



# TUVALU NAPA-I +

## Australia-UNDP-Partnership Programme

### for the

### Tuvalu NAPA 1<sup>st</sup> Follow-up Full-Size Project

2011-2013

**Tuvalu's National Adaptation Programme of Action**  
Under the auspices of the United Nations Framework Convention on Climate Change

Ministry of Natural Resources, Environment, Agriculture and Lands.  
Department of Environment  
May 2007

*Increasing Resilience of Coastal Areas and Community Settlements to Climate Change in Tuvalu*

**Government of Tuvalu**  
**United Nations Development Programme**  
**PROJECT DOCUMENT**

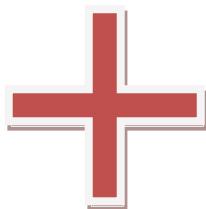
UNDAF Outcome(s): 4.0 Sustainable Environmental Management  
Expected CP Outcome(s): 4.2 Tuvalu communities effectively manage and sustainably use their environment as well as their natural and cultural resources  
Expected CPAP Output(s): 4.2.1 Improved and supported adaptive capacity at all levels that contribute to the protection of marine, land, water resources and environmental services  
Implementing Partner: Ministry of Natural Resources and Environment (MNRE)  
Responsible Parties: United Nations Development Program

Programme Period: 2008-2012 CPAP Component Component: Outcome 4.2.1 Project Title: Increasing Resilience of Coastal Areas and Community Settlements to Climate Change in Tuvalu Activity ID: 09058214 / 00072222 (FJI10) Start date: November 2009 End date: November 2013 (4 years) PAC Meeting date: July 2009	Total budget: USD 7,800,000 LDCF/GEF: USD 3,100,000 Parallel co-financing: USD 4,170,000 Government (in kind): USD 330,000
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Agreed by Implementing Partner (Ministry of Natural Resources and Environment):

Ministry of Finance and Economic Planning:

Agreed by UNDP:  
Date: 25th November 2009



## 1. Introduction

This document describes the implementation modality of funding application for Australia's International Climate Change Adaptation Initiative (ICCAI). The funds are intended to complement and add value to the ongoing Tuvalu NAPA 1<sup>st</sup> Follow-up Full Size Project (NAPA-I), which is financed from the Global Environment Facility (GEF)-managed Least Developed Country Fund (LDCF) and implemented by UNDP.

The objective of NAPA-I is to increase the protection of livelihoods in island communities from dynamic climate-related damage in all islands and provides a cost-effective means to upscale on-the-ground adaptation support to Tuvalu given its main features:

- Focus on sectoral policy mainstreaming and institutional capacity building processes linked with on-the-ground demonstration activities and knowledge management actions;
- Country (community)-driven implementation process closely aligned with Tuvalu's national priorities and policy frameworks;
- Established project management structure involving a Project Management Unit based at the capital of Funafuti and Community Organizers in all 9 islands;
- Oversight mechanisms that include a 3-tier quality assurance system involving staff in UNDP Fiji multi-country office, regional technical advisors in the Asia Pacific Regional Centre (outposted to Samoa) and a Senior Technical Advisor (at UNDP HQ—outposted in Bangkok); and
- Partnerships established with relevant line ministries, non-governmental organisations and development partners.

The management of Australia's contribution, referred to as "NAPA-I +" is intended to build on existing project delivery mechanisms and national capacities established through the NAPA-I project. This would enable the efficient replication and up-scaling of practical adaptation measures at the community-level, currently being implemented on a pilot basis through the LDCF-funded project. NAPA-I + follows the example of PACC+<sup>1</sup>, which represents a pilot model for donors and development partners to graduate from individual implemented project-based support to a programmatic approach with maximum benefits for national and community interventions.

Australia's International Climate Change Adaptation Initiative (ICCAI) is helping to meet high priority climate adaptation needs in vulnerable countries in the Asia-Pacific. The objectives of the ICCAI are to:

1. Establish a sound policy, scientific and analytical basis for long-term Australian action to help partner countries adapt to the impacts of climate change;
2. Increase partner understanding of the impacts of climate change on their natural and socio-economic systems;
3. Enhance partner country capacity to assess key climate vulnerabilities and risks, formulate appropriate adaptation strategies and plans, and mainstream adaptation into decision making; and

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<sup>1</sup> PACC+ refers to AusAID contribution being provided to the Pacific Adaptation to Climate Change project implemented through UNDP-GEF, using similar approach of building on an existing project delivery mechanism to support replication and upscaling of in-the-ground adaptation measures.

