework to ensure the success and sustainability of initiatives. It will use a combination of qualitative and quantitative methods to track progress, document floodgate repairs, levee upgrades, mangrove conservation efforts, and capacity-building sessions. The M&E process will involve continuous monitoring of key performance indicators, community feedback, and field surveys. The project will promote learning and adaptive management, facilitating Talanoa sessions, workshops, and capacity-building activities for stakeholders. It will also incorporate gender considerations, focusing on women, youth, and persons living with disabilities. The project will also ensure that awareness and capacity-building sessions are accessible and relevant to diverse community members. Learning and adaptive management will be core aspects of the M&E framework, promoting a culture of continuous improvement and knowledge sharing. The project will facilitate Talanoa sessions, workshops, and capacity-building activities where stakeholders, including community members, traditional leaders, and government officials, can share experiences and lessons learned. These interactive platforms will enable the identification of best practices, foster community ownership, and enhance the resilience of flood control and climate adaptation measures. Additionally, the development of youth-friendly knowledge products and a dedicated project website will ensure that valuable insights and outcomes are effectively disseminated, fostering broader awareness and engagement in climate adaptation efforts.

Theory of Change

The Fiji Rewa River Catchment Adaptation project posits that by climate-proofing infrastructure, restoring ecosystems, and building capacities for alternative livelihoods, the project can reduce the vulnerability of communities to climate-induced floods. Transformative change in this proposed project is happening through a multi-faceted and inclusive approach that tackles the root causes of vulnerability and promotes systemic shifts. The "if, then, because" statement is provided below.

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If flood control infrastructure in the Rewa Catchment—including levees, floodgates, telemetry stations, and drainage networks—is repaired and upgraded,

if mangrove forests and riparian vegetation are restored and sustainably managed,

if sub-national institutions and governance structures are strengthened through training and capacity-building, and

if communities adopt climate-smart agriculture and diversify their livelihoods,

then flood risks will be significantly reduced, agricultural productivity and food security will improve, natural flood buffers will be strengthened, economic resilience will be enhanced, and climate adaptation strategies will be effectively integrated into long-term governance and community planning.

Because these interventions integrate climate projections, enhance drainage efficiency, improve physical resilience, preserve critical ecosystems, support biodiversity, strengthen governance coordination, empower community leaders, and promote sustainable livelihoods.

The project ensures that vulnerable communities in the Rewa Catchment will not only be protected from existing climate threats but will proactively build resilience against future uncertainties, securing their long-term survival and development.

The project integrates three interdependent components, ensuring that infrastructure improvements, environmental restoration, and governance strengthening work together. Each component reinforces the others, creating a holistic climate adaptation strategy. By holistically integrating physical infrastructure, ecological restoration, and institutional governance, the Fiji Rewa River Catchment Adaptation Programme goes beyond conventional flood management. It establishes a long-term adaptation framework tailored to the evolving climate realities faced by communities in the Rewa Catchment, ensuring they are not only prepared for existing risks but are proactively adapting to future challenges. By improving infrastructure through climate-proofing flood control measures, the project ensures communities can withstand future climate threats rather than simply reacting to existing flood risks. Repairs and upgrades to levees, floodgates, telemetry stations, and drainage networks will provide long-term protection against rising sea levels and extreme rainfall events. In addition, riverbank stabilization through riparian vegetation planting will enhance erosion control, safeguarding agricultural land from further degradation. These interventions are informed by climate projections, ensuring resilience against worsening floods due to increased precipitation and sea level rise.

The restoration and conservation of natural ecosystems further complement the infrastructure upgrades, creating buffers against climate-induced disasters. Mangrove forests, which provide critical storm surge protection, will be rehabilitated and sustainably managed to reduce coastal erosion. Additionally, climate-smart agricultural training will empower farmers to adopt saltwater-resistant crops, mitigating the long-term impacts of soil salinity on food production. These activities enhance adaptive capacity with co-benefits for enhancing biodiversity while simultaneously promoting sustainable livelihoods for vulnerable communities, particularly women and youth, who depend on these ecosystems for survival. Institutional strengthening forms the third pillar of this adaptation approach. The project will build the capacity of sub-national institutions to integrate climate adaptation into their planning, monitoring, and governance processes, ensuring a lasting impact beyond the project's lifespan. By training government agencies, traditional leaders, and community organizations, the initiative fosters collaboration and informed decision-making at all levels. Talanoa discussions will bring together key stakeholders to coordinate flood control measures and ecosystem management, while digital knowledge products will create an accessible platform for ongoing climate education.

Together, these three components form a comprehensive climate adaptation strategy that strengthens infrastructure resilience, protects natural ecosystems, and equips communities with governance tools to sustain adaptation efforts long term. The interconnected approach ensures that climate adaptation is not merely reactive but systematically embedded within broader national and sub-national processes. By explicitly linking interventions to future climate projections, this project moves beyond short-term flood response and lays the foundation for lasting climate resilience.

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The Fiji Rewa River Catchment Adaptation Programme operates as a carefully woven system of interrelated actions, each reinforcing the other in pursuit of a more resilient future for communities facing flood risks. At its core, the programme focuses on climate-proofing infrastructure, restoring ecosystems, and strengthening governance structures to ensure long-term sustainability.

The physical infrastructure improvements form the foundation of this adaptation strategy. By upgrading levees, repairing floodgates, enhancing telemetry stations, and improving drainage networks, the project aims to reduce flood risk and safeguard livelihoods. These measures not only protect farmland from inundation but also ensure that families remain secure in their homes, with roads and essential services remaining accessible even during heavy rains. The interconnectedness of these interventions means that stable infrastructure enables uninterrupted agricultural productivity, which in turn supports food security and income stability. Complementing these structural interventions is a robust commitment to ecosystem conservation and livelihood enhancement. Restoring mangrove forests and riparian vegetation strengthens natural flood buffers, reducing soil erosion while providing habitat for biodiversity. The project also empowers farmers by introducing climate-smart agriculture, helping them adopt saltwater-resistant crops and sustainable land management practices. Women and youth, often among the most vulnerable, receive targeted training to engage in sustainable aquaculture and non-timber forest product value chains, ensuring that economic opportunities are accessible across all demographics.

The final pillar of the adaptation programme focuses on institutional strengthening, ensuring that resilience-building measures are embedded within governance structures. Capacity-building workshops and Talanoa discussions bring together traditional leaders, government agencies, and community representatives to ensure that adaptation planning is well-informed, collaborative, and responsive to local realities. By integrating climate adaptation into decision-making processes at the sub-national level, the project ensures that resilience strategies endure beyond its lifespan. Each element of the programme is interdependent, forming a holistic approach that moves beyond reactive flood management to establish a proactive framework for climate resilience. Infrastructure safeguards agricultural productivity, which is further strengthened by ecosystem conservation and climate-smart farming practices. Governance structures reinforce these efforts, ensuring continued leadership and institutional capacity to sustain adaptation efforts over time. Through this integration, the project does not merely address the immediate threats posed by climate change but lays the groundwork for communities to thrive in an evolving climate landscape.

Rather than working in isolation, these components reinforce each other: Resilient infrastructure (Component 1) safeguards agricultural land, which complements ecosystem conservation (Component 2). Healthy ecosystems (Component 2) enhance flood mitigation, reducing pressure on physical infrastructure (Component 1). Institutional capacity-building (Component 3) ensures both infrastructure upgrades (Component 1) and ecosystem management (Component 2) are maintained in the long term. This systemic approach ensures that communities are not only protected today but are continuously adapting to future climate uncertainties.

Alignment with Adaptation Fund Mission

The project is directly aligned with the Adaptation Fund's Results Framework, contributing to its overarching goal of reducing vulnerability and increasing adaptive capacity in response to climate change.

Outcome 1: Reduced exposure to climate-related hazards and threats Through the rehabilitation and climate-proofing of flood control infrastructure—including levees, floodgates, and drainage systems—the project reduces the physical exposure of communities and agricultural land to flood risks. These interventions correspond to Output 1.1: Risk and vulnerability assessments conducted and updated and Output 1.2: Targeted, innovative adaptation actions implemented.

Outcome 2: Strengthened institutional capacity to reduce risks associated with climate-induced socioeconomic and environmental losses The project builds the capacity of sub-national institutions and community governance structures to integrate climate adaptation into planning and decision-making. This aligns with Output 2.1: Strengthened capacity of national and subnational institutions to identify, prioritize, implement, and monitor adaptation measures.

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Outcome 3: Strengthened awareness and ownership of adaptation and climate risk reduction processes at local level By facilitating Talanoa dialogues, producing a regional documentary, and developing digital knowledge products, the project fosters inclusive participation and climate literacy. These activities contribute to Output 3.1: Sub National Entities integrating adaptation into their planning processes.

Outcome 4: Increased adaptive capacity within relevant development and natural resource sectors The promotion of climate-smart agriculture, salt-tolerant crops, and sustainable livelihoods—particularly for women and youth—enhances the resilience of the agriculture sector. This supports Output 4.1: Development sectors' services responsive to evolving needs from changing and variable climate.

Outcome 6: Diversified and strengthened livelihoods and sources of income for vulnerable people in targeted areas by introducing alternative income-generating activities such as aquaculture and non-timber forest product value chains, the project directly contributes to Output 6.1: Targeted individual and community livelihood strategies strengthened in relation to climate change impacts.

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B. Describe how the project/programme provides economic, social and environmental benefits, with particular reference to the most vulnerable communities, and vulnerable groups within communities, including gender considerations. Describe how the project/programme will avoid or mitigate negative impacts, in compliance with the Environmental and Social Policy and Gender Policy of the Adaptation Fund.

The main benefit of the Fiji Rewa River Catchment Adaptation Programme seeks to enhance the community resilience to infrastructure, biodiversity and livelihood insecurity caused by droughts, floods and saltwater intrusion induced by sea-level rise, and changing rainfall patterns through four components:

Component 1 and 2 seeks to overcome technical and financial barriers:

- to scale up retrofitted and new climate resilient, gender responsive, community led and demand driven climate proofing infrastructure through nature-based solutions (Component 1)
- to scale up climate resilient, gender responsive, community led ecosystem conservations throughout the Rewa river systems (Component 2)
- to scale up climate resilient, gender responsive, community led livelihoods enhancement to assist women and youth groups (Component 2)

Component 3 seeks to overcome the institutional and financial barriers to plan, coordinate, finance and monitor climate resilient water systems programmes to buffer against frequent climate induced water insecurity through inclusive and gender balanced leadership and decision making. The successful implementation of this proposed project will provide many co-benefits in terms of economic, social and environmental aspects.

Economic Benefits: The project will aim to deliver tangible economic benefits by enhancing livelihoods and productivity through climate-smart agriculture, sustainable aquaculture, and targeted infrastructure improvements. While new formal jobs may not be created directly, the project will foster income generation and stimulate local value chains. Farmers who participate in exchange trainings will be introduced to techniques such as intercropping, value addition, and intensive farming practices. It is anticipated that, within a short implementation period, these farmers will increase their earnings by applying newly acquired skills and accessing diversified markets. Productivity gains are expected to follow as farmers adopt improved techniques and access new markets. Some will likely acquire farming equipment that can be shared with neighboring communities, amplifying the reach of the project's benefits. Training sessions will also include indigenous knowledge systems, with emphasis on intercropping, agroforestry, and traditional resilient crop varieties such as yams, taro, and swamp taro. These practices are expected to contribute to improved soil health, reduced erosion through measures like vetiver planting, and enhanced climate resilience at both household and landscape levels.

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Adaptation infrastructure such as floodgate repairs, levee upgrades, and improved drainage systems will open new opportunities for restoring farmland previously prone to flooding. This will potentially reintroduce crops that were lost and allow cultivation of more climate-resilient varieties. As part of project implementation, the number

of hectares recovered, crops protected, and sites improved will be mapped using GIS data. The community will benefit economically as they participate in these works and regain agricultural assets. Short-term employment linked to adaptation measures, such as levee rehabilitation, is projected to generate wages for local residents. For example, employing ten individuals over a four-week period may result in FJD 8,000 of local income. Contributions to the Fiji National Provident Fund, through the standard 8% employee and 8% employer system, will strengthen long-term financial resilience, with added benefits including support for health, education, and housing. Project activities will also stimulate broader value addition. Contractors and workers in project areas will require goods and services, driving up demand within local markets and informal sectors. Women engaged in local production will likely benefit from increased sales and economic empowerment, contributing to savings and household security through existing mobile financial infrastructure such as MPaisa. This, in turn, will enhance financial literacy and help build human capital through household investments in education and utilities.

To ensure maladaptation risks are managed, the project will prioritize inclusive planning and nature-based solutions. Although current data limitations prevent detailed flood modeling, site inspections and local knowledge will guide the design and siting of infrastructure. Interventions will be informed by historical flood records and supported by collaboration with the Fiji Meteorological Services. The project will establish a communication network to monitor flood behavior before and after implementation, ensuring that no additional risk is transferred to neighbouring communities. Engagement with downstream and adjacent populations will be prioritized throughout the planning and execution phases. All these economic, social, and ecological outcomes will be monitored and tracked through the project's M&E system, with gender and vulnerability disaggregation to capture equitable benefit distribution. The full proposal will include quantitative targets, validated against existing agricultural census data and field assessments. Complementing these economic and social strategies is the active integration of indigenous knowledge systems. Through Activity 2.3, the project will document community-led climate adaptation practices rooted in traditional iTaukei wisdom. The Ministry of iTaukei Affairs' Cultural Mapping Programme has compiled a rich inventory of indigenous techniques, including early warning systems, food preservation methods, and traditional fishing practices. This content will inform Activities 3.1 and 3.2 on training and awareness of sub-national entities and community members (including elders) from the target villages. Their involvement ensures that adaptation measures are not only scientifically sound but culturally grounded and locally endorsed.

Sustainable Agriculture

Flooding in the Rewa Catchment has historically led to significant losses in livestock and crops, reducing farmers' income and food security. The project's flood control infrastructure, including levee upgrades and floodgates, will help minimize these losses by preventing saltwater intrusion and reducing flood risks. By restoring farmland previously affected by flooding, farmers can cultivate high-value crops with greater certainty, leading to higher yields and income stability. Additionally, climate-smart farming techniques, such as intercropping, agroforestry, and soil conservation, will further enhance productivity and resilience.

Eco-Tourism Potential

Currently, eco-tourism in the Rewa Catchment is limited due to frequent flooding and poor road access. However, once flood risks are minimized through this project, there will be greater opportunities for nature-based tourism. Improved infrastructure will ensure better road access, allowing tourists to visit villages for cultural heritage experiences, guided river tours, and mangrove conservation activities. Communities can develop eco-lodges, handicraft markets, and traditional storytelling experiences, generating employment and boosting local economies.

Incentives for Conservation

The project promotes forest and mangrove conservation, which helps preserve fertile land, stabilize eroded riverbanks, and enhance biodiversity. Tree planting initiatives will mitigate soil erosion, ensuring long-term agricultural productivity. Using GIS mapping, the project will calculate the number of hectares of mangroves conserved, providing measurable environmental benefits. Additionally, sustainable mangrove crab harvesting offers an economic opportunity for local communities, while reforestation efforts protect arable land from future erosion, securing long-term agricultural and economic benefits.

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Social benefits including Gender and Social Inclusion, Health and Wellbeing: The project aims to deliver significant social benefits, focusing on gender equality and inclusivity. By incorporating gender-disaggregated data and community feedback, it addresses the unique vulnerabilities and capacities of women, men, youth, persons living with disabilities (PLWDs), indigenous people, and marginalized groups. The project sets clear, measurable targets for the participation of these groups in activities like climate-smart agriculture training and NTFP capacity-building sessions, ensuring their active involvement and benefit from livelihood improvement initiatives. It directly addresses flooding through drainage infrastructure repairs, with gender co-benefits including improved health, incomes, education, and environment as well as potential to increase fisheries and agriculture production. Talanoa sessions and trainings will empower communities to monitor, manage, own, and protect climate-resilient assets. Improved drainage systems, conserved ecosystems, and enhanced livelihoods are expected to positively impact community health and well-being. The project integrates gender mainstreaming strategies, engaging women and youth in activities like mangrove restoration and riverbank stabilization, linking these to economic opportunities and food security. It prioritizes income-generating activities for women, youth, and PLWDs, fostering leadership, decision making and empowerment. The project ensures compliance with environmental and social policies, promoting human rights and equitable access to benefits, and meeting International Labour Organization (ILO) standards. Gender-responsive indicators are integrated into project design and implementation to ensure equal benefits for women and men.

