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Terminal Evaluation of the Tuvalu National Adaptation Programme of Action (NAPA) NAPA-I and NAPA-I+ Projects



**Water Security,
Food Security
and Coastal
Protection were
focal areas for
the NAPA-1
Project**



Final Report – November 2106

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Finally, the consultant acknowledges the work done by Ms Ninni Ikkala Nyman who prepared the NAPA Mid-Term Review Report. The detail included in this report is an exemplary model which was frequently referenced and adapted for inclusion in this report.

List of Acronyms

APR	Annual Project Review
AusAid	Australian Aid
CCA	Climate Change Adaptation
CO	Community Organisers
CROP	Council of Regional Organisations in the Pacific
DLF	Detailed Logical Framework
DoE	Department of Environment
EIA	Environmental Impact Assessment
ET	Evaluation Team
FAO	Food and Agricultural Organization
FG	Focus Group
FP	Focal Point
GEF	Global Environment Facility
GIS	Global Information System
JICA	Japan International Cooperation Agency
LDC	Least Developed Countries
LDCF	Least Developed Countries Fund
LOA	Letter of Agreement
M&E	Monitoring and Evaluation
MCO	Multi Country Office
MFATTEL	Ministry of Foreign Affairs, Trade, Tourism, Environment and Labour
MTE	Mid-Term Evaluation
NAPA	Tuvalu National Adaptation Programme of Action
NBSAP	National Biodiversity Strategic Action Plan
NGO	Non-Government Organization
NR	Natural Resources
PACC	Pacific Adaptation to Climate Change
PC	Project Coordinator
PD	Project Director
PIR	Project Implementation Report
PMU	Project Management Unit
PPG	Project Preparation Grant
PRODOC	Project Document
PWD	Public Works Department
SIDS	Small Island Developing States
SOPAC	Pacific Islands Applied Geo-Science Commission
SPC	Secretariat of the Pacific Community

SPREP	Secretariat of the Pacific Regional Environment Programme
SRF	Strategic Results Framework
SWAT	Solid Waste Authority of Tuvalu
TANGO	Tuvalu Association of Non-Government Organisations
TC	Technical Committee
TE	Terminal Evaluation
TNWC	Tuvalu National Women's Council
ToR	Terms of Reference
TPR	Tripartite Review
UNCCD	United Nations Convention to Combat Desertification
UNDP CO	United Nations Development Program - Country Office
UNDP	United Nations Development Programme
USP	University of the South Pacific

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1. Executive Summary

The Tuvalu NAPA-I project, “Increasing Resilience of Coastal Areas and Community Settlements to Climate Change in Tuvalu”, was the first national project to address priorities identified in the Tuvalu National Adaptation Programme of Action (NAPA). The project encompasses all 9 islands of the Tuvalu¹. The project was implemented by the Department of Environment under the Ministry of Foreign Affairs, Trade, Tourism, Environment and Labour (MFATTEL), with support from UNDP over the period beginning November 2009 to July 2016.

The project had a total budget of USD 4,369,000, of which USD 3,300,000 was provided by the GEF administered Least Developed Countries Fund (LDCF) and USD 1,069,000 was an additional grant granted by AusAID.

The main objective of the project was 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 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 objective of the Terminal Evaluation (TE) was to: assess the achievement of project results, and to draw lessons that can both improve the sustainability of benefits from this project, and aid in the overall enhancement of UNDP programming.

A questionnaire was developed and used to score and record stakeholder perspectives. The opinions of stakeholders interviewed, in relation to the project formulation process, were generally affirmative.

Stakeholders directly involved in the development of the Project Document specifically mentioned the consultative meetings held in Funafuti and the outlying islands, and acknowledged that these provided opportunities for input.

There was an acknowledgement that genuine attempts had been made to incorporate the views of stakeholders although some respondents indicated that this process could have been better.

The emphasis placed on allowing communities to establish their own priorities was commented on as an appropriate approach. Other interviewees responded to the question on relevance, with several saying that NAPA linked well with work their community was (or should) be doing to address adaptation.

The TE concluded that project formulation was planned relatively well, and the Logical Framework provided a cohesive framework, which effectively connected outcomes, outputs and activities, was generally beneficial. Applying the Logical Framework was, however, judged to be problematic.

The following is a condensed synthesis of the TE conclusions:

1.1 Project design and approach:

- responded adequately to government and donor needs, and, in a more limited sense, community needs.
- did not adequately consider the significant challenges posed by communications and transport infrastructure to the outer islands, which has led to severe project delays.

Project design and the approach = 3 – 5 /10 Fair - Marginally Acceptable

1.2 Implementation

In terms of implementation, the project achieved some progress towards the overall objective of increasing protection of livelihoods from risks related to climate change. These included:

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

- Outcome 1 enhancing capacity of public administration to plan and respond to climate change risks, notably through developing national policies supportive of climate change.
- 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 was unsuccessful in that it failed to link activities directly with climate change adaptation. There were several other areas where delays and shortfalls impacted on project implementation. These included:

- implementing national awareness activities,
- doing community-based risk assessments and plans.

Another deficiency was in relation to Outcome 3. This was focused on capturing, analysing and disseminating knowledge and lessons learned.

The MTE concluded, and the TE are of the same opinion, that gender inequalities were evident in the project's decision-making structure, and the specific needs of woman were not well considered in project activities.

Institutional arrangements also encountered significant challenges. These related to the technical capacity and continuity of the Project Management Unit (PMU); functioning of the Project Board; and the effectiveness of Island based Community Organizers (CO) who also acted as project focal points.

The TE reached the basic conclusion that project implementation was challenging for all concerned despite the TE conclusion that the approach was generally appropriate. As would be expected in a project that covered such a wide geographical scope, the approach required coordination at multiple levels between varied groups of stakeholders and placed a significant burden of responsibility on the Project Coordinator and PMU. This small group was, in effect, required to act as the intermediary between the government project management structure (refer **Figure 1 Project Structure**), UNDP, community organisations and the NGO's involved in implementation activities.

It was clear from discussions with stakeholders that a major challenge and source of significant frustration was the complicated funding disbursement and reporting procedure, which required implementing agencies to request funding and payments through the Ministry of Finance.

An objective assessment of the issue made it apparent that communication and coordination between the PMU and other stakeholders needed to be strengthened with far more regular discussion of budget needs and related activities. This was a particularly important consideration, which suggests that regular dialogue should have taken place in the early stages of project management when people were learning new systems and bedding down the implementation approach.

The lack of direction provided by the PMU, and specifically the Project Coordinator, was probably a major inhibiting factor. Another element, which could have strengthened the implementation approach, was to place more emphasis and allocate funds towards shared learning and output development opportunities.

The range of activities and the associated management and technical inputs presented a significant challenge to the limited capacity of the key implementing agencies over a relatively short time 3 – 4-year time frame.

The TE found that the project formulation process, which involved significant participation and involvement, had been instrumental in creating a reasonable level of local ownership. This is reflected in the wide range of stakeholders involved, particularly Kaupule and local community members who, through demonstration projects, and, of particular significance activities, were decided by local consensus.

The conclusion is that overall the project was one which has added useful dimensions and value to stakeholders.

Consultations with both the Prime Minister and the Director of the Climate Change Unit were useful in that both these people advised that there was strong national ownership by the government, and that they definitely supported NAPA and wanted it to succeed.

It was suggested by several informants that information flows between the governance structure of the project was reasonably good but the flow of information from Funafuti to the outer islands was not as good as it could have been.

Informants suggested that basing representatives from the village communities in Funafuti was helpful, but it was questionable whether information was flowing back to the outer islands from these representatives to CO's and Kaupule representatives.

Implementation = 3 – 5 /10 Fair - Marginally Acceptable

1.3 Monitoring and Financial Management

Although some improvements could be noted following the MTE, monitoring was generally weak. Project reporting was 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 were adequately managed although the project experienced significant delays in both budget implementation and project execution. Again, it would be fair to say that this aspect improved following the MTE but adjustments were probably inadequate. The project was successful in securing co-financing from AusAid.

Monitoring and Financial Management = 3 – 5 /10 Fair - Marginally Acceptable

1.4 Project Results

Turning to overall results, implementation suffered from the inefficient use of funds, with severe delays in budget execution, in particular at a national level but also through procurements.

As the NAPA project was nationally implemented all funds must be channelled through the Ministry of Finance, then to relevant Ministry/Department of Environment.

Projects Results = 3 – 5 /10 Fair - Marginally Acceptable

1.5 Efficiency

Overall time and resource use was inefficient, with delays in recruitment and procurement. There was negligible evidence that adaptive management processes were applied (or in some instances within the PMU possibly understood).

Efficiency = 1 – 2 /10 Poor – Unacceptable Result

1.6 Effectiveness

In terms of effectiveness, the project achieved some useful results, while recognising that there were significant delays in others.

Effectiveness = 3 – 5 /10 Fair - Marginally Acceptable

1.7 Sustainability

The project major areas that had positive impacts included: increasing food and water security and demonstrating that Kaupules need to employ different planning approaches to address climate change scenarios.

Government capacity has, to a certain degree, been increased, and a useful policy framework is now in place. Mainstreaming policy into other departments is still required and the challenges presented by this should not be underestimated. The project was not particularly successful in building island level capacity. This was due to inadequate training and an over-reliance on the Community Organizer structure.

1.8 Country Ownership and Drivenness

The TE found that the project formulation process, which involved significant participation and involvement, had been instrumental in creating a reasonable level of local ownership. This is reflected in the wide range of stakeholders involved, particularly Kaupule and local community members who, through demonstration projects, and, of particular significance activities, were decided by local consensus.

The conclusion is that overall the project was seen as one which has added useful dimensions and value to stakeholders.

Consultations with both the Prime Minister and the Director of the Climate Change Unit were useful in that both these people advised that there was strong national ownership by the government, and that they definitely supported NAPA and wanted it to succeed.

It was suggested by several informants that information flows between the governance structure of the project was reasonably good but the flow of information from Funafuti to the outer islands was not as good as it could have been.

Informants suggested that basing representatives from the village communities in Funafuti was helpful, but it was questionable whether information was flowing back to the outer islands from these representatives to CO's and Kaupule representatives.

1.9 Stakeholder Participation

The overall impression the TE gained was that stakeholder participation in the project was variable and that where, and when, it reached acceptable levels was an essential component that helped the project to deliver particular outcomes.

This was especially the case where Community Organisers (CO) established effective relationships and actively engaged with Island Kaupules. The TE noted significant variation between the skills, capability and capacity of community organisers. Without going into detail some CO demonstrated outstanding flexibility and ability to work with and relate to the problems that communities needed to address. Conversely, other CO seem to display self-interest and use the project to advance their own agendas to an extent that some CEOs were reported as being marginally corrupt / dishonest.

The degree and effectiveness of stakeholder engagement varied from island to island and this detail was noted by the MTE.

The TE also puts forward the notion that there were a number of indirect positive outcomes. These included raised awareness of CC adaption issues and a growing appreciation by Island Kaupules and communities of the advantages of cooperation in dealing with problems.

The TE concluded that the stakeholder participation could have been improved. Earlier and more direct involvement of NGO's in the planning, formulation and implementation process might well have added value.

The TE overall conclusion was that full participation from a wide variety of stakeholders from both government and the civil sector is essential in assuring best practices and successful implementation of projects. Projects have a better chance of working well, especially in terms of impact, when NGO's, Kaupule's and communities are fully integrated into the implementation process.

1.10 Replication Approach

One of the genuine tests of any development project is the legacy it leaves behind in terms of impacts, at scale. The precursor to this is the degree to which the project activities have been designed with replication in mind, and whether its approaches and models/pilots are adopted by other communities.

In this regard the TE considers that the design of the NAPA Project presents as a good model for similar projects. The basis for replication seemed to be established at the design workshops where stakeholder groups shared information on their preferred activities and priorities. These were collectively consolidated into activities that were subsequently incorporated into the PD.

Examples of project activities that have potential for wider replication include: approaches to growing taro and pulaka, including the design and construction of raised beds, and techniques to reduce soil salinity.

An important element for the replication of outcomes are finding ways and opportunities to share information and learn from other projects.

The Awareness Road Show on Climate Change Science and the National Policy on Climate Change was held in May 2014. This major event involved the PMU as well as a range of other government and non-government agencies (Education, PWD, Agriculture, SWAT, Environment, Fisheries (Integrated Island Biodiversity project), Home Affairs, Agriculture, Lands & Survey, and TANGO. The Road Show involved communities on the outer islands as well as Funafuti. All island communities of Tuvalu including all primary and secondary schools were involved in the Road / Combined Food Security mission.

These sorts of intervention were lacking in other areas of the NAPA project and attention could have been contributed to identifying and maximising a wider range of learning opportunities along with allocations of appropriate funding.

1.11 Cost Effectiveness

The TE, even after taking into account remoteness, and transport and logistical difficulties, is of the opinion that the project was probably not particularly cost-effective.