4. Identify and help finance priority adaptation measures to increase the resilience of partner countries to the impacts of climate change.

Australia's contribution to the NAPA-I project will focus on ICCAI Objective 4 by supporting replication and up-scaling of adaptation measures implemented by the NAPA-I project. National NAPA-I project management team will also consult with AusAID to ensure Australian funded activities are consistent with Australia's overall aid program, including consultation during the development of annual work plans and budgets with AusAID Tuvalu Program staff located in Fiji.

## **2. Background**

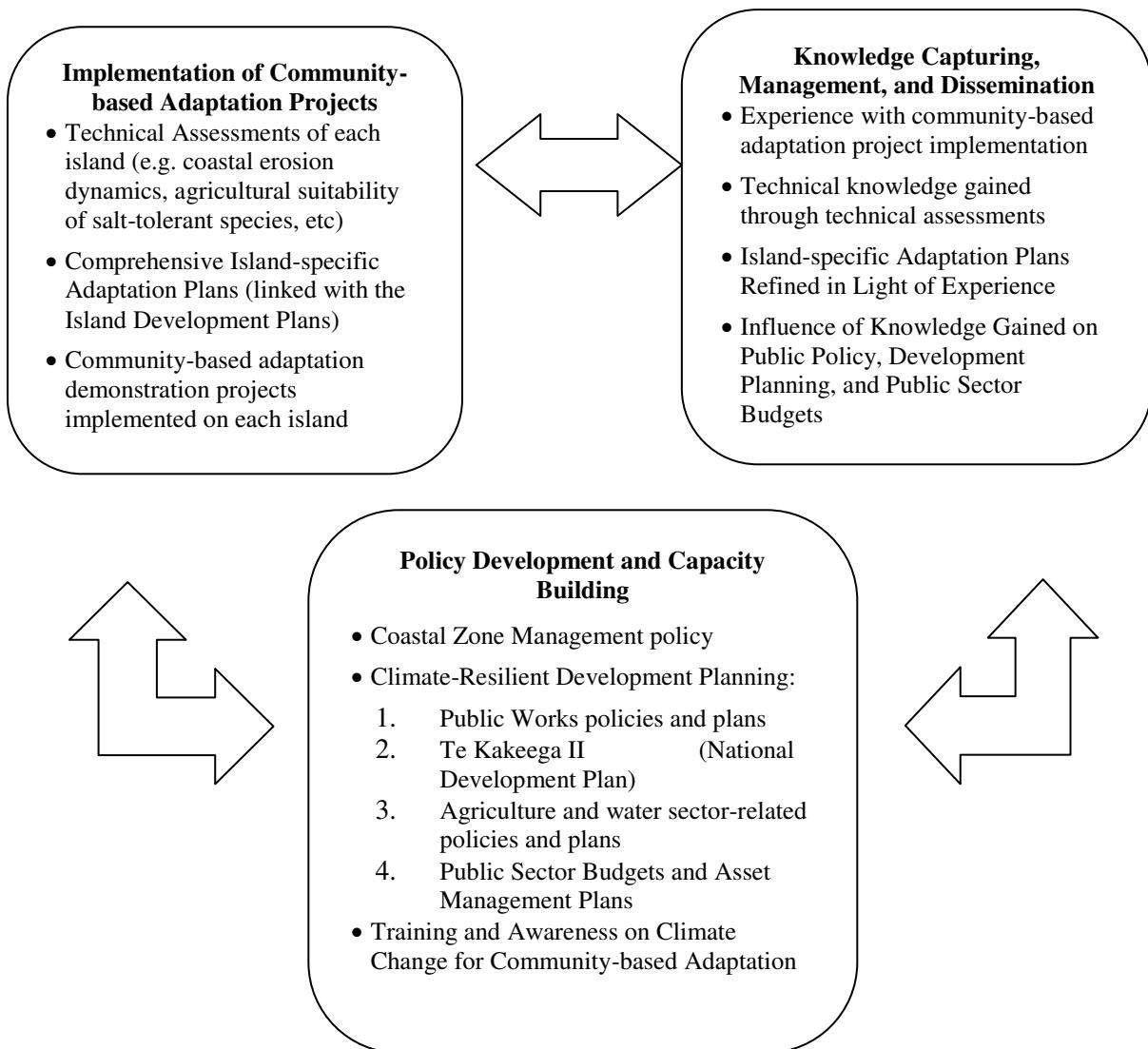
The Tuvalu NAPA-I project is the first national project to address priorities identified in the National Adaptation Plan of Action (NAPA), involving all 9 islands of Tuvalu. It is a UNDP initiative, implemented in partnership with the Government of Tuvalu, with US\$3.3 million in financing from LDCF managed by GEF. The implementation of NAPA-I project commenced in 2010 with duration of 4 years, ending in 2013. The overarching goal of NAPA-I project is to increase the resilience of coastal areas and community settlements to climate change throughout Tuvalu. The objective of the project is to increase the protection of livelihoods in coastal areas from dynamic risks related to climate change and climate variability in all inhabited islands of Tuvalu. The three outcomes are inter-related: policy development and capacity building, demonstration project implementation, and the capture of knowledge and lessons learned will be carried out in parallel, mutually reinforcing, and closely linked.