The proposed project in Fiji's Rewa catchment is designed to equitably benefit vulnerable groups, particularly women, youth, persons with disabilities (PLWDs), and the indigenous iTaukei communities, in alignment with the Adaptation Fund's Environmental and Social Policy and Gender Policy. It adopts a multi-layered approach centered on inclusive targeting, economic empowerment, and resilience-building. Beneficiaries will be identified through collaboration with Tikina (district) level women's committees, youth groups, PLWD networks, and registered farmer clusters, using databases maintained by Crop Extension Officers. Data will be disaggregated by gender, age, and vulnerability status to ensure transparent monitoring across all 40 target villages.
Three core activities prioritize marginalized populations:

- Activity 2.4: Conduct trainings on sustainable mangrove aquaculture and value chains for women and youth (aligned with National Adaptation Plan Actions 12.F.7 and 12.F.10).
- Activity 2.5: Conduct trainings in climate-smart agriculture, Sustainable Land Management Practices and Value Chain for farmers (in Naitasiri and Ra)
- Activity 2.6: Conduct trainings for women's groups and PLWDs on NTFPs (such as honey, mushrooms, and coconut oil) and value chain.

The above activities were co-designed with stakeholders building on some past efforts in the catchment, during the scoping stage of this CN development. These interventions are expected to lead to at least 30% female and youth participation in agriculture trainings and 40% in aquaculture, with targeted outreach strategies to encourage uptake. An estimated 20–30% increase in household income through improved techniques and market access is expected along with establishment or strengthening of 15 micro-enterprises led by women, youth, or PLWDs. Employment generation through infrastructure works, such as levee upgrades and agriculture development will also happen. Activities like seed planting, irrigation, harvesting, and transport are expected to benefit at least 500 individuals, particularly youth and farming households. Short-term employment linked to infrastructure works will produce direct economic value—e.g., FJD 8,000 over 4 weeks for 10 locally hired participants. Contributions to the Fiji National Provident Fund (16%) will support long-term financial security, healthcare access, and educational needs. Women's increased income will promote savings through MPaisa, enhance financial literacy, and strengthen household investments in human capital assets (e.g., lighting for study, internet, refrigeration). To deepen equity outcomes, a comprehensive Gender Analysis will be conducted during the full proposal phase through the Project Formulation Grant (PFG). Its findings will inform a Gender Action Plan (GAP) that aligns with the Environmental and Social Management Plan (ESMP), ensuring gender-responsive activities and mitigation of risks.

The proposed project also ensures meaningful participation of indigenous iTaukei leaders in governance and climate adaptation decision-making. This will be facilitated through the newly established Divisional Yaubula

Working Group (DYWG) through this project. This structure builds upon existing Provincial Yaubula Committees, which already comprise indigenous leadership, including Turaga-ni-Koro (TNKs) and traditional custodians. Several provinces make a "Division". The DYWG will serve as an umbrella platform and include members such as Chairs of the five Provincial Yaubula Committees and the RokoTuis (ensuring representation of indigenous leaders across the catchment), Provincial Administrator offices, Government ministry representatives (Environment, Fisheries, Forests, Waterways) and where possible NGOs, CSOs, and academic institutions, participating as observers. This configuration ensures that the voices and customary knowledge of traditional leaders are embedded within the governance structure. The DYWG will advise on resource management, guide culturally appropriate adaptation measures, and contribute to monitoring and evaluation processes. It will serve as a forum for integrating traditional ecological knowledge into project activities, and for aligning adaptation strategies with community priorities and indigenous values.

Environmental Benefits: The project offers numerous environmental benefits by focusing on nature-based solutions, ecosystem conservation, and sustainable practices. By protecting and upgrading existing drainage infrastructure, such as floodgates and levees, the project helps to reduce saltwater intrusion and flooding, which can damage ecosystems and reduce biodiversity. Improved flood management not only protects human settlements but also preserves the natural habitats of various species, contributing to overall ecosystem health. Riverbank stabilization and riparian zone rehabilitation are key components that reduce erosion, flooding, and water pollution caused by siltation. Mangrove rehabilitation and other ecosystem restoration activities enhance the resilience of coastal and riparian zones, playing a crucial role in carbon sequestration, reducing greenhouse gas emissions, and combating climate change. Furthermore, the project supports sustainable practices like Climate Smart Agriculture and Non-Timber Forest Products, promoting land use that maintains soil fertility, reduces deforestation, and preserves natural resources. Better-conserved biodiversity will foster environmental sustainability, with gender and social inclusion as cross-cutting themes, thus avoiding biodiversity loss, improving food chains, and supporting food security. By integrating these environmental conservation efforts with community livelihoods, the project ensures that ecosystems are protected and restored in a way that benefits both nature and local communities. Overall, this will facilitate the mainstreaming of environmental concerns, especially climate change, in the Rewa River interventions.

C. Describe or provide an analysis of the cost-effectiveness of the proposed project/programme.

The project aims to strengthen the communities' resilience in the targeted areas with equitable access to a healthy biodiversity, enhanced livelihoods and improved capacity on water management systems. The intervention stated in Section A of Part II will help to deliver the outcomes with the utilization of climate proof infrastructure technologies along with built adaptive capacity towards climate change impacts from the project implementation. It is considered cost-effective where the targeted communities can improve their climate resilient capacity and also manage to maintain the water technologies with low cost but effective. In addition,
The project will ensure ownership to provincial, national and community/village communities in the sites elected. The project's total investment of **USD 10.06 million will benefit around 8,428 direct beneficiaries** in the targeted **40 villages i.e., Adaptation cost = USD 1,187 per direct beneficiaries.**

The project demonstrates strong cost-effectiveness by leveraging nature-based solutions and community engagement to achieve significant environmental and social benefits at a relatively low cost. Nature-based solutions, such as riverbank stabilization using natural vegetation, are cost-effective for several reasons. Firstly, these solutions leverage the natural regenerative capabilities of ecosystems, reducing the need for expensive engineered structures and maintenance. For example, planting riparian vegetation (vetiver grass, juncao grass and native trees) along riverbanks helps stabilize the soil with their root systems, preventing erosion and reducing sedimentation in waterways. This natural process is more sustainable and requires fewer resources compared to constructing and maintaining artificial barriers or retaining walls.

Nature-based solutions provide multiple co-benefits beyond their primary function. For example, riverbank stabilization with vegetation reduces erosion, enhances biodiversity, improves water quality, and supports local wildlife habitats, contributing to overall ecosystem health and resilience. Engaging local communities in

restoration and maintenance promotes ownership and reduces labor costs, making the approach economically viable. Investing in climate-resilient infrastructure, such as upgraded levees and floodgates, reduces long-term economic losses from flooding and saltwater intrusion. Ecosystem restoration techniques, like mangrove rehabilitation and riverbank stabilization, offer cost-effective alternatives to traditional engineering solutions. The project's focus on capacity building and livelihood enhancement ensures communities can sustain these efforts independently, maximizing return on investment. Divisional Yaubula Working Groups can continue to work beyond the project lifetime, improving sub-national management and community engagement. Overall, the project's integrated approach to climate adaptation and community development results in a high cost-benefit ratio, making it financially viable and impactful.

D. Describe how the Project is consistent with national or sub-national sustainable development strategies, including, national adaptation plan (NAP), national or sub-national development plans, poverty reduction strategies, national communications, or national adaptation programs of action, or other relevant instruments, where they exist.

The project aligns with the Paris Agreement by contributing to the global effort to limit temperature rise to well below 2°C, with an aim to keep it to 1.5°C, by focusing on climate resilience and adaptation. It supports Fiji's commitments under the Nationally Determined Contributions (NDCs), particularly in reducing greenhouse gas emissions and enhancing adaptive capacity, and adheres to the principles of the United Nations Framework Convention on Climate Change (UNFCCC), promoting international cooperation to combat climate change. The project's emphasis on ecosystem conservation and nature-based solutions aligns with the Convention on Biological Diversity (CBD) and the United Nations Convention to Combat Desertification (UNCCD), promoting sustainable land management practices, improving land productivity, and preventing land degradation.

The project is fully aligned with Fiji's National Adaptation Plan (NAP) and enhances adaptive capacity by integrating climate adaptation into sub-catchment planning. Through ecosystem conservation, infrastructure climate-proofing, and capacity building, the project supports Fiji's National Biodiversity Strategy and Action Plan (NBSAP) and National Climate Change Policy. These initiatives prioritize community-based adaptation, resilience-building, and sustainable practices, such as supporting the Ministry of Forestry's mangrove and tree nurseries.

The project emphasizes gender mainstreaming and social inclusion, consistent with Fiji's National Gender Policy and Youth Policy, ensuring that the needs and contributions of women, youth, and marginalized groups are recognized and addressed. By fostering an enabling environment for climate-resilient technologies and promoting equitable access to resources, the project supports sustainable development and social equity. It aligns with the Strategic Development Plans and goals of the included provinces, demonstrating a strong commitment to fulfilling both international and national commitments, conventions, agreements, and targets, ultimately contributing to a more sustainable, resilient, and equitable future.

Table 9 Project alignment with NAP, SDGs and Sub-National plans

Activities	Linkage to NAP/NDC	Linkage to SDGs	Linkage to Sub National Development Plan
Activity 1.1 Conduct an assessment of areas prone to flooding including existing infrastructure such as levees, spillways, channels, floodgates, flapgates and culverts	NAP Action 15.D.5 Create flood risk and management action plans for all human settlements which operate at the catchment scale and involve either hybrid or nature-based solutions and payments for ecosystems services.	**SDG 13**	Climate change and its impacts such as flooding is included in Integrated Village Development Plans of Provinces Ra, Naitasiri, Tailevu and Rewa.
Activity 1.2 Repair 4 prioritised Floodgates and flap gates to reduce flood risks	NAP Action 15.D.6 Flood management activities for priority river systems, such as Nadi River, Sigatoka River, Rewa River, Labasa River	**SDG 13**	Managed by the Ministry of Agriculture and Waterways, this Drainage and Flood Protection Programme supports mitigating flood damages and minimizing destruction through river dredging, riverbank protection works, and maintenance of drainage infrastructures
Activity 1.3 Upgrade existing levee system, spillways, culverts and channels and improve road drainage networks to reduce flood risk.	NAP Action 15.D.5 Create flood risk and management action plans for all human settlements which operate at the catchment scale and involve either hybrid or nature-based solutions and payments for ecosystems services.	**SDG 13**	
Activity 1.4 Implement riverbank stabilization and erosion control through planting of riparian vegetation.	NAP Action 16.8 Implement ecosystem-based approaches to adaptation to protect, maintain, and restore degraded habitats with active community, 111 NGO and private sector engagement in particular the restoration of critical watersheds, riparian and coastal zones.	**SDG 13**	Rewa Strategic Plan supports “Riverbank erosion management”. Integrated Village Development Plans of Ra, Naitasiri and Tailevu also supports this.
Activity 1.5 Install 6 new and repair 4 existing telemetry stations for enhanced data for weather and flood monitoring	NAP Action 7.8 Enhance meteorological prediction systems for flooding and droughts as well as a Forest Fire Watch System. NAP Action 15.D.6 Flood management activities for priority river systems, such as Nadi River, Sigatoka River, Rewa River, Labasa River.	**SDG 13**	The National Development Plan (NDP) 2025-2029 supports the establishment of telemetry stations in Fiji.
Activity 2.1 Conduct awareness raising and capacity building sessions in communities for sustainable utilization of mangroves	NAP Action 12.F.6 Support the restoration, enhancement and conservation of coastal ecosystems such as mangroves, seagrasses and coral reefs, in collaboration with Forestry and Fisheries ministries, local communities and actors, community fishery reserves etc.	**SDG 14**	Mangrove conservation is prioritized in Tailevu Strategic Plan. Mangrove conservation is included in Integrated Village Development Plans of many villages in Tailevu and Rewa provinces.

Activity 2.2 Provide tools, implements and seedlings to existing mangrove and tree nurseries of Ministry of Fisheries and Forestry	NAP Action 12.F.6 : Support the restoration, enhancement and conservation of coastal ecosystems such as mangroves, seagrasses and coral reefs, in collaboration with Ministry of Fisheries and Forestry, local communities and actors and other partners such as tourism associations.	**SDG 14 and 15**	Mangrove conservation is prioritized in Tailevu Strategic Plan. Rewa Strategic Plan states "Reforestation on land and Mangroves indigenous/endemic Fiji & Rewa plants (e.g. tubers) and trees".
Activity 2.3 Document community led initiatives rooted in Indigenous knowledge for climate adaptation	NAP Action 10.11 Enhance support and management of the continuing research, understanding and protection of traditional knowledge on vulnerabilities and potential adaptation responses through participatory research with local stakeholders. Additionally, ensure that this information is integrated and disseminated to support the design of adaptation measures within sub-national development planning processes.	**SDG 15**	Tailevu Strategic Plan states, "A sustainable depository of traditional knowledge, customs and heritage established and utilized." and "Traditional knowledge and practices utilized as part of Provincial development interventions."
Activity 2.4 Conduct trainings for women and youth groups in sustainable mangrove aquaculture and value chain	NAP Action 12.F.7 Promote sustainable non-extractive cultured fisheries (e.g. pearls, seaweed) to reduce pressure on capture fisheries. NAP Action 12.F.10 Sustain the harvesting and production of coastal fish and invertebrates for local food security and livelihoods.	**SDG 2**	Tailevu Strategic Plan states "Awareness and advocacy on approaches and parameters of balancing economic development and conservation" for mangroves. Rewa Strategic Development Plan prioritizes food security.
Activity 2.5 Conduct trainings in Climate Smart Agriculture, Sustainable Land Management and value chain for farmers	12.A.6 Promote and integrate climate-smart agriculture (CSA) practices,91 into farming, trainings, extension services, policies and plans (responsive to the needs of disadvantaged groups and tailored to subsistence, semi-commercial and commercial farmers) and adopt nature-based and urban solutions where possible.	**SDG 2 and 14**	Rewa Strategic Development Plan Priority areas include ensuring food security. Fiji 2020 Agriculture Sector Policy Agenda[34]: This policy agenda complements the National Green Growth Framework.
Activity 2.6 Conduct trainings for women's groups and PLWD on NTFP and value chain for income generation.	Not specifically mentioned in the NAP. However, all livelihood enhancement activities will help build adaptive capacity amongst communities.	**SDG 2 and 12**	Rewa Strategic Development Plan Priority areas include ensuring food security and economic security.
Activity 3.1 Conduct trainings for sub-national institutions on integration of adaptation	NAP Action 9.2 Integrate contextually relevant adaptation and disaster risk reduction measures into Divisional Strategic Development Plans and Provincial	**SDG 6, 13, 15, 11**	Tailevu Strategic plan states- "Streamlining of climate change mitigation and

[34] Fiji Ministry of Agriculture; Bacolod, Eduardo D. (2014). Fiji 2020 Agriculture Sector Policy Agenda: Modernising agriculture. Suva, Fiji: Ministry of Agriculture.

planning into River Sub Catchment Management Plans	Strategic Development Plans, in a participatory multi-stakeholder approach which builds upon local and traditional knowledge & sub-national & national priorities		adaptation plan in district (Tikina) and provincial strategies."
Activity 3.2 Conduct awareness sessions to Turaga Ni Koros and community on monitoring and reporting of climate impacts on flood control assets	15.A.8 Support community involvement in water resource management by raising awareness and strengthening the capacity of CBOs, NGOs, and government departments to disseminate information on sustainable and climate-resilient water management to communities.	**SDG 13**	Climate change and its impacts such as flooding is included in all Provincial Strategic Plans and Integrated Village Development Plans.
Activity 3.3 Conduct Talanoa (discussion) sessions with Government, traditional leaders, stakeholders & establish a Gender balanced Divisional Yaubula Working Group	NAP Action 15.A.7 Promote the development and implementation of integrated water resource management plans (IWRM) in river basin catchment areas building upon national and traditional experiences, including efforts to protect freshwater aquifers from saltwater intrusion	**SDG 13**	Climate change and its impacts such as flooding is included in all Provincial Strategic Plans and Integrated Village Development Plans.
Activity 3.4 Develop a webpage and knowledge products which are women and youth friendly for disseminating the project outcomes	NAP Action 15.D.6 Flood management activities for priority river systems, such as Nadi River, Sigatoka River, Rewa River, Labasa River.	**SDG 13**	-
Activity 3.5 Conduct national workshops for inception stage, mid project and end of project for dissemination of outputs and outcomes.	Not specifically mentioned in NAP, but necessary for every project.	-	-

E. Describe how the Project meets relevant national technical standards, where applicable, such as standards for environmental assessment, building codes, etc., and complies with the Environmental and Social Policy of the Adaptation Fund.