Sustainability = 3 – 5 /10 Fair - Marginally Acceptable

Table 1
Assessment colour and numerical code

<i>Colour Code</i>	<i>Status at Project Completion</i>
	9 – 10 / 10 Excellent - Satisfactory Result
	6 – 8 / 10 Very Good - Acceptable Result
	3 – 5 / 10 Fair - Marginally Acceptable
	1 – 2 / 10 Poor – Unacceptable Result

1.12 Recommendations

Based on the outcomes and conclusions of this report the TE offer the following recommendations:

- a) That UNDP and the Government of Tuvalu take active steps to maintain the momentum and interest generated by NAPA 1
- b) That UNDP and the Government of Tuvalu mainstream CC adaptation principles into all future development and resource management processes.
- c) That all projects (existing and proposed) make provision for technical support to PMUs from qualified and experienced technical advisors.
- d) That technical advisors be retained for a set number of months spread over the life of the project to; provide technical inputs and coordination for consultancies, sub-contracts, support for setting up and maintaining a robust monitoring and evaluation framework, review and comment on reports from COs, organise training courses, and generally provide technical and planning support to the PMU.
- e) That a scoping exercise be carried out to assess the feasibility of locating project staff on each outer island or groups of islands.
- f) That CROP agencies be included in annual work plans and provided with adequate time to schedule input and add their experience from CC projects in other PICs.
- g) That in view of the projects capacity issues all new projects take steps to build capacity in climate change adaptation planning and mitigation.
- h) That capacity building interventions use demonstration projects and target training and mentoring activities to PMU staff and Community Organisers.
- i) That each outlying island prepare a close-out report, based on a template to be developed by UNDP and the PMU, aimed at identifying stakeholders' views on what worked, what didn't work and why, and pointing to priorities for future projects.
- j) That the steep learning curve the NAPA 1 project experienced is evaluated and integrated into all going CC projects
- k) Ensure that lessons and experiences that the project accumulated are synthesised and translated into SMART indicators that can be applied to project monitoring and evaluation systems.

2. Description of the Project²

2.1 Geographic Location

Tuvalu is the fourth smallest nation in the world with a landmass of 25.9km³ 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.



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 resources⁴.

All of the islands are extremely low-lying, at 3m or less geographical elevation above mean sea level⁵. 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 increase⁶. Temperatures have increased since 1950 at a rate of 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 waters⁷.

² This section was adapted from the MTR

³ Tuvalu 2002 Census

⁴ NBSAP, 2010

⁵ Te Kaniva, 2012

⁶ Pacific Climate Change Science Program Partners, 2011

⁷ Pacific Climate Change Science Program Partners, 2011 ⁷ Te Kaniva, 2012

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.

3. Context and Purpose of the Evaluation

3.1 UNDP Monitoring and Evaluation (M&E) policy

The Monitoring and Evaluation (M&E) policy at the specific project level in UNDP/GEF has four objectives to:

- i monitor and evaluate results and impacts;
- ii provide a basis for decision making on necessary amendments and improvements;
- iii promote accountability for resource use;
- iv document, provide feedback on, and disseminate lessons learned.

In accordance with UNDP/GEF M&E policies and procedures, all regular and medium-sized projects supported by the GEF are mandated to undergo a Terminal Evaluation (TE) upon completion of implementation. A final evaluation of a GEF-funded project is required before a concept proposal for additional funding (or subsequent phases of the same project) can be considered for inclusion in a GEF work program. A TE is not, however, an appraisal of any follow-up phase(s).

TEs are intended to assess the relevance, performance and success of projects and look for early signs of potential impact and sustainability of results, including the contribution to capacity development and the achievement of global environmental goals. They are also an opportunity to identify/document lessons learned and make recommendations that might improve design and implementation of other UNDP/GEF projects.

The overall objective of the NAPA TE was to review progress towards the project's objectives and outcomes, assess the efficiency and cost-effectiveness of how the project has moved towards its objectives and outcomes, identify strengths and weaknesses in project design and implementation, and provide recommendations on design modifications that could have increased the likelihood of success, and on specific actions that might be taken into consideration in designing future projects of an allied nature.

3.2 Methodology and Structure of the Evaluation

Bruce Jefferies (International Consultant/Team Leader) and Alan Resture (Project Coordinator / National Consultant) made-up the TE team. The NAPA Works Supervisor Rurunteiti Kaiarake accompanied the mission, joined most meetings, facilitated logistical arrangements and participated during field inspections.

A combination of information collection methods was developed and applied. These were devised to, as to as far as possible, respond to an expected wide range of stakeholder perspectives and expectations and enable a process that would help the consultants to validate results and strengthen conclusions.

This TE commenced 13/06/2016 and followed the signing of a contract between the Consultant and the UNDP Multi Country Office in Suva, Fiji.

The schedule for completion of the TE did not provide much flexibility. The approved work plan required completion and presentation of a draft report and findings by 16 August 2016 and a final Terminal Evaluation report to the Government of Tuvalu and UNDP Multi Country Office (MCO) by 2 September 2016.

The TE process included a desk-top review of a range of documents, including the Project Document (November 2009), Mid Term Evaluation (May 2013) Government of Tuvalu documents and other pertinent documents. Refer **Error! Reference source not found.**

The MTE Final Report (31st May, 2013), prepared by Ms Ninni Ikkala Nyman, was an invaluable source of information, which helped to assess project progress to date, quality of reporting and monitoring, financial progress amongst others.

The actual field mission to Tuvalu took place between 18th July – 2 August 2016 (including travel to and from Tuvalu) and included visits to Funafuti as well as the outer islands of Vaitupu, Nanumanga and Nukufetu. Prior to travelling to Tuvalu, which is a 2.5hr flight from Fiji, the consultant undertook a limited number of interviews and meetings in Fiji.

The methodology included key informant interviews with a range of stakeholders. These included: Prime Minister of Tuvalu, Government of Tuvalu staff, local communities, NAPA Project Management Unit Staff (past and present), Project Board, UNDP, and other donors.

The Focus Group (FG) approach was applied during the mission, including the islands of Nanumanga and Nukufetau, which included meetings with the Falekaupule and the Kaupule. A Power Point presentation, translated to the Tuvaluan language, was used to provide an introduction as well as address a number of specific questions. The FG approach was also used with the Project Board (PB) as a way solicit their views on a wide range of relevant factors, including their level of understanding on climate change adaptation and the NAPA project concept.

The records developed during these consultations provided a useful overview of the participants' perspectives on *inter alia* project design and implementation, as well as insights into operations, policies and procedures and an indication of results accomplished and lessons learned.

The interview checklist/questionnaire developed to guide this approach makes up Annex 11, and a Schedule of people interviewed makes up Annex 4, PowerPoint presentations make up Annex's 5 and 6.

The 3 phase methodology that was developed and applied throughout the TE was:

Phase 1: Work plan development, information gathering, document preparation and logistical arrangements.

This phase included the acquisition of project inception reports, UNDP and GEF project documentation, annual and midyear reports, midterm evaluation, budgets, work plans and other associated project documentation. This material was assessed and analysed to help the consultant develop an understanding of the key aspects of the project, including its scope, its intended purpose, its intended and unintended operational and implementation modalities, and the resulting project outputs and outcomes.

Skype meetings were undertaken with UNDP MCO Project management staff in Suva and UNDP Regional Technical Advisor. These discussions helped to gain insights and perspectives on the project that are often not recorded in project reports as well as perceptions on project management.

Phase 2 In-country visits, activity assessments and interviews

The in-country visits included Funafuti (the capital and centre of government), Vaitupu, Nanumaga, and Nukufetu. Time limitations and logistical difficulties ruled out the possibility of visiting all 9 Island locations. The site visits to the outer islands were, however, a critical component of the TE methodology. Each visit followed the basic pattern of:

- Meet with the Kaupule and Community Organisers to confirm meetings and field visits;
- Convene Kaupule and stakeholder meeting to review progress and achievements related to project outputs;
- Undertake field visits to inspect projects being implemented (where time allowed);
- Conduct separate interviews with relevant stakeholders;
- Stakeholder Meeting to provide overview of findings and opportunity for initial feedback.

The ability of the PMU to organise stakeholder meetings and interviews both in Funafuti and the outer islands in the limited time available for this mission was a critical element. In this regard, and given the tight planning

timeline, the fact the TE was able to visit 4 of the 9 islands and meet with so many project stakeholders are good indications of the level of interest and support enjoyed by the NAPA project in spite of the significant problems discussed above.

Phase 3 Report finalisation

Additional feedback arising from the in-country presentations and written comments will be incorporated into the final terminal evaluation report which needs to be submitted to the UNDP Multi Country Office by 16 August 2016, allowing for about 2 weeks for stakeholder review and additional comments to be assessed and incorporated where applicable.

4. Goals, Objectives and Outcomes of the Project

The Tuvalu NAPA-I project, *“Increasing Resilience of Coastal Areas and Community Settlements to Climate Change in Tuvalu”*, was the first national project to address priorities identified in the Tuvalu National Adaptation Programme of Action (NAPA). The project was designed to involve all 9 islands which make up the Pacific Island nation of Tuvalu.

The project was implemented by the Department of Environment under the Ministry of Foreign Affairs, Trade, Tourism, Environment and Labour (MFATTEL), with support from UNDP.

Implementation covered the period 25 November 2009 - 30 June 2016. NB several factors including a significant restructuring of environmental management agencies in Tuvalu and consequent institutional realignments meant that actual investments and activities only commenced in March 2010.

The goal of the project was: to increase the resilience of coastal areas and community settlements to climate change throughout Tuvalu.

The overall project objective was: 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.

It was envisaged that the above goal and objectives would be 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 (with a focus on 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 project outcomes and outputs are summarized in

Table 2
List of project outcomes and outputs

Table 2
List of project outcomes and outputs

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.	Output 1.1 -- National Development Plan (Te Kakeega II) and implementation matrix is reviewed to incorporate climate risk and resilience.
	Output 1.2 -- A national climate change policy is developed 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 communities to adapt to dynamic climate-related threats through implementation of practical community-based adaptation measures specifically tailored to each islands.	Output 2.1 – Community-based adaptation plans for coastal protection, water supply security, and agricultural livelihood sustainability are developed for all islands in Tuvalu.
	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.
	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 learned are captured, analysed and disseminated to facilitate replication of practical adaptation solutions in all islands.	Output 3.1 – Climate change information for Tuvalu is analysed, updated and disseminated to sectoral planners and policy makers.
	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.
	Output 3.3 – Project lessons are shared within and outside of the Pacific region and incorporated into the Adaptation Learning Mechanism (ALM).

5. Key Issues Addressed

There is little doubt that the Tuvalu NAPA project experienced an exceptionally problematic and challenging implementation history. This situation was influenced and prolonged to an unnecessary degree by extended delays initiating activities. These were, to a significant degree, brought about by a number of unnecessary and avoidable factors including: poor recruitment procedures (including political and government administrative interference), delays in key staff recruitment and unacceptable levels of professional experience and performance.

Refer Table 3 Recommendations aimed at improvements arising from the key issues which emerged from the MTE

Table 3 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. Initiate and implement activities to capture, analyse 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
19. 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. Implement 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

The consultant puts forward that the issues and recommendations are just as valid during the TE as they were during the MTE.

In the time since the MTE, delivery had, without question, picked-up significantly. However, despite the recommendations of the MTE, it emerged from observations and discussions with stakeholders that delivery and achievement of outcomes continued to be affected by the following issues:

- Coordination and communication between stakeholders located on the outer islands and between the Project Management Unit and National Focal Points (although there was an apparent improvement during the project extension period).
- Financing and transfer payments from UNDP to the Tuvalu government and onto the PMU (a major issue).
- Reporting and financial management capacity and transparency.
- Insufficient Information-sharing and learning opportunities.
- Irregular monitoring and evaluation schedules and M&E specific site visits.

Other technical / operational challenges the project faced were:

- Inappropriate selection, appointment and management of project staff;
- Scarcity of national technical expertise;
- Lack of support from CROP agencies and an apparent inability to provide expertise;
- Lack of coordination between Climate Change interventions including coastal zone assessment projects;

- Capacity constraints in the Department of Environment (DoE) resulting in inadequate internal monitoring and control;
- Project Management Unit (PMU), particularly under previous PCs, lacked proficiency, acceptable levels of commitment and work standards;
- Lack of capacity-building and training for DoE and PMU;
- Competition between projects and interference from other projects on planned activities (especially those requiring community consultations) resulting in confusion amongst community members;
- Significant levels of administrative, organisational and political interference.

An important consideration is that the time, resources and opportunities that were forgone during years 1-3 of the project are virtually impossible to regain. Experience elsewhere clearly shows that the early stages of any project are a vital phase. This is the period where relationships are established, staff become increasingly confident in their roles, project management systems have evolved and, of particular importance, a cohesive team with a competent, dedicated and committed PC is “taking charge” and leading and guiding implementation. The impact on the project of the severe failings in this vital period are complicated and difficult to overestimate.

Another influence, that was perhaps not totally anticipated during project formulation, was the reality of high transportation costs to the outer islands. For example, the cost of sending 500 tonnes of material to all outer islands (during combined food security mission) was in the region of US\$700,000. The TE recognise that it is impossible to anticipate “emergency interventions”.

Transportation complications that are regularly experienced in Tuvalu include changes to shipping schedules / diversions to address emergency situations such as tropical cyclones. These invariably require arranging supplementary food supplies and emergency water distribution.