**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;

**Outcome 2:** Enhanced capacity of local communities to adapt to dynamic climate-related impacts and risks and to protect their livelihoods through implementation of practical community-based adaptation measures specifically tailored to each islands; and

**Outcome 3:** Project knowledge and lessons learned are captured, analysed and disseminated to facilitate replication of practical adaptation solutions in all islands. These thematic areas of focus include coastal protection, agricultural food security and water management. As outlined in the approved Project Document (Attachment 1: Part I – Strategic Results Framework), the project is designed to achieve three inter-related outcomes in the following areas, as illustrated in Figure 1 below:

**Figure 1: Primary Project Components and their interrelations**



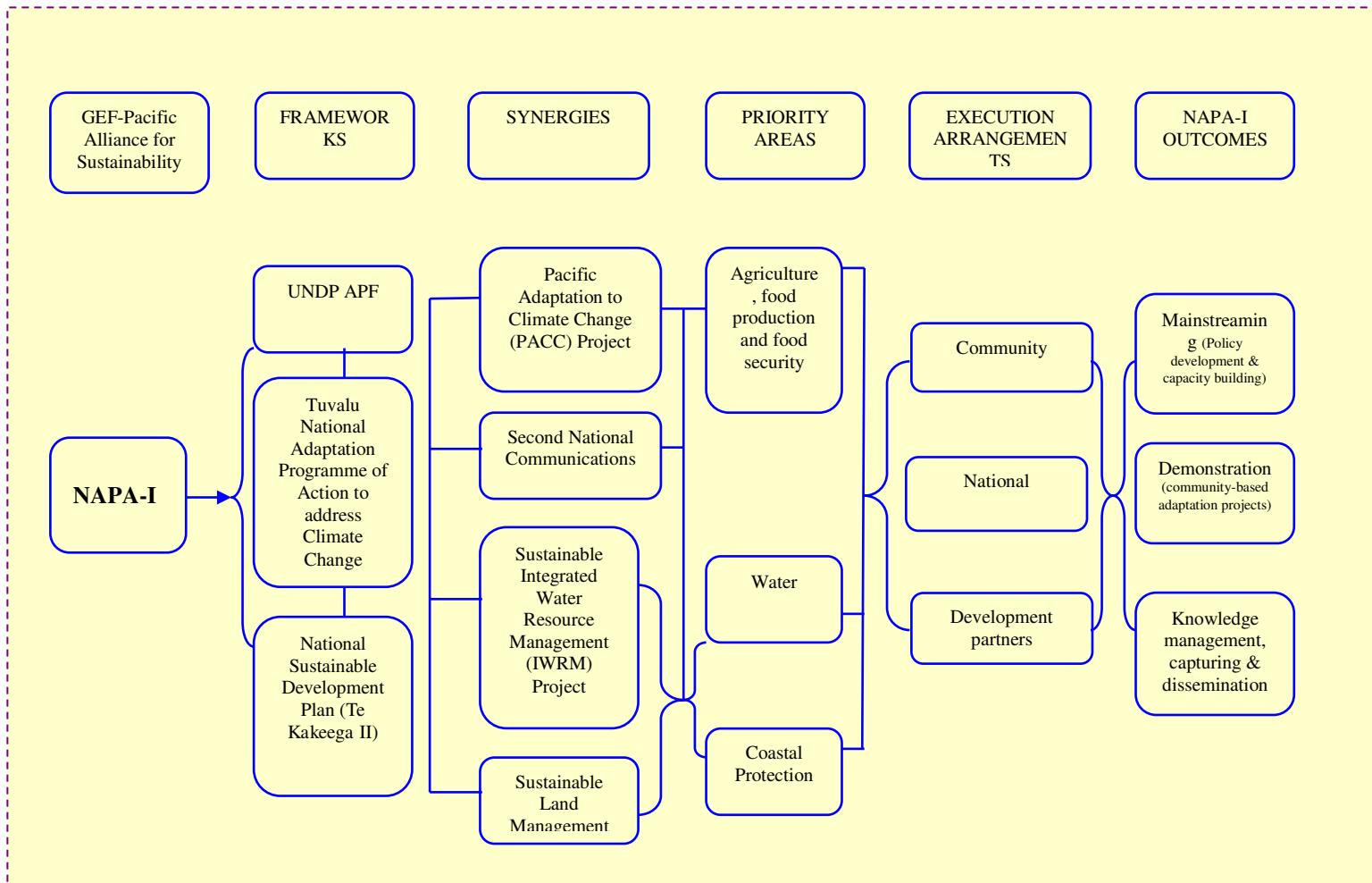
The NAPA-I project aims at implementing adaptation priorities identified in the NAPA document which has been established in 2007 based on an extensive national consultation process. The project outcomes and outputs have been established through country-driven and consultative processes during formulation of the NAPA-I project. This process has included:

- A formulation workshop for the NAPA-I Project Preparatory Phase process in Funafuti, Tuvalu in 2009;
- Individual community consultations to further define the focal areas and specific activities to be addressed by the NAPA-I project; and
- Development of specific implementation arrangements at national and community levels.

The NAPA-I project follows procedures, guidelines and strategies employed by UNDP and Government of Tuvalu on environmental, social and gender issues (ref. Annex 2). UNDP and Government of Tuvalu advisers and technical specialists are engaged in project design and implementation. For example, environmental and public works specialists within the Government of Tuvalu provided input into the design of water storage tanks carried out

through the NAPA-I project in pilot sites of the outer islands. UNDP specialists on gender, social and environmental issues at UNDP Headquarters in New York and the Asia-Pacific Center in Bangkok will provide technical inputs throughout the NAPA-I + on these cross cutting issues. Further details on UNDP procedures, guidelines and strategies on cross cutting issues are included in Annex 2.

The schematic NAPA-I framework is presented in the diagram below.



The fact that NAPA-I is nationally implemented allows for the implementation of adaptation actions at the community level in all 9 islands and focuses on sector-specific interventions (agricultural food security, water management and coastal protection). Already, there is demand to upscale the NAPA-I processes and experience from pilot applications and to broaden the scope of community interventions towards more integrated and multi-sectoral approaches.

The NAPA-I project has achieved the following since its inception in March 2010:

- Outcome 1 - Policy mainstreaming:
  - Established a National Climate Change Advisory Board for strengthening climate change coordination among key line ministries.
- Outcome 2 - Demonstration projects on community based adaptation measures in agricultural food security, coastal protection and water management:

- Revalidated and updated pilot demonstration sites and activity focus in all 9 islands, initiated community engagement and dialogues, recruited and trained community organisers, undertook initial assessments and planning, and initiated implementation of adaptation measures.
- Technical support for demonstration implementation discussed with regional organizations and support for scientific assessments secured from University of Tokyo.
- Outcome 3 - knowledge management, capturing & dissemination:
  - An adaptation portal is being proposed through the national environmental website.
- Project Management: Although on-the-ground implementation of NAPA-I is led by the Department of Environment with oversight and technical support of UNDP, engagement of key line ministries were made possible through:
  - Recruitment of technical officer from the Public Works Department;
  - Supporting the establishment of National Climate Change Advisory Board, and technical advisory group to facilitate national coordination;
  - Clarifying and specifying national operational procedures (e.g. coordination between national implementing agencies and finance/treasury departments for financial aspects of planning and reporting);
  - Developing yearly work and quarterly work plans, and supporting communities in each island to adapt it at the local level, as a basis for annual and quarterly work-planning processes;
  - Providing ongoing training on work-planning, financial and substantive reporting procedures to Community Organisers through a combination of national workshops and island missions; and
  - Providing continuous assistance and trouble shooting for overall project implementation and for islands on a case-by-case basis.

## 2.1 Lessons Learned

The NAPA-I project has an adaptive management process, where operational and technical matters are systematically identified and analysed through the work planning and monitoring process. Lessons learnt are captured in quarterly and annual reports and through knowledge management actions and exchanges through quarterly monitoring and annual reviews.

While work planning was a relatively easy task, a lot of effort was placed on engaging regional organizations (SPREP, USP, SOPAC, SPC) to support technical aspects of NAPA-I. At the Inception Workshop in March 2010, a concept note was drafted to this effect and extensively discussed between key stakeholders. Unfortunately, few achievements were made by December 2010 with slippages largely due to staff turnover within regional organizations and lack of continuity at the national level to follow through the arrangements agreed to at the inception workshop. To reduce the risk of further slippages, UNDP will provide direct country office support to the Project Management Unit and technical aspects of NAPA-I will be tendered out to international consultancies with a component to develop local capacities so they could internalize capacities necessary to undertake similar work in future. Arrangements are already underway with terms of reference for direct country office support drafted for negotiations with government and engagement of University of Tokyo (April 2011) to undertake coastal mapping and assessments of coastal protection pilot sites commencing with Fongafale in Funafuti.

Island level engagement has been evident through the recruitment and training of island coordinators as key function to support coordination and delivery of actions tailored to the local conditions in each islands. The recruitment process, involving Kaupule leaders was essential to confirm institutional arrangements suited to each island and appoint suitable persons fitted to the local leadership structures. On the other hand, functioning of the NCCAB has been delayed reflecting the capacity-constrained general situation in Tuvalu.

### **3. The NAPA-I + strategy: objectives, outcomes, outputs, activities and result framework**

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

NAPA-I + results will be fully aligned with the NAPA-I LDCF project Strategic Result Framework including its objectives, outcomes and corresponding targets and indicators, as presented in Table 3 below. NAPA-I + targets have been added to the NAPA-I targets for the outcome areas where NAPA-I + will provide direct contributions, in order to track and measure progress using the indicators and verification sources defined for the NAPA-I project, while links with the other outcome result areas are explained as part of the overall integrated programme framework. NAPA-I + will directly contribute towards Outcome 2 of NAPA-I Project Document (Attachment 1) by financing the up-scaling of pilot projects in agricultural food security, coastal protection and water management. NAPA-I + will also contribute to overall policy development, capacity building and climate change policy mainstreaming efforts under Outcome 1, as well as knowledge management support activities under Outcome 3 through linkages with the implementation of on-the-ground measures under Outcome 2.

The NAPA-I National Project Coordinator oversees the implementation of all project components, supported by the Project Implementation Technical Support Team (PITST) representing officers and specialists within and outside of government and civil society organizations, transferring and exchanging technical information to support both the national policy and community level processes. The NAPA-I National Climate Change Advisory Board (NCCAB) comprises permanent secretaries and higher level policy makers, linked with or embedded into national coordination mechanism (Tuvalu's Development Coordinating Committee), with a role to ensure linkages of NAPA-I project activities with national policy processes. Output 2.1 aims at generating community-based adaptation plans through the demonstration activities, which have a key purpose to inform national policy. For example, in Fongafale (Funafuti) the coastal mapping and community adaptation plan being generated serves as the basis for the process of incorporating climate change risks into the Climate Change Policy and related regulatory processes. Similar direct links between policy and community-implementation processes are created through the NAPA-I project processes in coastal protection, water management and agricultural food security sectors.

