



GREEN CLIMATE FUND FUNDING PROPOSAL









Mid Term Evaluation of the Tuvalu NAPA-I and NAPA-I+ Project



Final Report

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Disclaimer

The Gender Assessment, included as section 3.3.2. of this report, was prepared by UNDP staff member Karen Bernard, in the capacity of Gender Expert. As to ensure due and comprehensive consideration to gender dimensions within the overall evaluation recommendations, gender recommendations are, where relevant, integrated into the recommendations provided under section 4.2. of this report. To ensure independence of this Mid Term Evaluation, all sections written, and recommendations provided, on gender by Karen Bernard are separated and provided in blue highlight.

Acronyms

APR/PIR Annual Project Review/Project Implementation Report (GEF)

ALM Adaptation Learning Mechanism

AWP Annual Work Plan

AusAID Australian Agency for International Development

CBA Community-based adaptation

CFW Cash-for-Work programme

CO Community Organizer of the NAPA-I and NAPA-I+ project

DCC Development Coordination Committee

DoE Department of Environment

GEF Global Environment Facility

ISP Island Strategic Plan

JICA Japan International Cooperation Agency

LDCF Least Developed Countries Fund

MFATTEL Ministry of Foreign Affairs, Trade, Tourism, Environment and Labour

MTE Mid Term Evaluation

NAPA National Adaptation Programme of Action

NAPA-I Tuvalu project to address priorities identified in NAPA. Project title: Increasing Resilience of

Coastal Areas and Community Settlements to Climate Change in Tuvalu

NAPA-I+ Additional contribution to NAPA-I project by AusAID

NCCAC National Climate Change Advisory Council

PB Project Board

PMU Project Management Unit

RTA Regional Technical Advisor

SPC Secretariat of the Pacific Community

SPREP Secretariat of the Pacific Regional Environment Programme

TANGO Tuvalu Association of Non-governmental Organizations

TNWC Tuvalu National Women's Council

TWG Technical Working Group

UNDP United Nations Development Programme

Executive summary

The Tuvalu NAPA-I project, "Increasing Resilience of Coastal Areas and Community Settlements to Climate Change in Tuvalu", is the first national project to address priorities identified in the Tuvalu National Adaptation Programme of Action (NAPA) involving all 9 islands of Tuvalu¹. The project is being implemented by the Department of Environment under the Ministry of Foreign Affairs, Trade, Tourism, Environment and Labour (MFATTEL), with support from UNDP over a period of 4 years, beginning in November 2009 until November 2013. The project has a total budget of USD 4,369,000, of which USD 3,300,000 is provided by the GEF administered Least Developed Countries Fund (LDCF) and USD 1,069,000 is an additional grant provided by AusAID.

The main objective of the project is to increase the protection of livelihoods in coastal areas from the dynamic risks related to climate change and climate variability in all inhabited islands of Tuvalu. This is to be achieved through three main outcomes: 1) Enhanced capacity to plan for and respond to climate change risks; 2) Implementation of practical community-based adaptation measures (relating to water security, coastal protection and food security); and 3) Capturing, analysing and disseminating project knowledge and lessons learned.

The purpose of the Mid-term Evaluation is to: i) identify potential project design problems; ii) assess progress towards the achievement of objectives; iii) identify and document lessons learned; and iv) make recommendations regarding specific actions that might be taken to improve the project. The scope of the evaluation was to investigate 5 key elements: project design and formulation; project implementation; operations, policies and procedures; results; and lessons learned and recommendations. A range of evaluation methods were used, including a desk review, interviews, focus groups, a time use study and gender assessment.

The project design and approach responds to government and donor needs, and by and large to local community needs. However, the project design did not appropriately consider challenges posed by communications and transport infrastructure to the outer islands of Tuvalu, which has led to severe project delays. Therefore, project design was deemed marginally satisfactory.

In terms of project implementation, the project has achieved some progress towards its objective of increasing protection of livelihoods from risks related to climate change. This has included progress in Outcome 1 for enhancing capacity of public administration to plan and respond to climate change risks, notably through developing national policies supportive of climate change. Further, progress has been achieved under Outcome 2 on enhancing capacities of local communities to adapt to climate change through practical community-based adaptation measures, namely on agriculture and water security. The project has however not linked these activities directly to climate change adaptation. There are delays and shortfalls in implementing national awareness activities, doing community-based risk assessments and plans, implementing effective coastal protection measures; and the whole of Outcome 3 on capturing, analysing and disseminating knowledge and lessons learned. Gender inequalities are evident in the project's decision making structure, and women's specific needs have not been sufficiently considered in project activities. Institutional arrangements have faced challenges in terms of the technical capacity and continuity of the project's management unit; the functioning of the Project's

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¹ Funafuti, Nanumea, Nui, Nukufetau, Nukulaelae, Vaitupu, Nanumaga, Niulakita, Niutao

Board; and the effectiveness of the Community Organizers based in all islands acting as project focal points. Overall project implementation was seen as marginally satisfactory.

Project monitoring has been weak to date. Project reporting is by and large carried out in a comprehensive and timely manner, although there are shortcomings in terms of both results-based reporting and monitoring. Operational and technical problems were identified in the fields of communications and technological infrastructure; recruitment; procurement; and technical capacity. Project finances are overall well-managed. The project has had significant delays in both budget implementation and project execution, whilst adequate adjustments have not been made. The project has succeeded in securing co-financing. Overall operations, policies and procedures were deemed satisfactory.

In terms of results, the project has suffered from inefficient use of funds, with severe delays in budget execution, in particular at national level but also through procurements processed via UNDP. Time use has also been inefficient, with severe delays in recruitment and procurements, and there is low evidence of adaptive management. Overall efficiency has been unsatisfactory. In terms of effectiveness, the project has achieved some results, whilst there have been severe delays in others, leading to overall marginally satisfactory effectiveness. The project has had some impact, including in terms of increasing food and water security and showing that new approaches to planning are required under climate change. Finally, sustainability is deemed marginally satisfactory. Capacity has been increased within government to a certain degree, and a good policy framework is now in place, but more mainstreaming into sectoral departments is required. The project has been weak in building island level capacity, both due to inadequate training provided and to over-reliance on the Community Organizer structure.

In terms of lessons learned, the MTE found that given the limits caused by communications and transport infrastructure to project implementation on outer islands, any project working in outer islands needs to take these limitations into consideration when planning project activities, budgets and timelines. Adequate outreach within the islands is essential. The project has relied on the structure of having Community Organizers based in each island to coordinate project implementation. This structure has had benefits in providing local presence and in kick-starting activities, however, having one person in place is not sufficient to ensure that knowledge and skills provided by the project reach out to the broader community. Climate change, its likely impacts and how this will affect livelihoods is a complex science. Integrating adaptation into the planning and implementation of either on-going or new livelihood activities requires adequate technical expertise. Mainstreaming climate change adaptation into existing government structures such as extension worker models and into sectoral plans can support implementation and ensure initiated adaptation activities are sustained past the life of the project. Capacity and operational limitations in project implementation require adequate support. UNDP played a key role in providing on-going operational support, including in-country. This type of support should be planned for from the outset and sufficient budgetary and human resources allocated.

Finally, a range of recommendations were put forward, as summarized in the table below. In terms of replicability, the MTE found that the participatory process for developing the national Climate Change Policy is commendable and has global relevance. Community-based adaptation activities in water security and home gardening are replicable in the Pacific context, whilst emerging lessons on new methods for growing traditional pulaka crops may be highly relevant across Tuvalu.

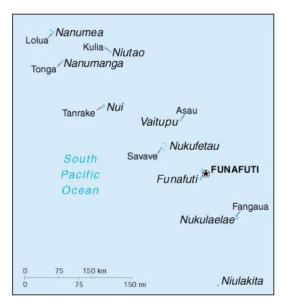
Summary of Recommendations					
1.	Design and implement a training strategy and plan				
2.	Design and implement a local and national awareness campaign on climate change adaptation				
3.	Scale-up and expand activities on home gardening to enhance link with climate change adaptation				
4.	Assess new techniques for growing pulaka under conditions of increased soil salinity				
5.	Scale-up activities on water security to enhance the link with climate change adaptation				
6.	Carry out coastal assessments in outer islands and support coastal protection measures in Funafuti				
7.	Designate project activities targeting specific sub-groups				
8.	nitiate and implement activities to capture, analyze and disseminate project knowledge and lessons learned				
9.	Design and disseminate a project brand				
10.	Revise Project Board composition and communications				
11.	Revise operations of the Technical Working Group				
12.	Ensure staff continuity within PMU				
13.	Establish regular meetings between PMU and Project Manager				
14.	NCCAC establishment and role with DCC and NDC needs to be clarified at national level				
15.	Strengthen collaboration with national and regional organizations				
16.	Strengthen collaboration with key government departments				
17.	Explore options for enhancing communications and transport services				
18.	Strengthen reporting and monitoring systems				
	Urgent delivery of remaining project budget needs to be ensured and facilitated by PMU, Department of Environment, UNDP and PB				
20.	Expedite pending recruitments				
21.	mplement adequate work planning and appraisals for project staff				
22.	Expedite pending procurements				
23.	Maintain regular dialogue between AusAID and UNDP				
24.	A project extension of 1 year is recommended				

1. Introduction and Background

1.1. Project context

Tuvalu is the fourth smallest nation in the world with a landmass of 25.9km² and 9,561 people² scattered across nine inhabited islands. The islands consist of 5 coralline atolls (Nanumea, Nui, Nukufetau, Funafuti, Nukulaelae), and 3 table reef islands (Nanumaga, Niutao, Niulakita) with 1 composite (coralline atoll/table reef) island (Vaitupu), as seen in Map 1 below.

Map 1. Map of Tuvalu (www.fao.org)



As a small low-lying island atoll country, Tuvalu is particularly vulnerable to natural disasters and the impacts of climate change, which is further exacerbated by limited ecological, socio-economic and technological capacities. The small size of the country, alongside its isolated location and dispersed islands, poses major development constraints. Internal transportation is limited, further increasing the isolation of the outer islands. Tuvalu is isolated from global markets and relies heavily on subsistence agriculture and fisheries for sustenance. High dependence on natural resources makes the population particularly vulnerable to climate change impacts on these resources. Anthropogenic activities such as over-fishing, inadequate waste disposal and overharvesting further undermine the sustainability of natural resources³.

All of the islands are extremely low-lying, at 3m or less geographical elevation above mean sea level⁴. Sea level has risen near Tuvalu at a rate of about 5mm per year since 1993, above the global average of 2.8 – 3.6mm per year, and is expected to increase⁵. Temperatures have increased since 1950 at a rate of

² Tuvalu 2002 Census

³ NBSAP, 2010

⁴ Te Kaniva, 2012

⁵ Pacific Climate Change Science Program Partners, 2011

0.21°C per decade, and are predicted to continue increasing. Less frequent, but more intense tropical cyclones are anticipated, in addition to more extreme rainfall days. There is evidence of increasing ocean acidification in Tuvalu's waters⁶. Key climate change impacts to date have included coastal erosion and loss of land; salt water intrusion into water resources, soil and cultivation areas; inundation; drought; storm surges; and coral bleaching⁷.

Climate change is identified as a national priority, exemplified by the adoption of the Te Kaniva Tuvalu Climate Change Policy in 2012. Tuvalu's NAPA (2007) identified a range of priority adaptation measures to enhance community livelihoods and promote sustainable development by reducing adverse effects of climate change, variability and extreme events. Seven priority projects were identified, in the following areas: coastal; agricultural; water; health; fisheries (two projects); and disasters.

The NAPA I project addresses in particular the first priority "to increase the resilience of coastal areas and community settlements to climate change", in addition to including adaptation activities on the second and third priorities on agriculture and water.

Coastal erosion can already be noted throughout the islands of Tuvalu, worsening during periods of cyclones and storm surges, and this is expected to be heightened by sea level rise. This has led to degradation and loss of land, including loss of infrastructure and agriculture. Water quality and availability are already being severely affected by saltwater intrusion, drought and rainfall variability, affecting potable water and agricultural production. Saltwater intrusion has increased salinity of groundwater and soil, affecting in particular such traditional crops as pulaka (*Cytosperma chamissonis*) which are grown close to the water table. Salt-water intrusion is also affecting other crops, and having a direct impact on food security of the subsistence-based agricultural population. Increase in temperature is further expected to diminish agricultural productivity. The drought of 2011 had severe impacts on agricultural production, with some islands still working to recover their pre-drought agricultural productivity.

1.2. Project goal, objectives, outcomes and activities

The Tuvalu NAPA-I project, "Increasing Resilience of Coastal Areas and Community Settlements to Climate Change in Tuvalu", is the first national project to address priorities identified in the Tuvalu National Adaptation Programme of Action (NAPA) and involves all 9 islands of Tuvalu. The project is being implemented by the Department of Environment under the Ministry of Foreign Affairs, Trade, Tourism, Environment and Labour (MFATTEL), with support from UNDP. The project is implemented over a period of 4 years, from November 30th 2009 until November 2013. However, due to a number of institutional realignments with complementary baseline programmes, actual investments by the project only started in March 2010.

The **goal** of the project is to increase the resilience of coastal areas and community settlements to climate change throughout Tuvalu. The **objective** is to increase the protection of livelihoods in coastal areas from the dynamic risks related to climate change and climate variability in all inhabited islands of

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⁶ Pacific Climate Change Science Program Partners, 2011

⁷ Te Kaniva, 2012

Tuvalu. This is to be achieved through three main **outcomes**: 1) Enhanced capacity of public administration, island Kaupules, communities and NGOs with policy support to plan for and respond to climate change risks; 2) Enhanced capacity of local communities to adapt to dynamic climate-related threats through implementation of practical community-based adaptation measures (relating to water security, coastal protection and food security); and 3) Project knowledge and lessons learned are captured, analysed and disseminated to facilitate replication of practical adaptation solutions in all islands.

The three project outcomes and ten outputs are summarized in Table 1 below.

Table 1. List of project outcomes and outputs

Outcome 1. Enhanced capacity of public	Output 1.1 National Development Plan (Te Kakeega II) and		
administration, Island Kaupules, communities	implementation matrix is reviewed to incorporate climate risk and		
and NGOs, with policy support to plan for and	resilience		
respond to climate change risks in coastal areas	Output 1.2 A national climate change policy is developed		
and settlements	integrating coastal zone management issues.		
	Output 1.3 A National Climate Change Advisory Council is		
	established, to support national policy making and planning		
	Output 1.4 A national awareness campaign for local communities		
	and Kaupule is designed and implemented		
Outcome 2 – Enhanced capacity of local	Output 2.1 – Community-based adaptation plans for coastal		
communities to adapt to dynamic climate-related	protection, water supply security, and agricultural livelihood		
threats through implementation of practical	sustainability are developed for all islands in Tuvalu.		
community-based adaptation measures	Output 2.2 – Community-based adaptation projects with a focus on		
specifically tailored to each islands	participatory management of protective ecosystems and climate-		
	sensitive natural resources are designed and implemented in at least		
	1 pilot site on each of Tuvalu's 9 islands		
	Output 2.3 – The results of all community-based demonstration		
	projects are analysed and fed into the formulation of a government-		
	endorsed replication programme		
Outcome 3 – Project knowledge and lessons	Output 3.1 – Climate change information for Tuvalu are analysed,		
learned are captured, analysed and disseminated	updated and disseminated to sectoral planners and policy makers		
to facilitate replication of practical adaptation	Output 3.2 – Lessons learned from community-based adaptation		
solutions in all islands	projects are collated and disseminated to communities, sectoral		
	planners and policy makers on a continuous basis		
	Output 3.3 – Project lessons are shared within and outside of the		
	Pacific region and incorporated into the Adaptation Learning		
	Mechanism (ALM)		

1.3. Project budget

The project has a total budget of USD 4,369,000. Funding is provided by the GEF administered Least Developed Countries Fund (LDCF) to the amount of USD 3,300,000. In addition, AusAID has provided a contribution of USD 1,069,000 (AUS 1,000,000), referred to as "NAPA-I+" to build on existing project mechanisms to enable efficient replication and up-scaling of practical adaptation measures at the community level. The Government of Tuvalu has given an in-kind contribution through the provision of an office space for PMU and operational and financial management support.

1.4. Management arrangements and main stakeholders

The project is being **executed by** the Department of Environment (DoE) under the Ministry of Foreign Affairs, Trade, Tourism, Environment and Labour (MFATTEL). The Director of Environment is the **Project Manager**. UNDP serves as the GEF **Implementing Agency**. A **Project Management Unit** (PMU), formed of a Project Coordinator, an Administrative Assistant and a Works Supervisor, provides general coordination and oversight for the project. Community Organizers (COs) have been hired as field staff for each island to support the implementation of project activities.

The **Project Board** (PB) is responsible for making executive management decisions for the project and to provide guidance to the Project Coordinator when needed. The PB was originally envisioned (in the project document) as comprising of the Director of Department of Environment as the Executive to chair the group, UNDP as Senior Supplier to provide guidance on the technical feasibility of the project, and the Director of Department of Rural Development as the Senior Beneficiary to ensure the realization of project benefits from the beneficiaries' viewpoint. The current membership of the PB is currently compromised of:

- Permanent Secretary, MFATTEL (Chair)
- Director, Agriculture
- Director, Environment
- Director, Finance
- Director, Fisheries
- Director, Home Affairs
- Director, Public Works
- 8 Island Leaders based in Funafuti⁸
- UNDP does not currently have in-country presence in Tuvalu (UNDP was previously represented by the UN Country Development Manager)

A **Technical Working Group** (TWG) has been established to provide technical guidance to the project and facilitate coordination of project activities. The members were originally to be designated to 4 task teams (Water, Agriculture, Coastal Protection and Gender). Members can be co-opted as necessary and technical experts can be invited as required. The members of the TWG are:

- Director of Environment (Chair)
- Representative of Public Works Department
- Representative of Department of Agriculture
- Representative of Department for Rural Development
- Representative of Department for Lands and Survey
- The National Council of Women TNCW
- JICA

The National Climate Change Advisory Board (now National Climate Change Advisory Council) is yet to be established by Government. A Programme Implementation Technical Support Team (PITST), as was originally envisioned in the project document, has not been established.

⁸ The islands of Niutao and Niulakita are administratively joined and are therefore both represented by the Island Leader of Niutao

2. Evaluation purpose and methods

2.1. Purpose and Scope of the Evaluation

The Mid-term Evaluation of the Tuvalu NAPA I project was carried out in accordance with UNDP/GEF monitoring and evaluation (M&E) policies and procedures, which encourage projects with long implementation periods to carry out mid-term evaluations.

The **purpose** of the Mid-term Evaluation is to:

- identify potential project design problems
- assess progress towards the achievement of objectives
- identify and document lessons learned
- make recommendations regarding specific actions that might be taken to improve the project.

It is expected to serve as a means of validating or filling the gaps in the initial assessment of relevance, effectiveness and efficiency obtained from monitoring. The mid-term evaluation provides the opportunity to assess early signs of project success or failure and prompt necessary adjustments. It will also identify initial impact and changes brought about by the project. The Evaluation further carried out a Gender Assessment that will document and analyze gender differences in current adaptation interventions.

The **scope** of the evaluation was to investigate 5 key elements. Specific evaluation sub-questions and indicators/success standards for each of these key elements have been provided in the Evaluation TOR, and have been addressed by the evaluation, as outlined in the Evaluation Matrix (Annex 1). The key elements are as follows:

A. Project Design and Formulation

The mid-term evaluation assessed the extent to which the overall project design remained valid. This included assessing the extent to which project assumptions remained valid; whether the project responds to the needs of Tuvalu in addressing climate change adaptation and whether it is relevant to Government, partners and donors; and the suitability of the project design commensurate with time and resources available. It also included ascertaining the current level of comprehension of the project concept amidst: i) PMU; ii) Project Board; iii) TWG; iv) local communities.

B. Project Implementation

This section evaluates the extent to which the project is achieving its overall Objective, Outcomes and Outputs. It further assesses whether project management and implementation has been effective, efficient and responsive. This includes evaluating the following elements:

- Assessment of overall institutional arrangements
- Gender assessment of project implementation at national and sub-national levels
- The extent to which programme design, implementation and monitoring have taken the following cross cutting issues into consideration: Human rights, Equity and Innovation

C. Operations, Policies and Procedures

The evaluation of operations, policies and procedures focused on the following areas:

- Assessment of the effectiveness of the monitoring mechanisms employed by the project
- Assessment of the quality and relevance of project reporting
- Identification of operational and/or technical problems and constraints that influence the effective implementation of the project
- Assessment of the financial management of the project and co-financing leveraged
- Identification of any programmatic and financial variance and/or adjustments made during the project and an assessment of their conformity and appropriateness

D. Results

The evaluation examined the relevance, efficiency, effectiveness and sustainability of operational activities and results achieved by the project to date. The evaluation assessed the achievements and impact in terms of outputs and its contribution to outcomes as defined in the project document.

E. Lessons Learned and recommendations

The evaluation highlights lessons learned. It puts forward a set of recommendations and assessment of which planned activities are critical for attainment of project Outputs in the remaining time of the project, in addition to assessing the replicability of project activities. Project recommendations on gender issues are provided in blue highlight.

2.2. Methodology of the Evaluation

The Evaluation used a combination of data collection methods as to respond to different stakeholder needs and to enable triangulation of results to strengthen evaluation findings. The Evaluation Team consisted of Ninni Ikkala Nyman (International Consultant/Team Leader) and Tavau Teii (National Consultant). Karen Bernard carried out the Gender Assessment. Full Terms of Reference with respective roles and responsibilities are provided in Annex 2.

The Evaluation initiated with a desk review of a range of secondary data, which included reviewing relevant project, Government and partner documents to assess project progress to date, the quality of reporting and monitoring, financial progress and the history of meetings by the PB and TWG, amongst others. A list of reviewed documents is provided in Annex 3.

An evaluation mission to Tuvalu took place from the $18^{th} - 30^{th}$ April, 2013, and included visits to Funafuti as well as to the outer islands of Niutao and Nanumea (see Map 1). Prior and after the Tuvalu mission, the IC also carried out interviews and meetings in Fiji (please see full mission itinerary in Annex 4).

The mission methodology included key informant interviews with a range of stakeholders ranging from Government, NGOs, local communities, Community Organizers, PMU, members of the PB and TWG, UNDP to donors. Interviews provided a comprehensive overview of project design and implementation

to date, as well as insights into operations, policies and procedures and an indication of results achieved and lessons learned. An interview guide is provided in Annex 5 and a list of people interviewed in Annex 6. A total of 31 people were interviewed as part of the MTE.

Focus group discussions were used with members of the PB and TWG to solicit their views and recommendations on project design, implementation and results to date, and to assess their level of understanding on climate change adaptation and the project concept. A list of focus group participants is provided in Annex 6 and an overview of the methodology used in Annex 7. A total of 18 people participated in these two focus groups.

Focus groups were also used during the island visits to Niutao and Nanumea. On arrival, focus groups meetings were held with the Falekaupule and the Kaupule⁹. Then, focus groups of approximately 10 community members were divided into older women, older men, younger women and younger men. The objective of this sub-grouping was to create an atmosphere in which the specific perspectives and interests of each group could be more freely expressed; this worked well in practice, as each group brought forward noticeably different concerns and experiences in relation to the project. The focus group discussions were conducted in English, with translation into Tuvaluan language provided as needed by a local counterpart.

The focus groups were also used to assess local level of understanding and awareness on climate change and the project's approach. A focus group meeting was also held with the Funafuti Kaupule. A total of 17 Kaupule members were interviewed during focus groups on the three islands. 72 people were interviewed through community focus groups. A list of all focus group participants is provided in Annex 6. Site visits, with key local informants, were carried out in Funafuti, Niutao and Nanumea. An overview of the methodology used during island visits to Nanumea and Niutao is provided in Annex 8.

The instruments used for the various focus groups and interviews had gender mainstreamed into their design. A specific gender assessment was also carried out through a combination of background reading, focus group interviews, key informant interviews, project site visits, field observation and a time use study. During the time use study, a total of 101 people were interviewed, of these 51 women and 50 men. The persons interviewed covered a range of ages, from 18 to 82 years old. These interviews were distributed equally among each of the three locations: Funafuti, Niutao and Nanumea. The majority of the interviews were held in Tuvalu language and conducted by a Tuvaluan researcher (the NAPA I Project Assistant) as this was considered more comfortable for those being interviewed. The numerical data was double checked and verified, and the data integrity considered high.

Once gathered, the data was then analyzed in terms of implications for the project's scope and activities, and how these could be adjusted to ensure greater gender equality, with detailed recommendations to this end. The gender equality criteria considered of relevance for the NAPA I were: gender balance in participation in project activities, decision-making on project resources and activities, and gender differentiation of climate change impacts and adaptation practices as related to the project. For further details on the objective and deliverables of the gender assessment, please refer to the Terms of Reference in Annex 2. Project recommendations on gender issues are provided in a blue highlight.

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⁹ The Falekaupule is the traditional Assembly of each island, formed of a council of elders. The Kaupule is the executive arm of the Falekaupule, constituted by election of 6 members.

A range of participatory M&E approaches had originally been planned for the evaluation. The Most Significant Change approach was used with PMU, PB and TWG members to gain their views on the impact they believed the project had achieved to date. The visits to Nanumea and Niutao were originally planned over two days. In the end, due to transport complications, the visits had to be cut down to less than a day per island, thereby limiting the time available for use of participatory M&E methodologies. Instead, a combination of interviews, focus groups, time use study and site visits were used, as described above.

Overall, the MTE reached out to a substantial amount of people, as shown in Table 2. Whilst there was slight overlap (for example some Kaupule members were also in focus groups, whilst some PB and TWG members were also interviewed individually), the MTE reached out to over 200 people involved in, or relevant for the implementation of, the project. This high level of participants is believed to have provided a very comprehensive view on beneficiaries' perceptions of the project. Before leaving Tuvalu, a presentation of preliminary results was held for key stakeholders (see Annex 6), to receive initial feedback, which was integrated into the Interim Draft Report delivered before the end of the mission. The Interim Draft Report, as well as a Full Draft Report, were circulated to UNDP, PMU, Government of Tuvalu and AusAID for inputs before finalizing this report.

Table 2. List of people interviewed and participants in focus groups

Methodology	Number of people interviewed or participated in focus groups	Women	Men	Of which Youth ¹⁰
Interviews	31	12	19	
PB and TWG focus groups	18	1	17	
Kaupule focus groups	17	1	16	
Community focus groups	72	39	33	32
Time use study	101	51	50	30
Total	239	104	135	62

3. Findings and conclusions

3.1. Introduction

This section assesses project design; implementation; operations, policies and procedures; and results in accordance with the Mid-Term Evaluation TOR and related key questions and sub-questions as defined in the Evaluation Matrix (Annex 1). The findings are classified in accordance to the main evaluation questions. At the end of each key evaluation component (design; implementation; operations, policies and procedures; and results), a conclusion and summary of findings is provided.

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¹⁰ Youth is defined as 18-35 year olds

A 4-point rating is provided for each key evaluation question: Unsatisfactory (U); Marginally Satisfactory (MS); Satisfactory (S) and Highly Satisfactory (HS). An overall rating is also provided for the key elements evaluated: project design; implementation; operations, policies and procedures; and results.

For the Objective, Outcomes, and Outputs, a 4-point rating, as well as an estimate on status of delivery, is provided based on a review of indicators and targets set in the Strategic Results Framework in a Summary of Evaluation Findings (Annex 9).

3.2. Project Design

This section assesses whether the overall project design remained valid. Key questions address the validity of project assumptions; whether the project responded to the needs of Tuvalu in addressing climate change adaptation and is relevant; and the suitability of the project design commensurate with time and resources available. It also includes an assessment of the current level of comprehension of the project concept amidst: i) PMU; ii) Project Board; iii) TWG; iv) local communities.

3.2.1. Project assumptions

Key question 1 - Do the project assumptions remain valid?

The project document defined a series of assumptions as root causes of vulnerability and barriers to climate change resilience that the project would aim to address.

The project assumption with regards to low capacity in planning and responding to climate change adaptation is accurate, especially at the local level for Kaupules and communities. Capacity is notably stronger at national level within government.

At project inception, there was a lack of plans and policies addressing climate change, which has been addressed during the project's lifetime, including through support by the NAPA-I project for the review of the Te Kakeega II National Strategy for Sustainable Development and the development of the Te Kaniva Climate Change Policy.

In terms of lack of coordination between institutions, organizations and communities, the assumption is deemed accurate, and the problem persists. The project has strengthened coordination, but primarily through the existence of Technical Working Group (TWG) and Project Board (PB) and between members specifically participating in these bodies. The project has to some degree enhanced coordination between the capital and the outer islands on climate change planning, mainly through the Community Organizers. However, this relationship has primarily strengthened coordination between PMU and the COs, rather than with the Kaupules or communities at large (see section 3.3. below for further details).

Low level of awareness on climate change remains an accurate assumption. The level of awareness has increased slightly through project, in particular amidst COs, PB and TWG members, although overall the level of understanding on climate change and how to plan for and manage for adaptation responses remains low, in particular at the local level.