6. Lessons Learned

The section summarises section 7.1 Assessment of Practices used to Address Issues Relating to Relevance, Performance and Success. Refer to 7.1 for expanded detail.

- 1) Decentralized implementation.
- 2) Amendment to procurement, financial disbursement, and M&E components.
- 3) Implementation of a complex project that involves all outlying islands requires the application of adaptive and flexible management practices.
- 4) The process of including key stakeholders in the project formulation, design and inception stages helped to ensure that the project was aligned to national priorities.
- 5) Linkages with existing national development priorities and to other initiatives with strong local backing could have significantly enhanced the sustainability of the project.
- 6) Programmatic linkages with regional agencies, such as SPC and SPREP, regional tertiary institutions and regionally based NGOs.
- 7) Learning exchanges, field visits and networking amongst peers in building capacity.
- 8) Requires proactive monitoring and evaluation.
- 9) Continuity of personnel in key positions is a prerequisite.
- 10) Establishment and maintenance of communication channels to strengthen project management and coordination.
- 11) Partnerships with Kaupules and NGO’s are critical.

- 12) Securing support and active participation of Kaupule structures and other traditional leader forums is vital.
- 13) Numerous small activities that need small sums of money creates the potential for frustrating delays.
- 14) Activities should be lumped together rather than split.
- 15) Island communities, with common activities, need to be brought together.

7. The Project and its development context

8.1 Project Start and Duration

Project implementation took place during the period 25 November 2009 until 30 June 2016. NB several factors, including a significant restructuring of environmental management agencies in Tuvalu and consequent institutional realignments, meant that actual investments by the project only commenced in March 2010.

A postponement of the project was ordered by the cabinet during the period June to July 2014. This delayed all activities and the project recommenced in July when the cabinet lifted the embargo. This state of affairs was put down by most respondents during the TE as “political interference”. The primary reason for the postponement was, however, not completely clear or evident to the TE.

8.2 Problems that the Project Seeks to Address

As a small low-lying island atoll country, Tuvalu is particularly vulnerable to natural disasters and the impacts of climate change. This reality is exacerbated by limited ecological, socio-economic, technological and management 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. In addition, Tuvalu is isolated from global markets and relies heavily on subsistence agriculture and fisheries for sustenance. This 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 resources⁸. All of the islands are extremely low-lying, at 3m or less geographical elevation above mean sea level⁹. 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 increase¹⁰. Temperatures have increased since 1950 at a rate of 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 waters¹¹. Key climate change impacts to date include: coastal erosion and loss of land; salt water intrusion into water resources, soil and cultivation areas; inundation; drought; storm surges; and coral bleaching⁷.

⁸ NBSAP, 2010

⁹ Te Kaniva, 2012

¹⁰ Pacific Climate Change Science Program Partners, 2011

¹¹ Pacific Climate Change Science Program Partners, 2011 ⁷ Te Kaniva, 2012

Climate change is identified as a national priority, and this is exemplified by the adoption of the Te Kaniva Tuvalu Climate Change Policy in 2012. Tuvalu’s National Adaptation Programme of Action (2007) identified a range of priority adaptation measures that were designed to enhance community livelihoods and promote sustainable development by reducing adverse effects of climate change, variability and extreme events. Seven priority projects were identified – these are outlined in Table 4 NAPA Priorities below:

**Table 4
NAPA Priorities**

<i>Priority</i>	<i>Project Focus</i>
1)	coastal;
2)	agricultural;
3)	water;
4)	health;
5) & 6)	fisheries (two projects);
7)	disasters.

The NAPA-1 project focussed on Priority 1) “to increase the resilience of coastal areas and community settlements to climate change”. As part of this it included adaptation activities on priorities related to 2) agriculture and 3) water.

Coastal erosion can be observed throughout the nation and this impact is worse during periods of cyclones and storm surges. These events are expected to intensify with sea level rise.



Hard engineering response to sea level rise and salt water intrusion to crops – Nukufetau July 2016

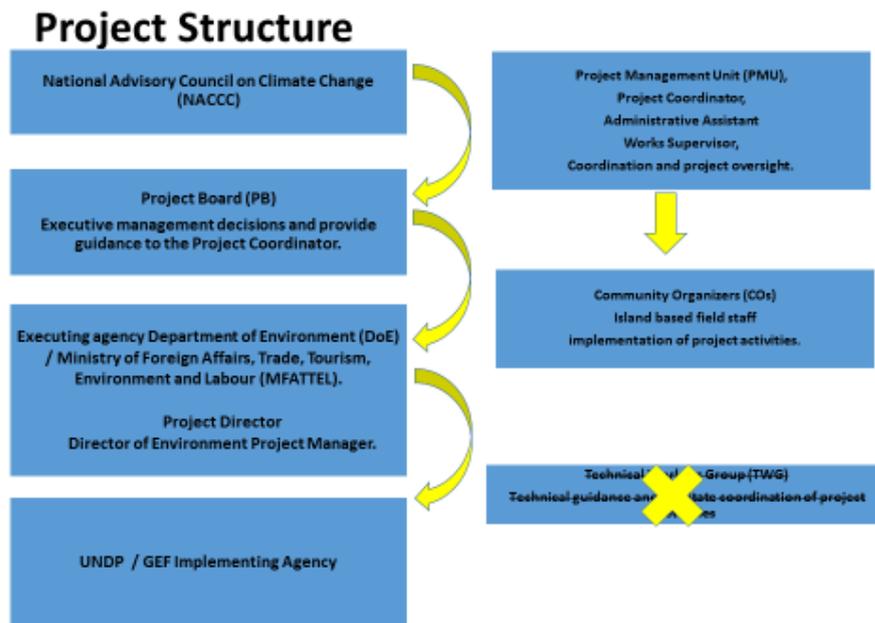
This has led to degradation and loss of land, including loss of infrastructure and agriculture. Water quality and availability are already being severely affected by saltwater intrusion, drought and rainfall variability, affecting potable water and agricultural production. Saltwater intrusion has increased 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.



Damage to Pulaka and Taro crops post TC Pam storm surge
Nukufetau July 2016

8.3 Project Structure and Main Stakeholders *Figure 1 Project Structure*



The National Advisory Council on Climate Change was established by Government in January 2016. This body provides institutional links between government departments at a directorate level. Since its establishment, members of the NACC have met four (4) times to discuss climate change issues that affect Tuvalu.

The Council is comprised of the Secretary to Government (Chair), Director of Environment (Deputy Chair), Attorney General, Director of Budget and Planning, Director of Fisheries, Director of Meteorological Services, Director of Public Works Department, Director of Lands and Survey, Director of Agriculture, Director of Energy, Director of Women, Director of Home Affairs and Rural Development, Director of Tuvalu Associations of NGOs (TANGO), Funafuti Kaupule Secretary, Ekalesia Kelisiano Tuvalu Secretary General, Representative from the Private Sector, and the NAPA Project Coordinator as an observer.

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 comprised of:

- Permanent Secretary, MFATTEL (Chair)
- Director, Agriculture
- Director, Environment
- Director, Finance
- Director, Fisheries
- Director, Home Affairs
- Director, Public Works
- 8 Island Leaders based in Funafuti¹²

UNDP's in-country presence in Tuvalu is through Ms Seveleni Kapua who is the Country Development Manager.

¹² The islands of Niutao and Niulakita are administratively joined and are therefore both represented by the Island Leader of Niutao

A Technical Working Group¹³ (TWG) was established to provide technical guidance to the project and facilitate coordination of project activities. The members were originally designated into 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

Table 5
Summary of Stakeholder Groups

<i>Name/ Type of Institution</i>	<i>Mandate/Objectives</i>	<i>Specific Output Responsibilities</i>
Ministry of Home Affairs	Facilitate delivery of programs of other Departments to all communities. Operates under Falakapaule Act 1979.	No formal executive function in the project
Ministry of Natural Resources and Environment	Environmental protection and land management throughout Tuvalu.	Central coordinating function for the project; Provided facilities for the PMU and is the focal point of contact for the project.
Ministry of Finance, Budget and Planning Division	Review and approve all public sector budgets, conduct fiscal planning and control.	Outputs 1.1, 1.2
Ministry of Agriculture	Support commercial and subsistence agricultural livelihoods.	Outputs 1.1, 2.1 - 2.3
Ministry of Fisheries	Support to livelihoods from inshore fisheries.	Output 2.2
Public Works Department	Construction, delivery, and maintenance of public facilities throughout Tuvalu; implementing agency of public works projects including coastal protection works and water tank delivery and installation.	Outputs 1.1, 2.1 - 2.3
Lands and Survey Office	Land mapping, GIS services, satellite imagery and coastal zone morphology monitoring.	Outputs 1.1, 2.1 - 2.3
Ministry of Education	Construction and operation of educational facilities throughout Tuvalu; delivery of education services; public awareness and community training.	Outputs 1.1 – 1.4

¹³ The TE concluded that the Technical Committee was not effective and did not meet during the last 2 years of the project.

<i>Name/ Type of Institution</i>	<i>Mandate/Objectives</i>	<i>Specific Output Responsibilities</i>
National Disaster Coordination Office	Community preparedness and rapid response to anticipate and deal with natural disasters.	Outputs 1.1 – 1.4
Ministry of Health	Protection of public health throughout Tuvalu, including water supply quality monitoring and sanitation.	Outputs 1.1 – 1.4
United Nations Development Programme (UNDP) Fiji Multi-Country Office and Pacific Centre	UNDP’s Energy and Climate Change portfolio of projects addresses climate change, primarily through building coping mechanisms at all levels for adaptation and linking climate change mitigation to develop sustainable energy for the poor and to promote energy efficiency. It has supported the development of Tuvalu’s national communications, NAPA, and various adaptation capacity building activities.	All outputs
Kaupule’s Local Environment Committees	Provide local government and public information capacity.	Outputs 1.2, 1.4, 2.1 – 2.3, 3.1, 3.2
Local Communities/ CBOs e.g. TANGO, Red Cross, National Council of Women	Community mobilization, facilitate project implementation.	Output 1.1, 1.3, 1.4, 2.1 – 2.3

8.4 Results Expected

The NAPA was a reasonably bold project with ambitious expected results. These are expressed in the Project Document as Objectives, Outcomes and Outputs. These are best reviewed by summarising the core 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*. Aligned with this objective was the aspiration to enhance and develop the individual, institutional, and systemic capacity for Climate Change Adaptation, and mainstream CC imperatives into national development strategies and policies, to improve the quality of project design and implementation in the development arena, including Action Plan and associated medium term investment plan, and ensuring the integration of relevant stakeholder views – including women and youth into the process through engagement in activities and consultation.

Looking more broadly, the long term results expected included improved / sustainable management of resources leading to healthy natural environments and the sustainability of critical ecosystem services, including water and soil quality. Last but not least, emphasis on Climate Change Adaptation practices would help to raise official and public awareness of the impacts of climate change and strengthen the commitment and support for those government and volunteer groups tackling the threats associated with this increasingly pervasive threat.

8. Findings and Conclusions

9.1 Project Formulation

A questionnaire was developed and used to score and record stakeholder perspectives. Refer ANNEX 11 Terminal Evaluation Questionnaire. The opinions of stakeholders interviewed during the TE in relation to the project formulation process were generally affirmative.

The question that was presented to stakeholders during focus group meetings and interviews was: 1. Project Formulation and Quality of Design

Do you / your group consider there were enough opportunities for the government and other stakeholder to make meaningful input into the design of the project at its outset?

Comments

Stakeholders directly involved in the development of the Project Document specifically mentioned the consultative meetings held in Funafuti and the outlying islands, and acknowledged that these provided opportunities for input.

There was an acknowledgement that genuine attempts had been made to incorporate the views of stakeholders although some respondents indicated that this process could have been better. This is reflected in comments extracted from meetings:

- formulation should have involved all important stakeholders during feasibility studies;
- not enough time was allocated for stakeholder consultations;
- Conversely, other respondents recorded comments such as
- there were public consultations around Tuvalu during which each island identified priority areas.
- Meetings with island leaders indicated that they were happy with the amount of consultation.
- Island Leaders Consultations, Nanumaga 26 July 2016
- Enough opportunities were given with public consultations between island community and the team from Funafuti, which the community identified their priority – concrete pulaka gardens.
- Island Leaders Consultations, Nukufetau 28 July 2016
- Enough consultation.

The emphasis placed on allowing communities to establish their own priorities was commented on as an appropriate approach. Other interviewees responded positively to the question on relevance, with several saying that NAPA linked well with work their community was (or should) be doing to address adaptation.

The TE generally concluded that project formulation was planned relatively well, and the Logical Framework provided a cohesive framework, which effectively connected outcomes, outputs and activities, was generally beneficial. Applying the Logical Framework was, however, judged to be problematic.

9.2 Implementation Approach

The TE reached the basic conclusion that project implementation was challenging for all concerned in spite of the TE conclusion that the approach was generally appropriate.

As would be expected in a project that covered such a wide geographical scope, the approach required coordination at multiple levels between varied groups of stakeholders and placed a significant burden of responsibility on the Project Coordinator and PMU.

This small group was, in effect, required to act as the intermediary between the government project management structure (refer **Figure 1 Project Structure**), UNDP, community organisations and the NGO's involved in implementation activities.