To ensure compliance with environmental and social protection policies and meet relevant national standards, the Ministry of Public Works and Meteorological Services, as the executing entity, provides assurances that the projects will adhere to all relevant environmental regulations and standards. They will implement measures to mitigate any potential negative environmental impacts, promote sustainable development practices, and ensure community engagement and social inclusivity throughout the project lifecycle as articulated in the Table 10 Project components and ~~linkages~~ compliance to relevant national standards and policies

Table 10 *Project components and compliance to relevant national standards and policies*

	Relevant national standards & policies	Compliance arrangements
1	Fiji's Environmental Management Act 2005	Component One activities on the climate proofing of the floodgates, will be guided by Fiji's Environmental Management Act ensuring minimal environmental degradation. Also utilizing nature-based solutions strategically to enhance the climate resilience of repaired infrastructure. Activity 2.1, 2.2 & 2.5 align with Fiji's Environmental Management Act and regional best practices, ensuring ecological integrity while strengthening flood risk reduction
2	National Climate Change Policy and Climate Change Act (2021)	Fiji's Climate Change Act (2021) mandates climate risk integration into sub-national governance and natural resource planning. As such the planning and implementation for this project has been and will be led by sub-national and divisional partners with support from the national leads. The main focal point is the Ministry of Climate Change and Environment
3	Fiji's National Agriculture Policy (2019–2023) and Organic Agriculture Standard will also guide this activity.	Activity 2.5 will be implemented by The Land Resources Planning Division (LRPD) of the Ministry of Agriculture and Waterways. Trainings will promote nature-positive agricultural practices that restore ecosystems while enhancing productivity and resilience.
4	National Youth Policy (2022–2027) promotes accessible, age-appropriate education and participation in sustainable development.	The outputs will include Youth-friendly explainer videos using animation and storytelling to showcase NbS project activities and local champions. Infographics and story cards summarizing outcomes under Components 1–3 will also be produced. The webpage will have interactive features such as clickable maps, quizzes, and photo galleries to engage youth in understanding resilience strategies. The webpage will be hosted on a government platform (e.g. Fiji Climate Change Portal) and cross-linked to education and youth ministry sites for broader dissemination.
5	The Fiji National Adaptation Plan (2018) highlights the	Regular talanoa sessions will be led by Ministry of iTaukei Affairs in collaboration with sub-national entities and

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	importance of community dialogue and bottom-up approaches	Department of Environment creating a space for traditional knowledge systems, government planning, and stakeholder expertise to converge, strengthening project implementation

F. Describe if there is duplication of project/programme with other funding sources, if any.

The proposed project does not duplicate any projects but complements the following projects.

BOLD Response project
Funded by the International Climate Initiative of the Federal Republic of Germany, the Building Our Pacific Loss and Damage Response Project (BOLD Response) is one of the first loss and damage focused projects in the Pacific and was launched on 4 April 2024. Fiji is amongst the Pacific countries where the project will be implemented. Other countries include the Republic of Marshall Islands, Samoa, Tuvalu and Vanuatu. There is no duplication in this project with our proposed project. The BOLD Response project will be implemented in Vunidogola Village on the island of Vanua Levu and Tukuraki Village, which has experienced extreme weather events. Both these areas are not overlapping with our proposed project. The components of the BOLD Response Project include to develop loss and damage estimates/projections to establish a basis for policymaking and access to finance. Community-Based non-economic loss and damage (NELD) methodology will be developed, and institutional and policy strengthening will be done to integrate loss and damage into national climate change policies and ensure alignment with disaster response, relief, and recovery.

Climate Adaptation in the Rewa Delta
The project "Climate Adaptation in The Rewa Delta" (CARE) was developed by MPWMST with Asian Development Bank as the Global Environment Facility (GEF) agency. The Concept Note for this project was approved for Special Climate Change Fund (SCCF) in the 68th GEF Council meeting held in December 2024 and full proposal is being developed. There are similarities between the CARE project, and this proposed project as they both builds adaptive capacity of communities in vulnerable areas in Rewa and Tailevu provinces. Under the CARE project, 17 floodgates/flap gates will be repaired. These are different floodgates/flap gates to the 4 proposed in our project and hence does not duplicate this project. There is similarity in the area for both projects as they are both located in Viti Levu Island. While CARE project covers Rewa and Tailevu provinces, this proposed project covers the entire Rewa Catchment covering provinces Ra, Naitasiri, Rewa and Tailevu. The CARE project will enhance the Savura raw water intake through the construction of a cascade weir and installation of a Coanda screen to prevent siltation and debris build-up. It will also do a hydrological study of Rewa River and develop the Suva-Nausori Water Supply Master Plan. These are not overlapping with our proposed project but complements it and will provide valuable information to implement our project.

Ridge to Reef project
Fiji's Ridge to Reef (R2R) project, funded by Global Environment Facility (GEF) implemented from 2015 to 2020 has provided valuable lessons as we designed this proposed project. R2R aimed to preserve biodiversity, improve ecosystem services, sequester carbon, enhance climate resilience, and sustain livelihoods through integrated management of priority water catchments on Fiji's two main islands. The project focused on reducing the negative impacts of land-based activities on marine protected areas by implementing integrated catchment management plans, protecting mangroves, adopting sustainable land use practices, and restoring riparian zones and forests. The key lessons learned from this project was that effective community involvement was crucial for achieving landscape-level watershed management and restoring livelihoods, addressing environmental issues in a holistic manner. These lessons highlight the importance of a comprehensive and inclusive approach to environmental conservation and resource management. These lessons were incorporated into our proposal and therefore we take an "integrated approach" where hard infrastructure measures, scientific data collection, innovation and capacity building measures are included in the project. There will also be knowledge exchange and dissemination in this proposal, inspired by the R2R project.

Safeguarding Marine and Terrestrial Biodiversity (SAMBIO)
The SAMBIO Project which was launched in 2024 as a 5-year project is funded by the Global Environment Facility, focused on establishing new marine and terrestrial protected areas within key biodiversity regions in Fiji. Its goal was to enhance Fiji's protected area network and improve the management of critical biodiversity areas in forests and coastal ecosystems. The geographic scope for the SAMBIO project covers the following sites The greater Tomainiivi, Nakauvadra Range (Viti Levu, Fiji's Ra Province), Nakorotubu, Greater Delaikoro Protected Area (Vanua Levu), The Natewa-Tunuloa Peninsula (Vanua Levu), Kadavu, Ringgold Islands, and Lau

Seascape. The proposed project in Rewa Catchment does not duplicate the existing SAMBIO project but complements the existing project through establishment of Mangrove nurseries promoting sustainable utilization of mangroves and enhancing biodiversity conservation). Although the proposed project covers activities within the Ra province similar to the SAMBIO but there is no duplication of activities. The SAMBIO complements the climate resilience project through biodiversity conservation and establishment of marine and terrestrial protected areas.

International Tropical Timber Organization (ITTO) project
The ITTO project in Fiji focuses on the community-based restoration and sustainable management of vulnerable forests in the Rewa Delta on Viti Levu. The project's objectives include rehabilitating degraded mangrove areas, promoting sustainable livelihoods, and enhancing local capacity for mangrove management. Located in the Rewa Delta, the project targets communities in the provinces of Rewa and Tailevu, specifically the villages of Natila, Waicoka, Nasilai, and Muanaira. Major outputs include the establishment of demonstration sites for mangrove rehabilitation, the development of a national guideline on mangrove use and management, and the creation of sustainable livelihood options for local communities. This project does not duplicate with our proposed project as the villages covered under this is different from our project. The ITTO project complements our proposed project as it also focuses on mangrove restoration and lessons learnt from ITTO project's mangrove restoration sites can help our interventions to be more impactful.

Jobs for Nature Project
The Jobs for Nature 2.0 (JFN2) project in Fiji was launched on May 23, 2022, with USD 48.9 million (FJD 106 million) in funding from the World Bank. The project officially closed in March 2025, after three rounds of implementation. The initiative was implemented by the The Ministry of Finance, in collaboration with key government agencies, including the Ministry of Agriculture and Waterways, Ministry of iTaukei Affairs, Culture, Heritage, and Arts, Ministry of Women, Children, and Social Protection, Fiji National Provident Fund, National Employment Centre within the Ministry of Employment, Productivity, and Industrial Relations, and the Ministry of Commerce, Trade, Tourism, and Transport. In the Rewa Catchment (Central Division: Rewa, Tailevu, Naitasiri, and Ra provinces), the project focused on riverbank stabilization, wetland restoration, and biodiversity conservation to strengthen climate resilience. Specific villages engaged in these efforts included Noco, Dreketi, Toga, and Vutia in Rewa Province; Namata, Natogadravu, and Naivicula in Tailevu Province; Vunidawa, Lomaivuna, and Wainimala in Naitasiri Province; and Nalawa, Burenitu, and Naiserelagi in Ra Province.

The project worked extensively with local communities, including women's groups and youth organizations. More than 30 women's groups participated in activities such as mangrove planting, vetiver grass installation for erosion control, and waste management initiatives, while over 25 youth groups contributed to forest restoration, coral reef protection, and land rehabilitation projects. The initiative not only strengthened environmental sustainability but also provided temporary employment opportunities for local residents, supporting economic recovery in vulnerable communities. The Jobs for Nature 2.0 (JFN2) project aligns closely with our proposed initiative, as it has previously engaged three of the forty villages in the Rewa Catchment, namely Noco, Toga, and Wainimala (Serea Village). With the conclusion of the Jobs for Nature project, our initiative presents an opportunity to build upon its achievements, particularly in the areas of livelihood enhancement, vetiver grass installation, mangrove restoration, and land rehabilitation within these communities. Furthermore, our project can leverage the lessons learned from Jobs for Nature, ensuring that past successes inform our approach to community engagement, environmental sustainability, and climate adaptation interventions.

GEF Small Grants Programme
The GEF Small Grants Programme (SGP) in Fiji is funded by the Global Environment Facility (GEF) and implemented by the United Nations Development Programme (UNDP). Since its establishment, the program has provided USD 8.2 million in grants since its start in 2005 in Fiji, supporting over 230 projects across various environmental and climate resilience initiatives. The GEF Small Grants Programme (SGP) in Fiji has supported multiple provinces across the country, including Rewa, Naitasiri, Tailevu, and Namosi in the Central Division; Ra, Ba, and Nadroga-Navosa in the Western Division; Cakaudrove, Bua, and Macuata in the Northern Division; and Kadavu, Lau, Lomaiviti, and Rotuma in the Eastern Division. The SGP funds projects that focus on

biodiversity conservation, climate change mitigation, sustainable land management, international waters protection, chemicals management, and capacity development.
Several villages benefiting from SGP funding overlap with the Rewa Catchment project, allowing for collaboration and shared best practices. For example, communities in Rewa and Tailevu have received SGP grants for mangrove conservation and sustainable fisheries, which align with the Rewa project's ecosystem-based flood management. Similarly, sustainable land management interventions in Naitasiri and Ra offer insights into erosion control, agroforestry, and soil conservation, critical for protecting the Rewa River from degradation. The synergies between the two projects present a strong opportunity to maximize impact, avoid duplication, and foster sustainable development. Overall, the GEF Small Grants Programme offers a wealth of experience and resources that can enhance the Rewa Catchment Adaptation Programme. By drawing on SGP-funded projects, the Rewa initiative can integrate proven strategies, strengthen community participation, and ensure that adaptation measures are holistic and effective. The overlap in geographic areas, thematic focus, and community engagement presents a unique opportunity to create a cohesive and impactful climate resilience framework for the Rewa Catchment.

Flood Early Warning Project
The Flood Early Warning Project in Fiji is supported by the Government of Korea through the National Disaster Risk Management Institute, in partnership with Fiji's Natural Disaster Management Office (NDMO). The project was launched in September 2024, and its implementation is ongoing. The project benefits approximately 171,611 Fijians across the Rewa Delta, Naitasiri, and parts of Tailevu. These areas are highly vulnerable to flooding, making early warning systems essential for disaster risk reduction. The major outputs include installation of 17 Flood Early Warning Stations, including 4 rainfall stations to monitor precipitation levels, 7 water level stations to track rising floodwaters and 6 warning posts equipped with sirens to alert communities. The project will provide real-time flood forecasting and data transmission, ensuring timely evacuations and disaster response. The project aligns closely with the Rewa Catchment Adaptation Programme by supporting data-driven flood management, strengthening community engagement, and protecting critical ecosystems like mangroves and riparian zones, ensuring long-term climate resilience.

G. If applicable, describe the learning and knowledge management component to capture and disseminate lessons learned.

An Inception Workshop will be conducted for this project (including representatives of women's organisations, youth leaders, community groups, and media), to inform stakeholders and media about the objectives of the project. Throughout the duration of the project, information will be disseminated to the general public through a webpage. The webpage about the project will be created on Fiji's Climate Change Portal Fiji Climate Change Portal (FCCP) and National Designated Authority (NDA) Portal.

The Fiji Climate Change Portal is a comprehensive online resource dedicated to addressing climate change in Fiji. It provides access to key policy documents, showcases ongoing and completed climate change projects, and highlights Fiji's efforts to access climate finance. The portal features sector-specific working groups, details innovative financial instruments like Fiji's Sustainable Development Bond Framework, and includes a GIS platform with decision-support tools. It aims to enhance transparency, facilitate knowledge sharing, and promote collaboration among stakeholders to effectively tackle climate change challenges in Fiji. The Climate Change portal is a key resource for climate change information in Fiji, so it attracts a significant number of visitors, including government officials, researchers, and the general public interested in climate change initiatives. This portal receives around 19,000 new users each year and had 209,000 event views (hits or clicks on the website), with top users being from Fiji, Australia, USA and UK. Based on the above, the Fiji Climate Change Portal is the apt portal for disseminating about the lessons learnt from this project. Assessment report will be done under Component 1 where flood risks to public infrastructure such as levees, spillways, channels, culverts, floodgates and flap gates will be documented. This report will be useful for sub-national entities for decision making with regard to infrastructure upgrades.

Knowledge products which are youth friendly will be developed to share with communities about climate change adaptation and flood risk mitigation. These knowledge products will be disseminated at sub-national levels

through line ministries. The gender balanced Talanoa sessions which will be held (component 3) at community level is an opportunity for Government officials and Community members to share their experiences, challenges, and develop solutions related to ecosystem conservation and livelihood enhancement. Indigenous knowledge will be documented into a book, which will be disseminated widely. Developing a book on indigenous knowledge helps preserve traditional practices and enhances climate adaptation by utilizing sustainable techniques refined over generations. It empowers local communities, fosters cultural pride, and serves as an educational resource, informing policies and promoting sustainable development. The initial Talanoa sessions will be organized by the Commissioner Central as an experienced coordination office. The Commissioner Central's office working together with MECC and Ministry of iTaukei Affairs can set up the gender balanced Divisional Yaubula Committee. Thereafter, the Divisional Yaubula will act as the "secretariat" or "information manager" and will work closely with SPREP, MoPWMST (EE) to ensure the information is analysed, shared and used for project refinement. In Fiji, National and Provincial Yaubula Committees exists, but these committees do not exist at the Divisional level. This project will fill this gap.

An important component of the project is the livelihoods enhancement activities includes trainings provides to women groups, youth groups, persons with disabilities and farmers on sustainable natural resource use and climate smart technologies for income generation. The training materials developed for this can be used for future training and reference. At the end of the project, a national dissemination workshop (with participation from women, youth and persons living with disabilities) will be held to share the lessons learnt and outputs from the project. The webpage developed will be hosted by Ministry of Environment and Climate Change beyond the project lifetime, continuing to disseminate results from the project.

F. Describe the consultative process, including the list of stakeholders consulted, undertaken during project preparation, with particular reference to vulnerable groups, including gender considerations, in compliance with the Environmental and Social Policy and Gender Policy of the Adaptation Fund.