3.2.2. Relevance

Key question 2 - Does the project design and approach respond to the needs of Tuvalu in addressing climate change adaptation and is the project relevant to government, partners and donor policies?

The project is relevant to national priorities as defined in the National Development Plan Te Kakeega II. Further, the project is fully in line with the Te Kaniva National Climate Change Policy. Climate Change is recognized as a priority area of work for the Department of the Environment and it is high on the agenda for Tuvalu in terms of foreign policy, as it is discussed at international environmental negotiations and policy fora. Interviews with government representatives further confirmed the relevance of the project for the work of several sectoral Departments, including on-going work by the Department of Agriculture in areas such as home gardening and testing of salt-tolerant crop varieties; to the Public Works Department in its work on water provision and security; Department of Education's work in mainstreaming climate change into the curricula; and Department of Rural Development for the outreach to all the outer islands and integration of climate change into local planning. Unfortunately, many of these links between the project and such relevant Departments has to date remained ad hoc or weak. Whilst many sectors in Tuvalu do not have individual policies, the issue of climate change adaptation remains relevant for sector plans.

At community level, several Falekaupule and Kaupule representatives identified the threats caused by drought, salinity, seal level rise and coastal erosion to the development of their islands. In that sense, the NAPA project is very timely in identifying adaptation responses around food security, water security and coastal protection. However, in many instances coastal protection was identified by Kaupule and community members as their primary concern. It is only prioritized as a NAPA project priority area in 3 islands (Funafuti, Nukulaelae and Nukufetau). Given the NAPA priorities were identified by Falekaupule during the project preparation stage in 2008, the project does not necessarily respond to the primary needs currently identified by community members during the evaluation.

The project responds directly to the priorities identified in the Tuvalu NAPA, thereby fulfilling a key criterion set by the LDCF. It also identifies adaptation activities, although, as described below, on occasion some of the current activities being implemented appear more like business-as-usual development or conservation activities rather than adaptation activities. The project responds to AusAID priorities, who have flexibility regarding project priorities, as long as these are aligned with government's priorities.

3.2.3. Suitability commensurate with time and resources available

Key question 3 - Is the project suitable commensurate with time and resources available?

An unrealistic amount of project activities and deliverables were designed within the project time frame, in particular given national capacity constraints in implementation and logistical limitations, including regarding transport and communications to outer islands. Constraints in communications and transport limit the feasibility of achieving all project activities within the set time frame. For example, providing project inputs for home gardening and water security has taken longer than planned at project design phase due to irregular shipping schedules.

Further, the recruitment and training of COs and enhancing island level capacity took time in the beginning of the project, before on the ground activities could be initiated, again due to challenges with outreach to islands. The COs were away from their islands for a period of two months for their initial training.

Use of resources has been inefficient throughout the project. By the end of 2012, the project had spent only around USD 1,016,776.09 or 23% of the total project budget of USD 4,369,000. Relative to the budget that has actually been implemented, the project has achieved reasonable progress in component 1 on policy development, and in Component 2 with regards to food security and water security. There are overall severe delays in budget implementation, and in delivery of activities with regards to Outputs 1.3. NCCAC; Output 1.4. National Awareness; Output 2.2. with regards to coastal protection; Output 2.3. Analysis of community-based demonstration projects; and Outcome 3 on capturing knowledge and lessons learned in general, including Output 3.1. Analysing, updating and disseminating climate change information; and Output 3.2. Collating and disseminating lessons learned.

3.2.4. Level of comprehension of project concept

Key question 4 - What is the current level of comprehension of the project concept amidst i) PMU; ii) Project Board; iii) Technical Working Group; iv) local communities?

The PMU has a very good understanding of the project concept, including how it is structured, its objectives and activities, institutional arrangements, as well as UNDP reporting and financial requirements. There is some lack of familiarity with the log frame and results-based management approach, and the current PMU has not received training on this. The lessons learned approach essential to Outcome 3 has also not been thought through.

The Project Board has a varied level of understanding on the project concept and on climate change adaptation, in particular amidst the Island Leaders who have joined the Board later on in the project. For example, several Island Leaders mentioned their interest in building sea walls for their islands under the NAPA project, whilst the project document (output 2.2.) specifies a focus on community-based adaptation projects with participatory management of protective ecosystems and climate-sensitive natural resources. The document specifically refers to soft engineering technology rather than hard infrastructure for coastal protection. This can create unrealistic expectations within the PB on what the project can be expected to deliver, especially at community level.

The Technical Working Group overall has a good level of understanding on the project concept, as well as good technical knowledge and capacity on climate change and a range of sound ideas to provide technical guidance.

The level of knowledge on the project concept was generally low amidst local communities. Community members had knowledge on specific project activities, especially on home gardening. With regards to water security, there was some confusion with regards to which activities were under the NAPA, which under other donors. The level of understanding on coastal protection measures was low, as was the understanding on climate change in general, and how NAPA project activities linked to climate change adaptation planning and management in particular. On Niutao, the Kaupule had low level of awareness on the NAPA project, whilst the Kaupules in Funafuti and Nanumea were more aware of NAPA activities.

3.2.5. Conclusions and summary of findings

The project assumptions with regards to lack of capacity, lack of plans and policies, lack of coordination and low level of awareness on climate change adaptation remain valid or have been partially addressed by the project. The project design and approach responds to government and donor needs, and by and large to local community needs. The exception to the latter is the high local prioritization of coastal protection and the failure by the project, to date, to address this problem effectively (see 3.3.1. below for further details). Overall, due to an unrealistic amount of planned activities, in particular in light of inadequate consideration at planning stage to the challenges posed by transportation and communications to the outer islands and related delays in project execution, as well as a severe delay in budget implementation and delivery of several outputs, the project has not been suitable commensurate with time and resources available. Finally, with regards to comprehension of the project concept, the PMU and TWG have good comprehension. Level of comprehension varied among PB members and was low among local communities interviewed.

Table 3. Summary of findings for Project Design

Key question	Rating
Validity of project assumptions	HS
Responsiveness to needs of Tuvalu	S
Commensurate with time and resources available	US
Level of comprehension of project concept	MS
Overall project design	MS

3.3. Project Implementation

This section assesses the extent to which the project is achieving its overall Objective, three Outcomes and ten Outputs. These are analysed one by one, in addition to having a rating and an assessment of status of delivery reflecting the Strategic Results Framework (Annex 9). Key questions address: the achievement of the Objective, Outcomes and Outputs; a gender assessment; how cross-cutting issues have been taken into consideration; and effectiveness of overall institutional arrangements.

3.3.1. Achievement of Objective, Outcomes and Outputs

Key question 1 - To what extent is the project achieving its overall Objective, Outcomes and Outputs?

Outcome 1 Enhanced capacity of public administration, Island Kaupules, communities and participating NGOs, with policy support to plan for and respond to climate change risks in coastal areas (Marginally Satisfactory)

Overall, the public administration has capacity to plan for climate change risks. It is not however evident to what degree the NAPA-I project specifically has contributed to this, as it has not provided specific guidance materials or trainings to government. A National Climate Change Policy has been developed and the National Development Plan Te Kakeega II has been revised to include climate change. The country now has good policy support to guide its work on climate change adaptation. The NCCAC is

established as part of the National Climate Change Policy, but the Government is yet to decide on its functioning.

There was low evidence of increase in the capacity of Kaupules and communities to plan for climate change, although an awareness campaign reaching over 500 households had been carried out. The project has, to date, not succeeded in providing successful training to enhance capacities for climate change adaptation planning at national or local level. The project has not collaborated with the Department of Education, and activities originally planned under NAPA-I on outreach to schools, teachers and integrating climate change into school curricula have been initiated by other projects.

Overall, it is deemed that this Outcome has been achieved to a marginally satisfactory degree, but with good potential to carry out activities within the lifetime of the project.

Output 1.1. National Development Plan (Te Kakeega II) and implementation matrix is reviewed to incorporate climate risk and resilience (Satisfactory)

The Te Kakeega II has been reviewed and now integrates climate change. NAPA project supported the consultations of the Midterm Review, and COs and Island Leaders took part in the consultations. This output also includes a target of revising a least 3 section plans of the Public Works Department. Public works section plans are planning documents that include details of a site plan and planned constructions. So far, the Public Works Department has developed one section plan for the project for a pulaka pit seawater retention wall in Nanumaga.

The project also aimed to increase the ability of technical/sectoral planners to anticipate climate risks and plan for these. The Government Departments interviewed had capacity and understanding on climate change adaptation, including strategic vision and concrete suggestions. However, it is not clear what the contribution of the NAPA project specifically has been to this. The project has mainly contributed to on-going national policy processes through consultations and task forces (as for the Te Kakeega II), rather than for example providing specific trainings or guidance materials.

<u>Output 1.2 A national climate change policy is developed integrating coastal zone management issues</u> (Satisfactory)

A national Climate Change Policy, the Te Kaniva, has been developed. The NAPA project contributed to the development of the Te Kaniva, including through supporting island level consultations (by paying for transport) and by being on the national level technical working group for the development of the policy. NAPA objectives are in line with the priorities identified in the Te Kaniva.

The development of policies and action plans on coastal management has been delayed. These were envisioned to follow after vulnerability assessments in coastal areas have been carried out – which, to date, have not been done. The University of Tokyo has developed an applied adaptation map for Fongafale Island, Funafuti, to guide land management and development. The map identifies near shore hazard areas, which are likely to be most affected by different heights of wave damage. It then assesses the impact of sea-level rise on taro cultivation areas. Finally, it identifies inundation areas most likely to be impacted by sea-level rise. The map is easily explained and can be a useful tool for local level planning. Training, as well as guidance material, was provided to the Lands and Survey Department for carrying out a similar mapping exercise in outer islands.

<u>Output 1.3 A National Climate Change Advisory Council is established, to support national policy making</u> and planning (Marginally Satisfactory)

A meeting was held by government back in 2010 on the establishment of the National Climate Change Advisory Board, which was to be initiated by the Department of Environment. The then officer of DoE lost the minutes of the meeting and no due follow-up was given. Since, a National Climate Change Advisory Council is now identified in the National Climate Change Policy, but is yet to be established. The decision to establish the NCCAC now lies with the Government of Tuvalu, who is discussing various options, including having the NCCAC under the Development Coordination Committee (DCC) or merging it with the National Disasters Committee (NDC). The decision of establishing the NCCAC is to be tabled for discussion in Parliament. A key issue remains with regards to who would chair the NCCAC – whether it would be the Government Secretary, who Chairs DCC; or MFATTEL, who has expertise on climate change.

Output 1.4 A national awareness campaign for local communities and Kaupule is designed and implemented (Marginally Satisfactory)

The project has provided some trainings on climate change, including a month-long induction training for the Community Organizers in 2010. This training covered issues such as climate change, food security, home gardening, water, GIS and IT. COs then held an initial awareness workshop in their respective islands, as open community meetings, presenting the project and discussing its key thematic focus of climate change, home gardening, water security and coastal protection. These workshops were well-attended, as can be seen in Table 4 below. Participants were each representing a specific household, thereby covering 546 households, a good outreach. There was relatively equal participation by men and women, although the attendance of women was particularly high in Vaitupu, whilst on most islands more men attended than women. No workshops were held in Nanumea (due to the community being engaged in church renovation works) or in Niulakita (due to focus on practical activities of home gardening being prioritized over workshop).

Table 4. Attendants in island-level awareness raising workshops in 2011¹¹

Island	Participants men ¹²	Participants women 13
Nanumaga	13	17
Niutao	32	22
Nui	33	18
Vaitupu	28	218
Nukufetau	54	42
Nukulaelae	41	28
Total	201	345

The Project Board and PMU had further seen the climate change policy consultations (see Output 1.2. above) as opportunities to raise awareness on climate change. Unfortunately however, there is little evidence that the capacity of Kaupules or communities in Nanumea and Niutao had been enhanced to plan for climate change risks in coastal areas, either through these awareness trainings or through the

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¹¹ Figures from Quarterly Progress Report for Jan-March 2011

¹² Each participant represented a specific household

¹³ Each participant represented a specific household

policy consultations. Communities had witnessed climate change impacts but had low level of knowledge on the process of climate change, and how to plan for this, although they have begun to take reactive adaptation responses (incl. shifting crops to shade and to more fertile soils). The Kaupules in Nanumea and Niutao also had a low level of awareness on climate change. The Kaupule of Funafuti is better equipped to address climate change.

A further training workshop for COs was held in November 2012 addressing agricultural theory and practice; beach erosion; GIS; and IT skills. The project also supported a training workshop in August 2012 on beach monitoring, aimed primarily at teachers and held by the NGO Sandwatch. The capacity of the two interviewed COs to understand climate change and to implement project activities such as home gardening has been increased. No training materials have been developed to guide COs in their work and community awareness raising.

NAPA-I has contributed to national level events, such as World Environment Day in Funafuti 2012 and a Climate Change Youth Awareness Event in 2011, which have raised some national level awareness. The World Environment Day event had 252 people attend (123 male and 129 female) and included presentations and a Question and Answer session on adaptation measures taken by the NAPA project. Participants, including Government representatives and community members, had been particularly interested in activities in the outer islands and how they can minimize climate change risks.

To date, no specific activities have been undertaken under the NAPA project to integrate climate change into school curricula. A project supported by UNESCO has worked with the Department of Education to draft a climate change curriculum for Tuvalu and to train teachers. So far, funding is available only to train teachers in Funafuti. TANGO is also running a project on climate change awareness and education in Funafuti and Vaitupu, in collaboration with the Department of Education. The NAPA project has not collaborated with these initiatives. The Sandwatch training provided by the NAPA project (see above) was specifically targeted at teachers.

Outcome 2 Enhanced capacity of local communities to adapt to dynamic climate-related threats through implementation of community-based adaptation measures specifically tailored to each island (Marginally Satisfactory)

Project implementation to date shows evidence of diversifying livelihoods and enhancing food security through home gardening. However, no monitoring has been carried out as to which of the crops used in the project would be most effective in changing climatic conditions such as increased drought, salinity and changes in seasonal patterns and rainfall. This hampers the capacity of local communities to adapt to climate-related threats specifically through home gardening or growing pulaka.

Water storage capacity has been clearly increased through the project by providing new tanks and restoring old ones for rainwater harvesting, the key source of water for most islands. This contributes to enhancing water availability for communities, including during periods of drought or variable rainfall. Again, there has however been no specific consideration as to planning for water availability and use under different climate conditions.

Coastal protection measures have been least successful and show little evidence of enhancing capacity of communities to adapt. The failure to carry out community-level risk assessments to date has been particularly detrimental for achieving the coastal protection component.

Overall, whilst community-based adaptation activities have enhanced food and water security, the capacity of local communities to adapt to dynamic climate-related threats remains weak due to a lack of appropriate awareness, training and technical guidance, which would link the current agriculture and water activities directly to climate change adaptation. With reference to the outcome target, whilst up to 2 CBA measures have been adopted in most islands (see Table 5 below), these measures have yet to demonstrate their utility as specific adaptation measures for coastal communities.

Table 5. Summary of on-going or completed activities under Output 2.2. per island

Island	Agricultural sustainability/Food security	Water security	Coastal protection
Nanumaga	Home gardening	10 new water tanks 72 repaired old water tanks On-going repair of community cistern	Planted kanava and fetau, many died out during drought
Nanumea	Home gardening Pulaka pits	10 new water tanks	Planted fetau and kanava, failed due to tides or died during drought
Vaitupu	Home gardening	10 new water tanks	Planted fetau and kanava, died out during drought
Nui	Home gardening	10 new water tanks Repaired community cistern	Planted fetau, mismanaged
Funafuti			Planted fetau and mangroves, some survived drought
Niutao	Home gardening Access road to pulaka pits		Planted fetau, failed due to mismanagement and tides
Niulakita	Home gardening		Planted fetau, died but replanted after drought
Nukufetau	Home gardening		Planted fetau, most washed away by tides
Nukulaelae	Home gardening		Fetau and kanava destroyed by drought

Output 2.1. Community-based adaptation plans for coastal protection, water supply security and agricultural livelihood sustainability are developed for all islands of Tuvalu (Marginally Satisfactory)

The project has not carried out the planned community-level risk assessments for each island. These have been discussed and planned throughout the project, by the Project Board, between PMU and UNDP, including to the level of identifying potential technical teams to carry out the work. The recruitment process for a coastal management specialist to undertake technical assessments and identify coastal adaptation options for Nukulaelae, Nukufetau and Funafuti has only been initiated in 2013. There has been a Vulnerability and Adaptation Assessment Training conducted collaboratively with other NGOs, and a GIS training, in which COs participated. There was however little evidence of gained skills having been put to practice in the islands visited, other than basic surveys carried out by COs gathering information on the condition of water tanks and number of home gardens.

This delay in carrying out island-level risk assessments has severely undermined project delivery under Output 2.2 (see below) and overall achievement of the project Outcome 2. As described below, inadequate adaptation options have been implemented for coastal protection in particular, whilst

activities on water supply security and agricultural sustainability lack a clear climate change link, which could have been identified and established through adequate risk assessments and plans.

In terms of local plans, climate change is integrated in the Island Strategic Plan (ISP) for Funafuti, whilst the ISPs for Niutao/Niulakita¹⁴ and Nanumea refer to the environment, but not directly to climate change. The ISPs for Niutao/Niulakita and for Funafuti refer directly to the NAPA project. Currently, there is no ISP for Nui or for Vaitupu. All ISPs are being reviewed in 2013.

Output 2.2 – Community-based adaptation projects with a focus on participatory management of protective ecosystems and climate-sensitive natural resources are designed and implemented in at least 1 pilot site on each of Tuvalu's 9 islands (Marginally Satisfactory)

Home gardening has been the main activity under the agriculture/food security component, in addition to some work on pulaka pits in a couple of the outer-islands. The NAPA project has provided seeds (e.g. cabbage, tomatoes, peppers, cucumber, sweet potatoes and paw paw) as well as basic gardening tools (shovels, rakes, chainsaws etc.) for home gardening. The seeds have been given out to all interested households on the participating islands. The tools have usually been kept by the Kaupule, for use by community members according to need.

All home gardening activities in Nanumea and Niutao have been substantially supported by the COs, in collaboration with Agricultural Extension workers. This has included both house to house visits and training workshops. The home gardening activities supported by the NAPA were made open for any interested household. Several home gardens have registered under the project, as described in Table 6 below. This adds to a total of 653 registered home gardens.

Table 6. Number of home gardens registered under the NAPA-I project

Island	Number of registered home gardens
Nanumea	25
Nanumaga	43
Niutao	90 (40 of which are still active)
Nui	55
Vaitupu	115
Nukufetau	53
Nukulaelae	66
Niulakita	10
Funafuti	200 (activities not initiated)
Total	653

When asked, farmers indicated a preference for growing cabbage – in part this is due to its resilience to changes in irrigation water availability, however also because of its ease in maintenance and nutritious values. Pawpaw was also seen as a resilient crop, which produced well and required low maintenance. The COs and Agricultural Extension workers further stated that peppers had grown well, as had tomatoes. There has however been no systematic monitoring of how different crops have responded to

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¹⁴ Since they are administratively together, one ISP has been developed covering both Niutao and Niulakita

changes in e.g. temperature or rainfall, or conditions of drought. One identified issue was that farmers were strongly reliant on receiving seeds, and there appeared to be no culture of saving seeds for future planting (which may be relevant for such crops as tomatoes, cucumbers, peppers and melons). This would be particularly useful in isolated islands where delivery of new inputs and seeds takes time.

A key problem for home gardening has been that small livestock (chicken, pigs) have entered and trampled the plants. Delays by the project in providing fences for home gardening has caused disillusionment among beneficiaries and some have abandoned home gardening due to this (e.g. 50 households out of 90 in Niutao). Where successful home gardening was witnessed on both visited islands, this was where families had either provided ad-hoc fencing (e.g. with fishing nets) or invested in chicken-wire fencing themselves (see Picture 1 below). Delays in provision of fences have also led to abandonment of home gardening in Vaitupu, Nui, Niulakita and Nukulaelae. So far, fences have only been provided to Nukufetau. Chainlink fencing was initially proposed by the COs and islands to solve the problem. The Project Board, with advice from the Department of Agriculture, then recommended the use of cheaper chicken wire, which would be equally effective for small livestock. Procurement is ongoing at the moment from Fiji, but the above considerations have caused severe delays in providing the fencing.



Picture 1 and 2. Home garden supported by NAPA I with own fencing and new water tank installed next to a home garden by NAPA I+ in Nanumea

In Nanumaga, the project has supported raising **pulaka** (*Cyrtosperma merkusii*) beds as a new approach for cultivation, which elevates the pulaka cultivation area from saline soils affected by seawater intrusion. This work has been supported by the Public Works Department and has received strong interest from community members. The focus in Niutao has been on improving the access road to a pulaka pit – as such, it has not so far increased the area of pulaka plantations. The condition of the road is rather weak and it is unclear how it would resist to e.g. conditions of increased flooding or heavy rainfall expected to increase under climate change. Soil samples have been collected from the pulaka pits on both of the above islands to test the salinity of the soil and, where relevant, to pilot approaches

for desalinizing soil. During the drought of 2011, the vulnerability of pulaka crops to long drought and high salinity was evidenced in particular in Nanumaga, Niutao, Nukulaelae and Funafuti.

Planting of breadfruit, as planned in the project document, has only just been initiated in Nanumaga. The tree seems to endure relatively well in variable conditions, although breadfruit trees had died in Funafuti, Nanumea and Nukulaelae during the 2011 drought. Planting banana has been tested to a small extent in the Southern Islands. There has been no specific testing of drought or salt resilient crops under the project. As such, agricultural activities to date have not specifically targeted the testing and identification of crops that would be most resilient under conditions of climate change.

In Niulakita, an inland fishpond for milk fish is being planned, and assessment is to be carried out by Taiwanese co-operation in Tuvalu. It is not clear whether the planned assessment includes consideration as to the climate change impacts on milk fish production, such as temperature increase or sea-water intrusion impacts on pond salinity and oxygen, and potential related impacts on fish reproduction and growth.

Under the component on **water security**, 40 new water tanks (NAPA1+) have been installed on Nanumaga, Nanumea, Nui and Vaitupu (10 tanks per island), enhancing water security in particular by providing water for agriculture and communal buildings. For example in Nanumea, the tanks had been installed at nurseries; near home gardens; a clinic; village halls and schools (see picture 2). Storage capacity has been increased by 400m³.

Installation and maintenance of water tanks has been done by work teams comprised of men and coordinated through the Kaupule. The Works Supervisor has provided guidance to communities on how to assess condition of tanks, how to repair old tanks and how to install new ones. In some islands, the project has collaborated directly with extension workers from the Public Works Department in installing the tanks. The local work teams have received compensation for their work time and this remuneration was widely appreciated by community members. Indeed, receiving compensation was seen as a prerequisite for the success of the water tank activity. This practice is one that has been adopted also by other projects installing water tanks (e.g. EU and AusAID). In some islands delays in paying the compensation for work time under the NAPA project was seen as demoralizing and had led to some loss of faith in the NAPA project.

The repair of 72 water tanks on Nanumea has also increased water storage capacity, by at least 224m³ ¹⁵. On Nui, the project has repaired a community cistern, where the first layer of blocks had been degraded to the extent that the cistern no longer stored any water. It now has a storage capacity of 186m³. A similar upgrade is taking place on the community cistern in Nanumea. The table below summarizes the increase in water storage capacity gained by the project to date and under planned activities.

As seen in Table 7, the project has increased water storage capacity on the islands by approximately 810m³. This includes the increase of 400m³ by installing new tanks under NAPA I+, thereby reaching the

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¹⁵ The total storage capacity of the 72 tanks is 448m³. Community members and the Works Supervisor estimate that the storage capacity of any individual tank has gone up from around 0-50% to around 100%. The estimate given of 224m³ is based on each tank having an increased capacity of at least 50%.

target of 400m³ set under NAPA I+. There is an increase of 410m³ in storage capacity from the repair activities under NAPA I, thereby achieving the target set under NAPA I of increasing storage capacity by 400m³.

Table 7. Increase in water storage capacity under NAPA I and I+

Island	New tanks installed (NAPA I+)	Repaired tanks (NAPA I)	Repaired community cistern (NAPA I)	
Nanumea	10 (at 100m³)	72	1 (to be finalized)	
Nanumaga	10			
Nui	10		1	
Vaitupu	10			
Increase in	400m³	224m³	186m³	810n
storage capacity				

Some of the repaired tanks have begun leaking. According to the Works Supervisor, this is due to inadequate assessment by community members as to which tanks were still in suitable condition to be repaired. Maintenance of tanks has also been a problem. This can lead to early degradation of tanks and decrease their lifetime. Some interviewees expressed particular concern to the waste problem that will be generated in the future by old and unmaintained tanks that are no longer usable. In Nanumea, community members also noted that the withdrawal of sand from beaches for water tank maintenance had exacerbated the problem of coastal erosion. The lack of water catchment roofs on two tanks in the Kaupule nursery in Nanumea meant that water to the tanks had to be brought in by tractor from a community cistern. There are also problems with lack of components in harvesting systems in existing tanks which have led to existing catchment roofs not being optimally used.

No specific outreach has been done to enhance awareness on the importance of assessing water availability and use under changing patterns of rainfall or conditions of drought. In this sense, the water security activities to date have not specifically been linked to how this additional storage capacity can help adapt to climate change.

Coastal protection measures have, by and large, not been effective. Planting of native trees fetau (*Calophyllum inophyllum*) and kanava (*Cordia Subcordata*) has not been based on appropriate assessments, and has involved planting in highly eroded and vulnerable zones, where tides have swept away planted seedlings, in particular in Nanumea, Niutao and Nukufetau (see Pictures 3 and 4 below). An additional problem was caused by the drought in 2011 which led to loss of seedlings in several of the islands, including Nanumaga, Vaitupu, Niulakita and Nukulaelae (see Table 5). Nanumea also has a problem with a pest that has caused all kanava trees to die.

Lack of awareness and training has also led to mismanagement by communities (e.g. pulling out seedlings or burning rubbish nearby) in Niutao, Nui and Nukufetau. In some of the islands, landowners had been misinformed, apparently in some cases by COs, that they would receive monetary compensation for planted trees. Once they discovered no compensation was forthcoming, they had abandoned, and in some cases torn out, planted trees. Several beneficiaries also mentioned that they did not believe in the worth of planting fetau trees, as they took up to twenty years to grow. Increased awareness on coastal protection as a climate change adaptation measure may increase the interest in identifying medium- to long-term solutions alongside shorter term solutions.

Many community members (especially youth and children) in the visited islands have contributed time to the planting efforts, and the failure of the fetau and kanava plantations has led to general disbelief in the feasibility of soft infrastructure for coastal protection. In Funafuti, the experience with kanava has however been positive and in Niulakita fetau replanted after the drought has shown signs of good growth.



Picture 3 and 4. Community organizer with small fetau seedling, showing height seedlings had grown to in an appropriate location; and eroded coast where fetau planting had unsuccessfully been attempted. Niutao

An additional issue is the methods used for planting seedlings. Fetau and futu appear to benefit from being provided with protection by a bucket or bag in initial stages of growth. Evidence from another project (Tuvalu Overview) in Funafale Island in southern Funafuti suggests that planting at high tide enables the roots of mangroves to seep deeper and stabilize. It would be essential to monitor the benefits of different planting methods for various coastal protection approaches in different locations, something that has not been done to date.

In Funafuti, managerial problems and conflicts between the Kaupule and CO have led to delays in project implementation (see section 3.3.5 below). Some fetau and kanava seedlings were planted by the CO, Agricultural Extension Worker and Project Assistant – those that had been planted with appropriate seedlings and on the lagoon side showed some success. Overall, the Funafuti Kaupule is still interested in continuing to explore the benefits of soft infrastructure in coastal protection.

There is also a challenge over gaining access to land for planting. Individual land owners need to be convinced of the worth and investment of time and maintenance, which has been challenging. On the visited islands land was often acquired through family members of COs. On Funafuti, the Falekaupule had authorized planting local trees on shorelines on some of the other islands of Funafuti, outside the main island Fongafale.

In general, community members showed interest in hard over soft infrastructure measures. The disillusionment with soft infrastructure for coastal protection was also voiced by some members of the Project Board. The lack of successful demonstration sites in the project can be expected to have significantly contributed to such perceptions. Many Project Board members mentioned in interviews their interest in having seawalls built on their islands. Activities on soft infrastructure would require adequate assessments (see Output 2.1. above). Given the late stage of the project, it will be challenging to carry out needed assessments and fully initiate new, sustainable coastal protection measures within the life time of this project. It is unfortunate to note that back in 2011 the Project Board had already noted the need for developing step-by-step guidance for communities on coastal protection and to carry out on-going assessments on failures of adopted coastal protection measures. Such guidance or comprehensive assessments, which may have averted some of the failures of this component, have not been carried out by the project to date.

The project on **beach nourishment** in Funafuti, which was defined as an opportunity for co-financing joint activities, has been suspended. The project, supported by JICA, had carried out an assessment for beach nourishment on a 6m strip. MFATTEL had requested this be extended to 20m, which JICA has deemed as reclaiming land, not beach nourishment. The issue has not been solved to date and JICA has withdrawn project staff from Tuvalu. **Coastal clean-up campaigns** have been held in Nanumea and Niutao. No clear link with climate change has been profiled for these activities.