It was clear from discussions with stakeholders that a major challenge and source of significant frustration was the complicated funding disbursement and reporting procedure, which required implementing agencies to request funding and payments through the Ministry of Finance. Without exception, issues with funding and budget transparency were raised (in some cases very compellingly) during stakeholder meetings. This was one of the most contentious implementation issues the TE team confronted.

An objective assessment of the issue made it apparent that communication and coordination between the PMU and other stakeholders needed to be strengthened with far more regular discussion of budget needs and related activities. These should, without exception, have been based on the Logical Framework. This approach would possibly have helped to ensure that all parties had a clear and shared understanding of funding, including how resources had been allocated and spent, funding available for project initiatives and the time frame for expenditure.

This was a particularly important consideration, which suggests that regular dialogue should have taken place in the early stages of project management when people were learning new systems and bedding down the implementation approach. The lack of direction provided by the PMU, and specifically the Project Coordinator, was probably a major inhibiting factor. Another element, which could have strengthened the implementation approach, was to place more emphasis and allocate funds towards shared learning and output development opportunities.

Finally, as was noted by the TE, the range of activities and the associated management and technical inputs presented a significant challenge to the limited capacity of the key implementing agencies over a relatively short time 3 – 4-year time frame.

It is to their credit that significant progress was accomplished. It was clear that in technical areas, such as developing guidelines for project management and work plans, and policy development outputs, have proven difficult to achieve.

The MTE concluded, and the TE concurs, that on the technical side, greater attention could have been given to aligning activities to existing CC related activities, or reducing the number of activities and /or increasing the amount of time available to implement actions. The TE adds to this that there was an obvious need to provide information on, and funding for, sourcing professional assistance to work alongside the implementing agencies on technical activities such as coastal planning and protection.

9.3 Country Ownership and Drivenness

The TE found that the project formulation process, which involved significant participation and involvement, had been instrumental in creating a reasonable level of local ownership. This is reflected in the wide range of stakeholders involved, particularly Kaupule and local community members who, through demonstration projects, and, of particular significance activities, were decided by local consensus.

The conclusion is that overall the project was seen as one which has added useful dimensions and value to stakeholders. Refer Table 5
Summary of Stakeholder Groups.

Consultations with both the Prime Minister and the Director of the Climate Change Unit were useful in that both these people advised that there was strong national ownership by the government, and that they definitely supported NAPA and wanted it to succeed.

The TE suggests that, the fact that NAPA 2 is currently being implemented and is in its 2nd year of operation, was a reasonable example of this commitment.

It was suggested by several informants that information flows between the governance structure of the project was reasonably good but the flow of information from Funafuti to the outer islands was not as good as it could have been.

It seems there was direct contact on some occasions but part of the problem was that various parts of the project were implemented by other government departments, including the Department of Rural Development. It seems that these “other organisations” had less vested interest in two-way communication.

Informants suggested two other considerations: (i) that basing representatives from the village communities in Funafuti was helpful, but it was questionable whether information was flowing back to the outer islands from these representatives to CO’s and Kaupule representatives and (ii) it could be that this was basically a communication issue between and amongst government departments and with structures such as National Climate Change Committees and Cabinet.

It was also noted that the Project Technical Consultant participated in the UNFCCC COP Meeting in Cancun Mexico. This enabled exposure to the COP process and contributed to building capacity.

The Green Climate Fund (GCF) formulation also involved the Project Technical Consultant as a member of the task force

9.4 Stakeholder Participation

The overall impression the TE gained was that stakeholder participation in the project was variable and that where, and when, it reached acceptable levels was an essential component that helped the project to deliver particular outcomes.

This was especially the case where Community Organisers (CO) established effective relationships and actively engaged with Island Kaupules. The degree and effectiveness of stakeholder engagement varied from island to island and this detail was noted by the MTE.

Overall, and based to a degree on experience with other Pacific island projects, the stakeholder component of the project could be described as moderately constructive. The project’s role included linking Kaupules, communities and national government agencies around CC adaptation, which was positive and should be further developed by follow-up projects such as R2R and NAPA II.

The TE also puts forward the notion that there were a number of indirect positive outcomes. These included raised awareness of CC adaption issues and a growing appreciation by Island Kaupules and communities of the advantages of cooperation in dealing with problems.

The TE concluded that the stakeholder participation could have been improved. Earlier and more direct involvement of NGO's in the planning, formulation and implementation process might well have added value.

It was noted by several informants that problems with procurement and financial transparency prevented some stakeholders being adequately informed about available funding and pending activities. These issues call for strengthened communication and coordination at a national level and could, possibly, have been dealt with by the Project Board by having this matter on the agenda for discussion and a status report from the PMU at each PB meeting.

The TE overall conclusion was that full participation from a wide variety of stakeholders from both government and the civil sector is essential in assuring best practices and successful implementation of projects. Projects have a better chance of working well, especially in terms of impact, when NGO's, Kaupule's and communities are fully integrated into the implementation process.

9.5 Replication Approach

One of the genuine tests of any development project is the legacy it leaves behind in terms of impacts, at scale. The precursor to this is the degree to which the project activities have been designed with replication in mind, and whether its approaches and models/pilots are adopted by other communities.

In this regard the TE considers that the design of the NAPA Project presents as a good model for similar projects. The basis for replication seemed to be established at the design workshops where stakeholder groups shared information on their preferred activities and priorities. These were collectively consolidated into activities that were subsequently incorporated into the PD.

Examples of project activities that have potential for wider replication include: approaches to growing taro and pulaka, including the design and construction of raised beds, and techniques to reduce soil salinity.

An important element for the replication of outcomes are finding ways and opportunities to share information and learn from other projects. In this regard learning exchanges, workshops and joint development of generic guidelines suitable for modification to the special conditions of each island are essential tools in promoting replication and improving the efficiency of project delivery. The TE found that the PMU failed, or only marginally, exploited these opportunities.

This was demonstrated in the approach to strengthening capacity, such as the Training of NACCC members on climate change programming and policy mainstreaming. This was carried out in October 2015 by Tuvalu's Climate Change Ambassador, Dr Ian Fry. A National Awareness Workshop involved 6 participants from each island and staff from the SPC assisted with training on composts.

The Awareness Road Show on Climate Change Science and the National Policy on Climate Change was held in May 2014. This major event involved the PMU as well as a range of other government and non-government agencies (Education, PWD, Agriculture, SWAT, Environment, Fisheries (Integrated Island Biodiversity project), Home Affairs, Agriculture, Lands & Survey, and TANGO. The Road Show involved communities on the outer islands as well as Funafuti. All island communities of Tuvalu including all primary and secondary schools were involved in the Road / Combined Food Security mission.

These sorts of intervention were lacking in other areas of the NAPA project and attention could have been contributed to identifying and maximising a wider range of learning opportunities along with allocations of appropriate funding.

9.6 Cost Effectiveness

The TE, even after taking into account remoteness, and transport and logistical difficulties, is of the opinion that the project was probably not particularly cost-effective. Over the period of the project the following "hardware" was purchased and transported to the outer islands.

Table 6
Hardware procured

<i>Hardware / infrastructure support</i>	<i>Number</i>
Actual Number of Water Tanks Provided and Installed	40 water tanks 10,000 litres capacity per tank. 10 provided to Nanumea, 10 provided to Nanumaga, 10 provided to Vaitupu, 10 provided to Nui
Actual number of water tanks repaired	85 Ferro cement (private household) water tanks repaired,
Actual number of taro and pulaka raised beds provided and installed	92 pulaka beds provided (all installed on Nanumaga)
Actual number of water cisterns installed	2 water cisterns (1 on Nui, and 1 on Nukulaelae) were installed during the life of the project. 1 water cistern is pending. Materials for this water cistern are all on the island.
Actual number of water cisterns repaired	4 community water cisterns repaired by the project (3 on Nanumea and 1 on Nui). Gutters on 4 community halls were repaired.
Other items of capital equipment supplied.	15 wood chippers/shredders 1 tractor with trailer, water tank, portable water pump for Vaitupu 1 tractor with bucket and trailer for Niutao. 2 nurseries constructed by the project (Funafuti and Nukufetau)

The project had access to a total budget of USD 4,369,000.

Funding came from:

(i) GEF administered Least Developed Countries Fund (LDCF) USD 3,300,000.

(ii) AusAID provided a contribution of USD 1,069,000 (AUS 1,000,000), referred to as “NAPA-I+”. This allocation was intended to build on existing project mechanisms and enable efficient replication and up-scaling of practical adaptation measures at the community level.

(iii) Government of Tuvalu provided in-kind contribution – this focused on the provision of office space for the PMU as well as operational and financial management support.

In the time available it was not feasible to carry out a cost benefit analysis. One imprecise and indicative example is related to the hardware interventions that are detailed in Table 5. This suggests that the cost for each hardware intervention was about US\$17,980.

The potential benefits in terms of demonstrating improved water and food security and soil conditioning as well as opportunities for increasing food production is considerable. This type of analysis should be done but is beyond the scope of the TE

Policy development and mainstreaming of Climate Change are examples of cost effectiveness for a rather modest investment.

9.7 UNDP Comparative Advantage

The UNDP comparative advantage is defined by the GEF as:

UNDP's comparative advantage for the GEF lies in its global network of country offices, its experience in integrated policy development, human resources development, institutional strengthening, and non-governmental and community participation. UNDP assists countries in promoting, designing and implementing activities consistent with both the GEF mandate and national sustainable development plans. UNDP also has extensive inter-country programming experience.

9.8 Linkages Between Project and Other Interventions with the Sector

An important point here is that this project was the first national project to address priorities identified in the Tuvalu National Adaptation Programme of Action (NAPA). Linkages with other national and regional interventions were, therefore, not seen as a particularly significant element of project implementation.

There is, however, an imperative within the GEF to ensure that funding serves as a catalyst that enables stakeholders, including governments, development agencies, global environmental conventions, intergovernmental institutions, non-governmental organizations and the private sector to support projects and programs, to come together. These partnerships need to be designed and nurtured from the outset and need to last far beyond the life of a single project and, if carefully designed, can have an impact far greater than originally anticipated.

The responsibility to develop partnerships and linkages is emphasised in the PRODOC where it is noted that the NAPA project would assist stakeholders to address CC and, in particular, adaptation related issues within the context of the 2012 Te Kaniva Tuvalu Climate Change Policy. The 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. The point here is that all of these interventions require the establishment of stakeholder networks and information exchange mechanisms. As noted above, these considerations were not given a particularly high priority.

It was envisioned when the project was developed, and also at the inception workshop, that a range of regional and international funding and technical assistance organisations made commitments to assist the project. Some of these commitments could be considered co-financing or better still opportunities for leveraging resources.

The MTE noted that 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. It was not clear to the TE why this mechanism failed to materialise. One likely possibility is that most CROP agencies work at least one year in terms of work planning and that interventions requested from the project failed to coincide with existing work commitments.

National NGOs - Tuvalu Association of Non-Government Organisations (TANGO) and Tuvalu National Women's Council (TNWC) 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. NGOs expressed a view that the NAPA project works only with government and that NGOs felt they were marginalised.

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

- SPREP and SPC
- JICA -
- AusAid Funding – grant AUD\$1million NAPA 1+ assistance

The TE concludes the identification and linkage with other related interventions was not a strength of the NAPA project and that some activities would have been significantly enhanced, and able to demonstrate increased impact, if partnerships and coherent linkages had been forged and fully integrated into project interventions.

The TE concurs with the view of the MTE in that the project should: 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 the population groups engage in the project in meaningful and appropriate ways, and that the project is not “gender blind” or tending to inadvertently favour predominantly one of these groups. Incorporating these linkages into the design of a project such as this integrates the SLM work with other ongoing work in the sector, and works as a natural coordinating mechanism for the many interested/vested international organizations and objectives in the region.

This part of the design of the NAPA Project was realistically formulated but poorly understood and implemented at most levels.