An Interministerial Technical Working Group (TWG) has been established to oversee the development of this proposal. The TWG includes representatives from various ministries, such as the Ministry of Environment and Climate Change (MECC), Ministry of Public Works, Meteorological Services and Transport, Ministry of Rural, Maritime and Disaster Management, Ministry of Agriculture and Waterways, Ministry of i-Taukei Affairs, Ministry of Fisheries and Forests, Maritime Safety Authority of Fiji, Ministry of Land and Mineral Resources, and SPREP. With stakeholder engagement and technical analysis, 40 villages situated along the Rewa Catchment were selected to be included in the project proposal. Among these, eight villages were specifically chosen for scoping visits, representing the upper, middle, and lower catchment areas. Meetings were held with the Provincial Councils, Turaga-Ni-Koro's (Village Headmen), Agriculture Officers, and community members to gain a deeper understanding of the issues which helped shape this proposal. The following table indicates the scoping visits conducted and numbers of people consulted. Details of consultations is

Table 11 Participants met during Scoping visits to selected village

Date of Consultation	Village / Tikina and Province Name	Male Participants	Female Participants	Total Participants
Thursday - 05 December 2024	Delailasakau Village Tikina: Nawaidina	12	6	18
Friday 06 December 2024	Upper Waimanu Tributary, Ararata Community and Lower Waidina Tributary – Muainaweni,	A site visit was conducted to assess the damage to the crossings and culverts, although no consultation took place. This visit was crucial in understanding the extent of the damage and determining the necessary repairs.		

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Monday 09 December 2024	Matanimoli Village, Tikina Noco, Rewa	17	3	20
	Vuci Village Tikina Tokatoka, Tailevu	14	17	31
Tuesday 10 December 2024	Burebasaga Village, Tikina Burebasaga, Rewa and Vanualevu Village Tikina Tokatoka, Tailevu	14	4	18
		A consultation was held in Burebasaga village, followed by a site visit to Vanualevu Village to assess the impacts of saltwater intrusion into farmlands. During the visit, the adaptive measures that villagers have undertaken to increase their capacity to cope with climate change were also evaluated.		
Wednesday 11 December 2024	Serea Village, Tikina Soloira, Naitasiri, Naluwai & Waidracia village Tikina Rara, Naitasiri	11	5	16
		A consultation was held in the village of Serea, attended by the Turaga ni Koro of Naluwai and Waidracia. Following the consultation, site visits were conducted to assess riverbank erosion and drainage issues. These visits were essential for understanding the extent of the problems and planning the necessary interventions to address them effectively.		
Thursday 12 December 2024	Raviravi Village, Tikina Natokaimalo, Ra	14	19	33
	Nalalawa Village, Tikina Rokovuaka, Ra	12	8	20
	Total	26	27	53
Friday 13 December 2024	Tavuya Village, Tikina Rewa of the Province Rewa	16	8	24
Monday 16 December 2024	Vunisei Village Tikina Toga, Rewa	8	6	14

The concerns raised highlighted the interconnected nature of challenges faced by the different community groups. Women emphasised the loss of freshwater and aquatic resources, flooding and drainage problems that affect livelihoods, limiting alternative income options and increase health and sanitation risks.

Youth representatives on the other hand expressed worries about land disputes, lack of skills and scarce economic opportunities leading to migration, and the need to be actively involved in climate resilience initiatives.

The broader community underscored severe flooding and poor drainage, declining ecosystem health and the need for stronger governance and local leadership to address these issues collectively.

G. Provide justification for funding requested, focusing on the full cost of adaptation reasoning.

Baseline

The Fiji government faces significant challenges in securing funding for climate adaptation projects due to high poverty rates and vulnerability to natural hazards. Frequent cyclones and floods cause considerable economic harm, especially to the agriculture and fisheries sectors. Limited financial resources make it difficult for Fiji to cover the costs of comprehensive climate adaptation projects, such as infrastructure upgrades and ecosystem

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conservation. Many flood management systems are outdated and insufficiently maintained, while competing priorities for social and health needs prevent adequate allocation for necessary upgrades. External funding is crucial to bridge the financial gap and ensure the implementation of effective and sustainable climate adaptation projects.

Without the required funding, several adverse outcomes could occur. Lack of infrastructure upgrades and repairs will lead to heightened flood risks, causing more frequent and severe flooding events that damage homes, infrastructure, and agricultural lands. Insufficient support for ecosystem conservation efforts like mangrove restoration and riverbank stabilization will result in continued environmental degradation, exacerbating erosion, loss of biodiversity, and reduced natural flood defences. Communities will face significant economic losses, disrupted livelihoods, and increased costs for emergency response and recovery. Vulnerable groups, including women, youth, and persons with disabilities, will be disproportionately affected without training and capacity-building initiatives. The inability to strengthen sub-national institutions and community organizations will hinder effective adaptation planning and implementation, leading to fragmented responses and a lack of coordinated efforts to address climate risks. In summary, without necessary funding, the project's goals of enhancing resilience, protecting ecosystems, and supporting vulnerable communities will be compromised, with escalating risks and impacts of climate change undermining sustainable development efforts.

Alternative

When the Adaptation Fund provides the necessary funding, the project will assess flood-prone areas, repair and upgrade critical infrastructure, and enhance weather and flood monitoring through new telemetry stations and undertake riverbank stabilization. This will reduce flood risks in farms and protect community's assets. Ecosystem conservation and livelihoods enhancement efforts will promote sustainable use of mangroves and support reforestation, while training programs will empower women, youth, and marginalized groups with skills in climate-smart agriculture, NTFPs and sustainable practices. Capacity building and institutional strengthening will involve training sub-national institutions and community members on adaptation planning and monitoring climate impacts. Talanoa sessions will foster dialogue between government, traditional leaders, and stakeholders, leading to collaborative management of flood control assets. A dedicated website and knowledge products will disseminate project outcomes, and national workshops will share progress and lessons learned. Fiji requests funds for urgent adaptation activities to transition to enhanced climate adaptation for communities in the Rewa Catchment.

The project has been carefully scoped to ensure that all intended outcomes are achievable within the financial envelope provided by the Adaptation Fund. Activities have been prioritized based on climate risk, cost-effectiveness, and feasibility. The design leverages local partnerships, nature-based solutions, and community engagement to maximize impact without requiring co-financing. Implementation efficiencies and targeted monitoring frameworks further ensure that the project can deliver its objectives solely with AF resources.

Key interventions, including nature-based solutions, flood-resilient infrastructure, and targeted capacity building, focus solely on climate-induced risks, ensuring that AF funding is used to cover incremental adaptation costs rather than broader development needs. Detailed Bill of Quantities informed the budget. The project further benefits from local government implementation support and community participation, which contribute in-kind resources, enhancing delivery without requiring co-finance.

By aligning with existing national monitoring systems and institutional frameworks, the project avoids duplicative administrative costs and builds in long-term sustainability. This adaptive, locally anchored approach ensures that the programme's core outcomes, enhanced flood resilience, ecosystem protection, and institutional capacity, can be delivered effectively with AF funding alone.

H. Describe how the sustainability of the project/Project outcomes has been taken into account when designing Project.

The project's sustainability is ensured through comprehensive training and capacity-building programs that equip community members with essential skills and knowledge to continue activities independently after the project concludes. By promoting diversified livelihoods and providing tools and resources, the project enhances economic resilience and financial sta
bility. Talanoa sessions will facilitate ongoing government-community dialogue, monitor progress, and foster continuous learning and adaptation, ensuring the project's effectiveness and responsiveness to changing needs. Village-level tracking systems, such as livelihood tracking and floodgate maintenance logs, will document activities and provide valuable data for ongoing management and improvement of flood control assets and livelihood initiatives.

Strengthening sub-national institutions and governance mechanisms directly contributes to long-term resilience by enhancing local capacity, promoting sustainable governance practices, and fostering community engagement and ownership, beyond project lifetime.

Activity 3.1 aims to build the capacity of sub-national institutions, such as Provincial Officers, Matanitikinas, Divisional Yaubula Committees, and technical sub-committees through eight targeted trainings. These sessions will guide participants in integrating climate adaptation into River Sub-Catchment Management Plans, using tools like risk mapping, ecosystem-based approaches, incorporation of Indigenous knowledge and participatory planning aligned with NAP Action 9.2. The activity will also provide technical support and practical toolkits for embedding adaptation strategies into planning documents, promote peer learning across Tikinas (districts , and institutionalize resilient planning practices through hands-on facilitation and inter-agency collaboration. Peer learning among Tikinas (districts) fosters institutional memory and promotes replication of best practices.

The goal is to institutionalize resilient planning practices at local levels, sub-national budgets and sub-national development plans. This institutionalization ensures that, beyond the project period, local governments are empowered to continue leading resilient, community-informed climate actions.
Activity 3.2 complements this by enhancing capacity at community level. Eight awareness sessions will be delivered to Turaga ni Koros (village headmen) and community representatives to strengthen their role in monitoring and reporting climate impacts on flood control infrastructure such as levees, telemetry stations, and floodgates. The sessions will introduce simplified monitoring protocols and encourage use of mobile apps (e.g., KoBo Toolbox) to report risks and damages, promoting a culture of early warning, data sharing, and local stewardship over resilience assets.

According to the Commissioner Central's office, each Turaga ni Koro (TNK) is supported by a network of seven sub-committees, including the Yaubula (Environment) Sub-Committee and the Development Sub-Committee. Currently, TNKs provide quarterly reports; however, under this project, monitoring systems will be strengthened to enable monthly and weekly reporting, enhancing responsiveness and data accuracy. Training for TNKs will focus on supporting the National Disaster Management Office's (NDMO) Disaster Risk Management (DRM) Sub-Committee, equipping them to effectively coordinate preparedness and response measures. Trainings may include the use of digital tools such as KoBo Toolbox and other smartphone applications to streamline data collection and reporting. To sustain this system beyond the life of the project, a collaboration between the Provincial Office and the NDMO is envisioned, whereby data and airtime support is provided to TNKs, ensuring continuity of monitoring and reporting functions.

The sustainability of Activities 3.1 and 3.2 is rooted in their deliberate focus on institutional strengthening and community empowerment. Together, these activities reinforce top-down and bottom-up governance linkages, ensuring that adaptation planning is contextually grounded, community-informed, and institutionally sustained. Integrating adaptation planning into River Sub-Catchment Management Plans through targeted trainings ensures that these strategies are effectively implemented and sustained, benefiting the Rewa Catchment and its communities beyond the project's lifespan.

Economic and community development is a crucial aspect of the project, with women's and youth groups receiving training and business skills support to enable sustainable financial and operational management. The

project connects farmers to markets through the Ministry of Agriculture, facilitating sustainable agricultural practices and market access. Empowering youth and village headmen to assist with flood control asset maintenance ensures ongoing upkeep and integration into community routines. This collaboration between the community and government will guarantee the sustainability of these practices.

Environmental sustainability is achieved by focusing on conserving critical ecosystems like mangroves and forests. The project promotes sustainable mangrove utilization, supports nurseries, and implements riverbank stabilization. Weather monitoring through telemetry stations enhances real-time data collection and informed decision-making, preparing communities for extreme weather events. Reforestation efforts will continue under the Forestry's 30 Million Trees Initiative, ensuring long-term conservation. Project outcomes will be shared through a climate change portal, ensuring continued accessibility and benefits beyond the project's lifetime. Ensuring community ownership from the planning stage fosters resilient communities and guarantees enduring environmental, social, and economic resilience.

I. Provide an overview of the environmental and social impacts and risks identified as being relevant to the project / Project.

The project has been screened against the AF Environmental and Social Safeguard principles and ranked accordingly as: ~~Minor~~ Medium risk – aligned with IFC Category ~~C~~ B rating: ~~activities with minimal or no adverse environmental or social risks and/or impacts.~~ With the potential to cause limited adverse environmental and/or social impacts that are few in number, generally site specific, largely reversible and readily addressed through mitigation measures

Component	**Risk Rating and Description**
Component 1: Climate proof flood control infrastructure through repairs and upgrades and reduce riverbank erosion using nature-based solutions.	**Risk Significance: Medium** The component presents a medium overall risk, with the greatest potential for environmental and social impacts due to construction and earthworks. Activities such as levee upgrades and riverbank stabilization may disturb habitats, cause erosion, and increase sedimentation in sensitive ecosystems. Construction work also poses occupational health and safety risks for local workers and potential safety and security concerns for nearby communities. Machinery use could generate minor pollution and hazardous waste requiring proper management. The likelihood of disturbing cultural or archaeological sites is low, as works will occur outside of historically significant areas. Additionally, inadequate design of flood control structures could worsen flooding elsewhere, highlighting the need for technical modeling to mitigate this risk.
Component 2: Promote conservation of ecosystems with forests and mangroves and enhance livelihoods through trainings on sustainable fisheries, farming and non-timber-forest-products use.	**Risk Significance: Low (Environmental) – Medium (Social)** Although the environmental impacts of this component are largely positive, it presents more significant social risks due to close engagement with communities on livelihoods and traditional knowledge. The project operates entirely within 40 indigenous i-Taukei villages, where the main concern is ensuring that participation and knowledge-sharing fully comply with Free, Prior, and Informed Consent (FPIC) principles and that cultural heritage is protected, both crucial to maintaining the project's social license. There is a low risk that vulnerable groups, such as women, youth, and persons with disabilities, may be excluded from livelihood benefits if engagement is not inclusive. Additionally, there is a minor risk of indirect child exploitation through community initiatives.

Component 3: Build institutional capacity for effective climate adaptation and flood control management through facilitating discussions between Government and communities, conducting trainings and awareness raising.	**Risk Significance: Low-Medium** As this component does not involve physical works, its risks are mainly institutional and social, focussing on governance, participation, and grievance redress mechanisms. The primary concern is ensuring that grievance and conflict resolution mechanisms are accessible and effective, as limited access particularly for remote communities could lead to unresolved disputes. Engagement with Indigenous Peoples carries a medium risk if collaborative working groups are not established and traditional governance structures are not respected. There is also a low risk that vulnerable or marginalized groups may be excluded from consultations or decision-making if inclusivity is not adequately ensured.

As per the AF "Guidance document for Implementing Entities on compliance with the Adaptation Fund Environmental and Social Policy" any principle assessed as minor risk, require no further actions beyond on-going risk monitoring. As per the initial screening of the Project against the principles, no major risks were identified with three principles identified as minor risk. Consequently, the Project is ranked as minor risk/ESS Category C. The risk analysis is provided in table below.