In line with Output 2.2. focus on participatory management of protective ecosystems and climate-sensitive natural resources, management of the CBA activities has been bottom-up and participatory and done in partnership with beneficiary households, including the maintenance of home gardens as well as installing and maintaining water tanks with community members recruited through Kaupule. Protection of ecosystems and natural resources has been considered in particular when planting kanava and fetau trees, but as mentioned above this has not been successful and the communities do not see this as a priority activity. Community members were more interested in hard infrastructure which was seen as an immediate solution, and did not recognize the benefit of medium- to long-term planning and sustainable management of coastal resources as a protection measure.

Output 2.3. The results of all community-based demonstration projects are analysed and fed into the formulation of a government-endorsed replication programme (Marginally Satisfactory)

Results of community-based demonstration projects have not been analysed to date (see Outcome 3 below for further details). The Government of Tuvalu and UNDP have fed in lessons learned from this project, including in terms of institutional arrangements, into a proposal for a NAPA II project, which would address new priority areas identified in the Tuvalu NAPA, namely fisheries and disasters. A project replication strategy in particular around agriculture, water and coastal protection is yet to be developed, but could feasibly be done before the end of this project.

<u>Outcome 3. Have project knowledge and lessons learned been captured, analysed and disseminated</u> (Unsatisfactory)

There is weak evidence of capturing, analysing or disseminating knowledge and lesson learned emanating from the project. Project reporting and monitoring is not results-based, which weakens analytical use of data gathered (see section 3.4. below for further details). Some national events have been held, such as the Environment Day in 2012 (see above), which have been used to share general information of the project. UNDP and AusAID have discussed project experiences at regional level, in particular internally within their organizations. Despite the low delivery of this outcome to date, there is good potential to initiate activities immediately within the life time of the project to ensure various knowledge and lessons learned gained to date are adequately captured and disseminated.

Output 3.1 – Climate change information for Tuvalu are analysed, updated and disseminated to sectoral planners and policy makers (Unsatisfactory)

Climate Change Scenarios have not been developed under the project. Such work has been carried out for Tuvalu under other projects, including the Pacific Climate Change Science Program (2011). No clear links have been established with the Meteorological Services. Meteorological data is available in Tuvalu, including basic data on rainfall and temperature, which could be used for the project's home gardening activities in particular.

Output 3.2 – Lessons learned from community-based adaptation projects are collated and disseminated to communities, sectoral planners and policy makers on a continuous basis (Unsatisfactory)

Lessons learned and best practices have not been systematically consolidated or disseminated. A national workshop was held on beach nourishment in August 2012, mainly targeting teachers. A project portal is yet to be established. A Communications and Knowledge Management Strategy outline was drafted, but never developed or implemented. A mission by UNDP iComms Team was planned for April 2012 to assess current Communication and Knowledge Management Gap, Develop a Communication Strategy and induct a newly recruited Communication and Knowledge Management Officer. The mission was cancelled, as the Communication and Knowledge Management officer had not been recruited, in part due to the fact that there was no Project Coordinator at the time.

Output 3.3 – Project lessons are shared within and outside of the Pacific region and incorporated into the Adaptation Learning Mechanism (ALM) (Marginally Satisfactory)

Following delivery of the two outputs above, the lessons learned that would be captured could still be disseminated through ALM at the end of the project, as originally planned. No plans have yet been made as to the development of a technical report on good practices and lessons learned.

A video on Tuvalu and the NAPA project was developed in 2012 with support from UNDP-ALM and is available on the ALM website.

Objective: Increase the protection of livelihoods in coastal areas and island communities from dynamic risks related to climate change and climate variability in all inhabited islands of Tuvalu (Marginally Satisfactory)

Project activities in food and water security have contributed to increasing the protection of livelihoods in coastal areas and island communities in Tuvalu. Home gardening has enabled a diversification of livelihoods and increased local production, providing a broader productive base for food security. However, there has been no specific piloting of climate resilient crops, or testing of which ones would be most relevant for increasing the protection of livelihoods from risks related to climate change and variability.

Water security has been enhanced through provision of new and maintenance of old water tanks, which provide additional water storage that can protect livelihoods during periods of drought and variable rainfall. Repaired water tanks have secured water for households, livestock and agriculture. The new water tanks have been positioned in communal buildings such as clinics, home gardens and schools, and providing water to these facilities can contribute to maintaining the functioning of these key social services during periods of climate risks. The lack of specific activities for planning under climate change and variability, including with regards to water availability and use, undermine the potential of this additional water storage to protect livelihoods.

The implemented coastal protection measures have not been effective to date and cannot be seen as having increased the protection of livelihoods in coastal areas.

Overall, the capacity at island and household level to anticipate climate change related risks and to select effective risk reduction options was seen as weak. Whilst agricultural and water activities may be increasing protection of livelihoods, without appropriate training and technical guidance to local level on how these measures can be used under different climate conditions and as means of adaptation, they cannot be seen as effective adaptation measures.

During the course of the project, adequate policy frameworks have been put in place to guide national level adaptation planning that can increase the protection of livelihoods. Government planners and officials have enhanced capacity to identify climate risks, although climate data, especially for the outer islands, is lacking. There is capacity in many departments to plan for adaptation measures, although the implementation of any adaptation activities remains strongly dependent on external funding.

The table below summarises the overall achievement of project outcomes and outputs based on status of delivery: green/completed (indicators show successful achievement); yellow/on-going (indicators show expected completion by end of project); red (indicators show poor achievement and unlikely to be completed by end of project). A rating is also provided on a scale of Highly Satisfactory (HS); Satisfactory (S); Marginally Satisfactory (MS); and Unsatisfactory (U).

A full table that includes the Objective, all Outcomes and Outputs with indicators and targets defined in the Strategic Results Framework is provided in Annex 9.

Table 8. Summary of overall achievement of project outcomes and outputs¹⁶

Objective Increase the protection of livelihoods in coastal areas and island communities from dynamic risks related to climate change and climate variability in all inhabited islands of	MS
Tuvalu	
Outcome 1. Enhanced capacity of public administration , Island Kaupules, communities	MS
and NGOs, with policy support to plan for and respond to climate change risks in coastal	
areas and settlements	
Output 1.1 National Development Plan (Te Kakeega II) and implementation matrix is	S
reviewed to incorporate climate risk and resilience	
Output 1.2 A national climate change policy is developed integrating coastal zone	S
management issues.	
Output 1.3 A National Climate Change Advisory Council is established, to support national policy making and planning	MS
Output 1.4 A national awareness campaign for local communities and Kaupule is	MS
designed and implemented	1415
Outcome 2 – Enhanced capacity of local communities to adapt to dynamic climate-	MS
related threats through implementation of practical community-based adaptation	1713
measures specifically tailored to each islands	
Output 2.1 – Community-based adaptation plans for coastal protection, water supply	MS
security, and agricultural livelihood sustainability are developed for all islands in Tuvalu.	
Output 2.2 – Community-based adaptation projects with a focus on participatory	MS
management of protective ecosystems and climate-sensitive natural resources are	
designed and implemented in at least 1 pilot site on each of Tuvalu's 9 islands	
Output 2.3 – The results of all community-based demonstration projects are analysed and	MS
fed into the formulation of a government-endorsed replication programme	
Outcome 3 – Project knowledge and lessons learned are captured, analysed and	US
disseminated to facilitate replication of practical adaptation solutions in all islands	
Output 3.1 – Climate change information for Tuvalu are analysed, updated and	US
disseminated to sectoral planners and policy makers	
Output 3.2 – Lessons learned from community-based adaptation projects are collated and	US
disseminated to communities, sectoral planners and policy makers on a continuous basis	
Output 3.3 – Project lessons are shared within and outside of the Pacific region and	MS
incorporated into the Adaptation Learning Mechanism (ALM)	1110
Overall rating achievement of Objective, Outcomes and Outputs	MS

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¹⁶ A rating of yellow, or "expected to be completed" has been provided for most outcomes and outputs – this is dependent on the project taking immediate corrective action to address current delays in project delivery, in line with recommendations provided under Section 4 of this report and, in some cases, is dependent on the recommended project extension being authorised.

3.3.2. Gender assessment¹⁷

Gender and decision-making

The key governance and management bodies for the NAPA 1/+ project include PMU, PB and TWG. The PB has an inadvertent gender bias. As its membership was expanded after the project initiated, it now includes 8 island representatives, all of which are always men, as per cultural practice in Tuvalu. Accordingly, this membership composition has the unintended effect of skewing the gender balance of this executive body heavily towards men.

In terms of institutional engagement, it is gratifying to note that the Tuvalu National Women's Council sits as a member of the TWG. This establishes a valuable channel for bringing women's concerns and views from the grassroots level into determinations on project activities and choices. However, they did confide in an interview that their involvement in the NAPA 1/+ project has not been as extensive as they would like on the various island locations, and that with other sizeable climate change projects, such as PACC, they are more fully integrated.

To ensure gender equality, one consideration is the importance of having both men's and women's views and perspectives engaged in the discussions and processes which lead to decisions; these decisions will be sounder and better thought out if a range of perspectives are presented and both men and women actively engaged. The minutes from the last three sessions of the PB and the TWG were reviewed to check the gender balance in participation around those tables. In the case of the Project Board, 25% of those in attendance were women, along with 75% men. In the TWG this was somewhat more balanced, with 33% women present. This is a reasonably good level of gender balance, and higher than that found in official and traditional governance bodies in Tuvaluan society. However, there is nonetheless room for improvement in this aspect, particularly in the PB as an executive decision-making entity. The Project Management Unit (PMU) currently has 33% women, given that two out of its three members are male, with the female occupying the lowest level position.

The scant representation of women in decision-making bodies contradicts the country's Te Kakeega II National Development Plan, which makes an explicit commitment to "promote gender equity and expand the role of women in development." As outlined in its "Gender Considerations Section," the project attempts to align with the Dept. of Women's Strategic Plan, including with regards to the goal to: favor an equitable participation of women in its process for identifying the problems, priorities and interventions. However, with currently about 30% of women in the decision-making roles, the project is just barely meeting this goal, and some adjustments are required.

It should be noted that for any progress to be made in this direction, there must be an awareness of the need to get beyond tokenism. A more effective approach would be to ensure consistent involvement of a critical mass of women in the decision-making bodies. For parliament, for example, studies have shown that at least 30% representation of women in parliament is needed for any meaningful inclusion of women's perspectives and issues¹⁸. This 30% threshold is considered the point of departure for gender equal participation, rather than the end point. Once a critical mass is attained, cultural change can then start to occur, as people start to see women in decision-making roles as normal, and as part of

¹⁷ This section has been written by Karen Bernard, Gender Expert and UNDP staff member. A full report of the gender assessment, covering issues beyond the direct scope of the NAPA 1 project, is available as a separate document.

¹⁸ UNDP and PIFS, <u>Utilising Temporary Special Measures to Promote Gender Balance in Pacific Legislatures</u>, (Suva: 2008), p. 8.

the world they live in. Therefore while starting from a low current participation of women in decision-making across the board in Tuvaluan society, the project should aspire to attain first a critical mass of women in decision-making and leadership roles, and ultimately a 50% presence of both men and women. Within the project's sphere of influence, this should be the aspiration.

Gender, livelihoods and subsistence

In 2010, comprehensive household surveys conducted by the Dept. of Rural Development, under the Ministry of Home Affairs¹⁹, identified data of specific relevance to the NAPA I project: (1) women and men would possess different types of knowledge, as associated with carrying out these different professions on a daily basis: (2) there are opportunities to encourage and build capacity for women and men to enter the professions in which they are underrepresented. In the case of women, there is a clear opportunity for those inclined to learn technical skills and expand their employment options to include technical professions. There is also an opportunity to increase women's presence in management jobs through suitable and targeted capacity-building.

Men and women are extensively involved in subsistence activities, as reported in the Island Profile Survey, men to an even greater extent than woman. Data from Nanumea and Niutao showed similar patterns, with the combined data from both islands indicating that 91% of the adult men surveyed engage in subsistence activities, and 82% of adult women are also involved in subsistence activities. Therefore the project should put sufficient emphasis on, and provide support to these activities. The field visit determined that these activities consisted mainly of: home gardening, fishing for family consumption, tending to pulaka pits, and raising pigs and chickens.

Time use and work burdens

A time use study was conducted in three of the project locations: Funafuti, Nanumea, and Niutao. The methodology entailed conducting one-on-one interviews, recording half hour increments throughout a 24-hour day, and using categories chosen mainly to reflect livelihoods options commonly found in Tuvalu and which are affected by climate change. Equal numbers of men and women were interviewed in each location, to survey adults of a range of ages, with a sample size of 30 minimum in each site. The age span of people surveyed was from 18-82 years old, with a median of 44 years of age. A more detailed outline of the methodology used can be found in Annex 10. Figure 1 shows the differences, between women and men, in hourly time use in key activities in any given day.

Some of the key findings of relevance for the NAPA project from the time use study include:

- Only men are engaged in pulaka pits and in fishing from boats
- Tending to pulaka pits was in fact reported to be done currently only by men in Nanumea
- Women spend substantially more time cooking, washing and cleaning than the men. Men spend an average of 47 minutes daily on these tasks, while women spend an average of 3 hours and 42 minutes daily. These are the main activities requiring use of water

¹⁹ This population data is gathered in unpublished Island Profiles compiled for each island, obtained from UNDP office in Suva, Fiji. For more comprehensive data, please see the separate Gender Assessment report.

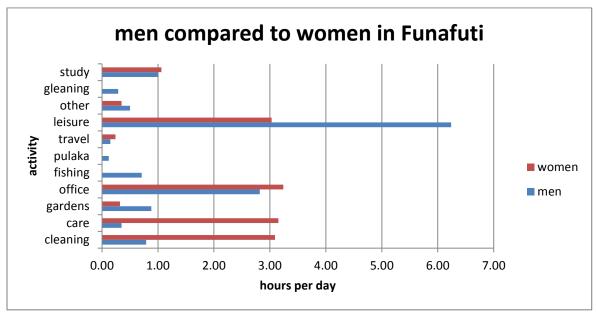


Figure 1. Differences in time use between men and women in Funafuti (hours per day for 34 interviewees)

- Men spend more time than women tending to home gardens and feeding pigs and poultry these activities use small amounts of water
- Neither men nor women report engaging in farming for commercial sale
- Both men and women have substantial leisure time, therefore would be available to engage
 more in project activities. Excessive overall work load (comprised of paid and unpaid work) does
 not seem to be an issue of concern for most people, only for some individuals. However,
 Funafuti has a somewhat different pattern in this regard.
- Overall work load was found to be heavier in Funafuti. As compared to the other two islands, both men and women are getting half an hour less sleep. Also, notably in Funafuti men appear to have twice as much leisure time (approx. 6 hours) as compared to women (approx. 3 hours), whereas in the other islands this is more equitable.
- Youth have approximately 1.5 more hours of leisure time on average, compared to older people

Women on the outer islands have so far been facing challenges in terms of equal involvement in project activities, as well as equitable access to project resources. To date the temporary employment opportunities under the project have benefitted primarily the men, as in the tree-planting in Niutao (35 young men participated) and installation and maintenance of water tanks. At the same time, they clearly expressed their interest in becoming more involved in certain project activities, and in accessing specific resources. For example, women in Niutao and Nanumea are very interested to become more involved in home gardens, yet under the project so far have had inconsistent access to the basic resources and inputs required to do this. Young women in particular feel somewhat disenfranchised, that they have been given scant opportunity to engage with the project and yet they can bring energy and enthusiasm to several activities, and in turn it would empower them and help them to become more goal-oriented.

3.3.3. Cross-cutting issues

Key question 3. How have cross-cutting issues of human rights, equity and innovation been taken into consideration in project design, implementation and monitoring?

Decision-making structures in Tuvalu are based on the roles of the Falekaupule and the Kaupule. The Falekaupule is the traditional Assembly of each island, formed of a council of elders. The Kaupule is the executive arm of the Falekaupule, constituted by election of 6 members. Membership of the Falekaupule varies on each island, some allowing women to participate, others not. The NAPA-I project activities were done in accordance with local decision-making structures and discussed and decided in the first instance with the Falekaupule. There was some evidence during island visits that both the Kaupule and the local communities were at times unaware of how project priorities had been chosen by the Falekaupule. Further, many project activities (e.g. choice of seeds for home gardening) have been suggested in a top-down manner from PMU and the Project Board, and then rolled out in the islands through the Community Organizers. In other cases, such as deciding on location for installation of water tanks, this was done at community level with the Falekaupule and the Kaupule, and new tanks were designated for communal buildings (clinics, schools), thereby benefiting the community at large.

The project has adopted a participatory approach to the implementation of community-based adaptation measures. Home gardening activities were made accessible to all interested households. The work teams convened by the Kaupule for installation of water tanks were open for participants to apply, often resulting in a higher number of younger men participating. In terms of coastal protection activities, these were often carried out by the COs in collaboration with youth and children. The initial awareness workshops held by COs were also open to all households. Overall, a relatively broad section of community members has been participating in project activities, providing a relatively good degree of equity in participation. No specific consideration has however been given to date on how to identify the needs of different groups and respond to these through targeted project activities. The gender assessment (see above) provides further insights on this issue.

The project has been innovative in that it is the first national project to respond directly to the priorities identified in the Tuvalu NAPA. It is also the first climate change project in Tuvalu to reach out to all 9 islands. This outreach to all areas can be seen as a unique attempt to increase protection of livelihoods to climate risks at national level. In this sense, the approach to use Community Organizers based in each island is also innovative, despite the shortfalls involved (see below for further details). The policies that have been developed at national level, in particular the National Climate Change Policy, is innovative in that it was based on a broad, consultative process and provides a landmark national policy in an area of national importance.

The project has not adopted particularly innovative approaches to community-based adaptation. Home gardening activities have been carried out in Tuvalu since the late 1970s, and as mentioned above the NAPA project has not yet tested specific climate resilient varieties. New water tanks have also been installed by several other projects, including through the EU and AusAID. Mangrove and fetau planting has been carried out under other projects, including by NGOs and under the Sustainable Land Management project. The new approaches to growing pulaka, including use of raised beds and potential techniques to reduce soil salinity are innovative.

3.3.4. Institutional arrangements

Key question 4. Have overall institutional arrangements been effective in designing, implementing, managing, monitoring and reviewing the project?

The **Project Management Unit** has strengthened its capacity throughout the project cycle and now has a dedicated team in place. The implementation of the project suffered significantly when the previous Project Coordinator (PC) left in late 2011 and there were several months without a PC until the current PC started work in August 2012. The Project Assistant has, in the interim, had to assume work duties well beyond what is defined in her job description. There was also a period of 4 months in 2011 when the previous Works Supervisor resigned, without proper resignation and handover process, and before the new one was recruited, which affected project implementation in particular in the outer islands. The current Works Supervisor was also on extended sick leave in 2012.

A range of technical experts were originally planned in the project document, to support delivery of different outputs and outcomes on a short- and medium-term basis. These included an international and local expert in Coastal Zone Management, an expert in capacity building, an international and local monitoring and evaluation expert, an expert in salt-tolerant agriculture and technical experts from regional organizations. These experts have not been hired to date, and the lack of such expertise can be seen as a key limitation of the project. It has hampered the achievement of outcomes and outputs, in particular under Outcomes 2 and 3.

It was assumed that some of these functions could be assumed by PMU members. The only specific technical area of expertise that is covered by PMU is through the functions of the Works Supervisor who provides technical assistance to communities in particular under the component on water security, by maintaining and installing water tanks. PMU does not have the required technical skills described above, many of which are in specific areas of technical expertise and not readily transferrable to general Project Coordinators. This was further exacerbated by the fact that at times, in particular in 2012, the Administrative Assistant was alone running the project and cannot be expected to provide technical expertise.

This has led to inadequate technical support being provided by the project, in particular to COs and local communities. On agriculture and coastal protection, the project has relied on ad hoc arrangements with Agricultural Extension workers for support in home gardening and planting native trees on coastal areas. There has been overall low technical support on planning for climate change and linking on-going activities to climate change adaptation specifically. The level of knowledge management and capturing lessons learned has been weak (see 3.3.1. above), as has the quality of on-going monitoring and evaluation (see below under 3.4.1.).

A coastal expert is currently being recruited, and the recruitment of a National and an International Technical Advisor is also in the process. These positions will fill in urgently needed gaps in technical expertise.

PMU plays a key role in liaising with the PB, TWG and COs, and has a central function in maintaining all institutional arrangements. There was little proof of any direct contact between for example the PB and TWG, or PB members and COs without the intermediary of PMU. Whilst the coordination function of the PMU is essential and a key component of its mandate, there is over-reliance within institutional

arrangements on PMU, in cases where the role between e.g. Island Leaders and COs could be more direct.

UNDP has provided substantial support to project implementation throughout the project's cycle. This has included a 3-month secondment of a UNDP staff member to Tuvalu in August-November 2011 to support PMU. These duties have been well beyond the original role defined for UNDP in the project document under the National Implementation Modality.

The **Project Manager** in the Department of Environment has been actively engaged in the project's implementation, including through oversight, attending PB meetings and regular e-mail contact with PMU. The Project Manager also seeks political support for NAPA project issues when required. The Project Coordinator participates in fortnightly debriefings held by MFATTEL on general progress of MFATTEL's work and project portfolio. There are however no regular set meetings between the Project Coordinator/PMU and the PM to discuss the NAPA project specifically.

The Project Board currently has 15 representatives, which is too large a number for effective decision-making. It is hard to convene all participants to a same meeting and often divisions persist between such a large grouping when it comes to decision-making. Further, the original PB structure consisted of the National Project Manager (The Executive); Senior Supplier (UNDP) and Directors from Home Affairs, Agriculture, Fisheries, Finance and Public Works (responsible for implementing specific project components). These functions are now reduced to 5 seats. A total of 9 seats are given to the Senior Beneficiary role, originally represented by Director of the Department of Rural Development, and now including 8 Island Leaders based in Funafuti, to promote community level ownership and appropriateness of interventions in meeting community priorities. The PB structure was revised based on recommendation by the previous Project Coordinator, and later approved by the Government of Tuvalu.

Each of the 9 inhabited islands of Tuvalu has strong communities based in the capital Funafuti. These 9 island communities in Funafuti are represented by 8 Island Leaders²⁰. These **Island Leaders** were invited to become members of the Project Board. Whilst this ensures representation from all islands, it is problematic first because there is over-representation of the Senior Beneficiary of the PB (as described above). Secondly, it is very problematic that there is in practice no direct liaison between the Island Leaders based in Funafuti and their respective islands regarding the project. This was stated both by the Island Leaders during the focus group meeting with the Project Board, and confirmed by the Kaupule and Community Organizers during island visits. There is therefore a disconnect between what the local level priorities are on the one hand, and on the other the priorities the Island Leaders voice and the decisions they take with regards to their respective islands in Project Board meetings in the capital. The Island Leaders are thereby not well positioned to ensure community level ownership and appropriate interventions for meeting community priorities in the islands.

A factor contributing to lack of liaison between Island Leaders and their respective islands is the lack of appropriate communications technology. Several of the Island Leaders in Funafuti do not have access to a telephone or internet. Further, only one of the leaders travelled to their island on an annual basis (for

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²⁰ Niutao and Niulakita islands are administratively together and therefore represented by one Island Leader

other matters), which makes it harder for the Island Leaders in Funafuti to see firsthand what the priority issues are for their islands on the ground.

Some frustration exists with regards to the fact that, on occasion, PB decisions have later been revoked by the Permanent Secretary of MFATTEL. Occasions have included the recruitment and selection of the Project Coordinator, as well as procurement processes for acquiring certain goods. This has undermined the decision-making authority of the PB. The Permanent Secretary has been chosen to be the Chair of the PB, thereby ensuring that the Permanent Secretary is present and involved in deliberations and decisions taken by the PB. However, the high number of commitments of the PS has impeded regular attendance by the PS at PB meetings. The role of the Permanent Secretary as Chair of the PB has not been officially noted in project documents, although the Permanent Secretary himself and the Project Board verbally confirmed this role.

The Project Board does not hold quarterly meetings, as originally envisioned, but twice yearly meetings. If the TWG worked on a quarterly basis, two annual meetings of the PB, and more as needed, would suffice for high-level project decision-making. According to PMU, it is challenging finding times when all members can attend a meeting, thereby reducing the number of meetings scheduled. Further, the fact that Government representatives are Director level means they have several commitments and often send alternates to meetings.

Despite the issue of membership and irregular meetings, the Project Board has managed to guide decision-making of the project. Issues for discussion are usually prepared by PMU, who also identifies needed areas of decision-making and guidance. The PB has approved AWPs and the Strategic Results Framework. It guides decisions on support provided to outer islands, including with regards to tools and materials to be acquired, procurement processes and activities to be undertaken. The PB has also given due consideration to technical recommendations provided by the TWG on matters related to, for example, appropriate technical equipment for project activities.

PMU has followed up on advice provided by the PB, although on occasions some guidance provided has not been carried out. For example, there has been guidance that the effectiveness of the project's awareness programme should be assessed; that coastal protection measures should be monitored in terms of types of trees panted, locations selected and any issues arising; and advice on enhancing reporting between COs and Kaupule. As mentioned above, the lack of success of the awareness raising programme and of coastal protection measures were noted during this evaluation. One key challenge remains the liaison between PMU and the work carried out on the islands, coordinated by the COs, where the latter would be best placed to monitor the success of awareness activities or adaptation measures.

The PB has had a tendency to focus on small scale guidance – such as appropriate tools for the project – rather than high-level guidance that would address specifically issues such as the need for adaptive management and revising project deliverables in light of severe delays in budget implementation and achieving project results. This has been a key shortcoming of the PB's functions.

The **Technical Working Group** is deemed to have good technical capacity and the ability to provide needed guidance to the project. An issue has been the ability to convene all TWG members to meetings on a quarterly basis, as many are involved in various institutional activities and projects. Technical

Working Group representatives from government are chosen by their respective Department Directors. In practice, it is sometimes the same members who attend both the PB and the TWG.

Some representatives and organizations that had previously been members of TWG, like Department of Meteorology, Ministry of Education and TANGO, were later asked to leave as to keep membership numbers manageable. Whilst it is indeed more efficient having a manageable number of members (in particular since thematic task teams have not been set up), this has caused some disillusionment as these institutions originally expected to contribute to project implementation but linkages have since been weak.

Task Teams within the TWG were originally created for Water, Agriculture, Coastal Protection and Gender, but these have not been convened to date. With low participant numbers in meetings, it would understandably be challenging convening thematic groups unless external experts were invited to participate.

Any advice provided by the TWG is channeled via PMU, in particular to the PB. TWG meetings are usually aimed before PB meetings, as to channel advice for the consideration of the PB at its meeting. The TWG would have the scope to provide more broad reaching guidance to the project, including with regards to analysing existing knowledge generated in Tuvalu that would be relevant for the implementation of the NAPA project, such as studies generated following the 2011 drought.

The **Community Organizer (CO)** structure has been positive in terms of ensuring project presence in each island. It was evident that many of the project activities had depended strongly on the initiative of Community Organizers. For example, on home gardening COs held workshops in Nanumea and Niutao together with Agricultural Extension workers. The COs then told households (often visiting them one by one) about available seeds they could come and collect at Kaupule nurseries. On coastal protection, in Nanumea, Niutao and Funafuti, the COs had been the ones planting fetau and kanava seeds, sometimes together with the Agricultural Extension workers, at the Kaupule nurseries. In the case of Funafuti, seedlings were developed on land acquired by the CO directly. In Niutao and Funafuti, the COs actually planted the seedlings, at times in collaboration with Agricultural Extension workers.

The role of the COs has had its challenges. The COs received training at the beginning of the project in 2010 in Funafuti for two weeks, in addition to a week-long training workshop in November 2012, again in Funafuti. Based on field visits, the COs lack technical expertise in agriculture, water security and coastal protection, and have relied strongly on Agricultural Extension workers. They are not experts in any of these fields. They also lacked in-depth awareness on climate change, and the project has not provided sufficient capacity building and outreach materials in this regard to the COs.

The COs are usually housed by the Kaupules. This is a good arrangement given the importance of the Kaupule in implementing interventions on the islands. In Nanumea and Niutao, the Kaupule has provided space in the nursery for the project, in Nanumea they also organized the work teams for water tank maintenance and installation. A close working relationship between the Kaupule and CO is essential for effective project delivery and sustainability. In terms of reporting, the CO sends quarterly reports directly to PMU. There is no official reporting line to the Kaupule, and whilst there are informal meetings (for example a monthly meeting with the Island Secretary in Niutao and a quarterly meeting with Kaupule in Nanumea), the Kaupule felt they were not aware of the details of the project and implementation progress.