9. Assessment of Progress against Measurable Indicators

<i>Objective</i>	<i>Measurable indicator from project log frame</i>	<i>Target</i>	<i>TE Assessment of delivery status</i>	<i>Observations</i>
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Table 7 Assessment of Progress against Measurable Indicators¹⁴

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<i>Colour Code</i>	<i>Status at Project completion</i>
	9 – 10 / 10 Completed to an acceptable standard
	6 – 8 / 10 Partially Accomplished
	3 – 5 /10 Nominal Accomplishment
	1 – 2 /10 Virtually Zero Accomplishment

<p>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.</p>	<p>Number of households in Tuvalu that have increased capacity to anticipate and address climate change induced risks through targeted adaptation measures.</p>	<p>By end of project at least 1000 households in Tuvalu are able to anticipate climate change-related risks and select the most effective risk reduction options; at least 75% of MFATTEL officials and planners, and 50 % of designated Departments engaged in the project at other Ministries (OPM, MFEP, MEYS, MOH, MWWE, MHARD), in the islands' Kaupule, and personnel in NGOs participating in the project; (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.</p>	<p>6 – 8 / 10 Partially Accomplished</p>	<p>The key word in terms of the project's Objective, and an aspect that is difficult to quantify, is reference to "Increase". The TE concluded that the MTE remains relevant and accurate.</p>
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<i>Outcome</i>	<i>Measurable indicator from project log frame</i>	<i>Target (at end of project)</i>	<i>TE Assessment of delivery status</i>	<i>Observations</i>
<p>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.</p>	<p>Percentage of national planners, Kaupule, and communities (respectively) in Tuvalu able to identify climate related risks and prioritize, plan, and implement effective adaptation measures.</p> <p>Number of coastal zone management –related policy documents formulated and approved as a result of the Project.</p>	<p>Number of households involved in awareness Campaign.</p>	<p>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</p>	<p>The TE was informed by the Prime Minister that, as part of government's "whole of government approach", all climate change related strategy and policy matters would be moved to the Prime Minister's Department.</p> <p>The Prime Minister also outlined his vision for establishing the Coastal Management Authority. This new agency would be primarily responsible for implementation activities while policy and national planning would remain with the Prime Minister's office.</p> <p>The TE concurs with the MTE that there is low evidence of any</p>

<i>Outcome</i>	<i>Measurable indicator from project log frame</i>	<i>Target (at end of project)</i>	<i>TE Assessment of delivery status</i>	<i>Observations</i>
				<p>significant increase in the capacity of Kaupules and communities to plan for climate change.</p> <p>The “one-off” awareness campaign which reached over 500 households was carried out.</p> <p>The project was not successful:</p> <ul style="list-style-type: none"> a in providing successful training to enhance capacities for climate change adaptation planning at national or local level. b establishing collaboration with the Department of Education. <p>The TE concurs with the MTE which judged that this Outcome has only been achieved to a marginally satisfactory degree.</p>
		<p>By the end of Year 2, the NCCAC is fully functional in coordinating climate change related policy and development processes.</p>		<p>The TE concurs with the MTE in that it is not evident to what degree the project contributed to this Outcome.</p> <p>There is no verification that the project provided specific guidance materials or trainings to government.</p> <p>It was noted that the National Climate Change Policy has been</p>

<i>Outcome</i>	<i>Measurable indicator from project log frame</i>	<i>Target (at end of project)</i>	<i>TE Assessment of delivery status</i>	<i>Observations</i>
				<p>developed and the National Development Plan - Te Kakeega II has been revised to include climate change.</p> <p>Tuvalu now has an appropriate policy framework to guide its work on climate change adaptation.</p> <p>The NCCAC has been established and has met a number of times.</p>
		By the end of Project, the 10 primary and 2 secondary schools functioning in Tuvalu are capacitated to conduct climate change related education programmes.	6 – 8 / 10 Partially Accomplished	
Output 1.1 -- National Development Plan (Te Kakeega II) and implementation matrix is reviewed to incorporate climate risk and resilience.				<p>The Te Kakeega II has been reviewed to include 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. The Public Works Department has developed one section plan for the project for a pulaka pit</p>

<i>Outcome</i>	<i>Measurable indicator from project log frame</i>	<i>Target (at end of project)</i>	<i>TE Assessment of delivery status</i>	<i>Observations</i>
				<p>seawater retention wall in Nanumaga.</p> <p>The project also aimed to increase the ability of technical/sectoral planners to anticipate climate risks and plan for these. Informants and Government Departments interviewed demonstrated realistic levels of capacity and an understanding of climate change adaptation, including strategic vision and concrete suggestions.</p> <p>It was not clear to the MTE or the TE precisely what contribution of the NAPA project specifically has been to this.</p> <p>The project has mainly contributed to on-going national policy processes through consultations and task forces (as for the Te Kakeega II), rather than providing specific trainings or guidance materials.</p> <p>This situation can, in part, be explained by the lack of technical capacity and specialist knowledge in the PSU and the high turnover of PMU staff, which compromised the continuity of project activities.</p>

<i>Outcome</i>	<i>Measurable indicator from project log frame</i>	<i>Target (at end of project)</i>	<i>TE Assessment of delivery status</i>	<i>Observations</i>
	Climate risk is integrated into Te Kakeega II review.	By the end of Year 2, climate risk is integrated into Te Kakeega II and implementation matrix review in overall development framework.		<p>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.</p> <p>NAPA objectives are in line with the priorities identified in the Te Kaniva.</p> <p>The development of policies and action plans on coastal management was delayed. These were envisioned to follow after vulnerability assessments in coastal areas had been carried out – these were done.</p>
	Number of public works section plans revised with climate risk integrated.	By end of Year 2, at least 3 Section Plans of Public Works Department revised to reflect climate risk reduction.		
	Number of national training seminars conducted	By the end of Year 2, 2 national training seminars for relevant national ministries and organizations on climate-resilient coastal planning conducted (2 total).		

<i>Outcome</i>	<i>Measurable indicator from project log frame</i>	<i>Target (at end of project)</i>	<i>TE Assessment of delivery status</i>	<i>Observations</i>
	Percentage of technical/sectoral planners with improved understanding of climate change risks and adaptation measures.	By the end of the project, at least 75% of relevant technical/sectoral planners in the departments involved are able to anticipate climate change-induced risks in their professional sector and advocate/plan for suitable corresponding adaptation measures.		
Output 1.2 -- A national climate change policy is developed integrating coastal zone management issues.	Existence of a national climate change policy supporting integrated coastal zone management.	By end of Year 2, National Climate Change Policy developed.		
		By the end of the project, at least 2 coastal zone regulations promote resilient livelihoods and sustainability of protective systems.		
Output 1.3-- A National Climate Change Advisory Council is established, to support national policy making and planning.	Establishment of a National Climate Change Advisory Council (NCCAC). Number of training workshops conducted for NCCAC.	An NCCAC will be established by the end of Year 1 By end of Year 2, at least 2 training workshops on programming and policy mainstreaming are undertaken.		
Output 1.4 -- A national awareness campaign for local communities and Kaupule is designed and implemented.	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.		

<i>Outcome</i>	<i>Measurable indicator from project log frame</i>	<i>Target (at end of project)</i>	<i>TE Assessment of delivery status</i>	<i>Observations</i>
	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		
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 island.	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.		
Output 2.1 – Community based adaptation plans for coastal protection, water supply security, and agricultural livelihood sustainability are developed for all islands in 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.		
	Volume of additional water supply provided to village communities.	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		

<i>Outcome</i>	<i>Measurable indicator from project log frame</i>	<i>Target (at end of project)</i>	<i>TE Assessment of delivery status</i>	<i>Observations</i>
		engaged from early stages of consultation and adaptation planning and support of the project.		
	<p>Number of community-based adaptation plans developed with active participation of local communities.</p> <p>Level of engagement of Island Development Committees in adaptation planning process.</p>			
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.	Number of coastal protection measures implemented and maintained by communities.	<p>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).</p> <p>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 by communities in at least 5 atolls (Funafuti, Nukufetau, Niutao, Nukulaelae, and Niulakita).</p>		

<i>Outcome</i>	<i>Measurable indicator from project log frame</i>	<i>Target (at end of project)</i>	<i>TE Assessment of delivery status</i>	<i>Observations</i>
		<p>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)</p> <p>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)</p>		
	<p>Number of pulaka pits and breadfruit cultivation areas protected from high soil salinity</p>	<p>At least 12 plantations of pulaka, breadfruit, and banana cultivation are protected from saline groundwater in at least 3 atolls (Nanumea, Nui, and Nanumaga)</p> <p>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)</p>		
<p>Output 2.3 – The results of all community-based demonstration projects are analysed and fed into the formulation of a government-</p>	<p>Number of follow-up/replication projects within Tuvalu that are designed and financed on the basis of project lessons.</p>	<ul style="list-style-type: none"> Lessons learned through the project are applied by government and NGOs in the formulation of future adaptation and risk reduction projects on all 		

<i>Outcome</i>	<i>Measurable indicator from project log frame</i>	<i>Target (at end of project)</i>	<i>TE Assessment of delivery status</i>	<i>Observations</i>
endorsed replication programme.		<p>islands.</p> <ul style="list-style-type: none"> 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). <p>At least 2 follow-up/replication projects within Tuvalu are designed on the basis of project lessons.</p>		
Outcome 3 – Project knowledge and lessons learned are captured, analysed and disseminated to facilitate replication of practical adaptation solutions in all islands.	<p>Number of knowledge management products generated and disseminated.</p> <p>Number of national, regional or international events and platforms, where project experience is presented.</p>	<p><input type="checkbox"/> 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 are disseminated directly to communities and national stakeholders.</p> <p>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.</p> <p>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.</p>		

<i>Outcome</i>	<i>Measurable indicator from project log frame</i>	<i>Target (at end of project)</i>	<i>TE Assessment of delivery status</i>	<i>Observations</i>
<p>Output 3.1 – Climate change information for Tuvalu is analysed, updated and disseminated to sectoral planners and policy makers.</p>	<p>Number and quality of regional climate change scenarios available for Tuvalu.</p> <p>Number of new Climate Change research projects initiated as a result of the project.</p>	<p>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.</p> <p>By end of Year 2, existing Climate Change scenarios for Tuvalu are reviewed and updated.</p>		
<p>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.</p>		<p>Number of organizations and individuals actively involved in the transfer of project-related knowledge within and outside of Tuvalu.</p>		
<p>Output 3.3 – Project lessons are shared within and outside of the Pacific region and incorporated into the Adaptation Learning Mechanism (ALM).</p>	<p>Existence of a function Project Portal Number of workshops organized to disseminate knowledge generated through the project.</p> <p>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.</p>	<p>other climate-resilient livelihoods conducted (2 total)</p>		

10. Management Arrangements

11.1 Implementation

Project management arrangements were, without question, an area of deficiency and was the component that received most negative comment from stakeholders. Clearly this was a contentious subject with all stakeholders agreeing that, while theoretically sound, the multi layered management structure did not seem to work particularly well.

Issues raised included delays recruiting the PC and members of the PMU. These were exacerbated when two PC resigned. Difficulties arising from the delays experienced as a result of, in the eyes of several stakeholders, overly complicated financial disbursement and reporting procedures did not help to advance implementation. Other recruitment and appointment delays included:

- Project Coordination Unit - Two Project Coordinators & One Acting Project Coordinator
- Executing Agency: Two Directors of Department of Environment
- UNDP Regional Technical Adviser: Two RTAs during project implementation
- UNDP: Focal Points (3 persons) and two team leaders
- Nationally: two changes in governments

The Project Director was the Permanent Secretary MFATTEL and the Project Manager was the Director of the Department of Environment. The MTE drew the conclusion that this structure could have been improved by streamlining and investigating a more direct approach.

Several informants observed that political interference and personality conflicts significantly compromised project management effectiveness. Examples that were brought to the attention of the TE were delays approving recommendations, budget and expenditure hold-ups, and suggestions of lack of impartiality during staff appointments.

In this respect this TE notes the PRODOC required that “the UNDP Country Office and UNDP-GEF RCUs as appropriate, will conduct yearly visits to the project field sites (based on an agreed upon schedule to be detailed in the project's Inception Report and Annual Work Plan) to assess firsthand project progress”. It appears that these supervision missions did not take place and, as a result, site base problems and issues were not picked up at an early enough stage and dealt with accordingly.

For example, the TE was informed of instances where vendors have not been paid by the project and have refused credit for further work or purchases. A strong opinion expressed on more than one occasion was that channelling of funds through the National Government and UNDP processes is unnecessarily complicated, and inflexible, and ways should be looked at to streamline this process. This view is shared by the TE and is consistent with the findings of the MTE.

It was suggested that consideration should be given to a structure which by-passes National Government systems and provides for accountability by the PMU who deal directly with Kaupules and, where appropriate, NGOs. Another option is to work directly through an intermediary such as SPREP. In this regard consideration could be given to the model developed for the PACC whereby SPREP could directly fund programme work in Tuvalu.

The TE was also exposed to opinion that, although working well at times, communication and co-ordination of the project between the PMU and the Kaupules could have been more efficient and effective, and that this led to periods of frustration and uncertainty with regard to implementation actions at local levels.

In this regard, the TE considered that the PMU was probably insufficiently resourced to provide the expertise and staff to be fully proactive in its role across a difficult, multi-layered project across nine island locations, a range of partners, and 45 targets / activities, some of which are relatively complex, for implementation.

The TE concluded that perhaps 6– 9 months after the Inception workshop, and following the selection and appointment of the Project Coordinator, that a focused training course on adaptive management systems could have been considered. This would possibly have ensured a better understanding of the project’s management systems and how the PMU needed to respond.

Site meetings between the PC and Community Organisers, at least twice each year, is another response that could have helped overcome the perceived lack of budget transparency and uncertainty of funding allocations, which were persistently raised by stakeholders. This would have helped develop a sense of “team management” as an integral part of capacity building as well as understanding of the complexities of CC adaptation processes. Use of the Project Log frame to structure meetings and identify and help to reconcile implementation issues and

track budget and expenditure, while providing for ongoing monitoring and evaluation of progress, would have been a useful activity.

It was somewhat surprising to learn that the Mid Term Evaluation report had not been shared with some CO and Kaupules.