Table 12 Risk analysis of environmental and social risks

Checklist of environmental and social principles	Further assessment required for compliance	Potential impacts/risks and mitigation measures
Compliance with the Law	Yes	**Minor Risk-** There is minor risk, with that labour and working conditions may not be adhered to during repairs of floodgates, flap gates, levees, culverts, spillways and channels. However, these are minor repairs and not large civil works requiring EIAs. The probability of occurrence of this risk is also low, as the minor repairs will be done by Government Agencies which are Department of Waterways and Fiji Roads Authority. **Mitigation measures-** The proposed project has been designed in compliance to relevant Fiji laws, regulations, policies and standards. All activities comply with legal framework for agriculture, water and environmental protection. During full proposal stage, an Environmental and Social Management Plan (ESMP) will be prepared. FRA and the Department of Waterways will conduct pre-repair briefings to ensure compliance with labour laws, including fair wages and safe working conditions. Contractors and government agencies will be required to submit compliance reports on worker conditions. Regular site inspections by FRA and Department of Waterways will be done to ensure adherence to labour laws. Quarterly compliance audits will be done to assess working conditions and address any violations.
Access and Equity	Yes	**Minor risk-** There is minor risk that some community members may be excluded if not properly consulted and included in the project implementation. **Mitigation measures-** Community engagement through Talanoas and extensive consultation will help mitigate this risk. The project's ESMP, to be developed in the proposal phase, will include management measures to ensure fair access, transparency, and equity throughout implementation, clearly stating there will be neither discrimination nor favouritism in accessing project benefits. The Project

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		Steering Committee will provide oversight to the project to ensure risks are mitigated. The Ministry of iTaukei Affairs will lead Talanoa sessions to ensure traditional leaders, women, youth, and persons with disabilities (PLWDs) are actively involved in project discussions. The Ministry of Women will facilitate gender-responsive consultations, ensuring equitable participation and representation. Provincial Councils will oversee community outreach programs, ensuring all villages receive project information and opportunities for engagement. We will use Quarterly community meetings to assess inclusivity and address concerns. Gender-disaggregated reporting to track participation rates and have Community feedback mechanisms to ensure continuous improvement.
Marginalized and Vulnerable Groups	Yes	**Minor risk-**There is minor risk that marginalised groups may get left out of the project if not consulted and if their needs are not captured. **Mitigation measures -**Women, youth, persons living with disabilities and marginalised groups will be consulted at full proposal stage to ensure access and equity is included in the final project design and decision making processes. The project site selection and interventions have been designed to assist marginalised/vulnerable groups to better cope with climate variability. Frequent community consultations and activity screening will help to monitor and mitigate potential risks. The project's training programmes will be tailored for women, youth, and persons with disabilities (PLWDs) on climate adaptation strategies, financial literacy, and sustainable livelihoods. The Project Steering Committee will provide oversight, ensuring all stakeholders are represented. The project can also establish Participatory Monitoring through community-based monitoring teams that include representatives from marginalized groups to track project implementation and report challenges.
Human Rights	Yes	**Minor risk-**The risk is minor because there is no forced relocation or unsafe living conditions that could arise from this project and all labour laws will be adhered to for any infrastructure upgrade works. On the contrary this project will ease living conditions through reducing flooding and improving livelihoods. Hence the risk is categorised as minor and unlikely to occur. **Mitigation measures -**The project does not violate the freedom of the people in the intervention zones because it respects their fundamental rights. The project has been designed to ensure compliance with applicable domestic and international laws, provide fair and equitable access to benefits, and avoid imposing disproportionate adverse impacts on marginalised and vulnerable groups. It will respect and promote human rights, ensure both women and men can participate fully and receive equitable social and economic benefits, and meet ILO labour standards. FRA and Department of Waterways are responsible for infrastructure upgrades and will ensure fair and gender equal employment, non discrimination of persons with disabilities and just working conditions. Regular site inspections by FRA and Department of Waterways will be done to ensure adherence to labour laws. Quarterly compliance audits will be done to assess working conditions and address any violations.
Gender Equality and Women's Empowerment	Yes	**Minor risk-** There is a minor risk that in some cases women are not fully participating to make decisions. **Mitigation measures -**Project interventions will strengthen institutional frameworks by reviewing policies to address gender, youth, and social inclusion considerations and ensuring that women, youth, and marginalized groups are fully engaged in community dialogues, consultations and decision making. The project will develop a Gender Action Plan in the full proposal stage and ensure compliance of all activities to the Gender Equality and Social Inclusion Policy and the national action plans to prevent gender-based violence and women's economic empowerment (Ministry for Social Welfare, Women and Poverty Alleviation.

		(2014)[35]. The Ministry of iTaukei Affairs will ensure traditional governance structures actively include women in community dialogues and consultations. Provincial Councils will oversee the implementation of gender-inclusive policies, ensuring equitable access to project benefits. The project will conduct Gender-disaggregated reporting to track women's participation in decision-making and independent audits to ensure compliance with gender equality policies. Under Component 2, The Ministry of Agriculture and Waterways will support women's cooperatives in climate-smart agriculture and sustainable livelihoods. The Divisional Yaubula Committees will facilitate cross-sectoral coordination, ensuring gender-responsive project implementation. The Local Government Authorities will integrate gender policies into regional development plans. Furthermore, the Project Steering Committee will provide oversight, ensuring gender equality principles are upheld.
Core Labour Rights	Yes	**Minor risk-**There is minor risk that during the repair of floodgates, flap gates, culverts, channels, spillways and levees, some labour rights may be ignored. This risk is minor and occurrence unlikely. **Mitigation measures-**Occupational Health and Safety (OHS) measures will be strictly adhered to for the activities of the project. An OHS plan can be developed and the Government agencies responsible for the minor repairs and construction will follow ILO standards and guidelines as well as comply with Fiji's national regulations and laws. There are no activities in this project that will cause unhealthy working conditions and regular monitoring and evaluation will be done to ensure labour rights are adhered to. FRA and the Department of Waterways will conduct pre-repair briefings to ensure compliance with ILO labour standards and Fiji's national regulations. Contractors and government agencies will be required to submit compliance reports on worker conditions. Regular site inspections by FRA and Department of Waterways will be done to ensure adherence to labour laws. The Ministry of Public Works will implement worker safety training programs to prevent workplace hazards.
Indigenous Peoples	Yes	~~**Minor**~~ **Medium risk** ~~–~~ This risk is ~~minor~~ medium as the project is located within and for the benefit of 40 indigenous communities, their lands, resources and governance structures. The risk is their engagement may not meet FPIC principles, traditional knowledge is not respectfully integrated or cultural heritage is inadvertently harmed. ~~as the entire population of direct beneficiaries (8,428), excluding 170 people in the Ararata farming settlement are indigenous i-Taukei communities. Therefore, this project majorly benefits indigenous communities.~~ **Mitigation measures-** All consultations will be conducted in both English and the local iTaukei language and indigenous communities will be consulted and included in the project planning. Decision making is done with Turaga ni Koros (Village Headmen) and indigenous leaders and hence there is no risk of any negative impacts to indigenous peoples, on the contrary this project is designed to enhance their adaptive capacity. The project will comply with AF requirements and Fiji national laws and regular monitoring and evaluation will be done to ensure adherence to this principle. The Ministry of iTaukei Affairs will ensure all consultations are conducted in both English and the local iTaukei language, ensuring full accessibility for indigenous communities. Provincial Councils will oversee community engagement, ensuring that Turaga ni Koros (Village Headmen) and indigenous leaders are actively involved in decision-making processes. The Ministry of iTaukei Affairs will ensure indigenous leaders are actively involved in climate adaptation planning, ensuring traditional governance structures are

[35] Ministry for Social Welfare, Women and Poverty Alleviation. (2014). Fiji National Gender Policy. Online publication accessible at https://www.fiji.gov.fj/getattachment/db294b55-f2ca-4d44-bc81-f832e73cab6c/NATIONAL-GENDER-POLICY-AWARENESS.aspx

		respected. The Ministry of Agriculture and Waterways will integrate traditional farming techniques into climate-smart agriculture programs, ensuring sustainable land management.
Involuntary Resettlement	N.A	Not applicable. This project does not include resettlement.
Protection of Natural Habitats		~~Minor~~ **Medium risk-** The risk is categorised as minor because where flood control infrastructure is repaired, i.e. raising levels of levees through brining soil, some soil is brought in. Further, repairs of culverts, channels, spillways, flood gates and flap gates need to be done following regulations to ensure no disturbances to natural habitats. **Mitigation measures -**The project is undertaking only minor repairs and no civil works which require EIAs. Care will be taken to adhere to necessary regulations and no detrimental damage to natural habitats. The project enhanced natural habitats through planting riparian vegetation for activities such as riverbank stabilization. Trainings will be given to communities to conserve mangroves and forests, in addition to supporting nurseries for tree planting. Improved flood management not only protects human settlements but also preserves the natural habitats of various species, contributing to overall ecosystem health. Regular monitoring of the repairs and riverbank stabilization activities will be done. The Ministry of Forestry will lead riparian vegetation planting, ensuring erosion control and habitat restoration. The Ministry of Fisheries will oversee mangrove conservation efforts, ensuring aquatic ecosystems remain intact. Provincial Councils will facilitate community-led conservation initiatives, ensuring local participation in habitat protection. The Ministry of Forestry will support tree nurseries, ensuring continuous reforestation efforts. Divisional Yaubula Committees will facilitate cross-sectoral coordination, ensuring environmental safeguards are maintained.
Conservation of Biological Diversity	Yes	~~Minor~~ **Medium risk-** It is minor risk as the project sites are outside protected areas and planting of species approved by Ministry of Fisheries and Forestry will ensure no invasive alien species are introduced. The project offers numerous environmental benefits by focusing on nature-based solutions, ecosystem conservation, and sustainable practices. **Mitigation measures-** The planting of plant species approved by Ministry of Fisheries and Forestry will ensure no invasive alien species are introduced. Training is given to communities for sustainable utilization of mangroves and forests. Monitoring of activities will be done. Ministry of Fisheries & Forestry: Will oversee the selection and approval of plant species for reforestation and mangrove restoration to ensure no invasive alien species are introduced. Regular biodiversity assessments will be conducted to track species composition and detect any unintended introduction of invasive species. The Ministry of Forestry will provide training to communities on sustainable harvesting techniques for mangroves and non-timber forest products (NTFPs). Department of Waterways: Will implement riparian vegetation planting (vetiver grass, juncao grass, native trees) to reduce erosion and protect aquatic habitats. The Department of Environment will include the project sites in their periodic biodiversity surveys to assess the health of ecosystems and identify any emerging threats.
Climate Change	Yes	**Minor risk-** Project activities, such as the use of vehicles powered by fossil fuels, may produce minor greenhouse gas emissions. However, these emissions are expected to be minimal. **Mitigation measures-** The project focuses on enhancing inclusive resilience and adaptive capacity in targeted communities in the Rewa River Catchment through infrastructure upgrades, livelihoods enhancement, institutional strengthening and

		ecosystem-based adaptation measures that will address climate change impacts and where possible mitigate emissions. The Department of Waterways will oversee flood control infrastructure improvements, ensuring designs incorporate climate projections (e.g., increased rainfall intensity, sea level rise). Ministry of Forestry & Fisheries: Will lead reforestation and mangrove restoration efforts to enhance carbon sequestration and coastal protection. Ministry of Agriculture: Will promote climate-smart agriculture techniques, such as agroforestry, organic farming, and reduced chemical inputs. The existing National Climate Change Steering Committee will oversee inter-agency coordination and ensure climate adaptation and mitigation remains a priority beyond the project's lifespan. Provincial Councils will facilitate community-led climate adaptation initiatives, ensuring local participation.
Pollution Prevention and Resource Efficiency	Yes	~~**Minor**~~ **Medium** **risk-** The risk is medium as the project is anticipated to result in only minor and negligible pollutant releases, primarily from emissions generated by equipment like vehicles. **Mitigation measures-**The Ministry of Waterways & Agriculture will ensure flood control infrastructure repairs follow best practices to prevent soil erosion and water pollution. National regulations and ESS standards will be adhered to. A comprehensive M&E framework will be developed to ensure that this principle is adhered to.
Public Health	N.A	There are no activities in this project that can pose a public health risk. The project's efforts to reduce flooding, improve drainage, and enhance ecosystem conservation will contribute to better living conditions, reduced waterborne diseases, and improved food security. Additionally, supporting climate-smart agriculture, mangrove restoration, and community-led environmental conservation will have indirect health benefits—such as securing clean water sources and improving air quality.
Physical and Cultural Heritage	N.A	Not applicable. There are no activities which can impact any heritage sites in the project. The project will play a crucial role in enhancing physical and cultural heritage. Traditional governance structures and Yaubula Committees could incorporate heritage preservation into community adaptation plans, ensuring that cultural significance is maintained alongside environmental resilience. One of the key ways the project will enhance cultural heritage is through ecosystem conservation and restoration. The protection of mangroves and forests will not only mitigate climate risks but also preserve sacred sites and traditional fishing grounds that are deeply tied to Fijian identity. The project will ensure that indigenous governance structures, such as Yaubula Committees, remain central to conservation efforts, reinforcing traditional stewardship practices. Additionally, the project will support livelihood diversification, empowering communities to sustain traditional crafts and practices. Women's groups specializing in mat weaving and handicrafts will receive training and resources to strengthen their economic resilience, ensuring that these cultural traditions continue to thrive. Sustainable mangrove aquaculture and climate-smart agriculture initiatives will also integrate indigenous knowledge, allowing communities to adapt while maintaining their heritage. Through capacity building and institutional strengthening, the project will facilitate Talanoa sessions, fostering dialogue between government officials, traditional leaders, and local communities. These discussions will ensure that cultural heritage considerations are embedded in climate adaptation strategies, reinforcing the connection between environmental sustainability and cultural identity. By integrating traditional knowledge into climate adaptation efforts, the project will not only protect the physical landscape but also strengthen the cultural fabric of the

		Rewa Catchment. Hence no mitigation measures are proposed as the project poses no risk to physical and cultural heritage.
Lands and Soil Conservation	Yes	**Minor risk-** There is minor risk of temporary soil runoff when repairs to flood control infrastructure is done. **Mitigation measures -**During repairs of flood control structures, ESMPs will be developed and quality assurance carried out by specialists to avoid soil erosion. After repairs are done, riparian vegetation and erosion reducing plants such as vetiver will be planted. Riverbank stabilization will be done through planting of riparian vegetation such as vetiver, juncao grass and native trees. Project interventions are outside protected areas. The project supports rehabilitation of critical habitats such as forests and mangroves through supporting nurseries of the Ministry of Forestry and Fisheries. The Department of Waterways will oversee erosion control measures during flood control infrastructure repairs, ensuring minimal soil disturbance. The Ministry of Forestry will lead the planting of erosion-reducing vegetation such as vetiver grass, juncao grass, and native trees to stabilize riverbanks. Regular site inspections and vegetation health assessments will be conducted to ensure long-term effectiveness. The Ministry of Agriculture and Waterways Will promote and provide training on climate-smart agriculture techniques, including agroforestry, to reduce soil degradation. The Ministry of Forestry & Fisheries will support nurseries for reforestation and mangrove restoration, ensuring degraded areas are rehabilitated. The Divisional Yaubula Committees will facilitate cross-sectoral coordination, ensuring soil conservation remains a priority beyond the project's lifespan. The Provincial Councils will oversee community-led conservation initiatives, ensuring local participation in land management efforts.

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PART III: IMPLEMENTATION

A. Demonstrate how the project/programme aligns with the Results Framework of the Adaptation Fund

Project Objective(s)1	Project Objective Indicator(s)	Fund Outcome	Fund Outcome Indicator	Grant Amount (USD)
Enhancing inclusive resilience and adaptive capacity in targeted communities in the Rewa River Catchment through infrastructure upgrades, livelihoods enhancement and institutional strengthening.	Number of Fijians with increased resilience to climate variability and change	Outcome 1- A more resilient and adaptive infrastructure system that protects livelihoods and promotes sustainable development in the face of climate change Outcome 2: Strengthened institutional capacity to reduce risks associated with climate-induced socioeconomic and environmental losses Outcome 3: Strengthened awareness and ownership of adaptation and climate risk reduction processes at local level Outcome 4: Increased adaptive capacity within relevant development sector services and infrastructure assets Outcome 5: Increased ecosystem resilience in response to climate change and variability induced stress Outcome 6: Diversified and strengthened livelihoods and sources of income for vulnerable people in targeted areas	2.1. Capacity of staff to respond to, and mitigate impacts of, climate-related events from targeted institutions increased 3.1. Percentage of targeted population (including women, men, youth, people with disabilities, and other vulnerable groups) aware of predicted adverse impacts of climate change, and of appropriate responses 4.2. Physical infrastructure improved to withstand climate change and variability-induced stress 5.1. No. of natural resource assets (mangroves, forests) created, maintained or improved to withstand conditions resulting from climate variability and change (by type and scale) 6.2. Percentage of targeted population (including women, men, youth, people with disabilities, and other vulnerable groups) with sustained climate-resilient alternative livelihoods	8,464,874

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Outcome 1- A more resilient and adaptive infrastructure system that protects livelihoods and promotes sustainable development in the face of climate change	Number of flood assessments, infrastructure upgraded and telemetry stations installed for improved resilience to flooding	Output 4: Vulnerable development sector services and infrastructure assets strengthened in response to climate change impacts, including variability	4.2. Physical infrastructure improved to withstand climate change and variability-induced stress	6,310,000
Outcome 2- Improved Ecosystem health and economic resilience of communities in Rewa Catchment	Number of awareness sessions, nurseries, trainings	Output 3.1: Targeted population groups participating in adaptation and risk reduction awareness activities Output 3.2: Strengthened capacity of national and subnational stakeholders and entities to capture and disseminate knowledge and learning Output 5: Vulnerable ecosystem services and natural resource assets strengthened in response to climate change impacts, including variability Output 6: Targeted individual and community livelihood strategies strengthened in relation to climate change impacts, including variability	3.1. Percentage of targeted population (including women, men, youth, people with disabilities, and other vulnerable groups) aware of predicted adverse impacts of climate change, and of appropriate responses 3.2. No. of gender balanced technical committees/associations formed to ensure transfer of knowledge 5.1. No. of natural resource assets created, maintained or improved to withstand conditions resulting from climate variability and change (by type and scale) 6.2. Percentage of targeted population (including women, men, youth, people with disabilities, and other vulnerable groups) with sustained climate-resilient alternative livelihoods	761,771
Outcome 3- Sub-National Institutions Strengthened to incorporate adaptation into their planning,		Output 2.1: Strengthened capacity of national and sub-national centers and networks to respond rapidly to extreme weather events	2.1. Capacity of staff to respond to, and mitigate impacts of, climate-related events from targeted institutions increased informed by gender analysis and consultations	1,393,103