The level of engagement of the **Kaupule** in project activities has varied across islands. Engagement has been low in Funafuti and Niutao, whilst rather active in Nanumea. In Funafuti, the relationship between the CO and the Kaupule has been particularly problematic. The 1st CO was recruited in 2010 and reported directly to the Kaupule. This CO resigned in 2011 to undertake new employment. A new CO position was advertised by the Department of Environment, who also undertook the selection and recruitment process. A 2nd CO was chosen and presented to the Kaupule. Given the Kaupule had not been included in the recruitment process, they were not satisfied with the new CO. The CO carried out some activities independently on planting fetau with an Agricultural Extension Officer and the Project Assistant of the NAPA. However, the CO was fired by recommendation of the Kaupule in January 2013. Project activities in Funafuti have been severely delayed for these reasons. A new CO is currently being recruited.

Given the distance, PMU does not have regular face-to-face contact with COs and monitoring project progress relies on quarterly reports. Overall, the quarterly reports provided by COs are of variable quality. Whilst some provide good reports on progress of activities and photo reportages, others are of very weak quality and are submitted with substantial delays, affecting reporting on the overall project. Monitoring project results, including the relevance of activities for climate change adaptation, and capturing lessons learned has been weak throughout the project, including at island level and by COs. This leads to a situation where PMU is unable to have a comprehensive knowledge and oversight on activities actually being implemented in the islands. Visits to the islands by PMU have been essential in gaining some much needed oversight.

Communications is a serious challenge. The project provided computers and trained COs in IT skills at the outset. In Nanumea and Niutao, COs have embraced these skills, and despite regular cuts in connectivity, maintain contact and reporting lines to PMU via e-mail. In some other islands, the level of IT skills and connectivity access has been much weaker. A further challenge is the issue of transport. Given the regular ferry to the outer islands only goes once a month, this hampers the ability to provide training to COs – both getting technical assistance to the islands, or to have COs come to Funafuti for training, as it always requires over a month away either way.

At the beginning of the project (in 2010), a Concept Note was agreed between the project, JICA, Secretariat of the Pacific Regional Environment Programme (SPREP), Secretariat of the Pacific Community (SPC), Pacific Islands Applied Geo-science Commission (SOPAC) and University of the South Pacific (USP) for a *Pacific Regional Technical Support Mechanism* to support implementation of the NAPA project in all its components. The project collaborated closely with SOPAC and SPREP for drafting the climate change policy. Otherwise, there is low evidence of collaboration between the project and **regional organizations** in other areas of the project, as originally identified in the agreed Concept Note.

In addition, the **national NGOs** TANGO and TNCW were included in the original project document as key project partners. In practice, their role has been mainly to participate in TWG meetings, rather than being engaged in implementation of project activities. The NGOs had a sense that the project works only with government, rather than also with NGOs.

Institutional linkages have mainly been strengthened between members of the respective PB and TWG. Links between climate change adaptation activities within country are mainly enhanced through the Department of Environment, where they oversee various climate-related projects.

3.3.5. Conclusions and summary of findings

The project has achieved some progress towards its objective of increasing protection of livelihoods of from risks related to climate change and variability in Tuvalu. This has included progress in Outcome 1 for enhancing capacity of public administration to plan and respond to climate change risks, notably through developing national policies supportive of climate change under Outputs 1.1. and 1.2. Further, progress has been achieved under Outcome 2 on enhancing capacities of local communities to adapt through practical community-based adaptation measures, namely under Output 2.2. components on agriculture and water security. The project has however not linked these activities directly to climate change adaptation. There are delays and shortfalls in implementing Output 1.3. on establishing the NCCAC, Output 1.4. on a national awareness campaign; Output 2.1. on community-based risk assessments and plans and Output 2.2. on coastal protection; and the whole of Outcome 3 on capturing, analysing and disseminating knowledge and lessons learned.

Gender inequalities were evident in the decision-making structures of the project and there were unequal benefits in delivery of project activities. Cross-cutting issues of human rights and equity have been taken into consideration in project implementation, although less so at design phase. The project overall shows relatively low level of innovation. Institutional arrangements have faced challenges in terms of the technical capacity and continuity of the PMU; the functioning of the Project Board; and the effectiveness of the CO structure.

Table 9. Summary of findings for Project Implementation

Key question	Rating
To what extent is the project achieving its overall Objective, Outcomes and	MS
Outputs?	
Gender Assessment	MS
How have cross-cutting issues of human rights, equity and innovation been	S
taken into consideration in project design, implementation and monitoring?	
Have overall institutional arrangements been effective in designing,	MS
implementing, managing, monitoring and reviewing the project?	
Overall rating for Project Implementation	MS

3.4. Operations, Policies and Procedures

The section reviews the project's operations, policies and procedures. Key questions address: how the project is being monitored; how reporting is carried out; any technical or operational problems; how project finances are managed; any programmatic or financial variance; and co-financing.

3.4.1. Monitoring

Key question 1. How is the project monitored?

Technical monitoring is primarily done during the Annual Project Review/Project Implementation Report (APR/PIR) process requested by GEF through UNDP. The APR/PIR process is estimated to take around four months, from April to August of any given year. The APR/PIR is developed by PMU jointly with UNDP (Country Office in Fiji and RTA). UNDP provides substantial support, both through a site visit (2

weeks) and close support and follow-up via teleconferences and e-mails in writing-up the report. The quality of the APR/PIR report is high and it provides a comprehensive overview on project progress.

The log frame/Strategic Results Framework (SRF) provides a set of adequate indicators for monitoring project progress. However, several of the suggested Sources of Verification have not been sufficiently developed, including interviews and Questionnaire Based Surveys. The quality of local level reporting (please see 3.4.2. Reporting below) further affects the quality of data gathered for verification purposes. The SRF is used primarily for developing the Annual Work Plan and during the APR/PIR process, rather than as an on-going planning and monitoring tool.

There is weak monitoring at island level by COs, including through the quarterly reports. The report format does not include specific guidance on monitoring, including with regards to monitoring adaptation results. For example, there is no tracking of how different home gardening crops respond to changes in temperature or rainfall; whether pulaka structures increase resilience to salinity; or how water storage is managed in periods of drought. Overall, there is no on-going results-based monitoring being undertaken. Reported data is not sex disaggregated.

Following a field visit by UNDP in June 2012, the Strategic Results Framework was updated and approved in collaboration with PMU, TWG and the PB. Results tracking sheets were suggested as a means to track progress, but there was no evidence of these having been taken on board.

3.4.2. Reporting

Key question 2. How is project reporting carried out?

PMU reporting quality has increased throughout the project and now fulfills UNDP requirements. The Inception Report from the Inception Workshop was submitted with a year's delay. This exemplifies some of the early management challenges of the project. PMU has increased its delivery of timely reports. A joint Annual Work Plan is drafted by UNDP for all their project work in Tuvalu. This is then revised and updated by the Government and Project Manager. Quarterly Progress Reports are prepared by PMU. These have a separate format, which does not tie directly to the AWP or the Strategic Results Framework.

COs have been provided with a basic quarterly reporting template. Quarterly reporting by COs is in general weak in terms of quality and means it is difficult to know what project activities are actually happening on the islands. Reports are sent to PMU and not shared with Kaupules or Island Leaders directly. A couple of COs provide better quality reporting. The reports are also submitted with varying degrees of timeliness. There is a low level of analysis of results and results-based reporting carried out by both COs and PMU. APR/PIR reports developed with UNDP are of good quality. Additional ad hoc reports may be required, e.g. by AusAID. These are developed by PMU, with support from UNDP CO and RTA.

Annual Project Reports, a self-assessment report by PMU to the UNDP Country Office, was envisioned in the project document. These have not been developed. Due to the challenges in early reporting by PMU, it was felt that the comprehensive APR/PIR review process, and the generated report, covers this function. These annual reports were to feed into the Tripartite Review, which, as mentioned above, have not been held on an annual basis. Given the good quality and comprehensive review carried out as

a joint effort between PMU and UNDP during the APR/PIR process, it can be recognized that this report does indeed fulfill the needed function of an annual report.

3.4.3. Operational and technical problems

<u>Key question 3. Are there operational or technical problems and constraints that affect effective implementation of the project?</u>

There are limitations of **communications infrastructure**, including intermittent internet and telephone coverage, which severely limit regular communications on project implementation and progress between PMU and COs in the outer islands. The **limitation of transport** to outer islands, with only a monthly scheduled service that carries out brief stops in each island, affects training of COs and community members; technical support provided directly to the islands; and delivery of project inputs. The project has aimed to address some of these challenges by providing IT training to COs, providing a phone allowance for COs and chartering boats for project visits. PMU has however not always planned their training and delivery of inputs to the outer islands sufficiently in advance and in line with the boat schedules. Planning by PMU is still done primarily on an annual, rather than quarterly basis. To a large degree, influencing the lack of adequate national level communications and transport infrastructure remains outside the scope of the project.

High staff turnover, due to reasons such as recruiting inadequate staff or staff leaving for other work opportunities, has led to further delays in project implementation. Low initial capacity within PMU to manage the project adequately, including in terms of operational and financial procedures, has led to low project progress and performance. UNDP addressed this by playing a key role in supporting project implementation, including through in country support in establishing adequate planning, reporting and financial procedures, liaising with stakeholders and scaling-up project implementation. Individual work plans were also established for PMU. This practice has since been abandoned. UNDP CO in Fiji provides almost daily e-mail support and regular teleconferences, and regular support is also provided by the RTA in Bangkok. This was estimated to be substantially more support than they provided to other projects in their respective portfolios.

Recruitment processes have also been slow, including at national level where identifying suitable candidates for positions such as Project Coordinator has been challenging and time-consuming, and has also led to internal debates within project management. Several of the technical experts defined in the Project Document have not been recruited. It was assumed that these functions could be absorbed by the Project Coordinator and the Works Supervisor, but this has not been the case in practice and project implementation and achievement of objectives has suffered from a lack of technical expertise on climate change adaptation, coastal zone management, agriculture, monitoring and evaluation, knowledge management and capacity building. Recruitment of a coastal assessment expert and a National Technical Advisor to support project implementation has been planned since mid-2012, yet these posts are still to be recruited. There have been delays in coordination between the Department of Environment and UNDP with regards to approvals and responsibilities in the recruitment processes.

There are delays in national level **procurement** due to the fact that in-line with national procedures, each payment needs to be approved by the Permanent Secretary, who may be out of office due to e.g. travels and unable to sign-off. In terms of procurements processed by UNDP, there are delays related to the time lag in processing procurements between Tuvalu and Fiji. The Project Board and PMU have both raised concern over these delays in procurement, yet given the problems appear to be inherent to the

broader procurement procedures both at national and UNDP level, there have been no specific attempts to address these within the existing procedures. UNDP has communicated to the Government of Tuvalu the need to implement a national Procurement Policy, which would enable PMU to carry out its own procurement and thereby fast-track procedures. Such a Procurement Policy remains however to be implemented.

Finally, there have been problems with **results-based reporting and monitoring**, as described in sections 3.4.1. and 3.4.2. above. There have been discussions on how to address these between project partners, notably UNDP, PMU, PB and Government, but this problem still remains to be addressed.

3.4.4. Project finances and co-financing

Key question 4. How are project finances managed?

Overall, project accounting and financial systems are adequate for management purposes. Quarterly and Annual Financial Reports are adequately prepared and submitted on time. Quarterly advances of up to USD 100,000 are provided to PMU, in line with a Costed Work Plan. Funds are received by Treasury, through where PMU requests payments by Payment Voucher. These need to be approved by the Permanent Secretary in his function as the accountable officer with budget authority, causing delays if he is on travel (up to a week or two). UNDP carries out any procurement above USD 5,000 due to the lack of a national Procurement Policy in Tuvalu. This is done either through a request for service or direct payment to suppliers. As the process has to go via Fiji, this can cause noticeable delays in procurement processes (on average 2 weeks, often more). On occasion, delays have been due to insufficient information being provided by PMU to the UNDP Procurement Team. The project has been audited annually. PMU has addressed issues identified by the audits, such as reconciling financial records held by PMU and Treasury on a regular basis.

Key question 5. Is there programmatic or financial variance and/or adjustments made?

There is significant financial variance from the original project budget in terms of annual delivery and delay in project implementation compared to activities planned in the project document and in Annual Work Plans. Quarterly planning and budgeting has also tended to be inadequate, with significant delays in executing requested budget advances. This section is based on an assessment of Annual Work Plans compared with financial reports (both annual and quarterly), quarterly progress reports, and the APR/PIR reports.

By the end of 2012, the 3rd year of the project, only 23% of the overall project budget had been executed. If the full budget planned for 2013 were executed, and this being the final year of the project, the project would have spent only 41% of its overall budget of USD 4,369,000 (see Table 10 below).

The project has managed to deliver its budget as per AWP only in the first year, 2010. A majority of the budget was spent on project management expenses, which is partially justifiable by the fact that it was the 1st year of implementation and that the PMU and office space were set up. The COs were also recruited and trained as planned, and the project's governing body, the Project Board, was set up. Planned activities for Output 1.3. took place with the NCCAC being established. Awareness raising under Output 1.4. occurred in the form of the island workshops held by COs. However, activities that had been planned in the AWP for Outputs 1.1. and 1.2. on policy and 2.1. on community-based adaptation plans were not carried out. The community-based adaptation plans and related risk assessments have been

planned annually since, but are yet to be implemented. This has been a critical factor undermining the success of the project.

Table 10. Project budget and annual expenditure

Overall pr	oject budget: USD 3,330,0	00 (LDCF) + USD 1,00	59,000 (AusAID) = USD	4,369,000
	Annual budget as per project document for NAPA I (Yr. 1-4)	Annual Work Plan	Actual Expenditure (CDR)	Rate of delivery (AWP vs. CDR)
2010	812,215	203,054	240,271.41	118%
2011	952,795	572,799	342,096.98	60%
2012		500,500		78%
NAPA I	812,495	292,470	391,120.39	130%
NAPA I+		208,030	43,287.31	20%
2013		795,263		
NAPA I	722,495	693,529		
NAPA I+		101,734		
Total	3,330,000	2,071,616	1,016,776.09	

Expenditure 2010-2012 as % of overall project budget: 23%

Expenditure 2010-2012 + budget 2013 as % of overall project budget: 41%

In both 2011 and 2012, the project's rate of delivery has been below what was planned in the Annual Work Plans. In 2011, the project delivered 60% of its planned budget, and in 2012, 78%. The project advanced in-line with planned policy activities under components 1.1. and 1.2. on national policy and achieved expected results. The budget for Outcome 1 was well executed in 2012²¹. Activities under component 2.2. on home gardening and water security also advanced. Some of the coastal activities planned also took place, including coastal afforestation, Sandwatch training and Coastal Management Map by University of Tokyo (output 2.2.). There were however delays on other coastal protection activities (including beach nourishment), which in part explains why the budget for Outcome 2 was weakly executed in 2012. In addition, the absence of a Project Coordinator and the Works Supervisor for large parts of 2012 explain the low execution of Outcome 2, given its focus on practical implementation and reliance on appropriate technical guidance from PMU staff.

The development of a coastal management policy, planned since 2011, never took place (Output 1.1.). A national awareness campaign has also been planned since 2011, but has never materialized (Output 1.4.), and is identified as a key shortfall of the project given low levels of awareness witnessed during the MTE. Activities under Outcome 3 on knowledge management and lessons learned have only been planned since 2012, which is far too late in the project, especially given there was an on-going aim to capture and analyse such knowledge and lessons throughout the project. In 2012, the project also failed to deliver on Outcome 3 as planned, with practically no activities or investments in this area.

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²¹ Annual Work Plan budgets have been tied to specific outputs and outcomes only since 2012.

The delivery rate in 2012 was particularly low for the activities planned under NAPA I+ funding. Approximately half of the NAPA I+ funding was allocated for a gender implementation plan and related activities. The gender assessment that would inform these activities was only carried out in parallel with this Mid-term Evaluation in 2013. The other half was for the development of a website, which was also delayed.

Quarterly planning and budgeting has also been relatively weak, as shown in Table 11 below. This table describes the quarterly financial advances requested by the Project Management Unit/Government of Tuvalu, and the actual expenditure during that quarter. It does not include the budget of UNDP spent through request for service or direct payment to suppliers.

Table 11. Average quarterly USD budget and expenditure (as per Payment Voucher)

Year	USD Budget	USD Expenditure	Rate of delivery (%)
2010			(/0)
	04 505 5422	24 244 24	250/
Q1	91,525.51 ²²	- 31,841.91	35%
Q2		- 52,576.20	57% = 92%
Q3	89,507.03	- 79,809.25	89%
Q4	39,815.26	-18,518.13	102%
		-22,132.94	
			94% on average
2011			
Q1	257,494.37	-111,918.33	43%
Q2		-56,490.11	22%
Q3		-77,194.84	37%
		-18,193.22	
Q4	61,964.81	-43,480.22	83%
		-8,066.36	
			46% average
2012			
Q1	69,072.87	-75,348.34	109%
Q2	58,899.19	-58,643.00	99%
	57,245.64	-63,342.39	110%
Q3	84,646.40	-72,305.18	85%
Q4	7,515.66	-9,768.03	130%
			106% average

Quarterly expenditures reflect good planning and expenditure in the first year, 2010, due to project management costs and recruitments. Quarterly planning and budgeting was exceptionally weak in 2011, when the advance requested in Quarter 1 was eventually only spent by the end of Quarter 3, giving an overall implementation rate of only 46% on average. This shows the initial weak capacity for adequate planning and budgeting within PMU. This is the period during which UNDP provided 3-month in-country support (Q 3 and 4 in 2011) to build capacity within PMU and adjust weak project management practices. It is only since 2012 that one can evidence a trend of adequate quarterly planning and budgeting within PMU vis-à-vis expenditure that is also tied to substantive activities and delivery of

²² Advance provided at the end of Quarter 1 and rolled into Quarter 2

outcomes. The need for quarterly technical planning, which ties to budgetary planning, will be essential for the effective and efficient delivery of the project here onwards.

There is weak proof of adaptive management within the project. For example, the need to carry out adequate initial assessments and to monitor coastal protection measures has been identified throughout the project during UNDP visits and by the Project Board, but the assessments have not been carried out. There is awareness on the shortfalls of the implemented soft infrastructure coastal protection measures, but no corrective actions have been planned or undertaken. The project had originally planned activities to undertake mainstreaming of climate change into education (Output 1.4.) and to develop climate scenarios (Output 3.1.). These types of activities have since been implemented by other projects, but the NAPA project has failed to revise its activities and consider how to best coordinate with these on-going initiatives.

Despite significant delays in project implementation and budget delivery, there has also been no systematic review of all activities and a comprehensive prioritization by the Project Board, other than an update of the Strategic Results Framework. The PB has focused on authorizing smaller changes to the project, rather than providing analytical guidance on required broader scale, programmatic changes that could have enhanced project and budget delivery. Inadequate adjustments have been made during the project, which has led to inefficient programme delivery.

Overall, the project has had a tendency to budget small annual amounts, in comparison with what was originally envisioned as annual budgets in the project document (see Table 10 above). Whilst this reflects the challenges mentioned earlier on regarding operational limitations at national level, the project needs to urgently scale-up its implementation capacity, both in a programmatic and budgetary sense, if it wishes to successfully deliver remaining project activities and achieve results, and to justify any potential project extension.

Key question 6. Has co-financing been leveraged?

Planned co-financing from JICA has not materialized due to the suspended beach nourishment project. An additional grant has been leveraged from AusAID for NAPA-I+ to the amount of USD 1,069,000 (AUS 1,000,000). The Government of Tuvalu has given an in-kind contribution through the provision of an office space for PMU and operational and financial management support.

3.4.5. Conclusions and summary of findings

Project monitoring has been weak to date, relying mainly on the APR/PIR process and without an ongoing, results-based approach. Project reporting is by and large carried in a comprehensive and timely manner, although there are also shortcomings in terms of results-based reporting. Operational and technical problems were identified in the fields of communications and technological infrastructure; results-based reporting and monitoring; recruitment; procurement; and technical capacity. These issues have been addressed to varying degrees. Project finances are overall well-managed. The project has had significant programmatic and financial variance, whilst adequate adjustments have not been made. The project has not succeeded in securing co-financing as envisioned from JICA due to the beach nourishment project being on hold, but it has gathered an additional grant from AusAID to expand project activities.

Table 12. Summary of findings for Project Implementation

Key question	Rating
How is the project monitored?	MS
How is project reporting carried out?	S
Are there operational or technical problems and constraints that affect	MS
effective implementation of the project?	
How are project finances managed?	S
Is there programmatic or financial variance and/or adjustments made?	MS
Has co-financing been leveraged?	S
Overall rating for Operations, Policies and Procedures	S

3.5. Results

This section assesses the results achieved by the project by reviewing efficiency, effectiveness, sustainability and impact of the project to date.

3.5.1. Efficiency

The project has suffered from severe under-execution of budget. If the project had been able to carry out more planned activities and use the budget accordingly, this is likely to have led to better delivery of results. Several key activities around, for example, risk assessments, awareness raising and analysing lessons learned have been undelivered and have directly affected achievement of outcomes. Expertise inputs have been inadequately sought and utilized. Time has also been used ineffectively, with severe delays in key recruitments and procurements.

Inadequate consideration at design stage was given to the limits imposed by capacity gaps in project implementation at national level and lacking communications and transport infrastructure. This has affected in particular the efficiency of implementing the project in the outer islands in terms of required capacity building, technical guidance and delivery of project inputs. The project has not adequately executed changes to project implementation to respond to these needs, for example by restructuring and prioritizing project deliverables and strategically assessing mechanisms for capacity building, outreach and awareness.

UNDP has responded by providing operational support, including in-country, beyond the extent that was originally planned. This has helped move the project forward. It has, however, also led to an increased investment of human resources which has not always been duly reflected in budgetary planning and allocations.

Given the low budget that has been spent, the project has managed to reach reasonable achievement of outputs in terms of support to policy development and implementing activities on home gardening and water security in particular.

3.5.2. Effectiveness

The project has delivered effectively on Outputs 1.1. and 1.2. on reviewing and developing national policies. This has contributed to partial achievement towards outcome 1, specifically in terms of enhancing the capacity of public administration, with policy support, to plan for and respond to climate change risks. The project has also been relatively effective in delivering Output 2.2. community-based adaptation projects specifically in the areas of home gardening and water security. Given these projects have not been directly linked to climate change adaptation, they have contributed to Outcome 2 on enhancing the capacity of local communities to adapt to climate-related threats, but to a limited degree as the activities have so far not enhanced planned adaptation.

There have been severe delays in delivery of activities with regards to Outputs 1.3. NCCAC; Output 1.4. national awareness; Output 2.2. with regards to coastal protection; Output 2.3. Analysis of community-based demonstration projects; Output 3.1. Analysing, updating and disseminating climate change information; and Output 3.2. Collating and disseminating lessons learned. This has affected the achievement of Outcome 1 with regards to enhancing the capacity specifically of Island Kaupules, communities and NGOs to plan for and respond to climate change risks; as well as the delivery of Outcome 2. The project has to date been least effective in achieving Outcome 3 on capturing knowledge and lessons learned.

3.5.3. Impact

The impact of the project was assessed throughout all interviews and documents reviewed, in addition to carrying out a specific exercise on "Most Significant Change" with PMU, PB and TWG focus groups.

The project shows some increase in the resilience of communities to climate change. This includes the diversification of livelihoods and enhanced food security from seeds provided under home gardening, including some new seeds families had not tried before and recruiting some families to home gardening who were not previously carrying out such activities. The project has only begun to test new methods for growing pulaka and it is too early to measure results, however introducing such new approaches in itself shows to communities that "things can be done differently" and that adapting to conditions of increased soil salinity will require new ways of thinking and planning.

The main Tuvaluan Church, Ekalesia Kelisiano Tuvalu, holds a bi-annual Church Conference which attracts large numbers of Tuvaluans, both residents and those who have migrated abroad. In 2012, the conference was held in Nanumea. This led to a strong interest and increase in the production of home gardening to provide for the high number of visitors to Nanumea, and the additional water storage capacity provided by the NAPA water tanks were transferred temporarily to nurseries and home gardens to provide irrigation. Although the rate of home gardening has since decreased, the activities supported by the project played a critical role in providing for this key community event. The conference will be held in 2014 in Niutao, and the island has already begun active home gardening activities in preparation, with support from the NAPA project.

The new water tanks provided by the project were mentioned by several beneficiaries as the key impact the project has had in increasing water storage capacity and water availability on the islands for communal activities. The maintenance of individual tanks was also seen as a very positive impact on household water availability. In addition, the youth in particular appreciated the short term employment opportunity provided by water tank installation and maintenance. This led to further interest in gaining future employment opportunities through the project.

The coastal protection activities can be deemed to have had a negative impact in many cases. The fact that planted fetau and kanava had failed to succeed (due to several reasons described earlier, such as choice of wrong location and lack of awareness on needed maintenance) has led to general disillusionment and a belief that soft infrastructure options should not be considered as a choice for coastal protection.

The project has had an impact in reaching out to all outer islands and providing development opportunities across Tuvalu. Although it has been limited, there is likely to have been some exposure and increased awareness on climate change, including through the consultations to develop the National Climate Change Policy. The project has, to some degree, provided a forum of collaboration for government to discuss climate change issues, in particular between members of the PB and TWG.

3.5.4. Sustainability

The project has enhanced some institutional capacities, in particular within Department of the Environment, and has to some degree enabled enhanced government collaboration on climate change through PB and TWG members. However, the project has not sufficiently mainstreamed climate change adaptation into existing government structures. This includes, for example, strengthening the capacities and providing tools for Agricultural and Public Works Extension Workers to plan for and implement adaptation options in their activities, which would enable sustainability of activities both from a technical and financial standpoint. So far, collaboration has been ad hoc. Further, there is scope to enhance outreach to teachers on education and awareness on climate change, in particular in the outer islands. The Te Kakeega II and the National Climate Change Policy provide a good policy base for maintaining work on climate change adaptation, although there is further scope to mainstream climate change into sectoral plans.

The Community Organizer structure has been the primary means of outreach to the islands. This structure has had its challenges, and is no longer planned as a model under the NAPA 2 project. The capacities of the Kaupule have not been sufficiently strengthened, nor climate change mainstreamed into all local ISPs as to ensure sustainability of initiated activities at local level.

The water tanks are likely to be maintained and their use continued after the project ends. Home gardening activities had already been abandoned in some islands after the fences had not been provided. Further effort is needed in providing minimum inputs to this activity as to ensure sustainability. The new approaches to growing pulaka are too early on as to be able to estimate their success and likely sustainability. The coastal protection activities are likely, in most cases, to be abandoned once the project ends.

3.5.5. Conclusions and summary of findings

The project has suffered from inefficient use of funds, with severe delays in budget execution. Results have been achieved with the budget that has been implemented, in particular under Outcome 1 and some parts of Outcome 2. Time use has also been inefficient, with severe delays in recruitment and procurements, as well as inadequate planning around existing operational constraints.

Overall efficiency has been unsatisfactory. In term of effectiveness, the project has advanced in delivery of Outputs 1.1. and 1.2. contributing to outcome 1 in terms of enhancing capacity of public administration and policy support. It has also been effective in delivery of certain activities under Output 2.2. on community-based adaptation measures, in particular home gardening and water security. There have been delays in implementation of all other outputs, and in particular in the overall achievement of Outcome 3. Effectiveness is therefore evaluated as marginally satisfactory.

The project has had some impact, including in terms of increasing food and water security. The project has, in particular through activities in applying innovative approaches to growing pulaka, shown that "things can be done differently" and that changes in climatic conditions will require new approaches to planning. The project has supported the implementation of national policies and provided employment opportunities.

Finally, sustainability is deemed marginally satisfactory. Capacity has been increased within government to a certain degree, and a good policy framework is now in place, but more mainstreaming into sectoral departments is required. The project has been weak in building island level capacity. The water tanks are likely to be sustained following the project, whilst home gardening activities require more inputs as to be sustainable. Current coastal protection activities are deemed unsustainable.

Table 13. Summary of findings

Key question	Rating
Relevance	S
Efficiency	US
Effectiveness	MS
Impact	MS
Sustainability	MS
Overall Results	MS

3.6. Summary of Evaluation Findings

Table 13 summarises all the findings of the key components of the Evaluation. Overall, the project has a Marginally Satisfactory rating in terms of design, implementation and results. Whilst the project has made positive achievements in all areas, there are several shortcomings that need to be urgently adjusted within the remaining time of the project. A satisfactory overall rating was given to operations, policies and procedures, which have improved progressively throughout the project, although these also have challenges that require addressing.

Table 14. Summary of Evaluation findings

Evaluation component	Rating
Project design	MS
Project Implementation	MS
Operations, policies and procedures	S
Results	MS

4. Lessons learned and recommendations

4.1. Lessons Learned

Communications and transport infrastructure causes limits to project implementation on outer islands

The limited telecommunications and internet infrastructure in many of the outer islands limits regular communication, reporting, monitoring and technical guidance to the islands. In addition, the oncemonthly boat schedule limits the ability to provide technical assistance to the islands, the ability of islanders to participate in trainings, and the provision of project inputs on a regular basis. Any project working in all outer islands needs to take these limitations into consideration when planning project activities, budgets and timelines. Advance planning on a regular basis (at least quarterly) is essential to ensure effective project implementation.