It was noted that the management structure of the project included:

- The National Advisory Council on Climate Change
- The Project Board (PB)
- Technical Working Group (TWG)

In addition, both the TE and MTE noted that the Technical Working Group, which was initially established in the PRODOC, was not functional. It seemed to the TE that the management structure was somewhat imbalanced. The “governance” side of the project was made-up of a complex range of stakeholders and interest groups while the “operational” part of the project was sparsely populated and under resourced.

Finally, the value of the regular UNDP CO missions to Tuvalu cannot be over emphasised. This level of contact would have been extremely helpful to the PMU in term of understanding the operating parameters of the UNDP financial system. It was clear that this form of regular dialogue between UNDP CO, Government of Tuvalu and the PMU is a valuable asset to project management and should be an integral part of future projects.

11.2 Financial Planning

The TE concurred with the MTE Project conclusion that, in a general sense, NAPA accounting and financial systems appeared to be adequate for management purposes and Quarterly and Annual Financial Reports were prepared and submitted on time. Quarterly advances of amounts up to USD 100,000 were provided to the PMU in line with a Costed Work Plan.

The transfer of funds was expedited through the Treasury, and the PMU requested payments through the preparation of Payment Vouchers. These needed to be approved by the Permanent Secretary in his function as the accountable officer with budget authority. This part of the process caused delays on several occasions as this official was regularly away on duty travel (sometimes up to 2 weeks at a time).

The UNDP CO carried out procurement for items above USD 5,000. This was necessary because Tuvalu lacked a National Procurement Policy. This function was carried out either through a request for service or direct payment to suppliers. As this needed to go from Tuvalu to Fiji this process, on occasion, caused noticeable delays in procurement (on average 2 weeks, often more were experienced). On some occasions delays were due to insufficient information being provided by the PMU to the UNDP Procurement Team.

The project was audited annually and the PMU addressed issues identified by these audits, such as reconciling financial records held by the PMU and Treasury.

The MTE and TE noted the significant financial variance from the PRODOC budget in terms of annual delivery and delays in project implementation compared to activities planned and included in Annual Work Plans. Quarterly planning and budgeting was generally judged as inadequate, with significant delays executing requested budget advances.

This section of the TE is based on an assessment of Annual Work Plans compared with financial annual reports, quarterly progress reports, and the APR/PIR reports.

By the end of the project 70% of the overall project budget had been disbursed. (see Table 8 Project budget and annual expenditure) had been utilised.

Table 8
Project budget and annual expenditure

NAPA 1 (00072222)	Unrealized Gains/Loss Run by HQ	Annual Budget Estimate	Activity 1 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	Activity 2 Outcome 2: Enhanced capacity of local communities to adapt to dynamic climate-related impacts through implementation of practical community-based adaptation measures specifically tailored to each island.	Activity 3 Outcome 3: Project knowledge and lessons learned are captured, analysed and disseminated to facilitate replication of practical adaptation solutions in all islands	Activity 4 Project Management	Total
2010	(875.81)	287,371				240,271.41	240,271.41
2011	(6,436.26)	572,799	100,464.82	48,559.09		199,509.33	342,096.98
2012	1,890.55	391,145	84,427.43	148,806.57	14,037.10	141,958.74	391,120.39
2013	10,217.00	768,529	282,098.79	242,624.29	23,995.25	189,243.35	748,178.68
2014	8,236.88	915,025	548,392.72	214,211.24	7,280.74	96,824.21	874,945.79
2015	5,315.31	642,354	107,303.01	320,251.33	19,524.16	-	452,393.81
Total							3,049,007.06

NAPA 1 (00080032) AusAid Grant	Unrealized Gains/Loss Run by HQ	Activity 1	Activity 2	Activity 3	Activity 4	Total
2010		No budget				

2011		85,735.49	85,735.49			85,735.49
2012	(917.50)	113,355		44,204.81		43,287.31
2013	1,238.14	194,304	67,960.98	40,420.22		109,619.34
2014	556.11	820,059	795,447.76	23,136.39	4,714.67	823,854.93
2015						-

Overall the project's rate of delivery was marginally below estimates that were planned in Annual Work Plans.

- In 2011, the project delivered 60% of its planned budget,
- In 2012, 78% of its planned budget
- In 2013 97% of its planned budget
- In 2014 95% of its planned budget
- In 2015 70% of its planned budget

The project made progress in line with planned policy activities under components 1.1. and 1.2. in relation to national policy and achieved expected results. The budget for Outcome 1 was executed in 2012.

Activities under component 2.2. on home gardening and water security made some progress.

Some of coastal activities planned included coastal afforestation, Sandwatch training and a 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 both the MTE and TE. Activities under Outcome 3 on knowledge management and lessons learned have only been planned since 2012. This 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.

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 the MTE in 2013. The 50% was for the development of a website, which also never eventuated.

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 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.

The application of adaptive management approaches was very weak. 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 were 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 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 8 above). Whilst this reflects the challenges mentioned earlier on, regarding operational limitations at national level, the project needed to scale-up its

implementation capacity, both in a programmatic and budgetary sense. Since the MTR this seems to have taken place and using data from UNDP the project spent \$3,049,007 of the overall budget of \$4,369,000 – some 70%.

Planned co-financing from JICA did 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 provided in-kind contributions through the provision of office space for the PMU and operational and financial management support.

11.3 Monitoring and Evaluation

Technical monitoring was primarily carried out during the Annual Project Review / Project Implementation Report (APR/PIR) process as required by the GEF. 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 provided 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 reports is high and it provides a comprehensive overview on project progress.

The Log Frame/Strategic Results Framework (SRF) provided a set of indicators for monitoring project progress. This part of the monitoring process was, however, not as effective as it needs to be as several of the suggested Sources of Verification were not sufficiently developed, including interviews and Questionnaire Based Surveys. The quality of local level reporting (please see 3.4.2. Reporting below) further impacted on the quality of data gathered and needed for verification purposes. The SRF should be used for formulating Annual Work Plans and is a point of reference during the APR/PIR process. The SRF should not be regarded as an on-going planning and monitoring tool but should be seen as a foundation document and source of reference.

Weak monitoring at island level by COs, including through the quarterly reports, was noted by the MTE and TE. Part of the problem here was that the report format did not include specific guidance on monitoring, including the examination and reporting of adaptation results. For example, there was 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.

It needs, however, to be considered that on occasions approval/endorsement of the AWP was delayed by government. e.g. Annual Work plan submitted by Project Coordination Unit in January (2016) was finally endorsed by Permanent Secretary in March 2016.

In summary, very little on-going results-based monitoring was carried out. Further the MTE noted that data is not sex disaggregated.

Following a field mission by UNDP in June 2012, the SRF was updated and approved in collaboration with the PMU, TWG and the PB. Results-based tracking sheets were suggested to track progress. The TE was not made aware that this suggestion was taken on board by the PMU.

11.4 Execution and Implementation Modalities

The TE concluded that capacity in Tuvalu is such that when government staff in key positions (Project Manager and Director) are either out of the office, resigned or transitioned to other positions, PMU staff and FC were unable to effectively carry out ongoing NAPA Project needs.

The Project Director and Manager, for example, are government employees with a wide range of responsibilities and travel needs, and these often get in the way of timely and consistent follow through activities. The appointment/reappointment of PC also faced this problem and there were periods when this position was vacant for an extended period because of resignations etc. This led to delays in project implementation and management.

Although only raised by a few stakeholders, this issue is clearly one which impacted on the project. It is one that is difficult to overcome as it is symptomatic of a region-wide problem where in most government agencies a few experienced and qualified staff are asked to handle a multitude of tasks and responsibilities.

The TE concluded that during the future design of UNDP projects, consideration should be given to appointing dedicated and specifically funded personnel in an effort to try ensure a singular focus on project implementation.

Further, and given the importance of consistency and continuity, the turnover in key decision-making positions should, as far as possible be avoided and that where possible, subordinate staff should be well-informed on NAPA project activities so as to cover staff that are occupying key positions when they are required to attend to other duties at home and abroad.

11.5 Management by UNDP

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

The TE concluded that UNDP had, particularly during the 1st 50% of the project to a considerable degree, failed to exploit its comparative advantage in important areas relating to project supervision and monitoring, procurement (purchase of tools and equipment), and helping with staff training and selection.

During later stages (2014 onwards) of the project UNDP adopted a more proactive approach. This included UNDP staff from the CO participating in two missions to Tuvalu including mission to four outer islands, supporting the combined food security mission to all islands. UNDP also supported the project by liaising with shipping agency in Fiji (CRUZ Holdings) to finalise shipping schedules, facilitated discussions with suppliers (Hardware Company) and Shipping agent as well as by liaising with appropriate Australian-based agents for the supply of wood chippers. These involved several discussions with stakeholders in Suva before all arrangements (procurement, clearance of material by customs/biosecurity, combined shipping schedule).

Considering political sensitivities UNDP also undertook two high levels missions to Tuvalu which included participation from the Team Leader, Resident Representative and Regional Technical Adviser. These were a direct response to a perceived changing political situation in Tuvalu.

At the same time, the NAPA project presented a problematic management and administration structure. This was brought about in part by the complex, geographic, administrative, social, economic and cultural realities of Tuvalu and the isolation and remoteness of the outer islands. These factors indicate that an integrated and cohesive management and administrative structure was needed to support the NAPA project.

The UN Coordination staff member based in Tuvalu also provided support to the project. There was, however, a suggestion that there were cultural sensitivity issues and for undisclosed reasons coordination staff were not always provided with government support. A possible reason for this was that she was viewed as a national staff and not a representative of UNDP.

Indications of UNDP's failure to provide adequate supervision and support included:

- Staff recruitment and turnover: The project had 3 coordinators since its inception in 2010 (Nakala - 2010, Solofa - 2012, Alan Resture - 2015);
- Several changes in focal points and team leaders in UNDP – this possibly compromised continuity;
- Testing in NZ/Australia of saline component in soil. This activity never took place – it was reported that the CTA was responsible for procuring the test kits from Australia. For one reason or another this never happened.

As the GEF IA with a long history of project development implementation and management in the Pacific region, together with its physical presence in Fiji and Tuvalu (through the Country Development Manager), UNDP was well-suited to undertake its oversight and monitoring functions but, for one reason or another, this failed to adequately occur at a level that could be reasonably expected.

11.6 Coordination and Operational Issues

The TE observed that the roles of key stakeholders could have been better clarified from the outset of the project. This applies particularly to actual and potential NGO partners who appear to have had minimal involvement during implementation activities. Conversely, the TE perceived that there was a generally acceptable level of understanding amongst Kaupule's on each of the outer islands that were visited.

A particular coordination issue identified in both the MTE and TE was the need for regular contact and follow up between the PMU, PC and Kaupule's. The TE recognises that communication between Funafuti and the outer islands is difficult, but not impossible. Telephone conference calls between the PMU and the PCs located on each island would, at least, be worth trying. These would have helped to discuss problems, share lessons and update on activities. This mechanism would also provide an opportunity for the PMU to call for / require CO to provide quarterly implementation updates.

The TE is explicit in identifying the importance of regular meetings between the PMU, PC's, Kaupule's and NGOs. These are valuable learning and sharing opportunities that contribute to the building of capacity and knowledge amongst stakeholders, and importantly, are a form of incremental monitoring of project outputs and finances, which need to be based on regular reviews of work plans and budgets.

The TE identified, as an operational issue at a site level, the reality that some NAPA activities were new to several CO and Kaupules and that capacity to undertake these was limited. This resulted in slow implementation. The TE found that this situation was compounded by the difficulty in identifying experts with the required backgrounds and experience to assist them with the preparation of guidelines and management plans, in particular those related to coastal protection.

The operational issues that originated within the difficult procurement and financial process and its impact on the implementation of field activities is addressed above.

Another observation of the TE relates to the varying levels of direction and support to the PMU and PC from the Project Director, and Project Manager to a lesser extent, and notes that this lack of a close working relationship had significant negative impacts regarding the day-to-day implementation. It was further noted that the operational and coordination challenges of the project were compounded by the absence of the Project Director, on occasions for up to 2 weeks, which may have also contributed to delayed implementation.

The TE concluded that although these issues continued to exist the project did actually gain momentum following the MTE and it was apparent that these issues could be overcome during the implementation of NAPA II. This conclusion is contingent on project design considering lessons from NAPA I, including the need to improve communication and coordination mechanisms, strengthen the governance / management structure and, of particular relevance, undertake regular reviews of the work plan and assessments of progress against the SRF.

11.7 Attainment of objectives

The recommendation of the MTE to extend the project by 12 months was accompanied by 23 recommendations. These included most ongoing / outstanding activities and included the qualification that implementation should be phased to fit the time frame left for the project, and take into account PMU and stakeholder capacity. The MTE also recognised that not all recommendations would or could be successfully accomplished and suggested that activities be prioritised. The TE notes that the recommendations were ambitious in both scope and the length of time needed to effectively implement them.

This section uses the MTE recommendations and includes a colour-coded summary status assessment. The TE evaluated the recommendations and agrees that these were all appropriate and necessary interventions but the time frame for implementation was unrealistic, particularly based on past performance of the project.

Table 9
MTE Recommendations and TE Summary Status assessment and Observations.