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monitoring and reporting processes			2.1.2 No. of targeted institutions with increased capacity to minimize exposure to climate variability risks (by type, sector and scale) informed by gender analysis and consultations	

[1] **The AF utilized OECD/DAC terminology for its results framework. Project proponents may use different terminology but the overall principle should still apply**

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PART IV: ENDORSEMENT BY GOVERNMENT AND CERTIFICATION BY THE IMPLEMENTING ENTITY

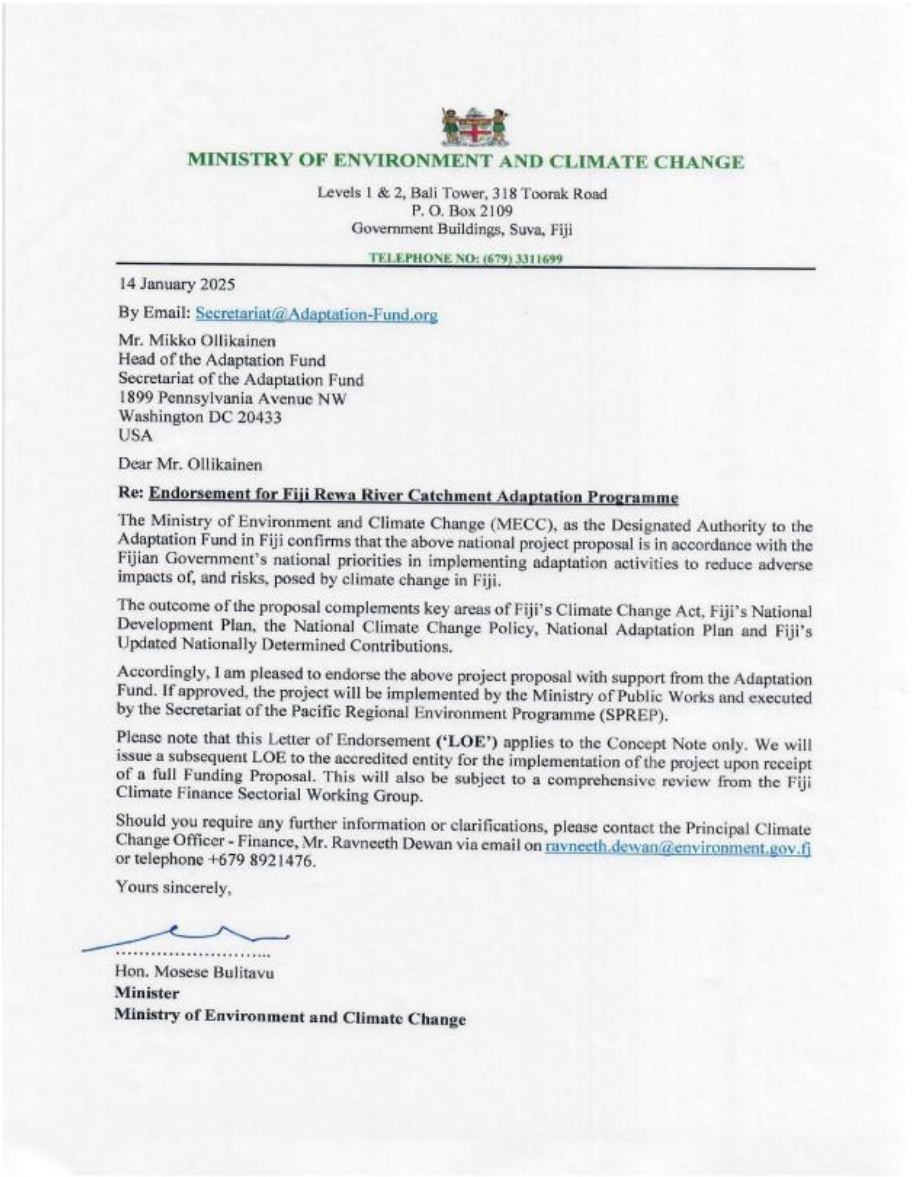
A. Record of endorsement on behalf of the government. Provide the name and position of the government official and indicate date of endorsement. If this is a regional project/Project, list the endorsing officials all the participating countries. The endorsement letter(s) should be attached as an annex to the project/Project proposal. Please attach the endorsement letter(s) with this template; add as many participating governments if a regional project/Project:

Dr.Sivendra Michael Permanent Secretary, Fiji Ministry of Environment and Climate Change Focal Point – Adaptation Fund	Signature: Date: 17/01/2025

B. Implementing Entity certification. Provide the name and signature of the Implementing Entity Coordinator and the date of signature. Provide also the project/Project contact person's name, telephone number and email address

I certify that this proposal has been prepared in accordance with guidelines provided by the Adaptation Fund Board, and prevailing National Development and Adaptation Plans and subject to the approval by the Adaptation Fund Board, **commit to implementing the project/Project in compliance with the Environmental and Social Policy and the Gender Policy of the Adaptation Fund** and on the understanding that the Implementing Entity will be fully (legally and financially) responsible for the implementation of this project/Project.	
Mr. Sefanaia Nawadra Director General Secretariat of the Pacific Regional Environment Programme (SPREP)	Signature: Date: **20 / 01/ 2025**
Project Contact Person: Rupeni Mario SPREP primary focal point – Adaptation Fund	Email: rupenim@sprep.org Telephone: +685 21929 (ext. 277)

ANNEX I – Letter of Endorsement from Fiji Government



MINISTRY OF ENVIRONMENT AND CLIMATE CHANGE

Levels 1 & 2, Bali Tower, 318 Toorak Road
P. O. Box 2109
Government Buildings, Suva, Fiji

TELEPHONE NO: (679) 3311699

14 January 2025

By Email: Secretariat@Adaptation-Fund.org

Mr. Mikko Ollikainen
Head of the Adaptation Fund
Secretariat of the Adaptation Fund
1899 Pennsylvania Avenue NW
Washington DC 20433
USA

Dear Mr. Ollikainen

Re: Endorsement for Fiji Rewa River Catchment Adaptation Programme

The Ministry of Environment and Climate Change (MECC), as the Designated Authority to the Adaptation Fund in Fiji confirms that the above national project proposal is in accordance with the Fijian Government's national priorities in implementing adaptation activities to reduce adverse impacts of, and risks, posed by climate change in Fiji.

The outcome of the proposal complements key areas of Fiji's Climate Change Act, Fiji's National Development Plan, the National Climate Change Policy, National Adaptation Plan and Fiji's Updated Nationally Determined Contributions.

Accordingly, I am pleased to endorse the above project proposal with support from the Adaptation Fund. If approved, the project will be implemented by the Ministry of Public Works and executed by the Secretariat of the Pacific Regional Environment Programme (SPREP).

Please note that this Letter of Endorsement **('LOE')** applies to the Concept Note only. We will issue a subsequent LOE to the accredited entity for the implementation of the project upon receipt of a full Funding Proposal. This will also be subject to a comprehensive review from the Fiji Climate Finance Sectorial Working Group.

Should you require any further information or clarifications, please contact the Principal Climate Change Officer - Finance, Mr. Ravneeth Dewan via email on ravneeth.dewan@environment.gov.fj or telephone +679 8921476.

Yours sincerely,

.....

Hon. Mosese Bulitavu
Minister
Ministry of Environment and Climate Change

ADAPTATION FUND

Revised PFG Submission Form[1] (additions in red)

Project Formulation Grant (PFG)

Submission Date: 10 February 2025

Adaptation Fund Project ID: AF00000427
Country/ies: Fiji
Title of Project/Programme: Fiji Rewa River Catchment Adaptation Programme
Type of IE (NIE/RIE/MIE): Regional Implementing Entity
Implementing Entity: Secretariat of the Pacific Regional Environment Programme (SPREP)
Executing Entity/ies: Secretariat of the Pacific Regional Environment Programme (SPREP)

A. Project Preparation Timeframe

Start date of PFG	1 June 2026
Completion date of PFG	31 December 2026

B. Proposed Project Preparation Activities ($)

List of Proposed Project Preparation Activities	Output of the PFG Activities	US$ Amount	Budget note[2]
Stakeholder consultations and site visits. These will involve visit to 40 village seeking consent for the project and discuss proposed project activities	• 40 Consent forms signed • 40 attendance registers • Stakeholder consultation report	50,325	• DSA USD321x 25 days x 3 people = 24,075. • Local transport- Lumpsum 5000. • Fuel allowance for Government vehicles -1,250 • Traditional Protocol for village visit (sevusevu, kava)- 5000. • Catering and venue for meetings- 15,000
Full proposal design and formulation including required assessments	Full proposal and required annexes	83,000	Consultancy firm based on market rate

[1] As presented in AFB/PPRC.33/40 Annex 1.
[2] The proposal should include a detailed budget with budget notes indicating the break- down of costs at the activity level. It should also include a budget on the Implementing Entity management fee use.

Validation workshop	Validated full proposal	4875	Workshop costs 50persons x 1 day x 55 conferencing charges per person
Implementing Entity Management Fee		11,747	Follow a 8.5% used in the CN
Total Project Formulation Grant		**149,947**	

Please describe below each of the PFG activities and provide justifications for their need and for the amount of funding required:

The funding proposal will be prepared based on the endorsed concept note, addressing Adaptation Fund Boards comments and expectations, if any. It will be prepared with the involvement and validation of national, sub-national and local stakeholders, including field level consultations in the targeted communities. The information gathered will be location specific, recent, quantitative and qualitative as much as possible. PFG activities will include the following:

Full Proposal Formulation and Annexes
Information gathering from assessment will be undertaken to develop the full proposal and require annexes including:

- A description of the context: climate rationale (providing contextual information on the impacts of climate change on targeted sectors and livelihoods; and demonstrated causal linkage between climate drivers and their impacts with the proposed activities); policies and strategies of relevant policies and strategies, review of existing vulnerability/risk assessments, and barriers for local authorities to take adaptation actions.
- Assessment of beneficiaries, their selection of adaptation measures, and market assessment of available technologies and local suppliers, cost-benefit analysis of the proposed interventions and costings
- Finalization of selection criteria of beneficiaries to ensure equitable distribution of benefits across target communities, households and individuals in line with the gender assessment and action plan.
- Stakeholder engagement and project implementation plan defining the roles and responsibilities of each government institution, implementation partners and stakeholders at the national, provincial, district and community level in the project implementation and monitoring at different levels. The plan will include measures to mitigate financial, technical, reputational, security and other risks.
- Detailed Results Framework for the project, including SMART indicators and targets aligned with the Adaptation Fund's Results Framework. This will include a costed M&E and knowledge management plan
- Gender assessment and costed gender action plan
- Environmental and Social Safeguards assessment and costed Environmental and Social Management Plan (ESMP)
- Detailed budget and budget notes including quantification of stakeholders' in-kind contributions
- Sustainability and exit strategy

Key Assessments:
Infrastructure upgrades and technical specification:
This assessment will identify scope of upgrade requirements, new equipment requirements and technical specifications as well as development costed bill of quantities.

Cost-Benefit Analysis:

The cost-benefit analysis of the proposed interventions based on local costing will be undertaken to determine project viability.

Gender Assessment and Action Plan:
Development of a full gender assessment and action plan in alignment with the AF Gender Policy and any guidance materials or templates. Documentation will ensure the development of gender-sensitive outcomes by addressing gender issues in design through in-depth gender assessments of the target communities. This will identify needs and contextual factors affecting male and female stakeholders. Assessments will include economic and social challenges and opportunities faced by women and other groups, assessed through stakeholder and beneficiary consultation. A costed Gender Action Plan for the project will be developed to ensure equity for men and women and other social groups in access to project/program benefits, identifying gender-responsive measures to address differences, identified impacts, risks, and opportunities. The plan will include indicators and sex-disaggregated targets in the project results framework.

Environmental and Social Safeguards Assessment:
Environmental and social assessment studies will be developed to ensure that the project is implemented in an environmentally and socially sustainable manner and in full compliance with the environmental and social policies and regulations of the AF, SPREP and the respective government. An in-depth ESIA will be carried out to identify possible environmental and social impacts and better assess the risk level of the project, based on the country's ESS policies and guidelines, SPREP and AF's Social and Environmental and Social Safeguards Policies and guidelines. The project has been preliminarily assessed as Category B. An environmental and social management plan will scope the main environmental and social safeguards risks and identify mitigation measures through consultations and lessons learned. The ESMP will be developed to align with the Environmental and Social Policy of the Adaptation Fund's Environmental and Social Policy and SPREP's policies.

Site visits and Stakeholder Consultations and Validation Session:
Site visits and stakeholder consultations will be undertaken in parallel to reduce consultation fatgue. The stakeholders' workshops for validating the project design and gathering inputs for full proposal development are critical for ensuring that the project aligns with local needs and conditions. These workshops will involve a diverse group of stakeholders including traditional leadership, community members, local government officials, NGOs/CSOs, experts, and other relevant parties. The activities in these workshops include presenting the initial project design, discussing its goals, methods, and expected outcomes, and soliciting feedback and suggestions. This participatory approach ensures that the project benefits from local knowledge, addresses actual vulnerabilities, and enhances community buy-in and ownership. The feedback collected is then used to refine the project proposal, making it more robust, context-specific, and likely to succeed in achieving its adaptation goals. Three levels of consultation and validation are planned as follows:

- Consultations in 40 villages in Rewa District
- Consultations at provincial level
- Consultations at national level
- A national validation workshop with representatives from Rewa Province

C. Implementing Entity

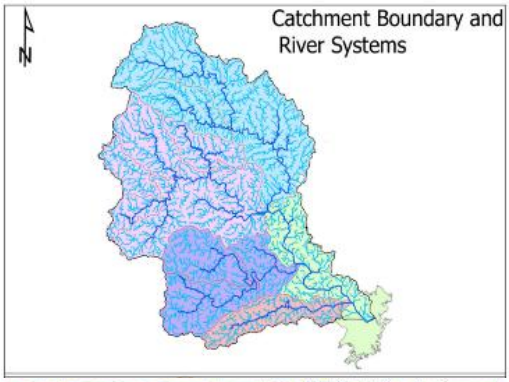
This request has been prepared in accordance with the Adaptation Fund Board's procedures and meets the Adaptation Fund's criteria for project identification and formulation

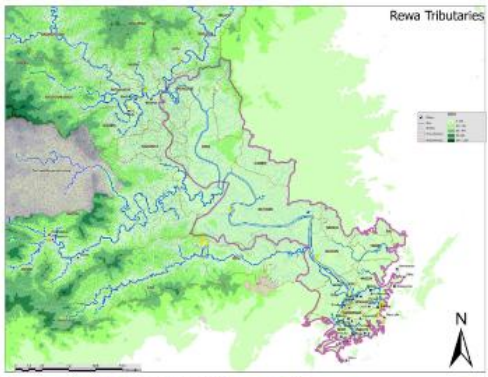
Implementing Entity Coordinator, IE Name	Signature	Date (Month, day, year)	Project Contact Person	Telephone	Email Address
SPREP		12/19/2025	Filomena Nelson, Climate Change Adaptation Advisor	+685-21929	filomemenan@sprep.org