Adequate outreach within the islands is essential

The project has relied on the structure of having Community Organizers based in each island to coordinate project implementation. This structure has had benefits in providing local presence and in kick-starting activities. However, having one person is not sufficient to ensure that knowledge and skills provided by the project reach out to the broader community. Projects should ensure that, first, appropriate technical guidance, in person and in the form of materials, are provided to Community Organizers or similar local project focal points on outer islands. Key local community members such as the Kaupule and teachers can provide partners for project implementation and ensure sustainability, in addition to existing technical support staff such as Agricultural and Public Works Extension Workers and Meteorology staff that are located in certain islands. Projects should systematically seek ways of establishing such partnerships. Finally, providing incentives such as compensation for manual labour on communal buildings (installing water tanks) or gardening competitions can motivate commitment to project activities from local communities. Any project activities involving payment for work should be equitable. That is, equal numbers of men and women should be engaged in paid tasks (although the tasks may vary), and for the same rate of pay. Otherwise socially prevailing inequities in opportunity and remuneration are reproduced by the project and there is no transformational change.

Climate change adaptation is complex and requires adequate technical guidance

Climate change, its likely impacts and how this will affect livelihoods is a complex science. Explaining and understanding climate change for the first time requires adequate technical expertise as to raise awareness, whether this is for individuals or for building a training of trainers' model. Integrating adaptation into the planning and implementation of either on-going or new livelihood activities requires adequate technical expertise – be it in the field of agriculture, water management or coastal protection. The project has relied on a very simple model of training Community Organizers, who are then in charge of coordinating delivery of community-based adaptation activities on the islands. This approach is fundamentally weak, in that it cannot be expected that non-expert individuals be left in charge of disseminating such activities to entire communities, albeit occasionally with some support from Agricultural Extension Workers or the Works Supervisor. Furthermore, the latter do not possess climate change expertise either. Given the wealth of expertise regionally in the Pacific in all these domains, the project should seek adequate technical expertise for on-the ground activities that move beyond business-as-usual development and specifically focus on climate change adaptation.

Mainstreaming project activities into existing government structures can ensure sustainability

Mainstreaming climate change adaptation into existing government structures such as extension worker models; into sectoral plans; and local plans such as ISPs can ensure that such considerations become part and parcel of on-going work carried out by government and expertise is enhanced at national level. This will also promote sustainability, rather than relying primarily on temporary staff such as the PMU and COs for the delivery of project activities.

Capacity and operational limitations in project implementation require adequate support

The limits in capacity to implement the project, in particular in the beginning and under the first Project Coordinator, undermined effective project delivery. This was compounded by limited financial mechanisms and logistical constraints. UNDP played a key role in providing on-going operational support, including in-country. This type of support should be planned for from the outset and sufficient budgetary and human resources allocated. Project modalities need to be appropriately evaluated in light of these types of operational constraints inherent at national level.

Project decision-making structures need to be thought through from an effectiveness perspective

The Project Board has been increased in number as to allow for appropriate representation and identification of island needs. Whilst including the Island Leaders is justified from an equitable representation perspective, in practice it has not been an effective model and due to communications and distance challenges the Island Leaders are not able to identify island needs appropriately. On the other hand, the Technical Working Group has limited numbers of participants which enables smoother decision-making, yet has suffered from lack of participants. Many relevant technical members originally on board (e.g. Education, Meteorology) have been asked to leave and some of these collaborative relationships with the project have been lost. The PB should reflect what is the most effective participant structure from a high-level decision-making perspective; whilst the TWG should reflect technically relevant membership that provides regular, in-depth technical guidance.

4.2. Recommendations²³

The following section provides recommendations for actions to reinforce initial benefits from the project or to correct issues of design, implementation, monitoring and evaluation of the project.

1. Design and implement a training strategy and plan

The importance of scaling-up training to address capacity gaps for planning and responding to climate change risks, especially at local level, is deemed critical for the successful achievement of project outcomes. Recruiting a Training Coordinator to design and oversee implementation of training is recommended. The Training Coordinator would develop a training strategy and plan to identify key topics of training, target audiences (e.g. COs, PMU, Kaupule, communities, Agricultural and Public Works Extension workers, Department for Rural Development, PB), resources needed (both financial and human), location and timing of trainings. Recommended topics of training include: climate change and

²³ Recommendations are provided following the order used in this report's section on findings, not in order of priority

adaptation; Results Based Management, including reporting and monitoring; gender; integrating climate change adaptation into planning; climate change and coastal protection; water management under climate change; agriculture and adaptation. Outreach to the islands and providing in-person training from experts (both national, regional and international) is recommended as a means to rapidly scale-up capacities and not to rely on COs as intermediaries for ensuring capacity building in the outer islands.

It is recommended to prioritize young women for technical skills training under the project – this may include reporting, climate monitoring in agriculture or water activities and other technical work. This would constitute a modest contribution to their empowerment, and toward better inclusion of the group which so far seems to be benefitting the least from the project as implemented. Provide some gender training to key persons involved in the project implementation and monitoring: PMU staff, community organizers, women's representatives, agricultural extension workers, and others, so that they can better identify and support measures to improve gender equality under the project. UNDP Pacific Centre can organize and deliver this training.

2. Design and implement a local and national awareness campaign on climate change adaptation

This recommendation aims to address the general lack of awareness on climate change, evidenced in particular on the outer islands. It is recommended that Department of Environment recruit the planned Knowledge and Communications Officer urgently. The Officer would design an awareness raising campaign at local and national level on climate change. This can include the production of materials such as videos, radio programmes, leaflets, posters and presentations. The campaign should provide training at local island level introducing climate change. PMU should initiate collaboration with the Department of Education and TANGO, who have on-going work on a new climate change curriculum and training materials, but who lack the means to provide outreach to the outer islands. PMU should further explore potential linkages with the Department of Meteorology on awareness raising, in particular in the outer islands, on the Tuvalu Climate Change Assessment, which has been produced with support from AusAID. The NAPA project could assess the feasibility of producing user-friendly materials on the Climate Change Assessment targeted at local level beneficiaries.

3. Scale-up and expand activities on home gardening, in particular as to enhance the link with climate change adaptation

It is recommended that PMU provides further support for the effective delivery of current home gardening activities, including by ensuring the urgent provision of fences to protect home gardens and ensure continuation of activities. PMU together with COs should carry out needs surveys and provide tools needed by communities to enhance home gardening. The following materials have been requested and should be designated for the women and channeled via the local women's group: chicken wire for fencing, tools (forks, spades, wheelbarrows, watering cans, taps for the water tanks, shovels) and seeds, seedlings and fertilizers. COs should clarify that the tools provided by the project are available for all home gardening participants. Chippers or other approaches for enhancing production of compost should be provided. Where relevant, provide additional training on home gardening techniques and crops. PMU and COs, together with Agriculture Department, should explore the relevance of having agricultural competitions and campaign days to plant specific crops and trees.

To enhance the relevance of home gardening specifically for climate change adaptation, PMU and COs, in collaboration with Department of Agriculture, should support the testing of climate change ready crops provided by SPC. Explore strengthening of collaboration between the project and Agricultural

Extension workers and sending out Agricultural Experts to the islands that do not have a permanent Extension Worker, as a means to ensure institutional mainstreaming of adaptation and sustainability of project activities on home gardening. Together with Department of Agriculture, explore relevance of sustainable agriculture techniques (e.g. mulching, intercropping) for adaptation. The above approaches to agriculture could also form part of an agricultural assessment. Provide training on agriculture and adaptation, including participatory monitoring and planning, for COs, communities and Extension Workers. PMU to establish linkages between Meteorological Service data (available at least on rainfall and temperature) and services, Agricultural Extension workers and COs for monitoring agriculture and adaptation. Any training provided on home gardening techniques and climate change impacts on agriculture should ensure the invitation of and inclusion of women, with particular outreach to younger women to ensure their inclusion.

4. Assess new techniques for growing pulaka under conditions of increased soil salinity

Where appropriate, PMU should carry out soil quality assessments on soil salinity, with due technical guidance and support from soil experts for carrying out the assessments at local level. PMU, COs and Agricultural Extension workers should pilot different approaches (e.g. raised beds) for increasing pulaka production in conditions of increased soil salinity, and carry out due monitoring on lessons learned. The durability of the pulaka pit access road being built in Niutao should be assessed under conditions of climate change (e.g. increased rainfall and flooding), calling on engineering expertise as needed.

5. Scale-up activities on water security, in particular as to enhance the link with climate change adaptation

PMU should follow-up on the provision of water catchment roofs for NAPA tanks that do not have a roof, as to ensure on-site water provision rather than transporting water in tractors from other sites. Works Supervisor should provide training on identifying and repairing tanks that are appropriate for maintenance, as to minimize the leakage of repaired tanks. PMU together with COs should explore the relevance of providing more gutterings and other needed components, new tanks for public buildings or maintaining existing ones in Nui, Nanumaga, Vaitupu and Nanumea, given the success of the water security component to date. Decisions on the optimal location of any new water tanks provided by the project should ensure that women's opinions and interests on this matter are solicited, obtained and documented, along with those of men. This is important, as the time use study showed that women are more involved than men in daily activities requiring significant use of water, such as cooking, cleaning, washing and to some extent home gardens.

With support of external experts, carry out an assessment on appropriate water saving measures and water use planning under climate change, and provide relevant local level training to adopt recommended measures. Where relevant, assess the environmental impact of withdrawing sand from beaches for water tank maintenance and the relevance of using alternative sources of materials such as cement, with engineering guidance.

6. Carry out coastal assessments in outer islands and support coastal protection measures in Funafuti

UNDP should urgently recruit the Coastal Assessment Expert to carry out the planned assessments on coastal protection in Nukulaelae and Nukufetau, as to ensure adequate time for initiating any potential protection measures on the sites within the lifetime of the project. In particular, the expert should assess the feasibility of specific sites for soft and hard infrastructure measures on the given islands; where appropriate, identify suitable varieties of mangrove and non-mangrove species for coastal protection at prioritized sites and assess planting practices. Explore the feasibility of carrying out similar coastal assessments also on other outer islands. PMU should support the establishment of a Kaupule nursery in Funafuti for developing mangrove and non-mangrove species. Regional mangrove technical expertise should be accessed, via recruitment, for piloting new varieties and planting methods in Funafuti. PMU, in collaboration with national or international experts, should provide awareness workshops on coastal protection and climate change, in particular to address the skepticism prevalent amidst communities towards soft infrastructure measures. PMU should follow-up at national level, and UNDP directly with JICA, on the beach nourishment project for Funafuti as to establish whether the project is definitely closed.

Establish a cash-for-work (CFW) scheme with modest compensation for planting trees along the coastline, specifically targeting participation of younger women on the islands. Compensation could be a modest payment per tree planted, and half of that payment each subsequent year if the tree is growing well (possibly under NAPA 2). This activity would capitalize on young women's physical strength and energy in constructive ways, and would teach them valuable life skills such as work ethics and productivity, as well as some technical competencies. UNDP in Fiji has recent experience in appropriate design and implementation of CFW schemes in a Pacific context, which can be drawn upon.

7. Designate project activities targeting specific sub-groups

Designate certain project activities as primarily targeting the following sub-groups, based on their interests expressed: younger men, older men, younger women, older women. This will tend to ensure that all of the population groups engage in the project in meaningful and appropriate ways, and that the project is not "gender blind" or tending to inadvertently favor predominantly one of these groups.

8. Initiate and implement activities to capture, analyze and disseminate project knowledge and lessons learned

PMU should provide new formats for capturing lessons learned at island level by COs, capitalising on UNDP's expertise and existing procedures on documentation of lessons learned. UNDP should provide training on monitoring results and capturing lessons learned to PMU and COs. PMU, through Government of Tuvalu or UNDP should outsource the development of a climate change web platform for Tuvalu. Develop a strategy and plan for capturing lessons learned and best practices, for example hiring technical expertise to tour islands to capture and analyze knowledge and lessons learned. Develop materials on lessons learned, including case studies, brochures and summary document.

9. Design and disseminate a project brand

The project currently has low visibility at local level in particular. PMU to support the development of a project logo, for example through a public competition. Develop a project leaflet, summarizing project

objectives, and distribute to outer islands in Tuvaluan language. Government of Tuvalu or UNDP to hire branding and marketing expertise to produce project promotional materials, such as stickers, t-shirts, posters, USB keys, sulus and signs. Brand key project products, including water tanks and nurseries. Project branding and promotion can help mobilize male and female youth, who would then identify with a larger and meaningful cause, which would go a long way to motivate them and channel their energies.

10. Revise Project Board composition and communications

The Government of Tuvalu, together with PMU, UNDP and PB, should review the composition of Project Board to cut down number of participants from current 15, including through considering the reestablishment of the role of Home Affairs as representative of islands. The project document identified three key roles which should be covered by the PB (Executive, Senior Supplier and Senior Beneficiary). The composition should ensure these roles are represented in a balanced manner and that the number of representatives remains effective for high-level decision-making, at around 6-7 members. The role of The Permanent Secretary as the Chair of the PB should be confirmed in writing in a relevant project document or letter. The active participation by the Permanent Secretary as Chair in all Project Board meetings should be ensured through appropriate meeting scheduling, as to enable decision-making at PB meetings, and not retroactively. If the Permanent Secretary were to be on travel, adequate Delegation of Authority should be established within MFATTEL as to ensure that the Assistant Permanent Secretary has authority to sign-off on project-related decisions in the absence of the Permanent Secretary. PMU should send PB decisions to COs, Falekaupule and Kaupules. PMU should facilitate transmission of CO reports to Kaupules, and to Island Leaders. Where relevant, PMU can facilitate discussion (via phone) between Island Leaders and islands. The PB also needs to provide more strategic, high-level guidance to the project, in particular as to ensure the effective and efficient implementation of remaining project budget and activities. This role should be clarified to the PB by MFATTEL/DoE and PMU.

Within the project, the government is encouraged to find ways to increase women's representation at all levels, and particularly in the PB as the executive decision-making body for the project's governance. The composition of the Project Board currently unintentionally entrenches a significant gender bias towards men, in particular the inclusion of all island representatives based in Funafuti, who are always 100% men as per traditional custom. Therefore, considering the re-establishment of the role of Home Affairs as representative of islands would also correct this gender bias and allow more potential space for women's participation in executive decision-making on the project's overall direction.

11. Revise operations of the Technical Working Group

PMU, together with Project Manager, PB and TWG, should explore the feasibility of holding technical expert meetings on thematic topics such as food security; water security; coastal protection; and gender, inviting relevant additional technical experts. In particular, it is recommended that a thematic TWG group on local development be set up to discuss and assess island priorities and needs in-depth. This thematic local development group could be represented either by the current Island Leaders or by Island Secretaries. If such a thematic group is established, it is recommended that either a tour to respective islands to verify local needs is facilitated once a year (for Island Leaders); or if Island Secretaries were invited onto the thematic group, their travel to Funafuti be supported once a year. Explore if some Departments would be more relevant to be represented in TWG rather than PB, for example Fisheries, given there is only one fisheries related activity in the entire project (in Niulakita). TWG membership should have more balanced gender representation. Ensure that the guidance

provided by TWG trickles down to island level, for example through PMU providing technical guidance documents to COs and Kaupules.

12. Ensure staff continuity within PMU

Government of Tuvalu must prioritise retention of current PMU team for remainder of project to avoid any further delays in project delivery.

13. Establish regular meetings between PMU and Project Manager

Currently, communication is ad hoc and often via e-mails. PMU and PM should agree on a regular face-to-face meeting, for example on a monthly basis. In the absence of the PM due to travel, authority should be delegated within Department of Environment or MFATTEL to ensure regular face-to-face meetings are held.

14. NCCAC establishment and role with DCC and NDC needs to be clarified at national level

The establishment of NCCAC - whether as an independent entity or as part of DCC or NDC - by the Government of Tuvalu and/or Parliament is recommended as a matter of priority as to ensure effective national level coordination on climate change. Once NCCAC is established, the project, via PMU, should support its functioning.

15. Strengthen collaboration with national and regional organizations

PMU should strengthen collaboration in the implementation of similar and complimentary project activities with TNCW (e.g. on mangroves) and TANGO (e.g. on Education). Synergies should be identified and opportunities for closer collaboration seized, for example in the provision of technical expertise and training. Given low technical capacity on climate change adaptation within PMU, it is recommended that regional and SIDS technical expertise be sought to deliver key components of training and project implementation, in areas such agriculture and coastal protection. Appropriate MoUs or contracts with work plans (including deliverables, budgets and timelines) should be negotiated as to ensure effective and efficient collaboration and to ensure joint deliverables are provided that tie directly to project outputs and project results.

16. Strengthen collaboration with key government departments

PMU should strengthen collaboration with key departments, including with Department of Agriculture on Agricultural Extension work and expertise on climate change ready crops; Public Works on assessing water availability and use under different climate change scenarios; Home Affairs on mainstreaming climate change into ISPs and NAPA activities into Kaupule work plans; and Education on outreach of new climate change curriculum to outer islands. Such collaboration is deemed essential for mainstreaming climate change adaptation into relevant sectors and ensuring sustainability of project activities. The project should also support the mainstreaming of adaptation into relevant sectoral plans. Collaboration between the project and different Departments should be defined in written agreements (e.g. MoUs) that have clearly defined activities and deliverables tied to project outputs.

17. Explore options for enhancing communications and transport services

Project implementation has been severely delayed due to the lack of adequate communications to outer islands which has affected in particular effective project reporting and monitoring. Inadequate transport links have caused significant delays, in particular to training of COs; hampering provision of adequate technical support; and delayed delivery of project goods. It is strongly recommended that a short term solution to providing more efficient transport to outer islands be sought based on due cost-benefit analyses by UNDP and Government of Tuvalu, within the remaining time of the project as to enable the implementation of provided recommendations. Adequate budgetary allocation should be given to strengthening communications and transport which are deemed essential for achievement of results. PMU should also enhance its quarterly planning in-line with known boat schedules. Options should be reasonable within the project budget and in line with project objectives. The Government of Tuvalu is further urged to seek sustainable, long-term solutions to the communications and transport challenges facing the country and affecting its overall sustainable development.

18. Strengthen reporting and monitoring systems

UNDP and PMU should jointly develop a template for COs for monitoring project activities, in particular with regards to adaptation. PMU should explore options for joint adaptation monitoring of home gardening with Agriculture Department, to be carried out collaboratively with Agricultural Extension workers and building on Agriculture quarterly report template. UNDP should provide a template for COs and PMU to report on training workshops. PMU should explore the relevance of monthly reporting by COs. PMU should establish quarterly results-based planning, with support from UNDP. PMU should ensure monitoring throughout the year, including quarterly planning, monitoring and assessments (not just APR/PIR). UNDP or Chief Technical Advisor should provide training on Results-based Management to PMU and COs.

Require all reporting on project activities and meetings to systematically include sex-disaggregated data, in order to track any progress in gender balance. Project templates and formats should be adjusted as needed to ensure this tracking. Monitor project expenditure from a gender budgeting perspective. For example, most of the equipment purchased under the project to date, such as chainsaws, petrol and cement mixers, have been used for the activities prioritized by men, such as the road to the pulaka pit, or have been operated by the men and linked to temporary employment. This also applies to the loader and chipper which are now proposed for purchase. Most likely, there is need for project expenditures to start also prioritizing inputs, supplies and employment opportunities responding to the expressed needs and interests of women.

Urgent delivery of remaining project budget needs to be ensured and facilitated by PMU, Department of Environment, UNDP and PB

The implementation of the project budget is lagging severely behind. By the end of 2012, the 3rd year of the project, only 23% of the overall project budget had been executed. If the full budget planned for 2013 were executed, and this being the final year of the project, the project would have spent only 41% of its overall budget of USD 4,369,000, leaving a budget of USD 2,556,960. The project's annual rate of budget delivery compared to Annual Work Plans has been systematically low, with the exception of 2010 when the project initiated and had high costs of recruitment and project management. In 2011, the project delivered 60% of its planned budget, and in 2012, 78%. Delays in budget execution apply in particular to Outcomes 2 and 3.

The trend of low delivery needs to be urgently rectified as to ensure the implementation of pending activities, and to justify a potential project extension. The effective achievement of project results within the lifetime of the project requires immediate action, planning, implementation and oversight for budget delivery in close coordination between PMU, Department of Environment/MFATTEL, UNDP and the Project Board. These partners need to strategically assess activities planned for 2013 and identify how best to expedite implementation, including following the guidelines of this MTE. This includes prioritizing Output 1.4. on awareness raising; Output 2.1. on risk assessments; Output 2.2. linking ongoing activities specifically to climate change adaptation; and urgently initiating activities for Outcome 3 on knowledge and lessons learned. Many of these are already included in the AWP for 2013, but these activities need to be reviewed and their implementation mobilized rapidly, seeking additional external support and expertise where relevant. Such actions are vital for justifying the consideration of a project extension.

20. Expedite pending recruitments

UNDP should recruit pending technical experts immediately (Chief Technical Advisor, National Technical Advisor, Coastal Assessment expert). Department of Environment should recruit Communications and KM officer/consultant immediately. Department of Environment should include Funafuti Kaupule in selection process of new Funafuti CO and recruit immediately. Department of Environment should include Kaupules also in other CO selection processes, where relevant. Department of Environment or UNDP should hire needed technical consultants to ensure speedy delivery of proposed trainings, assessments and implementation of activities, including South-South expertise from SIDS. UNDP should allocate needed resources for providing on-going follow-up and support to project implementation.

21. Implement adequate work planning and appraisals for project staff

It is recommended that individual annual work plans be developed both for PMU staff and COs. It is further recommended that COs undergo an annual appraisal to assess their performance and delivery of results.

22. Expedite pending procurements

It is recommended that PMU, UNDP and Government of Tuvalu expedite pending procurements, in particular those critical to the implementation of community-based adaptation measures on the ground, such as the fences needed for the effective implementation of home gardening.

23. Maintain regular dialogue between AusAID and UNDP

AusAID and UNDP should ensure regular dialogue is maintained throughout project implementation, including with regards to planning (sharing AWP), recruitment of international experts, project progress and national circumstances.

24. A project extension of 1 year is recommended

The evaluation recommends a 1 year project extension, until November 2014. This extension is recommended to ensure the effective achievement of the project objective, in particular through: scaling-up of on-going community-based adaptation activities on home gardening and water security and to link these more closely to climate change adaptation; advancing activities on coastal protection, in particular coastal assessments; initiating and duly delivering activities related to Outcome 3 on capturing, analyzing and disseminating knowledge and lessons learned; enhancing overall capacity,

especially at local level, to plan for and respond to climate change, through due training and awareness raising as critical pre-requisites for achieving project results and ensuring project sustainability.

The project has failed to deliver its budget efficiently to date. It is therefore recommended that as to justify the extension, the project (PMU, MFATTEL, UNDP, PB) needs to demonstrate its ability for rapidly scaling-up project delivery and budget execution. This should include urgently planning for and undertaking priority activities immediately following this Mid-term Evaluation.

Urgent dialogue between the Executing Agency and UNDP is recommended, as to review MTE recommendations and prioritise activities for implementation, as well as integrating these into a revised work plan for the current remaining period of the project (until November 2013).

4.3. Replicability

The project has been very successful in supporting the development of the Climate Change Policy. This process has been done in a particularly participatory fashion, which is a model that is very relevant for island nations in particular, but also other countries preparing national climate policies and seeking to engage large sections of society in the process. The home gardening and water activities, and in particular any additional components that integrate these more strongly with climate change adaptation, are relevant throughout the islands of Tuvalu and more broadly in the Pacific. It is specifically because of their regional relevance that regional expertise should also be sought in implementing these activities. The new methods to grow pulaka under conditions of salinity are particularly innovative, and if they prove effective, would be replicable throughout Tuvalu.

Annex 1. Evaluation Matrix

Key questions	Specific sub questions	Data sources	Methods and tools	Indicators/success standard	Rating
PROJECT DESIGN 1. Do the project assumptions remain valid? 2. Does the project design and approach	 Were the root causes of vulnerability and barriers to climate resilience correctly identified and has the project addressed these? low capacity in planning and responding to climate change adaptation (CCA) lack of plans, policies and regulations supporting CCA lack of information exchange and coordination between institutions, organisations and communities low level of awareness on CCA Is the project relevant to and supportive of priorities identified at local and national level, including those identified in plans and policies? Have the different priorities of men and women 	Data sources Data collected throughout evaluation Government, partners, donors, communities, Kaupule		•	Rating
respond to the needs of Tuvalu in addressing climate change adaptation and is the project relevant to government, partners and donor policies?	 been identified and addressed? Is the project appropriate, does it increase resilience of coastal areas and settlements? Does the project have support of local communities, Kaupules, women's organizations and relevant government institutions? 	Project document Local and national level plans and policies	Overall data analysis	Degree of coherence between the project and national plans and policies Level of support to project implementation from partners	
Is the project suitable	What has been achieved within the timeline?How have financial resources been used?	Project Management	Interviews	Level of discrepancy between planned and utilized financial	

commensurat e with time and resources available?	How many of the planned adaptation activities have been achieved within this time period and within budget? Has this contributed to outcomes?	Unit, Project Board (PB), government, Kaupule and communities Financial documents APR/PIR AWP	Document review	resources, vis-à-vis results achieved Level of discrepancy between planned and implemented activities, vis-à-vis results achieved	
4. What is the current level of comprehensi on of the project concept amidst i) PMU; ii) Project Board; iii) Technical Working Group; iv) local communities ?	 What do stakeholders see as the main climate hazards in Tuvalu? What have been the impacts of these hazards? What do they believe needs to be done to adapt to these impacts? What are the gender-differentiated views and practices? How do institutions and communities plan for these impacts? How does the NAPA project support planning and responding to climate change? What has been the role of project pilots? Institutional arrangements? Policies? Capacity building? Which have been most successful and why? What has been learnt? How has this learning been captured and fed into processes? 	Project management unit (PMU), technical working group (TWG), Project Board, communities Project document	Interviews Participatory and gender- sensitive M&E techniques Document review	Level of comprehension of stakeholders with regards to climate change impacts; adaptation responses; role of project in planning and implementing adaptation responses; project design and approach	
Key questions	Specific sub questions	Data sources	Methods	Indicators/success	
			and tools	standard	
PROJECT IMPLEMENT	T		T		
1. To what extent is the project achieving its overall Objective,	 Is the project effective in achieving its overall objective in increasing the protection of livelihoods in coastal areas from dynamic risks related to climate change and climate variability in all inhabited islands of Tuvalu? Has the capacity of MNRE and MPUI, Island 	Government, Kaupule, communities, partner organisations, PMU, TWG, PB	Participatory and gender- sensitive M&E approaches	Ability of communities and government officials to i) identify climate risks; ii)prioritize and plan adaptation responses Change in capacity and	

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Outcomes	Kaupules, communities and participating NGOs	Project	Document	awareness experienced by
and Outputs?	been enhanced to plan for and respond to climate	documents	review	community stakeholders
	change risks in coastal areas (Outcome 1)?			
	 Has the Te Kakeega II been reviewed to 	Plans and policy		Number of existing/new
	incorporate climate risk and resilience (Output	documents		gender-sensitive plans and
	1.1.)?			policies that integrate coastal
	 Has a coastal zone management policy been 	Board minutes		management and CCA
	developed and gender-differentiated plans and			
	strategies modified to incorporate climate risk	Training		NCCAC established
	management (Output 1.2.)?	workshop reports		
	Has a National Climate Change Advisory Board	including sex-		Number and type of training
	been established and/or trained to support	disaggregated		received by teachers
	community-based adaptation (Output 1.3.)?	data		
	Has a national awareness campaign been designed			Number and type of training
	and/or implemented (Output 1.4.)?	Budgets		seminars for Ministries and
	How and to what extent has the project built			organizations
	management, planning and operational capacity			
	among project stakeholders at community level?			Number and type of training
	,,			received by women in the
	Has the capacity of local communities to adapt to			communities on climate change
	climate related impacts been enhanced through			adaptation
	implementation of community-based adaptation			·
	measures (Outcome 2)?			Number and quality of media
	Have community-based adaptation plans been			programmes and materials
	developed and in which islands (Output 2.1.)?			produced
	Have women and women's organizations been			
	systematically involved in the development of			Level of engagement by Island
	adaptation plans?			Development Coordination
				Committees in planning and
	 Have community-based adaptation projects with a focus on participatory and gender-inclusive 			support for CCA
	management of protective ecosystems and			
				Number of adaptation
	climate-sensitive natural resources been designed			measures implemented
	and/or implemented, how many and in which islands (Output 2.2.)?			
				Effectiveness of adaptation
	Have the results of community-based adaptation projects been applyed with a gender less and fed			measures in responding to
	projects been analysed with a gender lens and fed			climate change impacts
	into programmes (Output 2.3.)?			- '
	the connected by and decreased because 1			% of male and female
	Have project knowledge and lessons learned been			community members
	captured, analysed and disseminated (Outcome			participating in design and
	3)?			