<i>MTE Recommendations¹⁵</i>	<i>TE Summary Status</i>	<i>Observations</i>
<p>1. Design and implement a training strategy and plan</p> <p>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 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.</p> <p>It is recommended to prioritize young</p>	<p>Nominal accomplishment</p>	<p>Although this was an appropriate recommendation the TE was not made aware of, or observe, any evidence that a Training Coordinator had been recruited. Consequently, the suite of recommended capacity building and training interventions did not take place.</p> <p>One exception was under Activity Result 1.3.3: Awareness Road Show on Climate Change Science and the National Policy on Climate Change completed.</p> <p>This activity was completed in May 2014 when a team comprising the PMU and other government and non-government agencies (Education, PWD, Agriculture, SWAT, Environment, Fisheries (Integrated Island Biodiversity project), Home Affairs, Agriculture, Lands & Survey, and TANGO undertook a roadshow to all communities on the outer islands and Funafuti.</p> <p>All island communities of Tuvalu including all primary and secondary schools were involved in the awareness roadshow. A total of 2,656 people (1,187 males and 1,124 females) benefitted from this combined food security mission, where the team raised awareness to communities and schools.</p> <p>Although the “Roadshow” intervention was useful, the intention of the MTR was to establish capacity within the PMU that would develop</p>

¹⁵ Blue text in this table refers to inputs from the MTR gender specialist.

<i>MTE Recommendations¹⁵</i>	<i>TE Summary Status</i>	<i>Observations</i>
<p>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.</p>		<p>and implement a comprehensive training strategy.</p>
<p>2. Design and implement a local and national awareness campaign on climate change adaptation</p> <p>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</p>	<p>Nominal Accomplishment</p>	<p>Training on how to mainstream climate change-induced risks was never carried out.</p> <p>A National Awareness Workshop was planned and held. 6 participants from each island attended this training, which was supported by the SPC who assisted with the training on composting.</p>

<i>MTE Recommendations¹⁵</i>	<i>TE Summary Status</i>	<i>Observations</i>
<p>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.</p>		
<p>3. Scale-up and expand activities on home gardening, in particular as to enhance the link with climate change adaptation</p> <p>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.</p> <p>The following materials have been requested and should be designated for the women and channelled 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.</p> <p>COs should clarify that the tools provided by the project are available for all home gardening participants. Chippers or other approaches for</p>	<p>Partially Accomplished</p>	<p>The TE was informed that this recommendation had been partially implemented and the site visit to Nanumanga demonstrated that, at least at this site, the project CO had made some useful progress.</p> <p>All communities received assistance from the project for the preparation of their home-grown gardens including: garden fence material, seedlings, and garden tools were all provided to home gardeners.</p> <p>A total of 92 concrete pulaka gardens were planned and the most recent report shows that 91 are completed.</p> <p>75 concrete pulaka gardens have been planted with taro and pulaka crops. The PMU reported that these gardens are growing very well. The remaining 16 gardens have no crops planted yet as compost is still not ready for the crops.</p> <p>During the TC Pam, 12 concrete gardens were inundated with saltwater from waves and there were</p>

<i>MTE Recommendations¹⁵</i>	<i>TE Summary Status</i>	<i>Observations</i>
<p>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.</p> <p>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.</p> <p>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</p>		<p>signs of yellowing leaves in these gardens. Now, these pulaka and taro plants have recovered and are growing well.</p> <p>Niulakita Island is unfortunately going to miss out on the rehabilitation of its fishpond. The team from the Ministry of Fisheries carried out an assessment and found that the eradication of tilapia would be very difficult, that milkfish fry may not grow, and that healthily tilapia would eat the milkfish fry.</p>

<i>MTE Recommendations¹⁵</i>	<i>TE Summary Status</i>	<i>Observations</i>
<p>younger women to ensure their inclusion.</p>		
<p>4. Assess new techniques for growing pulaka under conditions of increased soil salinity</p> <p>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.</p>	<p>Partially Accomplished</p>	<p>Ninety (92) pulaka gardens on Nanumaga were constructed and lined with concrete barriers. These demonstrated an ability for crops to grow significantly faster than their traditional pit grown pulaka counterparts. Pulaka crops are being harvested at six month intervals instead of the normal 12-18 months the traditional counterparts usually take to mature.</p> <p>It was also reliably reported that these crops tasted better than the hard pulaka grown on traditional pits.</p> <p>A result from this accomplishment was that residents of Nanumaga have requested that they do not need NAPA 2, instead they want a continuation of NAPA, especially on food security utilising concrete pulaka gardens.</p> <p>These have addressed the issue of soil salinity with 100% success.</p> <p>At the time of the TE work on the access road on Niutao, which provides access to the pulaka gardens, had not been completed.</p> <p>The TE understands that the tractor and implements for construction of</p>

<i>MTE Recommendations¹⁵</i>	<i>TE Summary Status</i>	<i>Observations</i>
		<p>this road have been procured and are at the Funafuti wharf awaiting shipment to Niutao.</p>
<p>5. Scale-up activities on water security, in particular as to enhance the link with climate change adaptation</p> <p>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 guttering 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</p>	<p>Partially Accomplished</p>	<p>This is an example of an activity that project managed to complete in time. Include:</p> <ul style="list-style-type: none"> • Additional 123,000 litres or 123 cubic metres for Nanumea and 287 cubic metres for Nui for a combined total of 410 cubic metres • Construction of two water cisterns totalling over 200 cubic metres, • provide 137 cubic metres from their new water cistern on Nukulae • procured a tractor, trailer, water tank, and portable water pump for Vaitupu to cart water around the island during droughts. • Repairs to community water tanks were completed in December 2014 enhancing water retention capacity to 750 cubic metres from the two water cisterns (Nui and Nukulaelae), • 317 cubic-meters of water

<i>MTE Recommendations¹⁵</i>	<i>TE Summary Status</i>	<i>Observations</i>
<p>requiring significant use of water, such as cooking, cleaning, washing and to some extent home gardens.</p> <p>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.</p>		<p>retention capacity after repairing 85 household water tanks on Nanumea.</p> <ul style="list-style-type: none"> • Construction of 100 cubic metre water cisterns for Nui (work in progress).
<p>6. Carry out coastal assessments in outer islands and support coastal protection measures in Funafuti</p> <p>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</p>	<p>Nominal Accomplishment</p>	<p>It was noted that the National Technical Advisor prepared technical reports on Food Security, Water Security, and Coastal Protection.</p> <p>The TE was not provided with a copy of the Coastal Protection Report.</p>

<i>MTE Recommendations¹⁵</i>	<i>TE Summary Status</i>	<i>Observations</i>
<p>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 scepticism 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.</p> <p>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.</p>		

<i>MTE Recommendations¹⁵</i>	<i>TE Summary Status</i>	<i>Observations</i>
<p>7. Designate project activities targeting specific sub-groups</p> <p>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 favour predominantly one of these groups.</p>	<p>Partially Accomplished</p>	<p>The TE concluded that most activity in relation to this recommendation took place during the last third of the project.</p> <p>A home gardening competition was organised by Community Organisers which targeted women in general, although a few men were involved. This competition was judged successful and drew many women as participants.</p> <p>Crops from these competitions (e.g., on Nukulaelae) were shared with island elders.</p> <p>A number of coastal tree planting days were organised and these targeted youth groups and school children.</p> <p>Specially designed NAPA T-shirts and caps were distributed to these groups.</p> <p>The Climate Change Awareness Roadshow (Food Security Mission) visited all of the island communities and schools (primary, secondary schools, and USP students). The primary purpose of this was to promote NAPA 1 activities as well as awareness raising of climate change science.</p>
<p>8. Initiate and implement activities to capture, analyse and disseminate project knowledge and lessons learned</p> <p>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.</p>	<p>Partially Accomplished</p>	<p>The partial accomplishment ranking is based on the fact that the dissemination of lessons learnt from the project was partially achieved through a couple of Outputs under Outcome 1.</p> <p>These included:</p> <ul style="list-style-type: none"> • A video documentary produced by SPC on behalf of the project was aired across the Pacific over Fiji One’s Television programme, The

<i>MTE Recommendations¹⁵</i>	<i>TE Summary Status</i>	<i>Observations</i>
<p>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 analyse knowledge and lessons learned. Develop materials on lessons learned, including case studies, brochures and summary document.</p>		<p>Pacific Way on 27th May 2015. This documentary captured food security issues in the outer islands, and how the project has changed the lives of the outer islands communities through the provision of garden seeds for home gardening purposes.</p> <ul style="list-style-type: none"> • As noted above T-shirts, bags, and hats (caps) branded with the NAPA logo were also distributed to school children, youths, and volunteers during World Environment Week. • Water tanks that were provided by the project for the outer islands communities were also branded with the project's logo. • The Interim Project Coordinator presented lessons learnt from the project to an audience of Climate Change Experts at the Pacific Climate Change Round Table Meeting held in Apia, Samoa from 12-14th May 2015.
<p>9. Design and disseminate a project brand</p> <p>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</p>	<p>Partially Completed</p>	<p>Some of these activities were undertaken in 2013.</p> <p>Two photo stories on water security and food security were produced.</p> <p>T-shirts, banners, bookmarks were ordered from Fiji and these were distributed to schools and youths who were involved in coastal tree planting campaigns around the country.</p>

<i>MTE Recommendations¹⁵</i>	<i>TE Summary Status</i>	<i>Observations</i>
<p>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.</p>		
<p>10. Revise Project Board composition and communications</p> <p>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</p>	<p>Nominal Accomplishment</p>	<p>The National Advisory Council on Climate Change (NACCC) was formally initiated and endorsed by Cabinet and was launched on 16th January 2014.</p> <p>The Council has met at least 4 times (three regular meetings and an emergency meeting convened by the Prime Minister on 13th March 2014. The purpose of the emergency meeting was to formalise and confirm council members and ensure that directors were included in the Council.</p> <p>The Council comprises of the Secretary to Government (Chair), Director of Environment (Deputy Chair), Attorney General, Director of Budget and Planning, Director of Fisheries, Director of Meteorological Services, Director of Public Works Department, Director of Lands and Survey, Director of Agriculture, Director of Energy, Director of Women, Director of Home Affairs and Rural Development, Director of Tuvalu Association of NGOs (TANGO), Funafuti Kaupule Secretary, Ekalesia Kelisiano Tuvalu Secretary General, Representative from the Private Sector, and NAPA Project Coordinator as observer.</p> <p>Training of NACCC members on</p>

<i>MTE Recommendations¹⁵</i>	<i>TE Summary Status</i>	<i>Observations</i>
<p>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.</p> <p>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 current composition of the Project Board 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.</p>		<p>climate change programming and policy mainstreaming was carried out in October 2015 by Tuvalu's Climate Change Ambassador, Dr Ian Fry.</p> <p>It was not clear to the TE if the changes that were made to the NACC have streamlined the decision-making process. All that could be gained was an impression that the decision-making progress at not being significantly streamlined. The reasons for this are addressed elsewhere in this document is</p>

<i>MTE Recommendations¹⁵</i>	<i>TE Summary Status</i>	<i>Observations</i>
<p>11. Revise operations of the Technical Working Group</p> <p>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.</p> <p>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.</p>	<p>Virtually Zero Accomplishment</p>	<p>The TE understands that this activity was:</p> <ul style="list-style-type: none"> • incorrectly reported in the 3rd Quarter Progress Report 2014 as having been completed. • the responsibility of the Communication Officer that was scheduled to be recruited in early 2013. • shelved on the advice of the RTA due to the slow recruitment of the Communication Officer.
<p>12. Ensure staff continuity within PMU</p> <p>Government of Tuvalu must prioritise retention of current PMU team for</p>	<p>Completed to an Acceptable Standard</p>	<p>As far as the TE is aware the PMU team has been retained. Recruitment and retention of COs was, however, less 9 – 10 / 10 Excellent -</p>

<i>MTE Recommendations¹⁵</i>	<i>TE Summary Status</i>	<i>Observations</i>
<p>remainder of project to avoid any further delays in project delivery.</p>		<p>Satisfactory Result with a wide range of performance standards between various Island COs</p>
<p>13. Establish regular meetings between PMU and Project Manager</p> <p>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.</p>	<p>Partially Completed</p>	<p>The TE gained the impression that since the PM had returned to the DoE from overseas studies that communications have improved.</p> <p>The TE mission was given open and free access to the PM during its time in Funafuti.</p> <p>The TE understands, however, that the present PM has been appointed as the Project Coordinator for the R2R project and that the position is currently filled by an acting PM.</p>
<p>14. NCCAC establishment and role with DCC and NDC needs to be clarified at national level</p> <p>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.</p>	<p>Completed to an acceptable standard</p>	<p>The establishment of the National Advisory Council on Climate Change (NACCC) was formally initiated and endorsed by Cabinet and the Council was launched in January 2014.</p>
<p>15. Strengthen collaboration with national and regional organizations</p> <p>PMU should strengthen collaboration in the implementation of similar and complimentary project activities with TNCW (e.g. on mangroves) and</p>	<p>Nominal Accomplishment</p>	<p>The TE was provided with little evidence that serious efforts to facilitate collaborative efforts had taken place.</p> <p>It was pointed out that to a certain degree politics and personality conflicts and relationships that are</p>