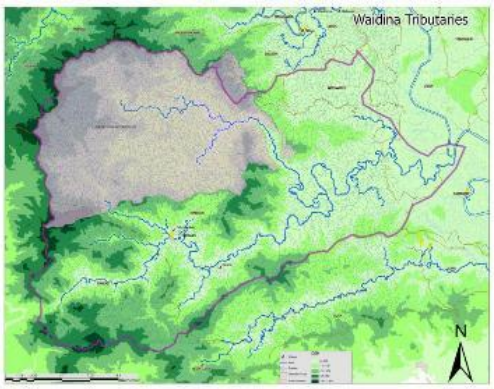
ANNEX II List of villages/beneficiaries

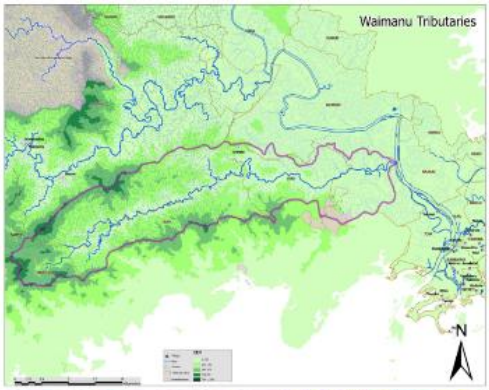
No#	Province	Villages	Coordinates	Tikina	Population	Male	Female
1	Tailevu	Vuci	18°04'59"S 178°35'30"E	Tokatoka	272	125	147
2		Vanualevu	18°06'01"S 178°34'23"E		63	38	25
3		Nakaile	18°04'34"S 178°34'33"E		324	162	162
4		Draubuta	18°04'12"S 178°34'50"E		565	283	282
5		Lomainasau	18°04'00"S 178°35'34"E		309	163	146
6		Nabitu	18°03'51"S 178°35'45"E		317	158	159
7		Vanuadina	18°04'40"S 178°35'23"E		275	145	130
8	Naitasiri	Naseavou	18°00'25"S 178°12'42"E	Waidina	130	79	51
9		Delailasakau	17°59'57"S 178°12'40"E		158	86	72
10		Nasirotu	18°01'17"S 178°14'41"E		155	62	93
11		Nasele	18°01'21"S 178°14'24"E		153	89	64
12		Ararata Farming Settlement	17°59'51"S 178°25'38"E		130	80	50
13		Naluwai	17°49'50"S 178°19'40"E	Rara	357	193	164
14		Waidracia	17°49'49"S 178°18'41"E		204	111	93
15		Serea	17°50'53"S 178°18'05"E	Soloira	798	378	420
16	Rewa	Navaka	18°04'57"S 178°36'14"E	Noco	176	96	80
17		Nakuruwai	18°05'37"S 178°36'01"E		60	27	33
18		Matanimoli	18°04'57"S 178°36'14"E		179	86	93
19		Narocake	18°05'49"S 178°36'58"E		195	114	81
20		Nalase	18°06'39"S 178°36'07"E		106	52	54
21		Vunisei	18°06'39"S 178°36'07"E	Dreketi	163	78	85
22		Nadoria	18°06'48"S 178°35'59"E		141	63	78
23		Suvalailai	18°06'26"S 178°35'26"E	Burebasaga	44	21	30
24		Waivou	18°05'56"S 178°34'05"E		307	170	137
25		Naivisara	18°05'38"S 178°36'19"E		106	58	48
26	Tailevu	Nabulini	17°39'36"S 178°17'18"E	Wainibuka	162	88	74
27		Navesau	17°39'24"S 178°16'40"E		176	92	84
28	Ra	Tobu	17°38'16"S 178°15'48"E	Nababa	186	98	88
29		Navuniyaumunu	17°30'03"S 178°07'37"E	Tokaimalo	102	56	46
30		Nabalabala	17°30'08"S 178°10'50"E		79	49	30
31		Navavai	17°31'34"S 178°06'20"E		19	13	6
32		RaviRavi	17°31'31"S 178°06'27"E		170	86	84
33		Vunisea	17°29'25"S 178°08'54"E		91	48	43
34		Narauyaba	17°31'23"S 178°06'25"E		54	37	17
35		Nalalawa	17°37'53"S 178°15'46"E	Nalawa	252	132	120
36		Rokovuaka	17°37'17"S 178°16'27"E		231	108	123
37	Rewa	Vunuku	18°07'35"S 178°33'33"E	Rewa	141	67	74
38		Tavuya	18°02'27"S 178°32'16"E		249	126	123
39		Vunisei	18°03'12"S 178°33'19"E	Toga	281	147	134
40		Navatuyaba	18°03'55"S 178°33'21"E		541	267	274
Total					**8,428**	4,331	4,097

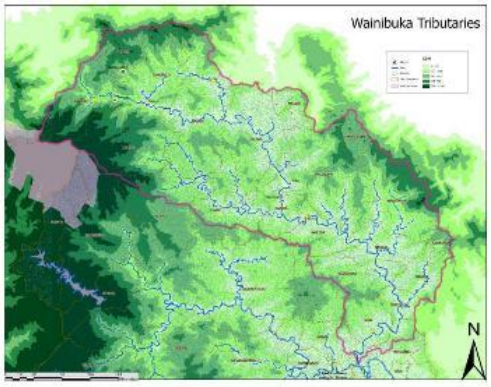
ANNEX III -Maps

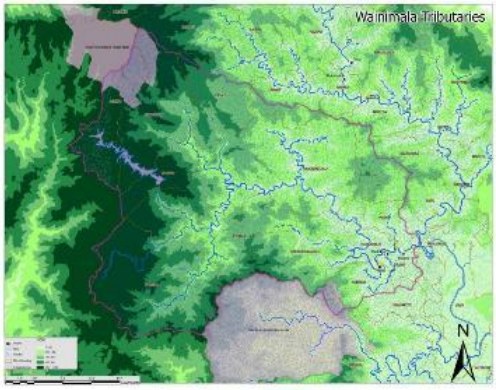












ANNEX IV - Scoping Report

The “Fiji Rewa Catchment Adaptation Programme” will directly benefit 40 villages in the Rewa River Catchment, covering provinces of Ra, Naitasiri, Tailevu and Rewa. Between 5-16 December 2024, visits were made to selected villages as a scoping exercise. The visits collected information regarding, village profile, vulnerabilities to flooding, ecological characteristics, presence of women and youth groups and any NGOs that the village has benefitted from. The map that indicates the sites visited is provided below followed by a table that provides information compiled per village.

Table 13 Details of villages visited during scoping exercise

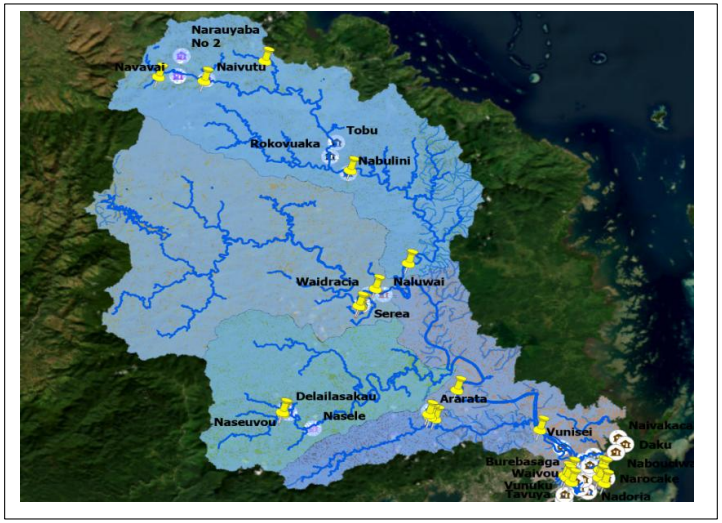
Num	Village name and profile	Vulnerabilities as articulated by community members	Ecological characteristics	Organization (women and youth groups, NGOs)	Training needs requested
1	Burebasaga Tikina with villages Suvalailai, Waivou and Naivisara Coordinates: 18°06'26"S 178°35'26"E Total population for 3 villages 340 people with 51 Households. Livelihoods are from farming. Crops include Taro, coconuts, Vegetables (Kumala), Sweet Potatoes. Dairy farms which use Juncao Grass for feed to animals.	The community is facing significant environmental challenges. The rising water table and riverbank erosion have led to a loss of land, while poor drainage and damaged floodgates have caused frequent flooding, especially during cyclones. This has made it impossible to grow crops like sugarcane, cassava, and yams. Additionally, the river's current has driven away crabs, prawns, and mussels, forcing women to travel long distances to collect these aquatic species. They must row for two hours, passing two villages, and carefully time their journey with the tides to ensure they can navigate the boat. This arduous process highlights the severe impact of environmental changes on their livelihoods.	The community has lost an estimated 2-3 acres of land and several coconut trees that were growing by the river, due to riverbank erosion. The dredging of rivers has led to a decline in the abundance of prawns, crabs, and mussels. Additionally, stagnant floodwaters have created breeding grounds for mosquitoes.	The Nacokoni Women’s Group, established in 2009, engages in mat making and tie-dye activities. There is also a Sub-Committee focused on erosion control using Vetiver grass. The youth group participates in village clean-ups and sports. Several NGOs have provided support, including Rugby League, ADRA (which supports the agricultural value chain by making flour from cassava), and the Government of China, which has funded mushroom planting activities.	The community is seeking training in food processing and producing high-quality flour for export. Additionally, the youth are interested in agricultural training, specifically Tua Tua farming, which involves raised beds to combat saltwater intrusion. These training sessions should be conducted within the village and include school dropouts, providing informal education opportunities.
2	Vuci village in Tikina Tokatoka Coordinates: 18°04'59"S 178°35'30"E Village present at the meeting were from Vuci,	Severe flooding from the Yakaivuci River has significantly impacted homes, roads, and agriculture. The new culvert needs reassessment as it fails to channel water correctly, and the existing 2-barrel floodgates require maintenance. Solid waste management and grey water disposal are major	The community has experienced a decline in fish, crabs, and prawns due to pollution, temperature changes, and saltwater intrusion. High tides	The Naivirourou Women’s Club, which has 54 registered members, is actively engaged in various activities. The youth group was previously active, but now 50% of the youths are in Australia	Village requested training on Climate Smart Agriculture and restocking for abundant fruits/vegetables.

	Vanuadina, Nabitu, Nakaile, Draubuta, Lomainasau, Vanualevu. Their combined population is 1.962. Farmers are men that cultivate Dalo and cassava only. Women collect shrimps and crabs from mangroves.	issues, contributing to waterlogging, reducing usable land, and causing crop damage and infrastructure challenges. Improving drainage systems is crucial. Pregnant women face increased vulnerability, unable to travel to clinics during floods. Communities have started adapting by building houses on stilts. Waterlogging has led to the loss of arable land, reducing crops like yams and rice.	have limited the collection of juvenile shrimps. Additionally, the size of coconuts has decreased, impacting copra production. Stagnant water in the village has forced villagers to travel farther to catch crabs. Mangroves have also declined due to land reclamation for development.	through an employment scheme. Several NGOs have provided support, including UN-Habitat, which worked on water supply projects, and Habitat Fiji, which helped rebuild homes after Cyclone Winston.	
3	Serea Coordinates: 17°50'53"S 178°18'05"E Serea comprises of 3 sub-villages. Population is 153 for Navatukia with 34 Households (HHs) and in Vaikalou village there are 25-30HHs, in Vunidawa there are 27 HHs +40HHs in settlement (67 in total). Including population of Navatukia settlement which has more than 50 people. Taro, Banana, Cassava, Ginger, dairy farming and kumquat cropping is source of livelihood.	The village primarily relies on Dalo/Taro crops for income. However, farmland erosion is severely impacting livelihoods and income. Significant soil loss has led to some Mataqali losing land while others gain, causing potential village disputes and longstanding boundary issues dating back to the 1970s. Flooding further complicates matters, necessitating drainage improvements within the village and around roads, as the school is also affected by floods. Increased rainfall intensity has rendered existing drains and 1950s-built culverts inadequate, causing road flooding during heavy rains. Houses are perilously close to the river, some just 10 meters away, potentially requiring village relocation. Additionally, there are cases of Leptospirosis from dairy farms, though no dengue cases have been reported.	Riverbank erosion is posing a significant threat to village assets, with the community worried that it could erode half of the village. Nearby gravel extraction is worsening the situation. The river, once deep and home to large fish, has become shallow due to siltation. Tragically, two people recently drowned in the river.	The Health and Education Committees serve three neighbouring villages jointly. Each village has its own Women's Committee, and there is an additional Women's Committee at the Tikina level. The Jobs for Nature initiative, supported by the World Bank, involves women's groups from three villages in solid waste management, footpath construction, poultry farming, and kumquat planting. The Ministry of Women and Poverty Alleviation has provided support to these women's groups by offering sewing training and supplying a freezer and grass cutter.	Specific training needs in areas such as disaster preparedness, solid waste management, agricultural best practices, and health and accessibility improvements.

4	Matanimoli village in Tikina Noco comprising of villages Nabudrau, Nakuruwai, Narocake, Taci, Navaka, Naqarani, Nacuru, Naivilaca, Matanimoli, Nakauwara. For this project we will cover Navaka, Nakuruwai, Matanimoli, Nalasa, Narocake Coordinates: 18°04'57"S 178°36'14"E Total population is 1,415 for all villages listed. Livelihoods fishing and farming.	Matanimoli Village faces severe road inundation during heavy rains, which is worsened by high tides. Built on wetland areas by a dredger, the village now experiences salt intrusion on agricultural lands, leading to low crop yields. The existing floodgate exacerbates flooding and needs repair. Villagers prefer constructing a seawall over raising the levee to protect against river erosion and secure the village hall/evacuation centre. Increased siltation has reduced river depth, necessitating a culvert retrofit, road level raising, and improved drainage. Mangroves are cleared for firewood, and existing village drains need redesigning and maintenance. Although women are traditionally restricted from farming, children travel to school by truck, avoiding disruptions during floods.	The village is facing more frequent flash flooding, worsened by high tides, which leads to stagnant water and siltation affecting house foundations and septic tanks. Saltwater intrusion has forced the relocation of crops like Dalo, Vudi, Via, and cassava, and rice is no longer cultivated. Flooding has caused over FJD50,000 in infrastructure repairs, impacting more than 40 houses and four village halls. Stagnant water is also increasing the prevalence of waterborne diseases such as dengue and malaria.	The Matanimoli Youth Club, founded in 2023, boasts over 60 male members aged 17 to 38. They undertake self-funded projects such as footpath construction and the installation of 10 solar lights. Their long-term goal is to establish a village dispensary, which requires bedding and first aid resources. The Matanimoli Women's Group, established in 2007, has over 52 members. They are involved in traditional handicrafts and converting Via plants into flour, for which they need machines and mixers. Their long-term projects include creating a library for children and painting the village hall. ADRA is assisting the community with food processing, including making flour from Taro and breadfruit, as well as producing chips. These products will be showcased in markets.	The village requires training in solid waste management due to its limited land mass, as well as an introduction to Juncao technology. They are also interested in Taro planting, particularly in swampy areas. Additionally, the village needs training on Non-Timber Forest Products (NTFP) value chains, including honey, mushrooms, and coconut oil, to support livelihoods as marine resources decline.
5	Nalalava Coordinates: 17°37'53"S 178°15'46"E Population is 254, with 54 households. The community cultivates	The village has experienced severe flooding during Cyclones Kina (1992), Winston (2016), and in 2018, necessitating the use of the community hall as an evacuation center. However, residents must move uphill when it	The community has reported that the river's water level has risen significantly, leading to frequent flooding. Heavy rains	The village has established committees for business, education, women, youth, church, social welfare, conservation/environment, and health (Yaubula). The	They want training in sewing, tie and dye, flower arrangements to sell along road.