	 Has climate change information for Tuvalu been analysed, updated and or/disseminated (Output 3.1.)? Have lessons learned from community-based adaptation projects been collated and/or disseminated (Output 3.2.)? How does the project plan to share lessons learned within and outside the Pacific (incl. ALM) (Output 3.3.)? How has the project disseminated information in project implementation? 			implementation of adaptation measures Number of gender-differentiated lessons learned documented and disseminated (incl. where and how disseminated) Quality of institutional links with meteorological services, climate information and modeling processes Number and quality of climate scenarios available Number of guidance documents produced and quality
2. Gender assessment	 How has the programme integrated gender considerations into its design? How does the project mainstream gender considerations into its implementation? Is data disaggregated by sex (men and women) in project documents? How many men and women participated in project training? How many men and women participated (directly or indirectly) in project design and decision making? How many men and women participated in project management and implementation? Do any actions need to be undertaken to assist project staff and community leaders to identify and address gender issues more effectively? 	Government, Kaupule, communities, PMU, TWG, Project Board Project documents	Interviews Direct observation	Gender considerations have been integrated into project design, implementation and reporting Gender-differentiated impacts and adaptation practices identified People trained under the project include equal numbers of men and women
3. How have cross-cutting issues of human rights, equity and	 Has the programme integrated human rights and equity considerations (incl. applying a rights-based approach and including vulnerable groups) into its design and implementation? To what extent has the programme contributed 	Data collected throughout evaluation	Data analysis	Human rights and equity considerations have been integrated into project design and implementation

innovation	innovative measures towards solving the			The programme has identified
	problems?			innovative measures (e.g.
been taken	ргомента:			technically, institutionally) to
into				solving problems
consideration				Solving problems
in project				
design,				
implementati				
on and				
monitoring?				
Have overall	How well does the project's management model	Technical	Interviews	Specific activities conducted to
institutional	(its tools, financial resources, human resources,	Working Group,		support the development of
arrangement	technical resources, organizational structure,	Project Board,	Group	cooperative arrangements
s been	information flows and management decision-	PMU,	discussion	between partners
effective in	making) contribute to generating the expected	Department of		
	outputs and outcomes?	Environment	Participatory	Types/quality/regularity of
designing,	 To what extent have partnerships/linkages 		M&E	partnership cooperation
implementing	between institutions/organizations been		approaches	methods utilized
, managing,	encouraged and supported?			
monitoring	 Which partnerships/linkages have been 			Evidence that particular
and	facilitated? Which ones can be considered			partnerships/linkages will be
reviewing the	sustainable?			sustained
project?	 Have partnerships/linkages been established with 			
	women's organizations in order to identify and			Number of meetings held with
	consider women's issues?			gender-balanced participation,
	 To what extent have the participating agencies 			decisions taken and nature of
	coordinated with each other (regularity, level of			guidance, coordination and
	efficiency of cooperation and collaboration			oversight provided by PB
	arrangements)?			N. I. 6 I. I
				Number of meetings held with
	 How does the Project Board function and how are 			gender-balanced participation,
	decisions taken? How has the Project Board			decisions taken and nature of
	provided guidance, coordination and oversight to			technical guidance provided by
	project implementation and with what effect?			TWG
	 How does the Technical Working Group function 			Level of adequate coordination,
	and how are decisions taken? How has the			management and
	Technical Working Group provided technical			administration functions
	guidance and to what effect?			provided by Department of
	How do the functions of the PB and TWG relate to			Environment
	one another? How does the two-tier system of PB			Liivii Oliiliciit
	and TWG work in terms of			

	 effectiveness/ineffectiveness? Is membership in the Project Board and Technical Working Group gender-balanced? What has been the effectiveness and efficiency of project coordination, management and administration provided by the Department of Environment? What has been the support provided by, and degree of involvement of, the Department of Rural Development, Kaupule, NGOs, women's organizations and community stakeholders in implementing the project? 			Type of support provided by and degree of involvement of different stakeholders in project implementation
Key questions	Specific sub questions	Data sources	Methods and tools	Indicators/success standard
RESULTS				
	•			
Efficiency	 How economically have resources and inputs (funds, expertise, time) been converted into results? Could they have been used more efficiently? How has the project responded to required changes in design and implementation? 	PMU, Project Board, Department of Environment, TWG	Interviews Project documents	Level of discrepancy between planned and utilized financial expenditures Cost in view of results achieved compared to costs of similar programmes Adequacy of programme choices in view of existing context, infrastructure and cost Occurrence of change in programme design/ implementation approach (i.e. restructuring) when needed to improve programme efficiency Cost associated with delivery mechanism and management structure compared to alternatives
Effectiveness	 Have project outputs been delivered? 	All data gathered	Data Analysis	Change in capacity, incl. with

	 Have they led to outcomes that contribute to change in the capacity of government, communities and organizations to plan for climate change impacts and to adapt to these impacts in coastal areas? Have men and women benefitted equally from project outputs? What are the main achievements to date, what have been the main gaps? 	during evaluation	Most significant change Contribution analysis	regards to awareness on climate change; planning adaptation responses; implementing adaptation responses; monitoring; institutional coordination for climate risk management
Sustainability	 Has a sustainability strategy been developed and implemented? Has institutional capacity been strengthened? Have suitable and sustainable organizational arrangements been made? Does planning for sustainability engage both women and men? Are adequate policy and regulatory frameworks in place or being developed? Are financial mechanisms in place to ensure ongoing flow of benefits? Is the project's duration sufficient to ensure a cycle that will project the sustainability of interventions into the future? 	Government, PMU, TWG, Project Board, Kaupules, communities Government documents: policies, budgets etc. Project documents	Interviews Document analysis	Evidence/quality of sustainability strategy Degree to which programme activities and results have been taken over by local counterparts or institutions/organizations Evidence of commitments from government or other stakeholders to financially and/or technically support relevant activities after programme end
Impact	Has the project contributed to change in the resilience of coastal areas and community settlements to climate change?	All interviews Project document Data gathered during evaluation	Most significant change Document analysis	Change in the resilience of coastal areas and community settlements to climate change can be evidenced and contributed to project outputs and outcomes
Has the project promoted local participatory decision-making and governance?	 How are decisions taken? Who is involved in the decision-making and governance of project activities? Is there gender balance in the decision-making bodies? Have local participatory decision-making and governance structures been strengthened through the project? 	Kaupule, communities, community organizers	Interviews	Local decision-making and governance structures for climate change adaptation are in place, are participatory in nature and gender-balanced and have been supported by the project
Has the project, or will it, contribute to a	 Do existing/new local and national level plans and policies incorporate climate risk management? 	Government, Kaupule,	Interviews	Nr of local and national level gender-sensitive plans that

strengthened enabling	Has this been supported by the project?	communities,	Document	incorporate climate risk
environment for	Does the project contribute to local, national and	partners	analysis	management
climate change	global development and environmental goals?	Local national		Degree of coherence between
adaptation?	Has the capacity of government, partners and	Local, national and global plans		the project and local, national
	communities been strengthened to plan for and	and policies		and global plans and policies
V	respond to climate change?	•	0.0 - + -	
Key questions	Specific sub questions	Data sources	Methods and tools	Indicators/success standard
OPERATIONS, POLICII	ES AND PROCEDURES		and tools	Stalldard
•		1	T	
1. How is the	What monitoring mechanisms are in place, both	Project	Interviews	Quality and gender sensitivity
project	for financial and technical monitoring?	documents	Danimant	of RBM monitoring and
monitored?	Do monitoring mechanisms gather information	PMU	Document	evaluation reporting
	from both women and men in the community?	PIVIO	analysis	Existence, quality and use of
	Is the data gathered systematically sex	Project Board		M&E to share findings and
	disaggregated?	Froject Board		recommend on effectiveness of
	Has the logical framework been used effectively as			programme design and
	a management tool?Are the monitoring indicators relevant? Are they			implementation
	· · · · · · · · · · · · · · · · · · ·			mpementation
	of sufficient quality to measure the joint programme's outputs?			
	. •			
2. How is	 How is RBM used during program monitoring? Are progress reports produced accurately, timely 	Programme	Interviews	Availability and quality of
	and respond to reporting requirements?	documents	interviews	progress and financial reports
project 	Are the programme results framework and work	PMU	Document	progress and manetarreports
reporting	plans (and any changes made to them used) as	1 1010	analysis	Timeliness and adequacy of
carried out?	management tools during implementation?	Project Board	ununysis	reporting provided
		•		
3. Are there	What is the reason behind operational and	PMU	Interviews	Procedures in place to address
operational	technical problems (in terms of e.g. budget,			operation and technical
or technical	human resources, reporting, procurement,	Project Board		problems and constraints
problems and	technical guidance, coordination etc.)	Department of		Quality of responses identified
constraints	How have these problems and constraints been	Environment		Quality of responses identified
that affect	addressed?	Environment		
effective	How might these problems and constraints be The stringly addressed 2.			
implementati	more effectively addressed?			
on of the				
project?				
4. How are	Are the accounting and financial systems in place	Project	Interviews	Level of discrepancy between
	adequate for programme management and	documents		planned and utilized financial
project	adequate for programme management and		Document	expenditures
	l	l	_ = = = = = = = = = = = = = = = = = = =	I amb amanan as

finances managed?	 producing accurate and timely financial information? What is the balance between expenditures on administrative and overhead charges in relation to achievement of outputs? What has been the average delivery of project resources per guarter? 	PMU Project Board	analysis	
5. Is there programmati c or financial variance and/or adjustments made?	 Is the stipulated timeline of outputs being met? Is adaptive management used or needed to ensure efficient resource use? Why were the adjustments made? Are they in conformity with Project Board decisions? Are they appropriate in terms of delivery of overall project objectives? 	Project documents PMU Project Board	Interviews Document analysis	Occurrence of change in programme design/ implementation approach (ie restructuring) when needed to improve programme efficiency
6. Co-financing	Has co-financing been leveraged?	Donors, PMU, Government, Project Board Co-financing agreements	Interviews Document analysis	Co-financing has been leveraged for different project components
Key questions	Specific sub questions	Data sources	Methods	Indicators/success
•		2444 5541 555		-
			and tools	standard
LESSONS LEARNED AIRecommendations		All data gathered during evaluation Time use study		-

		Time use study		
Lessons learned	 Which lessons learned have been gathered during the project's design and implementation to date? 	All data gathered during evaluation	Data analysis	
Replicability	 Are project activities replicable elsewhere (in Tuvalu, the Pacific, globally)? How could good practices be up-scaled? What links are there to existing national and regional agencies and potential new areas of partnership? 	All data gathered during evaluation National and regional agencies	Data analysis Interviews	

Annex 2. Terms of Reference

Terms of Reference for Team Leader: Mid Term Evaluation of the Tuvalu NAPA-I Project

Title: Team Leader (International Consultant) for the Tuvalu NAPA-I Project Evaluation

Project: Increasing Resilience of Coastal Areas and Community Settlements to Climate Change

in Tuvalu

Duration: 32 days to be completed by 22nd January, 2013

Supervisor(s): UNDP Multi Country Office; UNDP Asia Pacific Regional Centre in coordination with

national executing agency (Department of Environment)

Duty Station: Home Based with one mission to Tuvalu

Project Background

Tuvalu is one of the Pacific Island Region's Island atolls that are currently facing the brunt of Climate Change. To address the aggravating effects of climate change (2007), Tuvalu identified seven priority areas which is embedded in its National Adaptation Programme of Action (NAPA) framework and includes;

- I. Coastal: Increasing resilience of Coastal Areas and Settlement to climate change.
- II. **Agricultural**: Increasing subsistence pit grown pulaka productivity through introduction of a salt-tolerant pulaka species.
- III. Water: Adaptation to frequent water shortages through increasing household water capacity, water collection accessories, and water conservation techniques.
- IV. **Health**: Strengthening of Community health through control of vector borne/climate sensitive diseases and promotion access to quality potable water.
- V. **Fisheries:** Strengthening of Community Based Conservation Programmes on Highly Vulnerable near-shore Marine Ecosystems.
- VI. **Fisheries**: Adaptation to Near-Shore Coastal Shellfish Fisheries Resources and Coral Reef Ecosystem Productivity.
- VII. Disaster: Strengthening Community Disaster Preparedness and Response Potential.

The United Nations Development Programme (UNDP) in partnership with the Government of Tuvalu are currently implementing a GEF administered Least Developed Country Funds funded Project entitled "Increasing Resilience of Coastal Areas and Community Settlements to Climate Change in Tuvalu" that aims to address the first three (Coastal, Agricultural and Water) priorities out of the seven.

The project is implemented over a period of 4 years, commencing from November 30th 2009. However, due to a number of institutional realignments with complementary baseline programmes, actual investments by the project only started in 2010. The lead Executing Agency is the Department of Environment under the Ministry of Foreign Affairs, Trade, Tourism, Environment and Labour (MFATTEL), where a Project Management Unit (PMU) provides general coordination and oversight for the project. The project receives high level guidance and oversight from a Project Board, which is chaired by the Director of the Department of Environment.

Project Objectives and Expected Outcomes

The main objective of this Project is to increase the protection of livelihoods in coastal areas from dynamic risks related to climate change and climate variability on all inhabited islands of Tuvalu. This objective will be achieved through 3 main outcomes; 1)Increasing institutional capacity at all levels of public administration, island Kaupules and communities with policy support to plan and respond/adapt to climate change-related damage, 2) Implementation of community based adaptation measures relating to water security, coastal protection and food security and 3) Project knowledge and lessons learned are captured, analysed and disseminated to facilitate replication of practical adaptation solutions in all islands.

Mid-Term Review objectives

The Monitoring and Evaluation (M&E) policy at the project level in UNDP/GEF has four objectives: i) to monitor and evaluate results and impacts; ii) to provide a basis for decision making on necessary amendments and improvements; iii) to promote accountability for resource use; and iii) to document, provide feedback on, and disseminate lessons learned. A mix of tools is used to ensure effective project M&E. These might be applied continuously throughout the lifetime of the project – e.g. periodic monitoring of indicators, or as specific time-bound exercises such as mid-term reviews, audit reports and independent evaluations.

In accordance with UNDP/GEF M&E policies and procedures, all projects with long implementation periods are strongly encouraged to conduct mid-term evaluations. In addition to providing an independent in-depth review of implementation progress, this type of evaluation is responsive to GEF Council decisions on transparency and better access of information during implementation.

Mid-term evaluations are intended to identify potential project design problems, assess progress towards the achievement of objectives, identify and document lessons learned (including lessons that might improve design and implementation of other UNDP/GEF projects), and to make recommendations regarding specific actions that might be taken to improve the project. It is expected to serve as a means of validating or filling the gaps in the initial assessment of relevance, effectiveness and efficiency obtained from monitoring. The mid-term evaluation provides the opportunity to assess early signs of project success or failure and prompt necessary adjustments.

Scope of the Mid-Term Review

The evaluation will investigate the following elements:

A. Project Design

The mid-term evaluation will assess the extent to which the overall project design remains valid. The evaluation team will review the project's concept, strategy and approach within the context of effective capacity development and sustainability. Specifically the team will:

- Assess the extent to which the underlying assumptions remain valid;
- Assess the approach used in design and the relevance of project intervention to the needs of Tuvalu in addressing climate change adaptation issues and relevance of the project to Government, partners, and donors policies;
- Assess the suitability of the project design commensurate with time and resources available;
- The evaluation team will also attempt to ascertain the current level of comprehension of the project
- concept, focusing on three specific sets of actors: (i) project management unit (including community organisers); (ii) Technical Working Group; and (iii) local communities.

B. Project Implementation

The Evaluation will assess the extent to which project management and implementation has been effective, efficient and responsive.

- Assessment of the overall progress towards achievement of its overall Objective, Outcomes, and Outputs;
- Assessment of which planned activities are critical for attainment of project Outputs in the second half of the project;
- Gender assessment of Project implementation at national and sub-national levels
- assess the use of logical framework as a management tool during implementation;
- assess indicators of adaptive management;
- assess overall institutional arrangements for the execution, implementation, management, monitoring and review of the project. This covers a number of issues, including: the appropriateness of joint implementation and coordination; whether there has been adequate periodic oversight of activities; the effectiveness of government counterparts; and the effectiveness of relationships between key stakeholders;
 - An assessment of the function and role of the Project Board in providing guidance, coordination, and oversight to the implementation of the project;
 - o An assessment of technical assistance provided to the project by the Technical Working Group and partners, including UNDP, to ensure smooth implementation of the project
 - An evaluation of the effectiveness and efficiency of project coordination, management and administration provided by implementing partner (Department of Environment) at national and sub-national level;
 - Assessment of the support and the involvement of the Department of Rural Development, Kaupule, Falekaupule, NGOs and community stakeholders to implement the project;
 - An analysis of the extent of institutional cooperation and cross-sectoral synergies created by the project;
- assess the quality and relevance of project reporting;
- assess the mechanisms for information dissemination (advocacy and awareness raising) in project implementation and the extent of stakeholder participation in management;
- analyze the project financing, specifically how the project has materialized/leveraged cofinancing for various components (this is preferably presented in a matrix form).
- review the effectiveness and the methodology of the overall Programme structure, how effectively the Programme addressed responsibilities especially towards capacity building and challenges, its main achievements and overall impact as well as the remaining gaps.
- assess the extent to which programme design, implementation and monitoring have taken the following cross cutting issues into consideration: Human rights, Equity, Institutional strengthening and Innovation or added value to national development
- assess how and to what extent the project has built management, planning and operational capacity among the project's stakeholders, particularly at the community levels including an overview of capacity-building techniques employed by the project as well as of the monitoring
- mechanisms involved.

C. Results

The Evaluation will examine the relevance, efficiency, effectiveness and sustainability of operational activities and results achieved by the project to-date, by showing how the component(s) processes and outcomes have contributed (or have the potential to contribute) to the achievement of project and GEF environmental goals. The Evaluation will:

- assess, quantitatively and qualitatively, the achievements and impact in terms of outputs and its contribution to outcomes as defined in the project document;
- assess to what extent the project has made impacts on promoting local participatory decision making and local governance;
- assess to what extent the project has or will contribute to the strengthened enabling environment for climate change adaptation;
- assess the sustainability of project results.

The evaluation team will use a project logical framework to determine the overall contribution of project outcomes to development and global environmental goals. The evaluation team is also invited to highlight contributions which are strictly beyond the project scope.

D. Operations, Policies, and Procedures

- Assess the effectiveness of the monitoring mechanisms employed by the project in monitoring progress of project execution, both in financial as well as technical terms;
- Assess the quality and relevance of project reporting
- Identification of operational (referring to administration, procurement, recruitment, financial management) and/or technical problems and constraints that influence the effective implementation of the project, combined with recommendations for necessary operational changes;
- Assessment of the financial management of the project, including the balance between expenditures on administrative and overhead charges in relation to those on the achievement of substantive Outputs;
- Identification of any programmatic and financial variance and/or adjustments made during the first two years of the project and an assessment of their conformity with decisions of the Project
- Board and their appropriateness in terms of overall objectives of the project;

E. Lessons Learned and Replicability

The Evaluation will also highlight lessons learned and best and worst practices in addressing issues relating to relevance, performance and success.

Future Directions and Recommendations

- Recommendations regarding any necessary corrections and adjustments to the overall project work plan and timetable for the purposes of enhancing the achievement of project Objectives and Outcomes;
- Document Lessons learned during project implementation and recommendations to replicate them:
- Assessment of the long-term viability and sustainability of the project, and recommendations to Government and relevant stakeholders on how to upscale good practices;
- Assess possible links to other existing national and regional agencies and provide recommendations for potential areas of partnership
- Opportunities to strengthen project implementation (through staff training, capacity building or networking or improved management systems) should be identified.
- Recommendations towards the process of preparing a second phase for the project.

Review methodology

The evaluation methodology will be determined by the evaluation team, guided by the requirements of GEF and UNDP as articulated in various guidelines, policies and manuals on the conduct of evaluations for GEF projects as well as key project documents such as the approved GEF project brief, the final

UNDP project document, the inception workshop report, the project log-frame and annual budgets and work plans, the annual Project Implementation Review, Project Board, and Technical Working Group meeting minutes as available, and other technical reports and documents as relevant. The evaluation methodology should be clearly documented in the final evaluation report including comprehensive details of the following:

- documents reviewed
- interviews conducted
- consultations held with all stakeholders
- project sites visited
- techniques and approaches used for data gathering, verification and analysis

Conduct of the Evaluation

Under the leadership of the Team Leader, the Evaluation Team will work independently but will liaise closely with UNDP CO, and the Implementing Partner. The evaluation mission will also liaise periodically with the UNDP-GEF Regional Technical Advisor (RTA) at the UNDP Regional Centre in Bangkok to ensure that UNDP-GEF and GEF requirements are being met.

The team will visit the project site to ensure adequate consultation with all key stakeholders. Towards the end of the field evaluation, presentation will be made to all key stakeholders in country. After the presentation the team will take note of verbal and/or written responses to its presentation and consider these in preparing an interim draft evaluation report that will be provided to Executing Agency/UNDP before the team leaves for distribution to stakeholders. The executing agency and UNDP will circulate the draft report to all stakeholders requesting written feedback and finalized by the evaluators within the dates reflected in the evaluation schedule.

While the evaluation team is free to determine the actual layout of the evaluation report, this must include the minimum content requirements mentioned earlier. The Team Leader will forward the final report by e-mail to UNDP MCO and the UNDP-GEF RTA in Bangkok for onward distribution to all stakeholders. In addition the Team Leader will forward a hard copy and electronic copy saved on disk/flashdrive to UNDP MCO. The evaluators will be responsible for the contents, quality and veracity of the report.

Deliverables

The evaluation mission will produce the following deliverables to UNDP/GEF:

- 1. A presentation of the findings to key stakeholders;
- 2. An executive summary, jointly prepared by the consultants, emphasizing key findings and key recommendations:
- 3. A detailed evaluation report covering scope of the mid-term review with detailed attention to lessons learnt and recommendations; and
- 4. List of annexes prepared by the consultants including TOR's, itinerary, list of persons interviewed, summary of field visits, list of documents reviewed, questionnaire and summary of results, co-financing and leveraged resources.

The final report together with the annexes shall be written in English and shall be presented in electronic form in MS Word format as well as a hard copy

Review Team and Timeline

Two consultants shall be engaged jointly to undertake the evaluation working concurrently according to a planned schedule to be completed by **January 22**nd, **2013**. The Team Leader will have the overall responsibility of organizing and completing the review, submitting the final report as well as supervising the local consultant.

The team leader is expected to propose a work layout, plan, budget and timelines to achieve the expected outputs with the appropriate methodology.

Qualifications of Team Leader (International Evaluation Specialist)

- International/regional consultant with academic and professional background in fields related to Agriculture, Water Resource Management, Coastal Zone Management and Climate Change Adaptation in general. A minimum of 10 years of relevant experience is required;
- Substantive experience in reviewing and evaluating similar projects, preferably those involving UNDP/GEF or other United Nations development agencies or major donors;
- Excellent English writing and communication skills. The consultant must bring his/her own computing equipment;
- Demonstrate ability to assess complex situations, succinctly distills critical issues, and draw forward-looking conclusions and recommendations;
- Highly knowledgeable of participatory monitoring and evaluation processes, and experience in evaluation of technical assistance projects with major donor agencies;
- Ability and experience to lead multi-disciplinary and national teams, and deliver quality reports within the given time;
- Familiarity with the challenges developing countries face in adapting to climate change;
- Familiarity with Tuvalu or similar countries; and
- Excellent in human relations, coordination, planning and team work.

Fee Proposal/Price Schedule

The consultant is requested to provide a proposal or quotation of the fees/cost for the services which will be rendered using the following format.

Daily consultancy rates	A maximum range of US\$400 – US\$500/day for the daily consultancy rate can be proposed.
Air Ticket	To and from home country
Air Ticket	(including at least one travel to Fiji for preliminary briefings)
Compulsory field visits to three demonstration sites including Vaitupu (water security), Nukufetau (food security) and one site at either Nukulaelae or Funafuti (coastal protection)	Expenses to be covered by the Project
Living allowances	Based on the number of days spent at the respective duty station
- Other miscellaneous expenses (please state)	

Payment Schedule

- a) Thirty per cent (30%) of the maximum payable Contracted amount will be paid immediately following the signing of this Agreement and acceptance of a work plan & report layout by UNDP and executing agency.
- b) Twenty per cent (20%) will be paid within eight (8) working days of receipt and acceptance by the United Nations Development Program of a draft evaluation report;

c) The remaining fifty (50%) will be paid within eight (8) working days of the acceptance by the United Nations Development Program of the final Evaluation Report

Evaluation Method

The proposals will be evaluated using the UNDP cumulative analysis method whereby the total score is obtained upon the combination of weighted technical and financial attributes.

The highest combined weighted score which provides the best value for money will be awarded the contract.

Applications: Proposals should include:

- a Results-Oriented Curriculum Vitae with full contact details of three referees
- a cover letter summarizing your experience and qualifications for this consultation (should not exceed 2 pages)
- fee proposal and work plan with timelines to undertake this assignment
- a completed P11 form available from UNDP website

Applications to be submitted by December 14th, 2012 either electronically to registry.fj@undp.org or addressed under confidential cover to:

Expression of Interest

Mid Term Evaluation of the Tuvalu NAPA-I Project C/-- The Resident Representative United Nations Development Programme Multi Country Office Private Mail Bag or Level 8, Kadavu House (414 Victoria Parade) Suva Fiji.

Incomplete applications will not be considered and only candidates for whom there is further interest will be contacted.

Additional information including the Post Profile, Results-Oriented Curriculum vitae format is available from the UNDP website: www.undp.org.fj or the UNDP Office.

Women candidates are encouraged to apply.

*The Fiji Office covers Fiji, Kiribati, Marshall Islands, Micronesia, Nauru, Palau, Solomon Islands, Tonga, Tuvalu and Vanuatu

Further Information

For further information concerning this Terms of Reference, Mr. Nacanieli Speigth, Environment Program Associate, UNDP-MCO, Suva, on email nacanieli.speigth@undp.org / telephone (679) 3312500 or Mr. Solofa Uota, Project Coordinator, (Department of Environment), Email: solofauota@gmail.com.

Annex 1.

Evaluation Report Outline

Report should not exceed 50 pages, in addition to the annexes

Executive summary

Brief description of project, Context and purpose of the evaluation, Main conclusions, recommendations and lessons learned

Introduction

Purpose of the evaluation, Key issues addressed, Methodology of the evaluation, Structure of the evaluation

The project(s) and its development context

Project start and its duration, Problems that the project seek to address, Objectives of the project, Main stakeholders, Results expected

Findings and Conclusions

- Project formulation
 - Implementation approach
 - Country ownership/Driveness
 - Stakeholder participation
 - Replication approach
 - Cost-effectiveness
 - UNDP comparative advantage
 - Linkages between project and other interventions within the sector
 - Indicators
 - Management arrangements
- Implementation
 - Financial Planning
 - Monitoring and evaluation
 - Execution and implementation modalities
 - Management by the UNDP country office
 - Coordination and operational issues
- Results
 - Attainment of objectives
 - Sustainability
 - Contribution to upgrading skills of the national staff

Recommendations

- Actions to follow up or reinforce initial benefits from the project
- Proposals for future directions underlining main objectives

Future Project Strategy

Corrective actions for the design, implementation, monitoring and evaluation of the project

Lessons learned

Best and worst practices in addressing issues relating to relevance, performance and success

Annexes

- TOR
- Itinerary
- List of persons interviewed
- Summary of field visits
- List of documents reviewed
- Questionnaire used and summary of results
- Overview of co-financing and leveraged Resources
- Summary of Evaluation Findings (see below)

Annex 2 LogFrame

OBJECTIVE	MEASURABLE INDICATORS FROM PROJECT LOGFRAME	MID TERM TARGET	STATUS OF DELIVERY*	RATING **
OUTCOMES	MEASURABLE INDICATORS FROM PROJECT LOGFRAME	MID TERM TARGET	STATUS OF DELIVERY	RATIN G
* STATUS OF DELIVERY:		** RATINGS	H ighly Satisfac HS	tory =
GREEN / COMPLETED	= Indicators show successful achievement		Satisfactory = S	
YELLOW	= Indicators show expected completion by end of Project		Marginally Satis	sfactory
RED	= Indicators show poor achieve complete by end of Project	ement - unlikely to be	Unsatisfactory =	= U

Annex 2 Rating project success

The evaluators may also consider assessing the success of the project based on Outcome targets and indicators and using the performance indicators established by GEF for Climate Change Adaptation projects. The following items should be considered for rating purposes:

- o Achievement of objectives and planned results
- o Attainment of outputs and activities
- o Cost-effectiveness
- o Coverage
- Impact
- o Sustainability
- o Replicability
- o Implementation approach
- o Stakeholders participation
- Country ownership
- Acceptability
- Financial planning
- o Monitoring and evaluation

The evaluation will rate the success of the project on a scale from 1 to 5, with 1 being the highest (most successful) rating and 5 being the lowest. Each of the items above should be rated separately with comments and then an overall rating given. The following rating system is to be applied:

Rating:	Achievement:
1= excellent	90-100%
2= very good	75-90%
3= good	60-74%
4= Satisfactory	50-59%

5= unsatisfactory 49% and below

Terms of Reference for National Evaluation Coordinator: Mid Term Evaluation of the Tuvalu NAPA-I Project

Title: Team Leader (International Consultant) for the Tuvalu NAPA-I Project Evaluation
Project: Increasing Resilience of Coastal Areas and Community Settlements to Climate Change

in Tuvalu

Duration: 32 days to be completed by 22nd January, 2013

Supervisor(s): UNDP Multi Country Office; UNDP Asia Pacific Regional Centre in coordination with

national executing agency (Department of Environment)

Duty Station: Tuvalu

Project Background

Tuvalu is one of the Pacific Island Region's Island atolls that are currently facing the brunt of Climate Change. To address the aggravating effects of climate change (2007), Tuvalu identified seven priority areas which is embedded in its National Adaptation Programme of Action (NAPA) framework and includes;

- I. Coastal: Increasing resilience of Coastal Areas and Settlement to climate change.
- II. **Agricultural**: Increasing subsistence pit grown pulaka productivity through introduction of a salt-tolerant pulaka species.
- III. **Water:** Adaptation to frequent water shortages through increasing household water capacity, water collection accessories, and water conservation techniques.
- IV. **Health**: Strengthening of Community health through control of vector borne/climate sensitive diseases and promotion access to quality potable water.
- V. **Fisheries:** Strengthening of Community Based Conservation Programmes on Highly Vulnerable near-shore Marine Ecosystems.
- VI. **Fisheries**: Adaptation to Near-Shore Coastal Shellfish Fisheries Resources and Coral Reef Ecosystem Productivity.
- VII. Disaster: Strengthening Community Disaster Preparedness and Response Potential.