<i>MTE Recommendations¹⁵</i>	<i>TE Summary Status</i>	<i>Observations</i>
<p>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.</p>		<p>outside the control of the NAPA Project had an influence on establishing better collaboration with national organisations.</p> <p>The TE felt that the significant expertise within CROP organisations, including SPREP, could have been better utilised.</p>
<p>16. Strengthen collaboration with key government departments</p> <p>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</p>	Partially accomplished	<p>The establishment of the National Advisory Council on Climate Change (NACCC) was seen as a significant and positive step.</p> <p>The interdepartmental and agency representation on the council should result in collaboration as well as opportunities to share experiences and expertise.</p>

<i>MTE Recommendations¹⁵</i>	<i>TE Summary Status</i>	<i>Observations</i>
<p>should be defined in written agreements (e.g. MoUs) that have clearly defined activities and deliverables tied to project outputs.</p>		
<p>17. Explore options for enhancing communications and transport services</p> <p>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</p>	<p>Virtually Zero accomplishment</p>	<p>The TE was informed that transport and communication remain as a significant issue. This subject is probably outside the mandate and sphere of influence of the project. It is, however, a topic that should be raised with the Project Board and NACC.</p> <p>During site visits many stakeholders expressed concern about the unreliability of transportation links – with some reports indicating that people wishing to travel from the outer islands to Funafuti (or between outer islands) had been waiting more than 1 month for the boat to call.</p>

<i>MTE Recommendations¹⁵</i>	<i>TE Summary Status</i>	<i>Observations</i>
<p>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.</p>		
<p>18. Strengthen reporting and monitoring systems</p> <p>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.</p> <p>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,</p>	<p>Virtually Zero accomplishment</p>	<p>The TE was not made aware that this recommendation had received much, if any, traction.</p> <p>The Annual Project Implementation Reports that were made available to the mission provide a useful source of reference but these lack the detail needed to adequately monitor project activities.</p>

<i>MTE Recommendations¹⁵</i>	<i>TE Summary Status</i>	<i>Observations</i>
<p>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.</p>		
<p>19. Urgent delivery of remaining project budget needs to be ensured and facilitated by PMU, Department of Environment, UNDP and PB</p> <p>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.</p> <p>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</p>	<p>Nominal Accomplishment</p>	<p>It would seem that</p>

<i>MTE Recommendations¹⁵</i>	<i>TE Summary Status</i>	<i>Observations</i>
<p>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.</p>		
<p>20. Expedite recruitments pending</p> <p>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</p>	<p>Nominal Accomplishment</p>	

<i>MTE Recommendations¹⁵</i>	<i>TE Summary Status</i>	<i>Observations</i>
<p>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.</p>		
<p>21. Implement adequate work planning and appraisals for project staff</p> <p>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.</p>	<p>Nominal Accomplishment</p>	<p>The TE mission was not made aware whether:</p> <p>the PMU and / or COs had prepared annual work plans;</p> <p>COs had undergone an annual performance appraisal to assess performance and delivery of results.</p>
<p>22. Expedite pending procurements</p> <p>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.</p>	<p>Completed to an acceptable standard</p>	<p>The TE came away with the impression that the procurement of project supplies had made better progress. The following items were noted:</p> <p>15 wood chippers/shredders 1 tractor with trailer, water tank, portable water pump for Vaitupu 1 tractor with bucket and trailer for Niutao. 2 nurseries were constructed by the project for Funafuti and Nukufetau construction material from supplier in Tuvalu / Suva for home gardens,</p>

<i>MTE Recommendations¹⁵</i>	<i>TE Summary Status</i>	<i>Observations</i>
<p>23. Maintain regular dialogue between AusAID and UNDP</p> <p>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.</p>	<p>Partial accomplishment</p>	<p>The working relationship, communication, and collaboration with AusAid and UNDP in Suva appear to be well-established and effective.</p> <p>The TE met with the AusAid desk officer for Tuvalu in Funafuti. This meeting confirmed the comments made above.</p>

During the course of the TE, effort was made to determine the value of the extension period in terms of improved outputs and outcomes. There was little doubt that the extension was marginally beneficial. The MTE process, did however, highlight areas where the project (at all levels) needed to take steps to accelerate the delivery of outcomes and take stock of the project’s status and, of particular importance, what still needed to be done and the funding support that was available.

The assessment of this TE suggests that the additional 12 months made little substantial difference to the implementation of field activities as the project was already compromised by poor project management, reporting and monitoring during the first 3 years.

All of the recommendations provided in the MTR would, in all probability, not be completed within the 12-month extension. Most of the outstanding activities would, for a variety of reasons, require a longer time frame than even the 12 months to complete. The TE concluded that the incremental benefit of the additional 12 months in terms of outcomes seem to have been rather nominal.

Overall, the results of the NAPA have been mixed with some successful outcomes such as those associated with:

- Water Security - undertaken in collaboration with AusAID;
- Food Security -
- Mainstreaming Climate Change Adaption into national planning;
- Support for Kaupules in CC / Adaption related activities.

It is noteworthy that in most of the more effective examples (as well as a few other successful activities) implementation was achieved through or alongside communities and locally based partners, sometimes with demonstrated expertise in a particular area.

Conversely, those areas where the project has not performed as well as could be reasonably expected are technical and policy/planning initiatives, such as coastal protection. These needed the project to reach out to Council of Regional Organisations in the Pacific (CROP) and other regional agencies such as SPREP. These agencies have the technical expertise to assist capacity building and can be sourced to implement and sustain activities that are difficult to source in Tuvalu the. The TE were made aware that CROP agencies were approached when the advertisement for coastal assessment were promulgated. The availability of CROP experts and the urgency of this support (as presented by the government) did not correspond with the timelines that the project was working towards.

The salient lesson here is that when activities are being planned, especially those that are outside the “business as usual” paradigm, it is essential to identify sources of support from the outset.

11.8 Sustainability

The TE found that assessing the sustainability of the NAPA project was a subjective exercise. A full evaluation of sustainability requires an in-depth understanding of all the factors necessary to ensure sustainability in Tuvalu.

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.

Considerations considered are detailed in Appendix 1 Sustainability criteria and TE Indicative Ranking

NAPA Project Sustainability Criteria¹⁶

- alignment of activities with the strategies and functions of implementing organizations;
- organisational and, often overlooked, personal buy-in by key decision makers;
- public and community support for the activities and their benefits.

¹⁶

<i>Colour Code</i>	<i>TE Sustainability Indicative Ranking</i>
	9 – 10 / 10 Good level of Sustainability
	6 – 8 / 10 Fair level of sustainability
	3 – 5 /10 Nominal level of sustainability
	1 – 2 /10 Virtually Zero level of sustainability

Measured against these criteria the TE concurs with the MTR conclusion that the project enhanced some institutional capacities, in particular within the Department of the Environment, and has enabled government collaboration on climate change adaptation, mainly through the Project Board.

Areas where the project did not fulfil the expectations embodied in the PRODOC to acceptable limits included:

- climate change and adaptation interventions were not sufficiently mainstreamed into existing government structures;
- limited strengthening of the capacity and providing tools for Agricultural and Public Works Extension Workers to plan for and implement adaptation options in their activities;
- collaboration with local NGOs and CROP agencies was ad hoc;
- opportunities to enhance outreach to teachers on education and awareness on climate change, in particular in the outer islands were not make the most of;
- Community Organisers lacked the capacity to act as the primary means of outreach to the islands;
- capacities of the Kaupule have not been sufficiently strengthened, and climate change has not been mainstreamed into all local ISPs;
- in terms of “hardware”, the water tanks are likely to be maintained and their use continued after the project ends;
- home gardening activities have been abandoned on some islands as fences had not been provided;
- experimental/new approaches to growing pulaka look promising and seem to have gained significant community support;
- salt tolerant plant species as a way to enhance coastal protection are not likely to be maintained once the project ends.

11.9 Contribution to Upgrading of Skills of Staff

As part of the TE process each stakeholder meeting included a specific question:

Governance and Capacity Building

- In what ways has this project contributed to improved governance and strengthened capacity?

In several cases, there was uncertainty that there had, in fact, been very many positive contributions. During discussions, however, a majority of focus group participants indicated a positive response, especially on the topics of working in partnerships and appreciating the capacity of partner organisations including government and non-government organisations.

As pointed out in other sections of this report, PC were expected to possess project management and facilitation skills. The TE concluded that these attributes were not part of the skill sets that the two initial project coordinators brought into the project. The third appointee had a better appreciation of these needs. Unfortunately, when this appointment was made the project was so far behind schedule and these skills could not be fully utilised.

Overall, the TE concluded that the NAPA project was not particularly successful in upgrading capacity and skills of staff involved both in field implementation and project management. This is an unsatisfactory outcome as the value of projects such as this is to ensure that the interventions will benefit CC adaptation for some time after the project is completed.

11. Recommendations

Based on the findings and conclusions of this TE the following recommendations are offered:

- a) That UNDP and the Government of Tuvalu take active steps to maintain the momentum and interest generated by NAPA 1
- b) That UNDP and the Government of Tuvalu mainstream CC adaptation principles into all future development and resource management processes.
- c) That all projects (existing and proposed) make provision for technical support to PMUs from qualified and experienced technical advisors.
- d) That technical advisors be retained for a set number of months spread over the life of the project to; provide technical inputs and coordination for consultancies, sub-contracts, support for setting up and maintaining a robust monitoring and evaluation framework, review and comment on reports from COs, organise training courses, and generally provide technical and planning support to the PMU.
- e) That a scoping exercise be carried out to assess the feasibility of locating project staff on each outer island or groups of islands.
- f) That CROP agencies be included in annual work plans and provided with adequate time to schedule input and add their experience from CC projects in other PICs.
- g) That in view of the projects capacity issues all new projects take steps to build capacity in climate change adaptation planning and mitigation.
- h) That capacity building interventions use demonstration projects and target training and mentoring activities to PMU staff and Community Organisers.
- i) That each outlying island prepare a close-out report, based on a template to be developed by UNDP and the PMU, aimed at identifying stakeholders' views on what worked, what didn't work and why, and pointing to priorities for future projects.
- j) That the steep learning curve the NAPA 1 project experienced is evaluated and integrated into all going CC projects
- k) Ensure that lessons and experiences that the project accumulated are synthesised and translated into SMART indicators that can be applied to project monitoring and evaluation systems.

12. Lessons Learned

13.1 Assessment of Practices used to Address Issues Relating to Relevance, Performance and Success.

- a) Decentralized implementation of a project that covers a wide geographic area within a complex environmental, political, institutional and social matrix presents significant institutional and operational challenges. In this regard the project delivery model developed for the NAPA project was ineffective.
- b) Considerable amendments of the procurement, financial disbursement, and M&E components along with improved funding for the PMU, could be considered. This implies that a different model for the delivery of UNDP (and possibly other donor development assistance to Tuvalu) could be considered.
- c) Implementation of a complex project that involves all outlying islands requires the application of adaptive and flexible management practices, especially in relation to budgets. The underperformance of one or more island locations can affect quarterly expenditure across the whole project. These inhibited efforts to request replenishment funding under UNDP rules. It is important that where adaptive management is being carried out the effect on budgetary constraints and allocations be communicated to all stakeholders.
- d) The process of including key stakeholders in the project formulation, design and inception stages helped to ensure that the project was aligned to national priorities. This could have been further

improved by ensuring the engagement of representatives of SPREP, and SPC as well as national and regional NGOs.

- e) Linkages with existing national development priorities and to other initiatives with strong local backing could have significantly enhanced the sustainability of the project.
- f) Programmatic linkages with regional agencies, such as SPC and SPREP, regional tertiary institutions and regionally based NGOs, would have possibly strengthened the capacity of the PMU to achieve project objectives - especially those that relate to individual and institutional capacity building.
- g) The power of learning exchanges, field visits and networking amongst peers in building capacity was possibly underestimated. Provided they are well planned and managed, study tours, and participation at regional and international forums should be an integral feature of projects that have capacity building as a primary objective.
- h) A complex project such as the NAPA requires regular and proactive monitoring and evaluation. The development and implementation of schedules and templates are an essential management tool for ensuring transparency, supporting adaptive management and for strengthening a sense of collective project ownership and its outcomes. Conversely, neglecting monitoring protocols creates uncertainty, confusion and frustration.
- i) Continuity of personnel in key positions such as the Project Coordinator and Community Organiser is a prerequisite, as is the establishment and maintenance of good communication channels so as to strengthen project management and coordination. Lack of attention to these elements will have the opposite effect.
- j) Forging partnerships with Kaupules and NGO's has the potential to significantly improve the prospects of effective implementation, especially, as is the case of NAPA, when community based activities are critical elements of the project.
- k) Consulting with and securing the support and active participation of Kaupule structures and other traditional leader forums is vital to achieving successful outcomes. Similarly, the active engagement of women's groups, youth and parent organizations can significantly enhance project delivery.
- l) Creating numerous small activities that need small sums of money creates the potential for frustrating delays during project implementation. Wherever possible activities should be lumped together rather than split. This approach should be used to ease the financial and administrative burden on PMU staff.
- m) Opportunities should be developed to bring island communities, with common activities, such as the development of guidelines on specific activities, together. This would allow them to develop templates for possible adaptation to suit the needs of particular locations.