	watermelon, ginger, cucumber, banana, turmeric, and voi voi. Fishing is a common activity, and they have beehives but lack a honey extraction machine, relying on someone from Barotu to extract the honey. On one occasion, the person didn't arrive on time, resulting in the loss of the queen bee and honey.	floods. They lack a dispensary, forcing the nurse to manage without a proper place for medicines during floods. A new lower-level bridge exacerbates flooding issues. During floods, older residents need to be carried to safety. The village also faces occasional water shortages and plans to construct a large tank, funded by household contributions. The community has five beehives and protective gear but needs its own honey extraction machine.	cause landslides, and the rising water levels of the Wainibuka River also contribute to village flooding.	Nalalawa Women's Club, which has 42 members, was established long ago and registered in 2024, and they have a bank account. The Jobs for Nature project has helped by digging drains, reducing stagnant water, and preventing dengue. UN Habitat has supported the community with post-cyclone recovery efforts.	
6	RaviRavi. Coordinates: 17°29'25"S 178°08'54"E Tikina Tokaimalo (has 11 villages- Nailawa, Matevikai, Balabala, Vunisea, Nayaulevu, Manyava, Vuniamunu, Naivutu, RaviRavi, Navavai, Nayawe). This project will only cover Navuniyaumunu, Nabalabala, Navavai, Narauyabe 1 and Narauyabe 2 and Vunisea. Population for Naivutu is and for Raviravi is 170+ with 32 and 39 households respectively. Livelihoods are farming and fishing. Men cultivate Kawa, pine, turmeric, and vegetables, while women plant Voi Voi to make	The village urgently needs climate-proofing for roads and culverts to address frequent flash flooding and mobility issues, which impact education. Landslides and Cyclone Winston in 2016 caused significant damage to infrastructure, water supply, and the ecosystem. Since 2018, the government has provided support for housing, water, food, and roads. Changing climatic patterns have led to altered rainfall and the disappearance of some bird species. Children's education is disrupted during floods, and pregnant women face challenges due to road crossings. Women experience knee pain from the cold and rain. Disabled villagers receive support during floods, and children missed three school days due to flooding in 2024.	The mountainous area experiences heavy rain, causing runoff and flash flooding. Farming on steep slopes is done against contours. Aquatic species have declined since a major flood in April 2004, resulting in murky water and the absence of fish, prawns, and eels. Reforestation has led to increased rainfall and riverbank flooding, preventing planting in those areas and leading to the spread of invasive species like African Tulip. Vetiver grass is widely used. Increased rainfall prompted the Ministry of Health to	The women's groups in RaviRavi and Naivutu villages, funded by the "Friends" NGO, had their beekeeping projects disrupted by Cyclone Winston but have the potential for revival. They are trained in disaster management and fire safety. Under the Jobs for Nature initiative, each village has a women's club that plants fruit trees and cleans drains. Youth groups engage in farming, and girls are learning to make mats. Conservation International has supported reforestation and provided training in seedling management, resulting in improved biodiversity and the return of bird populations. The community, trained in	The community needs training on buffer zones, contour planting, beekeeping, and adding value to cocoa and coconut. They also require financial management and business skills training for women and youth groups, as well as training in cooking, sewing, baking, and screen printing. Additionally, there is potential for eco-tourism development, leveraging local attractions like trails, waterfalls, and unique rock formations.

	mats and fans for the Women's Expo and also farm edible ferns for the market. The river has introduced Tilapia and abundant Matalevu fish, which the community catches and eats daily.		advise against village crop planting due to mosquitoes, leading to the use of alternative planting sites.	ecosystem management, has ceased burning practices, restored trees, and improved river water levels and soil health, allowing crop planting in previously unsuitable areas. Freshwater species like prawns have also returned.	
7	Tavuya Coordinates: 18°02'27"S 178°32'16"E Population is 264 with 56 households. In Tavuya, men collect crabs while women collect small prawns. They sell rourou (Taro leaves) and moci, a Rewa delta delicacy. Women handle crop farming in the village, manage a nursery, grow vegetables like capsicum, cucumber, and cabbage, but face challenges due to lack of male support and land ownership issues.	Flooding in Tavuya is generally limited to the river's edge during cyclones, with major flooding recorded during Cyclones Kina and Winston. However, it is usually not a concern due to the protective mangroves. The village has experienced higher rainfall intensity compared to the past. Stagnant water buildup from heavy rainfall and poor drainage caused a dengue outbreak, resulting in one death in 2020 and another in 2021, though others have recovered.	The village's beekeeping business has stopped due to a lack of initiative. Moci (juvenile shrimp) collection is limited during high tide, and previously deeper areas of the riverbank have become shallow, affecting moci collection.	The village has established committees for women, youth, men, health, kindergarten, and yaubula. The Tavuya Women's Club, a registered group with a bank account, consists of four women's groups that cook and sell food weekly to fund the community kitchen. They also engage in handicrafts every Wednesday. The youth group, with 18 members, assists with village development but is not registered. No NGOs have worked with the village. The village has applied “Jobs for Nature” initiative.	Require training on flower crafting, financial management, bookkeeping.
8	Delailasekau Coordinates: 17°59'57"S 178°12'40"E Population data: Total 158. 86 male, 72 Female. Livelihoods depend on farming. Crops include Dalo, banana, Yaqona ginger.	The village experienced flooding almost 20 years ago, prompting a request to the government for relocation. Although a site has been identified, no confirmation has been received from the government, so individual relocation is not permitted. Crossing rivers is an issue as farms are located outside the river. The Ministry of Waterways and Agriculture intends to divert the river.	Riverbank erosion is a significant issue for the village, leading to the loss of vegetation. Juncao is being used to stabilize the riverbank and as animal feed.	Youth group exists for “Jobs for nature” initiative. No intervention of any NGOs, however the village has been developing proposals to access funding from Government.	Training needed for alterative livelihoods as their crops are affected flooding.



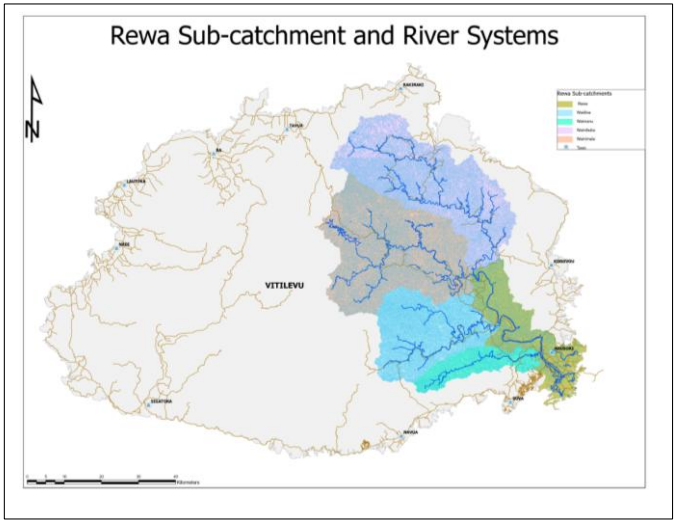


Figure 9 Upper Wainimala River: Serea Village which is experiencing riverbank erosion affecting houses close to riverbank

Figure 10 Matanimoli and Navaka village have floodgates that was built in 1990s and need repair to protect the village against flooding

Figure 11 Lower Wainimala River: Naluwai Village. Riverbank erosion is affecting farmlands through loss of arable land

Figure 12 Timber support struts built by youth of Tavuya village to access the village during high tide to ensure safety and allow for free movement during flooding

Figure 13 Vuci village and the existing 2-barrel flood gate which needs repair through replacement of steel gates.

Figure 14 Evidence of salt water intrusion in Tavuya village through proliferation of Mangrove Ferns (Acrostichum speciosum) which is visible in brown colour in image

CAR8: Please provide a comparative analysis of examined alternative adaptation measures over the project design phase to justify your approach to most efficient in terms of long-term impact, maintenance costs, and sustainability.

Component	Activity	Examined alternatives	Justification for selecting the intervention/activity
Component 1: Climate proofing of infrastructure through Nature Based Solutions	Activity 1.1 Conduct an assessment of areas prone to flooding including and assessment of existing infrastructure such as levees, spillways, channels, floodgates, flapgates and culverts	The alternative would be; instead of conducting a new assessment, rely on historical flood data and community surveys to identify flood-prone areas.	Historical data may not capture recent changes in climate patterns and land use, leading to outdated or incomplete information. Community surveys, while valuable, may lack the technical precision needed for detailed flood risk mapping. Conducting a comprehensive assessment provides up-to-date and accurate data, ensuring targeted and effective interventions.
	Activity 1.2 Repair 4 prioritized floodgates/flap gates to reduce flood risk	The alternative examined was to construct new floodgates instead of repairing existing ones.	Constructing new floodgates would involve higher initial costs and longer implementation times. It may also require additional land acquisition, land disturbances and environmental impact assessments. Repairing existing floodgates is cost-effective and quicker to implement, providing immediate flood risk reduction and experts from Dept. of Waterways vouches that the repairs will extend lifespan of floodgates and provide flood protection for 15 years to 20 years.

	Activity 1.3 Upgrade existing levee system, spillways, culverts and channels and improve road drainage networks to reduce flood risk.	The alternative examined was to build entirely new levees and drainage systems instead of upgrading existing ones.	New construction would be significantly more expensive and time-consuming. It would also require land disturbances and need more extensive environmental and social impact assessments. Upgrading existing infrastructure is more cost-effective and can be completed more quickly, providing immediate benefits while minimizing environmental disruption.
	Activity 1.4 Implement riverbank stabilization and erosion control through planting of riparian vegetation.	Alternative explored was that of hard engineering solutions (e.g., Concrete Retaining Walls) to stabilize riverbanks.	Hard engineering solutions are more expensive, less environmentally friendly, and can disrupt natural habitats. They also require more maintenance over time. Planting riparian vegetation is a nature-based solution that is cost-effective, enhances biodiversity, and requires minimal maintenance once established.
	Activity 1.5 Install 6 new and repair 4 existing telemetry stations for enhanced weather and flood monitoring.	The alternative: explored was that of manual monitoring and community-based reporting for flood and weather data.	Manual monitoring is less reliable and timely compared to automated telemetry stations. It also places a significant burden on community members and may not provide real-time data. Telemetry stations provide real-time, accurate data that is essential for effective flood prediction and management, enhancing overall preparedness and response.

Component 2: Ecosystem Conservation and Livelihoods Enhancement	Activity 2.1 Conduct awareness raising and capacity building sessions in communities for sustainable utilization of mangroves	The alternative explored was to conduct an awareness and capacity building workshop in Suva, where community representatives travel to attend.	This alternative was rejected because of significant higher expenses for travel, accommodation, and logistics for participants and facilitators. Furthermore, only a limited number of community representatives can attend due to logistical constraints. Hence, awareness raising and capacity building sessions will be done at the village level including walks to mangrove sites for a hands-on session on sustainable utilization of natural resources from mangroves.
	Activity 2.2 Provide tools, implements and seedlings to existing mangrove and tree nurseries of Ministry of Fisheries and Forestry	The alternative explored was to give seedlings to communities to plant mangrove trees and other trees	The alternative was rejected because most communities do not have nurseries for mangroves and trees and the project would not be able to monitor progress of tree planting, when the seedlings are handed over to the community. Hence it was agreed that implements, tools and seedlings will be given to the Ministry of Fisheries and Forestry who have established nurseries already and the Ministry would then handover the seedlings to communities, thereby being able to monitor planting and survival rates.
	Activity 2.3: Document Community-Led Initiatives Rooted in Indigenous Knowledge on Climate Adaptation	The alternative explored was to conduct scientific research studies to document indigenous knowledge on climate adaptation.	While scientific research studies offer rigorous data collection and analysis, they were not selected due to their potential cultural disconnect, resource intensity, and limited community engagement. The chosen activity of documenting community-led initiatives rooted in indigenous knowledge was selected for its effectiveness in empowering

			communities, ensuring cultural relevance, and being cost-effective.
	Activity 2.4: Conduct trainings for Women and Youth Groups in Sustainable Mangrove Aquaculture and Value Chain	Alternatives such as centralized workshops, online training modules, and printed materials were considered, they were not selected due to being theoretical and less engaging.	Conducting training sessions within the community is cost-effective, as it reduces travel and accommodation expenses and utilizes local resources. It ensures broader reach and accessibility, allowing more community members, including those with mobility or financial constraints, to participate. In-person training fosters high engagement, local relevance through use of local sites for practical hands-on learning, enabling participants to immediately apply new skills. This approach empowers local members, builds their capacity for sustainable practices, and promotes long-term resilience and self-sufficiency.
	Activity 2.5 Conduct trainings in Climate Smart Agriculture, Sustainable Land Management Practices and Value Chain for Farmers	Alternative training topics considered was mechanized commercial farming that rely heavily on synthetic fertilizers and advanced machinery to increase crop yields and efficiency.	The selected activity of conducting 20 trainings in Climate Smart Agriculture and sustainable land management practices for farmers was chosen for its comprehensive coverage, relevance to climate resilience, and practical applicability. The training includes topics of agroforestry, organic farming and IPM which will help improve health of ecosystems and provide carbon sequestration benefits. The CSA training provides a holistic and effective approach to promoting sustainable agriculture in the Rewa Catchment.

	Activity 2.6 Conduct 5 Trainings for Women's Groups and Persons Living with Disabilities on Non-Timber Forest Products (NTFP) and Value Chain for Income Generation	Alternative explored was eco-tourism.	Eco-tourism requires infrastructure development and marketing efforts, which can be resource-intensive. Tourism can be seasonal, leading to inconsistent income. Conducting trainings on Non-Timber Forest Products (NTFP) and value chain for income generation was selected not only for its cost-effectiveness and broader reach but also for its significant conservation benefits. By empowering women's groups and persons living with disabilities to sustainably utilize NTFPs, the project promotes forest conservation. When communities derive income from NTFPs, they have a vested interest in preserving and protecting forest ecosystems, ensuring long-term sustainability and resilience.

Capacity Building & Institutional Strengthening	Activity 3.1 Conduct Trainings for Sub-National Institutions on Integration of Adaptation Planning into River Sub-Catchment Management Plans	Alternative explored were (1) using consultants to develop Sub Catchment Adaptation plans, (2) Participatory Action Research (PAR) through engaging communities and stakeholders in research activities to collaboratively identify and address local adaptation needs and (3) development of Decision Support Systems (DSS) to use data and models to guide adaptation planning.	While consultants can provide high-quality, expert-driven plans, this approach is not sustainable in the long term. Government officers need to develop the skills and knowledge to continue adaptation planning beyond the project's lifetime. Relying on consultants does not build internal capacity within local institutions, which is crucial for ongoing adaptation efforts. PAR can be resource-intensive and time-consuming, requiring significant coordination and facilitation. While effective at a local level, scaling PAR to cover the entire sub-catchment may be challenging. DSS can be complex and require specialized knowledge to develop and maintain Ensuring that all relevant stakeholders can effectively use and interpret DSS outputs can be challenging. Hence, we selected the activity of conducting training for sub-national institutions on integrating adaptation planning into River Sub-Catchment Management Plans. Training government officers ensures that the knowledge and skills required for adaptation planning are embedded within local institutions, promoting long-term sustainability. This approach builds internal capacity, enabling local institutions to independently manage and update adaptation plans as needed. Training fosters a sense of ownership and accountability among government officers, leading to more committed and effective implementation of adaptation measures.

	Activity 3.2 Conduct awareness sessions to Turaga ni Koros and community members on monitoring and reporting of climate impacts on infrastructure.	Alternative was assigning national and provincial sub-national entities the responsibility to monitor and report climate impacts on infrastructure.	This alternative was rejected because it is not sustainable in the long run and requires significant resources for coordination, travel, and administration, which could be more effectively utilized in direct training sessions. It may not foster the same level of local engagement and ownership as direct awareness sessions with community members. The Turaga ni Koro, being right there in the village, is ideally positioned to monitor climate impacts directly. It is his responsibility to oversee and manage village affairs, including monitoring climate impacts. Providing him with the necessary training through awareness sessions empowers him to fulfill this role more effectively.

	Activity 3.3 Conduct 100 Talanoa sessions at community level with Government, traditional leaders and stakeholders & establish a Divisional Yaubula Working Group	The alternative explored was conducting formal workshops at the provincial level to bring together stakeholders from various communities within the province to discuss and plan adaptation strategies.	The alternative of provincial level workshops was rejected due to it being at a higher sub-national level than the village (top-down). By selecting Talanoa sessions, which will be conducted at village level, the project ensures that community members are actively engaged in a culturally resonant manner, fostering trust, collaboration, and effective adaptation planning. The informal nature of Talanoa sessions helps build trust and a sense of ownership among community members, leading to more effective and sustainable adaptation planning. Further, the creation of the Divisional Yaubula Committee needs to be driven by a bottom-up approach, ensuring that it is rooted in community engagement and local ownership. Talanoa sessions facilitate this by fostering open dialogue and inclusive participation, allowing community members to actively contribute to the decision-making process and ensuring that the committee reflects their needs and priorities.

	Activity 3.4 Develop a webpage and knowledge products (including posters, newsletters, videos) which are women and youth friendly for disseminating the project outcomes	Alternative explored was conducting a Journalists Writeshop. This would engage journalists to create compelling stories on climate change, increasing public awareness and understanding of climate adaptation in Rewa.	The alternative of a journalist's writeshop was rejected because, it would only produce newspaper articles which is for the short term and do not guarantee continuous engagement. The Interactive Webpage and Digital Knowledge Products which are youth friendly were chosen for Activity 3.4 due to their continuous enhanced accessibility and engagement, particularly among youth. This is also cost effective as there is a reduced need for physical materials and workshops. There would be continuous updates and broad reach ensuring long-term effectiveness.
	Activity 3.5 Conduct national workshops for inception stage, mid project and end of project for dissemination of outputs and outcomes.	No alternative was explored for this, as it is a standard practice in all projects to conduct these workshops.	