The United Nations Development Programme (UNDP) in partnership with the Government of Tuvalu are currently implementing a GEF administered Least Developed Country Funds funded Project entitled "Increasing Resilience of Coastal Areas and Community Settlements to Climate Change in Tuvalu" that aims to address the first three (Coastal, Agricultural and Water) priorities out of the seven.

The project is implemented over a period of 4 years, commencing from November 30th 2009. However, due to a number of institutional realignments with complementary baseline programmes, actual investments by the project only started in 2010. The lead Executing Agency is the Department of Environment under the Ministry of Foreign Affairs, Trade, Tourism, Environment and Labour (MFATTEL), where a Project Management Unit (PMU) provides general coordination and oversight for the project. The project receives high level guidance and oversight from a Project Board, which is chaired by the Director of the Department of Environment.

Project Objectives and Expected Outcomes

The main objective of this Project is to increase the protection of livelihoods in coastal areas from dynamic risks related to climate change and climate variability on all inhabited islands of Tuvalu. This objective will be achieved through 3 main outcomes; 1)Increasing institutional capacity at all levels of public administration, island Kaupules and communities with policy support to plan and respond/adapt to climate change-related damage, 2) Implementation of community based adaptation measures relating to water security, coastal protection and food security and 3) Project knowledge and lessons learned are captured, analysed and disseminated to facilitate replication of practical adaptation solutions in all islands.

Mid-Term Review objectives

The Monitoring and Evaluation (M&E) policy at the project level in UNDP/GEF has four objectives: i) to monitor and evaluate results and impacts; ii) to provide a basis for decision making on necessary amendments and improvements; iii) to promote accountability for resource use; and iii) to document, provide feedback on, and disseminate lessons learned. A mix of tools is used to ensure effective project M&E. These might be applied continuously throughout the lifetime of the project – e.g. periodic monitoring of indicators, or as specific time-bound exercises such as mid-term reviews, audit reports and independent evaluations.

In accordance with UNDP/GEF M&E policies and procedures, all projects with long implementation periods are strongly encouraged to conduct mid-term evaluations. In addition to providing an independent in-depth review of implementation progress, this type of evaluation is responsive to GEF Council decisions on transparency and better access of information during implementation.

Mid-term evaluations are intended to identify potential project design problems, assess progress towards the achievement of objectives, identify and document lessons learned (including lessons that might improve design and implementation of other UNDP/GEF projects), and to make recommendations regarding specific actions that might be taken to improve the project. It is expected to serve as a means of validating or filling the gaps in the initial assessment of relevance, effectiveness and efficiency obtained from monitoring. The mid-term evaluation provides the opportunity to assess early signs of project success or failure and prompt necessary adjustments.

Scope of the Mid-Term Review

The evaluation will investigate the following elements:

A. Project Design

The mid-term evaluation will assess the extent to which the overall project design remains valid. The evaluation team will review the project's concept, strategy and approach within the context of effective capacity development and sustainability. Specifically the team will:

- Assess the extent to which the underlying assumptions remain valid;
- Assess the approach used in design and the relevance of project intervention to the needs of Tuvalu in addressing climate change adaptation issues and relevance of the project to Government, partners, and donors policies;
- Assess the suitability of the project design commensurate with time and resources available;
- The evaluation team will also attempt to ascertain the current level of comprehension of the project
- concept, focusing on three specific sets of actors: (i) project management unit (including community organisers); (ii) Technical Working Group; and (iii) local communities.

B. Project Implementation

The Evaluation will assess the extent to which project management and implementation has been effective, efficient and responsive.

- Assessment of the overall progress towards achievement of its overall Objective, Outcomes, and Outputs;
- Assessment of which planned activities are critical for attainment of project Outputs in the second half of the project;
- Gender assessment of Project implementation at national and sub-national levels
- assess the use of logical framework as a management tool during implementation;
- assess indicators of adaptive management;
- assess overall institutional arrangements for the execution, implementation, management, monitoring and review of the project. This covers a number of issues, including: the appropriateness of joint implementation and coordination; whether there has been adequate periodic oversight of activities; the effectiveness of government counterparts; and the effectiveness of relationships between key stakeholders;
 - An assessment of the function and role of the Project Board in providing guidance, coordination, and oversight to the implementation of the project;
 - o An assessment of technical assistance provided to the project by the Technical Working Group and partners, including UNDP, to ensure smooth implementation of the project
 - An evaluation of the effectiveness and efficiency of project coordination, management and administration provided by implementing partner (Department of Environment) at national and sub-national level;
 - Assessment of the support and the involvement of the Department of Rural Development, Kaupule, Falekaupule, NGOs and community stakeholders to implement the project;
 - An analysis of the extent of institutional cooperation and cross-sectoral synergies created by the project;
- assess the quality and relevance of project reporting;
- assess the mechanisms for information dissemination (advocacy and awareness raising) in project implementation and the extent of stakeholder participation in management;
- analyze the project financing, specifically how the project has materialized/leveraged cofinancing for various components (this is preferably presented in a matrix form).
- review the effectiveness and the methodology of the overall Programme structure, how effectively the Programme addressed responsibilities especially towards capacity building and challenges, its main achievements and overall impact as well as the remaining gaps.
- assess the extent to which programme design, implementation and monitoring have taken the following cross cutting issues into consideration: Human rights, Equity, Institutional strengthening and Innovation or added value to national development
- assess how and to what extent the project has built management, planning and operational capacity among the project's stakeholders, particularly at the community levels including an overview of capacity-building techniques employed by the project as well as of the monitoring
- mechanisms involved.

C. Results

The Evaluation will examine the relevance, efficiency, effectiveness and sustainability of operational activities and results achieved by the project to-date, by showing how the component(s) processes and outcomes have contributed (or have the potential to contribute) to the achievement of project and GEF environmental goals. The Evaluation will:

- assess, quantitatively and qualitatively, the achievements and impact in terms of outputs and its contribution to outcomes as defined in the project document;
- assess to what extent the project has made impacts on promoting local participatory decision making and local governance;
- assess to what extent the project has or will contribute to the strengthened enabling environment for climate change adaptation;
- assess the sustainability of project results.

The evaluation team will use a project logical framework to determine the overall contribution of project outcomes to development and global environmental goals. The evaluation team is also invited to highlight contributions which are strictly beyond the project scope.

D. Operations, Policies, and Procedures

- Assess the effectiveness of the monitoring mechanisms employed by the project in monitoring progress of project execution, both in financial as well as technical terms;
- Assess the quality and relevance of project reporting
- Identification of operational (referring to administration, procurement, recruitment, financial management) and/or technical problems and constraints that influence the effective implementation of the project, combined with recommendations for necessary operational changes;
- Assessment of the financial management of the project, including the balance between expenditures on administrative and overhead charges in relation to those on the achievement of substantive Outputs;
- Identification of any programmatic and financial variance and/or adjustments made during the first two years of the project and an assessment of their conformity with decisions of the Project
- Board and their appropriateness in terms of overall objectives of the project;

E. Lessons Learned and Replicability

The Evaluation will also highlight lessons learned and best and worst practices in addressing issues relating to relevance, performance and success.

Future Directions and Recommendations

- Recommendations regarding any necessary corrections and adjustments to the overall project work plan and timetable for the purposes of enhancing the achievement of project Objectives and Outcomes;
- Document Lessons learned during project implementation and recommendations to replicate them:
- Assessment of the long-term viability and sustainability of the project, and recommendations to Government and relevant stakeholders on how to upscale good practices;
- Assess possible links to other existing national and regional agencies and provide recommendations for potential areas of partnership
- Opportunities to strengthen project implementation (through staff training, capacity building or networking or improved management systems) should be identified.
- Recommendations towards the process of preparing a second phase for the project.

Review methodology

The evaluation methodology will be determined by the evaluation team, guided by the requirements of GEF and UNDP as articulated in various guidelines, policies and manuals on the conduct of evaluations for GEF projects as well as key project documents such as the approved GEF project brief, the final

UNDP project document, the inception workshop report, the project log-frame and annual budgets and work plans, the annual Project Implementation Review, Project Board, and Tchnical Working Group meeting minutes as available, and other technical reports and documents as relevant. The evaluation methodology should be clearly documented in the final evaluation report including comprehensive details of the following:

- documents reviewed
- interviews conducted
- consultations held with all stakeholders
- project sites visited
- techniques and approaches used for data gathering, verification and analysis

Conduct of the Evaluation

Under the leadership of the Team Leader, the Evaluation Team will work independently but will liaise closely with UNDP CO, and the Implementing Partner. The evaluation mission will also liaise periodically with the UNDP-GEF Regional Technical Advisor (RTA) at the UNDP Regional Centre in Bangkok to ensure that UNDP-GEF and GEF requirements are being met.

The team will visit the project site to ensure adequate consultation with all key stakeholders. Towards the end of the field evaluation, presentation will be made to all key stakeholders in country. After the presentation the team will take note of verbal and/or written responses to its presentation and consider these in preparing an interim draft evaluation report that will be provided to Executing Agency/UNDP before the team leaves for distribution to stakeholders. The executing agency and UNDP will circulate the draft report to all stakeholders requesting written feedback and finalized by the evaluators within the dates reflected in the evaluation schedule.

While the evaluation team is free to determine the actual layout of the evaluation report, this must include the minimum content requirements mentioned earlier. The Team Leader will forward the final report by e-mail to UNDP MCO and the UNDP-GEF RTA in Bangkok for onward distribution to all stakeholders. In addition the Team Leader will forward a hard copy and electronic copy saved on disk/flashdrive to UNDP MCO. The evaluators will be responsible for the contents, quality and veracity of the report.

Deliverables

The evaluation mission will produce the following deliverables to UNDP/GEF:

- 1. A presentation of the findings to key stakeholders;
- 2. An executive summary, jointly prepared by the consultants, emphasizing key findings and key recommendations:
- 3. A detailed evaluation report covering scope of the mid-term review with detailed attention to lessons learnt and recommendations; and
- 4. List of annexes prepared by the consultants including TOR's, itinerary, list of persons interviewed, summary of field visits, list of documents reviewed, questionnaire and summary of results, co-financing and leveraged resources.

The final report together with the annexes shall be written in English and shall be presented in electronic form in MS Word format as well as a hard copy

Review Team and Timeline

Two consultants shall be engaged jointly to undertake the evaluation working concurrently according to a planned schedule to be completed by **January 22**nd, **2013**. The Team Leader will have the overall responsibility of organizing and completing the review, submitting the final report as well as supervising the local consultant.

The team leader is expected to propose a work layout, plan, budget and timelines to achieve the expected outputs with the appropriate methodology.

Qualifications of Team Leader (International Evaluation Specialist)

- International/regional consultant with academic and professional background in fields related to Agriculture, Water Resource Management, Coastal Zone Management and Climate Change Adaptation in general. A minimum of 10 years of relevant experience is required;
- Substantive experience in reviewing and evaluating similar projects, preferably those involving UNDP/GEF or other United Nations development agencies or major donors;
- Excellent English writing and communication skills. The consultant must bring his/her own computing equipment;
- Demonstrate ability to assess complex situations, succinctly distills critical issues, and draw forward-looking conclusions and recommendations;
- Highly knowledgeable of participatory monitoring and evaluation processes, and experience in evaluation of technical assistance projects with major donor agencies;
- Ability and experience to lead multi-disciplinary and national teams, and deliver quality reports within the given time;
- Familiarity with the challenges developing countries face in adapting to climate change;
- Familiarity with Tuvalu or similar countries; and
- Excellent in human relations, coordination, planning and team work.

Fee Proposal/Price Schedule

The consultant is requested to provide a proposal or quotation of the fees/cost for the services which will be rendered using the following format.

Daily consultancy rates	A maximum range of US\$150 – US\$200/day for the daily consultancy rate can be proposed.
Air Ticket	To and from home country
Air Ticket	(including at least one travel to Fiji for preliminary briefings)
Compulsory field visits to three demonstration sites including Vaitupu (water security), Nukufetau (food security) and one site at either Nukulaelae or Funafuti (coastal protection)	Expenses to be covered by the Project
Living allowances	Based on the number of days spent at the respective duty station
- Other miscellaneous expenses (please state)	

Payment Schedule

- a) Thirty per cent (30%) of the maximum payable Contracted amount will be paid immediately following the signing of this Agreement and acceptance of a work plan & report layout by UNDP and executing agency.
- b) Twenty per cent (20%) will be paid within eight (8) working days of receipt and acceptance by the United Nations Development Program of a draft evaluation report;

c) The remaining fifty (50%) will be paid within eight (8) working days of the acceptance by the United Nations Development Program of the final Evaluation Report

Evaluation Method

The proposals will be evaluated using the UNDP cumulative analysis method whereby the total score is obtained upon the combination of weighted technical and financial attributes.

The highest combined weighted score which provides the best value for money will be awarded the contract.

Applications: Proposals should include:

- a Results-Oriented Curriculum Vitae with full contact details of three referees
- a cover letter summarizing your experience and qualifications for this consultation (should not exceed 2 pages)
- fee proposal and work plan with timelines to undertake this assignment
- a completed P11 form available from UNDP website

Applications to be submitted by December 14th, 2012 either electronically to registry.fj@undp.org or addressed under confidential cover to:

Expression of Interest

Mid Term Evaluation of the Tuvalu NAPA-I Project C/-- The Resident Representative United Nations Development Programme Multi Country Office Private Mail Bag or Level 8, Kadavu House (414 Victoria Parade) Suva Fiji.

Incomplete applications will not be considered and only candidates for whom there is further interest will be contacted.

Additional information including the Post Profile, Results-Oriented Curriculum vitae format is available from the UNDP website: www.undp.org.fj or the UNDP Office.

Women candidates are encouraged to apply.

*The Fiji Office covers Fiji, Kiribati, Marshall Islands, Micronesia, Nauru, Palau, Solomon Islands, Tonga, Tuvalu and Vanuatu

Further Information

For further information concerning this Terms of Reference, Mr. Nacanieli Speigth, Environment Program Associate, UNDP-MCO, Suva, on email nacanieli.speigth@undp.org / telephone (679) 3312500 or Mr. Solofa Uota, Project Coordinator, (Department of Environment), Email: solofauota@gmail.com.

Background:

Tuvalu is one of the Pacific Island Region's Island atolls that is currently facing the brunt of Climate Change. To address the aggravating effects of climate change (2007), Tuvalu identified seven priority areas which is embedded in its National Adaptation Programme of Action (NAPA) framework and includes:

- I. Coastal: Increasing resilience of Coastal Areas and Settlement to climate change.
- II. **Agricultural:** Increasing subsistence pit grown pulaka productivity through introduction of a salt-tolerant pulaka species.
- III. **Water:** Adaptation to frequent water shortages through increasing household water capacity, water collection accessories, and water conservation techniques.
- IV. **Health:** Strengthening of Community health through control of vector borne/climate sensitive diseases and promotion access to quality potable water.
- V. **Fisheries:** Strengthening of Community Based Conservation Programmes on Highly Vulnerable near-shore Marine Ecosystems.
- VI. **Fisheries:** Adaptation to Near-Shore Coastal Shellfish Fisheries Resources and Coral Reef Ecosystem Productivity.
- VII. Disaster: Strengthening Community Disaster Preparedness and Response Potential.

The **United Nations Development Programme (UNDP)** in partnership with the **Government of Tuvalu** are currently implementing a GEF administered Least Developed Country Funds funded Project entitled "Increasing Resilience of Coastal Areas and Community Settlements to Climate Change in Tuvalu" (NAPA-I) including the AusAID funded upscaling initiatives entitled "TUVALU NAPA-I +: Australia-UNDP-Partnership Programme for the Tuvalu NAPA 1st Follow-up Full-Size Project" (NAPA-I+)which came in June, 2011. This project aims to address the first three (Coastal, Agricultural and Water) priorities out of the seven.

The project is implemented over a period of 4 years, commencing from November 30th 2009. However, due to a number of institutional realignments with complementary baseline programmes, actual investments by the project only started in 2010. The lead Executing Agency is the Department of Environment under the Ministry of Foreign Affairs, Trade, Tourism, Environment and Labour (MoFATTEL), where a Project Management Unit (PMU) provides general coordination and oversight for the project. The project receives high level guidance and oversight from a Project Board, which is chaired by the Director of the Department of Environment.

Project Objectives and Expected Outcomes

The main objective of this Project is to increase the protection of livelihoods in coastal areas from dynamic risks related to climate change and climate variability on all inhabited islands of Tuvalu.

This objective will be achieved through 3 main outcomes; 1)Increasing institutional capacity at all levels of public administration, island Kaupules and communities with policy support to plan and

respond/adapt to climate change-related damage, 2) Implementation of community based adaptation measures relating to water security, coastal protection and food security and 3) Project knowledge and lessons learned are captured, analysed and disseminated to facilitate replication of practical adaptation solutions in all islands.

The NAPA-I + Partnership is designed to facilitate the up-scaling of adaptation interventions that are currently being piloted through the ongoing NAPA-I project to other locations or sectors within participating communities and ensuring that a gender component is included in all interventions.

Objectives

This Gender Assessment will be part of the Mid-term evaluation of the Project which is intended to identify potential project design problems, assess progress towards the achievement of objectives, identify and document lessons learned (including lessons that might improve design and implementation of other UNDP/GEF projects), and to make recommendations regarding specific actions that might be taken to improve the project. It is expected to serve as a means of validating or filling the gaps in the initial assessment of relevance, effectiveness and efficiency obtained from monitoring. The mid-term evaluation provides the opportunity to assess early signs of project success or failure and prompt necessary adjustments.

The Gender Assessment in particular will document and analyze gender differences in current adaptation interventions stipulated in the NAPA-I/+ Project Document and also conduct basic assessment capacity within the Project Management Unit as it relates to progress reporting.

Methodology:

This Gender Assessment study will be undertaken by UNDP in coordination with the Tuvalu's Dept. of Women, which has the mandate to lead discussion and actions on gender issues in country. MFATTEL and UNDP will provide oversight on this assessment and the Gender Assessment team will work in close collaboration with the Mid-Term Review team to ensure incorporation of this assessment findings and recommendation in the final Mid-term evaluation report.

Research methods will include:

<u>Time use surveys</u> – to track the numbers of hours per day that men and women typically devote to various activities pertaining to water collection (during regular times and times of shortages), pulaka plantation, and home gardening, to detect gender differentiated patterns of time use.

<u>Single-sex focus groups</u> – to identify respective gender roles and duties of men and women in Tuvalu, as well as to identify gender-specific coping strategies, practices and concerns in relation to climate change adaptation relevant to the Project.

<u>Key informant interviews</u> – to deepen grasp of context, coping strategies and issues of particular concern in relation to climate change adaptation in the context of NAPA-I/+ Project. An attempt will be made to speak specifically with households receiving support on home gardening to assess tangible benefits in enhancing food security of these households.

Scope of study:

The study will cover Funafuti and in 3 selected outer islands of Tuvalu. Time frame for research will be April 18th to May 31st, 2013.

Deliverables:

Once the research has been conducted, the following deliverables will be expected within a month:

- Report summarizing analysis and key research findings
- Proposed Gender Sensitive Adaptation Plans and/or measures particularly in relation to Outcome 2 of the Project including identification of lead community groups/members who will implement these gender sensitive plans/ measures.
- Public education materials based on the research findings
- An article on gender-sensitive adaptation approach to be published on external websites (GoT, UNDP, ALM, etc.)

Budget:

Travel Budget (Air Ticket, DSA and Terminals) will be sourced from TUVALU NAPA-I +: Australia-UNDP-Partnership Programme for the Tuvalu NAPA 1st Follow-up Full-Size Project (Project#" 00080032) as per RDP signed by Government of Tuvalu.

Annex 3. List of reviewed documents

- APR/PIR: 09.2011, 09.2012
- Annual Work Plans: 2010, 2011, 2012, 2013
- Audit Report 2011, Ernst & Young
- Audit Report 2012, KPMG
- Combined Delivery Report: 2010, 2011, 2012
- CO Reporting Template
- Current and future climate of Tuvalu. International Climate Change Adaptation Initiative, 2011.
- Funding Authorization and Certificate of Expenditures: 2010, 2011, 2012
- Inception Report, Tuvalu NAPA Project
- Island Profile, Nanumea Island
- Island Profile, Niutao Island
- Island Strategic Plan for Funafuti
- Island Strategic Plan for Nanumea
- Island Strategic Plan for Niutao and Niulakita
- Map Project of Fongafale Island, Funafuti Atoll, Tuvalu. University of Tokyo
- Mission Reports: 08.2009, 08.2010, 06.2012
- Monitoring Report: 06.2012
- Payment vouchers: 2010, 2011, 2012
- Project Board Meeting Minutes: 10.11.2011, 15.02.2012, 25.06.2012, 11.07.2012, 27.07.2012
- Quarterly project narratives: 2010, 2011, 2012
- Report on Community Organizers Workshop 1st 9th November, 2012
- Strategic Results Framework
- Summary of Registered Home Gardens
- Technical Working Group Meeting Minutes: 22.06.2012, 29.07.2012, 04.2012,
- Te Kaniva Tuvalu Climate Change Policy 2012
- Tri-Partite Review, Report and Presentation: 10.11.2010
- Tuvalu's National Adaptation Programme of Action, Ministry of Natural Resources, Environment, Agriculture and Lands, 2007.
- Tuvalu National Strategic Action Plan for Climate Change and Disaster Risk Management
- Tuvalu NAPA-I+ Australia-UNDP Partnership Programme for the Tuvalu NAPA 1st Follow-up Full-size Project 2011-2013
- Tuvalu National Biodiversity Strategy and Action Plan, 2009.
- UNDP Project Document: Increasing Resilience of Coastal areas and Community Settlements to Climate Change in Tuvalu
- Video on Tuvalu, ALM
- Water Survey Report
- Workshop Report: Sandwatch Training, 22.-24.08.2012

Annex 4. Mission Itinerary

Date	Interview or event	Location
15 th -16 th April	Travel Bangkok - Suva	
17 th April	 Meeting and Interview with Nacanieli Speight, Environment Associate and Winifereti Nainoca, Director Environment Finance Service Unit, UNDP MCO Strategic Consultation and Briefing with UNDP Senior Management 	Suva, Fiji
	Interview with AusAID, Joanne Choe and Etita Morikao	
18 th April	Travel Suva – Funafuti	Vaiaku Lagi Hotel,
20 7,0	Meeting between National Consultant, International Consultants and Project Management Unit	Funafuti, Tuvalu
19 th April	 Focus Group meeting with Project Board Focus Group meeting with Technical Working Group 	Vaiaku Lagi Hotel, Funafuti
20 th April	 Time Use study Funafuti Focus group meeting with Project Management Unit 	Field visit
	 Interview with Hilia Vaevae, Director, Department of Meteorology Interview with Hamola, Community Organizer for Nanumea 	Vaiaku Lagi Hotel, Funafuti
21 st April	 Meeting between Gender Expert and Team Leader Data Analysis 	Vaiaku Lagi Hotel, Funafuti
22 nd April	 Travel Funafuti – Niutao Meeting with PMU 	Nivaga II Ferry
23 rd April 24 th April	 Meeting with Kaupule and Island Chiefs Focus group meetings: young women; older women; young men; older men Interview with Community Organizer Site visit with Community Organizer and Island Secretary: Kaupule nursery; fetau plants; pulaka pit and access road; 2 home gardens. Other sites not supported by NAPA project: coastal erosion areas. Travel Niutao – Nanumea Meeting with Kaupule and Island Chiefs Focus group meetings: young women; older women; young men; older men 	Niutao Nanumea
24 th – 26 th	 Site visit with Island Secretary and Agricultural Extension worker: 5 new water tanks; 5 maintained water tanks; 1 guttering; 3 communal water cisterns; 3 home gardens; Kaupule nursery. Other sites not supported by NAPA project: coastal erosion areas; mangrove plantations; biogas plant. Travel Nanumea – Funafuti 	Nivaga II Ferry
April	Meeting with PMU	
26 th April	 Interview with Itaia Lausaveve, Director, Department of Agriculture Meeting with Funafuti Kaupule Interview with Lopati Samasoni, Director, Department of Rural Development Interview with Valisi Tovia, Curriculum Officer and Teimana lete, Early Childhood, Care and Education Officer, Department of Education 	Funafuti
27 th April	 Interview with Charles Leepo, Public Works Department Site visit to Funafala Island with Funafuti Kaupule, mangrove 	Funafuti

	plantations by Tuvalu Overview NGO	
	 Site visit through Fongafale, native tree planted by NAPA project 	
28 th April	Meeting between Gender Expert and Team Leader	Vaiaku Lagi Hotel,
	Data Analysis	Funafuti
29 th April	Meeting between Consultant Team	Funafuti
	Focus group meeting with PMU	
	Stakeholder Consultation on Preliminary Findings and	
	Recommendations	
	Dinner hosted by Permanent Secretary MFATTEL	
30 th April	Meeting with PMU	Funafuti
	 Interview with Pulafagu Toafa, Coordinator, TNWC 	
	Interview with Annie Homasi, Director, TANGO	
	Travel Funafuti – Suva	
1 st May	Evaluation mission debrief with UNDP and AusAID	Suva
	Writing Interim Draft Evaluation Report	
2 nd – 3 rd May	Travel Suva – Bangkok	

Annex 5. Interview Guide

The following questions are indicative and based on the overall Evaluation Matrix. They were used to guide key stakeholder interviews (with government, partner organizations, Kaupule and communities), and were adjusted based on the interviewee.

- 1. What are the **development priorities** of your institution? What is your mandate?
- 2. What are the main policies and activities of your institution?
- 3. How are you **engaged with the NAPA project**? How does the project **respond to your** institutions **priorities**?
- 4. What in your view, are the **main climate hazards** in Tuvalu? What have been the **impacts** of these hazards?
- 5. Who is most **vulnerable** to climate change? Why?
- 6. What do we need to do to adapt to these impacts?
- 7. How does your institution plan for these impacts?
 - a. Do you have plans and policies in place? Is climate change mainstreamed into existing policies? If so, which ones? When was mainstreaming of climate change done (year)?
 - b. Has the process for a new national coastal zone management policy been initiated
 - c. Are these plans and policies being implemented?
 - d. Has the NAPA project supported the mainstreaming of climate change into plans and policies? If so, how?
- 8. How do you respond to these impacts?
 - a. For example, if a drought/sea level rise/salinization/erosion occurred (adapt based on what is most relevant for given institution), how would your institution respond to this?
 - b. Do you have specific activities to respond to climate change? Or is climate risk integrated into your existing practices (e.g. outreach programmes on agriculture; infrastructure development programmes; housing etc.)? Please give examples.
 - c. Has the NAPA projected supported the integration of climate change risk management into your activities? If so, how?
- 9. Is climate risk management integrated into your institutions **budget**? If so, to what amount and in which budget lines/activities?
- 10. **Who** in your institution works on climate change? How many people, in what capacity? What %/number are men and **women**? Level of staff turnover in last 5 years?
- 11. Do you **collaborate** with other government departments, NGOs, organizations on climate change? If so, which ones and in what way? How often?
- 12. How do you **support community development**? And community based climate change adaptation in particular? Have you visited NAPA project sites?
- 13. Have you participated in **NAPA project trainings**? If so, which trainings? Who participated and how where they chosen (incl. where there women participants)? What was your experience, what where some of the strengths and weaknesses of the training?

- 14. Do you think the project has **increased capacities** in the Ministry to identify climate risks, plan for these and respond to these?
- 15. Have you used NAPA project **guidelines and guidance documents**? If so, which ones? How have you integrated them into your work? What was your experience, what where some of the strengths and weaknesses of the training?
- 16. What have been the main **strengths** of the NAPA project?
- 17. What have been the main weaknesses?
- 18. Are there any **lessons learned**? Have you captured these lessons learned? Or fed them into your work (e.g. into plans and policies, publications, events)?
- 19. Looking back at the NAPA project, what do you think has been the most significant **change** that the project has brought about?
- 20. Which activities do you believe would be most critical to **implement in the remaining year** of the project? In the future on climate change adaptation?
- 21. How do you plan to sustain project activities?
- 22. Any other recommendations to the NAPA project or other comments

Annex 6. List of persons interviewed

- Joanne Choe, Counseller Development Cooperation Fji and Tuvalu, Australian High Commission,
 Fiji
- 2. Tapugao Falefou, Permanent Secretary of Foreign Affairs, Trade, Tourism, Environment and Labour
- 3. Petesa Finikaso, Project Assistant, Tuvalu NAPA-I Project
- 4. Annie Homasi, Director, TANGO
- 5. Niu Ioane, Nukulaelae Island Representative on PB
- 6. Teimana lete, Early Childhood, Care and Education Officer, Department of Education
- 7. Tanentoa Ipitoa, Nui Island Representative on PB
- 8. Rurunteiti Kaiavake, Works Supervisor, Tuvalu NAPA-I Project
- 9. Itaia Lausaveve, Director, Department of Agriculture
- 10. Charles Leepo, Department of Public Works
- 11. Hamola Teuea, Community Organizer for Nanumea, Tuvalu NAPA-I Project
- 12. Jennifer Malosi, Planner, Funafuti Kaupule
- 13. Fialua Monise, Extension Officer, Department of Agriculture
- 14. Etita Morikao, Assistant Tuvalu Programme Manager, Australian High Commission, Fiji
- 15. Winifereti Nainoca, Environment Financial Services, UNDP Multi-country Office Fiji
- 16. Pasefika Pentusi, President, Funafuti Pulekaupule
- 17. Lopati Samasoni, Director, Department of Rural Development
- 18. Vavao Saumanaia, Niutao Island Representative on PB
- 19. Iosia Siose, Extension Officer, Department of Agriculture
- 20. Kapui Soaloa, Member of Niutao Kaupule
- 21. Nacanieli Speight, Environment Programme Associate, UNDP Multi-country Office Fiji
- 22. Yusuke Taishi, Regional Technical Advisor on Climate Change Adaptation, UNDP Bangkok
- 23. Suuka Taupale, Pulefenua/Community Leader, Funafuti Falekaupule
- 24. Levi Telii, Officer, TANGO
- 25. Pulafagu Toafa, Coordinator, TNWC
- 26. Pasuna Tuaga, Assistant Secretary for MFATTEL
- 27. Valisi Tovia, Curriculum Officer, Department of Education
- 28. Lepeni Tumatai, Nukufetau Island Representative on PB
- 29. Solofa Uota, Project Coordinator, Tuvalu NAPA-I Project
- 30. Hilia Vavae, Director, Department of Meteorological Services
- 31. Leafaga Vitibua, Community Organizer, Niutao

UNDP Multi Country Office, Senior management consultation

- Akiko Fuji, Deputy Resident Representative, UNDP Multi-country Office Fiji
- Winifereti Nainoca, Environment Financial Services
- Asenaca Ravuvu, Assistant Deputy Resident Representative

- Floyd Robinson, Environment Programme Associate
- Nacanieli Speight, Environment Programme Associate
- Ruth Verevukivuki, Tuvalu Country Focal Point
- Gary Wiseman, Pacific Centre Manager

Project Board- focus group

- Pasuna Tuaga, Chairperson, Assistant Secretary, MFATTEL
- Iosefa Elisala, Island Leader for Funafuti
- Tolauapi Iliala, Island Leader for Nanumea
- Niu Ioane, Island Leader for Nukulaelae
- Tanentoa Ipitoa, Island Leader for Nui
- Itaia Lausaveve, Director of Agriculture
- Charles Leepo, PWD
- Lototasi Morikao, Department for Planning and Budget
- Sam Panapa, Island Leader for Vaitupu
- Sioata Pokia, Island Leader for Home Affairs
- Vavao Saumanaia, Island Leader for Niutao
- Lepenei Tinatali, Island Leader for Niulakita
- Halo Tuavai, Island Leader for Nanumaga

Technical Working Group – focus group

- Pasuna Tuaga, Chairperson, Assistant Secretary, MFATTEL
- Itaia Lausaveve, Director of Agriculture
- Tekita Neemia, PWD
- Setima Piita, Department of Rural Development
- Ane Talia, Department of Lands & Survey

Kaupule members, Nanumea – focus group

- Tie Maheu, Kaupule Member
- Tailolo Petio, Kaupule Member
- Sipele Samuelu, Secretary to Kaupule
- Tekava Soke, Kaupule Member
- Laina Teuea, Kaupule Member
- Toai Vevea, Kaupule Member

Kaupule members, Niutao – focus group

- Tagata Lopati, Kaupule Member
- Pikona Satupa, Secretary
- Seu Talapai, Kaupule Member

- Tautu Tefau, Kaupule Member
- Paia Vovo, Kaupule Member

Kaupule members, Funafuti – focus group

- Kaua, Kaupule Member
- Uluao Lauti, Secretary to the Kaupule
- Kaitu Nokisi, Kaupule Member
- Pasefika Penitusi, Kaupule Member
- Ampelosa Siaosi, Kaupule Member
- Apinelu Tili, Kaupule Member

List of participants in Community Focus groups

Island	Focus group	Participants	
	Group of older women	Sala S	
		Puesina M	
		Fainupou	
		Lafite	
		 Taorooro 	
		 Katepo 	
		Ata K	
		Teulafi	
		Lise Pikona	
		Taiafiafi	
		• Lauto	
		Total: 11 participants	
	Group of older men	 Atangia 	
		 Faiga 	
		• Fialiki	
		• Igor	
		• Keti	
		• Luka	
Niutao	ıtao • Maega		
		 Maukukui 	
		Pinoka	
		• Taiuti	
		• Telesia	
		Total: 11 participants	
	Group of young women	Suivila T	
		Laulanu T	
		Tina T	
		Tagoga T	
		Meli P	
		Molia T	
		Jenny T	
		Mina U	
		Margaret	

		Total: 9 participants
	Group of young men	Tiloua K
	. , .	Uele F
		 Uilama
		Vaguna L
		Total: 4 participants
	Total number of participants i	
	Group of older women	Faualofa Tuilava
		Tevaopula Laolao
		Antisai Iosefa
		Tekana Eufa
		Temeli Teaokili
		Pulusie Vevea
		Saimalae Tuivaka
		Meele Sualuci
		Teufuega Sevelli
		Meele A. Teaetaki
		Total: 10 participants
	Group of older men	• Fiti M
		• Lalia K
		• Lilo S
		Oki M
		Pulatonu M
		Taukai T
		Teokila U
		Uiki P
		Total: 8 participants
Nanumea	Group of young women	Tepula Vevea
		Faimealofa Iliala
		Talialo Senee
		Lisepa Hale
		 Tausaka Tuivaka
		Teganui Tekava
		Sikani Konelio
		 Enosa Taukai
		Salaneta Simeona
		Total: 9 participants
	Group of young men	Anitelea S
		Epafi K
		 Kaitalava
		• Lesa T
		• Leo S
		• Luli
		Pesusi Lafeta
		• Petero
		Senee Iulio
		 Talihusi
		Total: 10 participants
	Total number of participants i	n Nanumea: 37

Participants in Key stakeholder consultation meeting on preliminary findings of MTE

- Pasuna Tuaga, Chairperson, Assistant Secretary, MFATTEL
- Niu Ioane, Island Leader for Nukulaelae
- Tanentoa Ipitoa, Island Leader for Nui
- Itaia Lausaveve, Director of Agriculture
- Charles Leepo, PWD
- Evolini Mami, Department of Agriculture
- Nielu Meisake, Island Leader for Vaitupu
- Pasefika Penitusi, Kaupule of Funafuti
- Lopati Samasoni, Director of Rural Develpment Home Affairs
- Vavao Saumanaia, Island Leader for Niutao
- Fulitua Siaosi, Department of Fisheries
- Lepenei Tinatali, Island Leader for Niulakita
- Halo Tuavai, Island Leader for Nanumaga

Annex 7. Methodology for focus groups with Project Board and Technical Working Group

The following provides a discussion guide and proposed participatory M&E approaches for the evaluation of the PB and TWG.

Project Board

In addition to a focus group discussion, the following participatory approach was applied during the meeting with PB:

- **Key questions** participants asked to reflect and write their answers on color cards (questions 1 and 2). Facilitated group discussion.
- Most significant change reflect on question; put on post its; facilitated discussion (Q 23)

Understanding on climate change

- 1. What in your view, are the **main climate hazards** in Tuvalu? What have been the **impacts** of these hazards?
- 2. What do we need to do to adapt to these impacts?

Role in project

- 3. What is the **objective of the NAPA** project? **How** does it achieve this?
- 4. What is the role of the Project Board (please list all tasks)?
- 5. How **often** do you meet?
- 6. How are **member**s chosen?
- 7. How do you do reporting? Monitoring?
- 8. How do you decide on issues for discussion?
- 9. How do you take decisions?
- 10. How do you provide guidance?
- 11. How do you provide oversight to project implementation?
- 12. How have **finances** been managed? Why has there been variance? Has co-financing been leveraged?
- 13. How are revisions and adjustments to project implementation carried out?
- 14. What have been the main **operational and technical problems** (in terms of e.g. budget, human resources, reporting, procurement, technical guidance, coordination etc.)?
- 15. How have these problems and constraints been **addressed**?
- 16. How might these problems and constraints be **more effectively** addressed?
- 17. How do you coordinate with Department of Environment? PMU? UNDP?
- 18. How have **partnerships/linkages** between institutions/organizations been encouraged and supported?

Lessons learned

- 19. What have been the main **strengths** of the NAPA project?
- 20. What have been the main weaknesses?
- 21. Are there any lessons learned? Have you captured and built on these lessons learned?
- 22. Looking back at the NAPA project, what do you think has been the most significant **change** that the project has brought about?
- 23. Which activities do you believe would be most critical to **implement in the remaining year** of the project? In the future on climate change adaptation?

Technical working group

In addition to a focus group discussion, the following participatory approaches were applied:

- **Key questions** participants asked to reflect and write their answers on color cards (question 1 and 2). Facilitated group discussion.
- Most significant change reflect on question; put on post its; facilitated discussion

Understanding on climate change

- 1. What in your view, are the **main climate hazards** in Tuvalu? What have been the **impacts** of these hazards?
- 2. What do we need to do to adapt to these impacts?

Role in project

- 3. What is the **objective of the NAPA** project? **How** does it achieve this?
- 4. What is the **role** of the Technical Working Group (please list all tasks)?
- 5. How do you **decide on issues** for discussion?
- 6. How do you take decisions?
- 7. How do you provide **technical guidance**?
- 8. How do you coordinate with Department of Environment? PMU? UNDP?
- 9. How have **partnerships/linkages** between institutions/organizations been encouraged and supported?

Lessons learned

- 10. What have been the main **strengths** of the NAPA project?
- 11. What have been the main weaknesses?
- 12. Are there any **lessons learned**? Have you captured these lessons learned? Or fed them into your work (e.g. into plans and policies, publications, events)?
- 13. Looking back at the NAPA project, what do you think has been the most significant **change** that the project has brought about?
- 14. Which activities do you believe would be most critical to **implement in the remaining year** of the project? In the future on climate change adaptation?

Annex 8. Methodology of Evaluation visits to islands

During island visits, the Evaluation Team carried out the following evaluation exercises:

Who	Length	Method
Falekaupule and Kaupule Members	1 hr	Focus group discussion
Community Organizers Including women's organizations	2 interviews 1 hr per interview	Interview
-	·	Facus group discussion
Four groups of approximately 7 to 12 people, as follows: • Young men • Young women • Older men • Older women	1 hr per group 4 groups proposed	Focus group discussion
Key informants to present project field site (1 man and 1 woman informant)	2 hrs	Direct observation

Focus groups

- 1. What, in your view, are the **main climate risks** in Tuvalu? What have been the **impacts** of these risks on your island?
- 2. What do you think we need to do to adapt to these impacts?
- 3. Who do you think is most **vulnerable** to climate change? Why?
- 4. What are your priorities with regards to climate change adaptation?
- 5. How do you/would you **respond to climate change impacts** (e.g. sea level rise, floods, droughts, cyclones, salinity)? Please provide some examples, including on who would be involved in planning and implementing a response
- 6. How are you engaged with the NAPA project? E.g. in terms of:
 - a. Implementation of adaptation activities (e.g. rainwater harvesting, mangrove planting, protection of pulaka pits etc)? How many of such activities are you implementing (number)?
 - b. Receiving technical support e.g. for carrying out above activities?
 - c. Capacity building and training? On what topics? Who participated in training (incl. number) and how were they chosen?
 - d. Planning support?

- e. Financial support?
- f. What else?
- 7. What do you see as the main benefits of the NAPA project?
- B. On adaptation activities, additional specific questions (depending on activity adopted by given community/island)

Coastal zone management	Water management	Agriculture
 How was option chosen? Who was involved in choosing the option? (group; number) Who was trained in planting mangroves? Who actually participated in planting the mangroves/(group; number) How was the location for planting mangroves chosen? How many how many mangrove seedlings were planted? Which variety? Have the mangroves increased resilience to climate change and its impacts (e.g. cyclones, storm surges, seal level rise, coastal erosion)? 	 How was option chosen? Who was involved in choosing the option? (group; number) Who was trained in rainwater storage (or other activity)? Who actually participated in installation and maintenance of rainwater storage tanks? (group; number) How were households/location chosen? How many rainwater tanks have been installed? How much water does a tank provide on average? (m3/month) What is the quality of the water? What is the water used for? Have the rainwater tanks increased resilience to climate change and its impacts (e.g. changes in rainfall patterns, salinity, coastal erosion)? 	 How was option chosen? Who was involved in choosing the option? (group; number) Who was trained in protecting pulaka pits/breadfruit cultivation/market gardening/salt tolerant varieties (or other activity)? Who actually participated in these agricultural activities? (group; number) How were households/location chosen? How many pulaka pits have been protected? Area of breadfruit/vegetables cultivated? What are the vegetables used for? Autoconsumption? What percentage of food security for household? Also used for Sales? What is the level of production (kg/yr)? Has the practice increased resilience to climate change and its impacts (e.g. salinity, temperature increase, changes in rainfall patterns, water scarcity, coastal erosion, storm surges, soil erosion, drought)?

- 7. How many **households** are involved in project activities? What %/number **are women-headed households** (disaggregate also by activity where possible)?
- 8. Have the **different needs** of men, women, children, disabled and other groups been considered in designing the activities?
- 9. What have been the main **strengths** of the above activities?

- 10. What have been the main **weaknesses**? How have challenges in the project been managed and by whom?
- 11. Have you noticed any unintended impacts of the project, either positive or negative?
- 12. Who is involved in **decision-making** processes involving the project in your community? How are decisions taken? Are women involved in the decision-making process?
- 13. Which activities do you believe would be most critical to implement in the **remaining year** of the project?
- 14. Any other recommendations to the NAPA project or other comments
- 15. Looking back at the NAPA project, what do you think has been the most significant **change** that the project has brought about (either positive, or negative)? (optional: participants to write down answers on post it notes; use a chart to define contribution of project to this change)

Annex 9. Summary of Evaluation Findings

Status of delivery

- Green completed
- Yellow expected to be completed
- Red poor achievement, unlikely to be completed

A rating of yellow, or "expected to be completed" has been provided for most outcomes and outputs – this is dependent on the project taking immediate corrective action to address current delays in project delivery, in line with recommendations provided under Section 4 of this report and, in some cases, is dependent on the recommended project extension being authorised.

Rating

- Highly Satisfactory HS
- Satisfactory S
- Marginally Satisfactory MS
- Unsatisfactory U

Objective	Measurable indicator from	Target	Status of delivery	Rating
	project log frame			
Increase the protection of	Number of households in	By end of project		MS
livelihoods in coastal areas	Tuvalu that have increased	at least 1000 households in Tuvalu are able to		
and island communities	capacity to anticipate and	anticipate climate change-related risks and select the		
from dynamic risks related	address climate change-	most effective risk reduction options		
to climate change and	induced risks through targeted	• at least 75% of MFATTEL officials and planners, and		
climate variability in all	adaptation measures,	50 % of designated Departments engaged in the		
inhabited islands of Tuvalu		project at other Ministries (OPM, MFEP, MEYS, MOH,		
		MWWE, MHARD), in the islands' Kaupule, and		
		personnel in NGOs participating in the project		

Outcome	Measurable indicator from project log frame	(TANGO, TNCW) are able to (i) identify climate- induced risks in coastal areas; (ii) prioritize and plan effective adaptation measures on the basis of participatory assessments; and (iii) sustain community awareness of climate change-related risk issues Target (at end of project)	Status of delivery	Rating
Outcome 1. Enhanced capacity of public administration, Island Kaupules, communities and NGOs, with policy support to plan for and respond to climate change risks in coastal areas and settlements	Percentage of national planners, Kaupule, and communities (respectively) in Tuvalu able to identify climate-related risks and prioritize, plan, and implement effective adaptation measures Number of coastal zone management –related policy documents formulated and approved as a result of the project	By the end of the project, at least 2 national policies or action plans on coastal management are developed or revised to integrated climate-risks and resilience		MS
		By the end of Year 2, the NCCAC is fully functional in coordinating climate change related policy and development processes.		MS
		By the end of Project, the 10 primary and 2 secondary schools functioning in Tuvalu are capacitated to conduct climate change related education programmes.		US
Output	Measurable indicator from project log frame	Target (at end of project)	Status of delivery	Rating
Output 1.1 National Development Plan (Te Kakeega II) and implementation matrix is reviewed to incorporate				S

climate risk and resilience			
	Climate risk is integrated into	By the end of Year 2, climate risk is integrated into Te	HS
	Te Kakeega II review	Kakeega II and implementation matrix review in overall	
		development framework	
	Number of public works	By end of Year 2, at least 3 Section Plans of Public	MS
	section plans revised with	Works Department revised to reflect climate risk	
	climate risk integrated	reduction	
	Number of national training	By the end of Year 2, 2 national training seminars for	US
	seminars conducted	relevant national ministries and organizations on	
	Percentage of	climate-resilient coastal planning conducted (2 total) By the end of the project, at least 75% of relevant	S
	technical/sectoral planners	technical/sectoral planners in the departments	3
	with improved understanding	involved are able to anticipate climate change-induced	
	of climate change risks and	risks in their professional sector and advocate/plan for	
	adaptation measures	suitable corresponding adaptation measures	
Output 1.2 A national		Constitution of the consti	S
climate change policy is			
developed integrating			
coastal zone management			
issues.			
	Existence of a national climate	By end of Year 2, National Climate Change Policy	HS
	change policy supporting	developed	
	integrated coastal zone		
	management	By the end of the project, at least 2 coastal zone	US
		regulations promote resilient livelihoods and	03
		sustainability of protective systems	
Output 1.3 A National	Establishment of a National	An NCCAC will be established by the end of Year 1 By	MS
Climate Change Advisory	Climate Change Advisory	end of Year 2, at least 2 training workshops on	
Council is established, to	Council (NCCAC)	programming and policy mainstreaming are	
support national policy		undertaken	
making and planning	Number of training workshop		
	conducted for NCCAC		
Output 1.4 A national			MS
awareness campaign for			
local communities and			
Kaupule is designed and			

implemented				
	Number of households involved in awareness campaign	By the end of the project at least 1000 households in communities in all 9 of Tuvalu's islands participate and receive benefits of awareness campaign activities		S
	Number of island-level community groups (youth, women, church) involved in awareness campaigns	By end of Year 2, X number of media (radio, film, print) programmes and materials produced		US
	Number of media (radio, film, print) and school programmes conducted in climate change awareness	By end of the project, at least 2 training workshops conducted for school teachers in coordination with Department of Education By the end of the project, climate change issues are integrated into school curricula		US
Outcome	Measurable indicator from project log frame	Target (at end of project)	Status of delivery	Rating
Outcome 2 – Enhanced capacity of local communities to adapt to dynamic climate-related threats through implementation of practical community-based adaptation measures specifically tailored to each islands	Number of locally designed, sustainable adaptation measures demonstrated in vulnerable coastal communities	By end of the project, at least 2 community-based adaptation measures per island demonstrate their utility for coastal communities and provide lessons for replication		MS
Output	Measurable indicator from project log frame	Target (at end of project)	Status of delivery	Rating
Output 2.1 – Community- based adaptation plans for coastal protection, water supply security, and agricultural livelihood sustainability are developed for all islands in				MS

Tuvalu.			
Tuvalu.	Number of local risk assessments prepared by communities, NGOs, and outside experts disseminated to sectoral planners	By the end of Year 1, at least 1 community-level risk assessment from each island will be available to national government and NGOs for dissemination and use in the planning of future projects	US
	Number of community-based adaptation plans developed with active participation of local communities Level of engagement of Island Development Committees in adaptation planning process	By the end of Year 1, at least 1 community-based adaptation plan in line with the Island Strategic Plans is developed in each island (9 total) and supported by detailed baseline data for each island. Island Development Coordination Committee (IDCC) are actively engaged from early stages of consultation and adaptation planning and support of the project	MS
Output 2.2 – Community-based adaptation projects with a focus on participatory management of protective ecosystems and climate-sensitive natural resources are designed and implemented in at least 1 pilot site on each of Tuvalu's 9 islands			MS
	Number of coastal protection measures implemented and maintained by communities	Model demonstration projects on coastal protection measures (e.g. mangrove and non-mangrove species planting, soft technologies, protective structures) are implemented and maintained by communities in at least 5 atolls (Funafuti, Nukufetau, Niutao, Nukulaelae, and Niulakita NAPA I+: Expanded area of model demonstration projects on coastal protection measures (e.g. mangrove and non-mangrove species planting, soft technologies, protective structures) are implemented and maintained	MS

		by communities in at least 5 atolls (Funafuti,		
		Nukufetau, Niutao, Nukulaelae, and Niulakita		
	Volume of additional water supply provided to village communities	At least 100 m3 of fresh water supply secured through enhanced capture, storage and water saving measures in at least 4 atolls (Nanumea, Nui, Vaitupu, and Nanumaga)		S
		NAPA 1+: At least 400m3 additional fresh water supply secured through enhanced capture, storage and water saving measures in at least 4 atolls (Nanumea, Nui, Vaitupu, and Nanumaga)		
	Number of pulaka pits and breadfruit cultivation areas protected from high soil salinity	At least 12 plantations of pulaka, breadfruit, and banana cultivation are protected from saline groundwater in at least 3 atolls (Nanumea, Nui, and Nanumaga) NAPA 1+: Additional 12 plantations of pulaka, breadfruit, and banana cultivation are protected from saline groundwater in at least 3 atolls (Nanumea, Nui, and Nanumaga)		S – noting that the focus of this component has shifted from breadfruit and banana to home gardening
Output 2.3 – The results of all community-based demonstration projects are analysed and fed into the formulation of a government-endorsed replication programme	Number of follow- up/replication projects within Tuvalu that are designed and financed on the basis of project lessons	 Lessons learned through the project are applied by government and NGOs in the formulation of future adaptation and risk reduction projects on all islands By end of the project, a project replication strategy is developed and disseminated to senior government planners in key Ministries (e.g., Public Utilities, Health, and Education, NGOs, and island kaupules At least 2 follow-up/replication project within Tuvalu are designed on the basis of project lessons 		MS
Outcome	Measurable indicator from project log frame	Target (at end of project)	Status of delivery	Rating
Outcome 3 – Project knowledge and lessons	Number of knowledge management products	Starting from Year 2 of the project, at least 5 lessons learned and best practises consolidated every year in		US

learned are captured, analysed and disseminated to facilitate replication of practical adaptation solutions in all islands	generated and disseminated Number of national, regional or international events and platforms, where project experience is presented	form of case studies, experience noted, brochures, photos stories or audio-visuals and disseminated directly to communities and national stakeholders • Project experience and KM materials are presented in at least 2 national events, 2 regional events, and in at least 2 international web-based platforms • By the end of Project, the government departments and NGO involved in the Project regularly received sector specific climate information to support planning and management processes		
Output	Measurable indicator from project log frame	Target (at end of project)	Status of delivery	Rating
Output 3.1 – Climate change information for Tuvalu are analysed, updated and disseminated to sectoral planners and policy makers	Number and quality of regional climate change scenarios available for Tuvalu Number of new Climate Change research projects initiated as a result of the project	 By the end of year 1, institutional links between the Project Steering Committee, NCCAC, SNC, Meteorological Services process and other regional and international climate information and modelling processes relevant to Tuvalu are established By end of Year 2, existing Climate Change scenarios for Tuvalu are reviewed and updated. 		US
Output 3.2 – Lessons learned from community- based adaptation projects are collated and disseminated to communities, sectoral planners and policy makers on a continuous basis				US
	Number of organizations and individuals actively involved in the transfer of project-related knowledge within and outside of Tuvalu	Starting from Year 2 of the project, at least 5 lessons learned and best practises consolidated every year in form of case studies, experience noted, brochures, photos stories or audio-visuals and disseminated directly to communities and national stakeholders		US
		By the end of the project at least 1 national and 1 international workshop on coastal afforestation and		MS

		other climate-resilient livelihoods conducted (2 total	
	Existence of a function Project		US
	Portal Number of workshops		
	organized to disseminate		
	knowledge generated through		
	the project		
Output 3.3 –	Quantity and quality of	 By the end of the project all project reports are 	MS
Project lessons are shared	contributions by the project to	screened for relevant input to the ALM	
within and outside of the	the ALM	 All key project lessons are captured and disseminated 	
Pacific region and		through the ALM	
incorporated into the	Research and technical results	By the end of the project, at least 1 technical report	
Adaptation Learning	generated by the project	prepared on good practices and lessons learned	
Mechanism (ALM)	disseminated		

Annex 10. Methodology Guide for Time use study - Tuvalu

Objective

To gather evidence on how men and women use their time during a typical day in various locations of Tuvalu. This data will then be summarized, analyzed and used to provide recommendations on how to address gender differences better under the NAPA+1 Project.

Process

The researcher interviews the local person in detail about which activities they engaged in during one day, recording this information in the attached worksheet. Everyone interviewed should report on the same day, which preferably should be a regular weekday.

Equal numbers of adult men and women should be interviewed.

Data analysis

Researchers and assistants compile the subtotals of each type of work, and convert the data into visual graphs or charts. Subsequently, patterns are noted and analyzed, noting differences between how men and women use their time, also potentially how young men and older men use their time (also younger and older women). Based on the gender differentiated patterns detected, recommendations are made to adjust project activities so that they take into account both men's and women's interests and daily activities.

DATA COLLECTION SHEET

FOR TIME USE STUDY

Data on the person interviewed
Full name:
Island:
Village:
Age:
Sex : MALEFEMALE
Date of interview:
Date of Interview.

Activities include the following:

- CO Cooking, washing or cleaning
- CA Caring for children, elderly or sick relatives
- GA Tending to family garden, poultry and animals
- OW Office work
- FA Farming for commercial sale
- FS Fishing on boat/deep ocean
- GL Gleaning reef or mangroves
- PU Tending to pulaka
- TR Travelling for work, studies or other activities
- LR Leisure/ relaxing
- SL Sleeping
- ST Study or schooling
- OT Other (take note of details)

Instructions:

- The table should cover from the time the person wakes up, to the time they go to sleep.
- Just write "cont'd" if the same activity continues.
- Use the codes indicated above to quickly note the activities done during that time period.

List of activities carried out during the day:

Time	Activity	Simultaneous activity ²⁴
4:00 a.m.	•	<u> </u>
4:30		
5:00		
5:30		
6:00		
6:30		
7:00		
7:30		
8:00		
8:30		
9:00		
9:30		
10:00		
10:30		<u> </u>
11:00		
11:30		
12:00 noon		
12:30		
1:00 p.m.		
1:30		
2:00		
2:30		
3:00		
3:30		
4:00 4:30		
5:00		
5:30		
6:00		
6:30		
7:00 p.m.		
7:30		
8:00		
8:30		
9:00		
9:30		
10:00		
10:30		
11:00		
11:30		
12:00 midnight		
12:30		
1:00		
1:30		
2:00		

2:30	
3:00	
3:30	

Summary of the sub-totals of each category:

Type of activity	Total hours in day
CO - Cooking, washing or cleaning	
CA - Caring for children elderly or sick relatives,	
GA - Tending to family garden, poultry and animals	
OW - Office work	
FA – Farming for commercial sale	
FS – Fishing on boat, or deep ocean	
GL - Gleaning reef or mangroves	
PU – Tending to pulaka	
TR – Travelling for work, studies or other activities	
LR - Leisure/ relaxing	
SL – Sleeping	
ST – Study or schooling	
OT - Other	

Additional comments:

Record any additional comments that the person interviewed wishes to make, in regard to his/her subjective impression of the total workload.

Notes on major trends observed