The institutional, policy and technical processes form key part of the sustainability and replication strategy of the NAPA-I project, in line with details presented in the approved NAPA-I Project Document (Attachment 1). The NAPA-I + project represents a replication process using the institutional and implementation mechanisms established at the national

and local levels. Further specifications on NAPA-I + and an indicative implementation schedule are provided in Tables 1 and 4.

#### **4. NAPA-I + implementation mechanism**

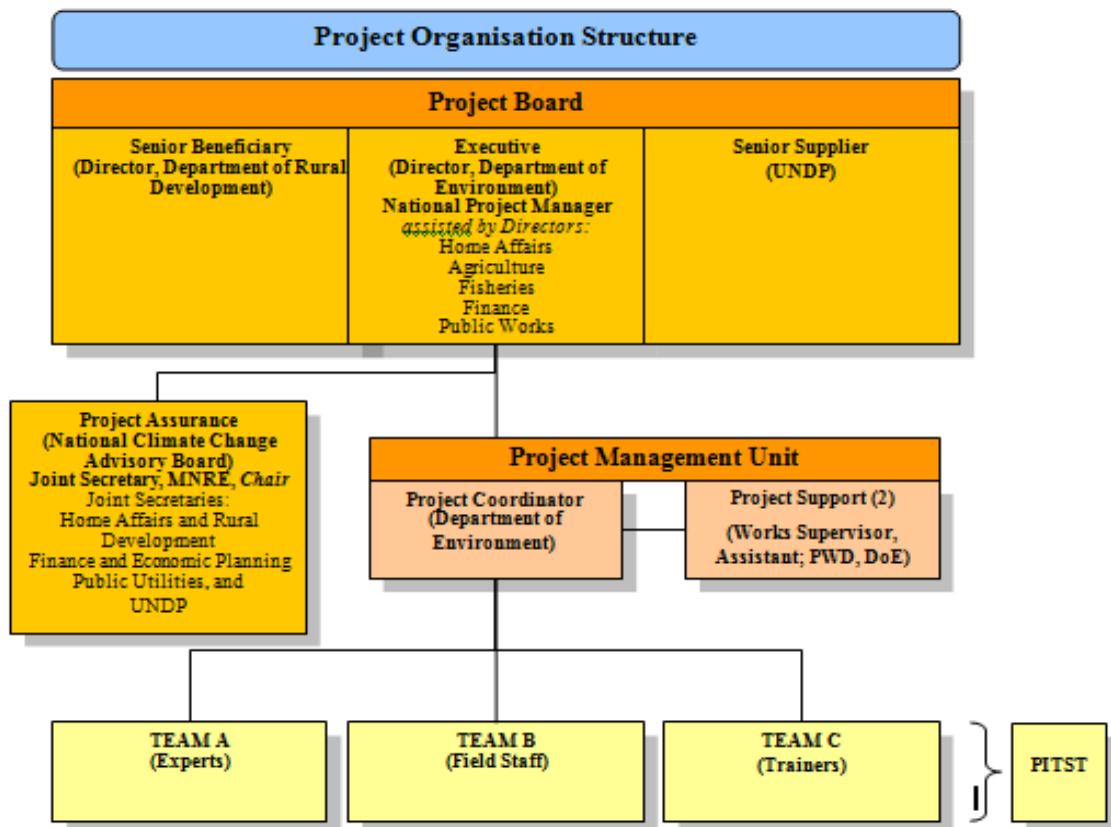
The NAPA-I project is being implemented through the Department of Environment, following country-owned processes, and is aligned with national priorities, strategies and policies (such as the National Communications, National Adaptation Programmes of Action, Te Kakeega II, and sectoral policies and strategies). It also conforms to UNFCCC priorities such as the requirement for LDCF financing to be used to address the additional threats posed by climate change (additionality). The initiative has technical and execution support from a multi-layered institutional set-up at the local and national levels with oversight from UNDP at the country, regional and headquarter levels. This framework has been put in place to harness the expertise of Department of Environment and UNDP as well as regional expertise and networks on climate change adaptation involving other CROP agencies (SPC, SOPAC and USP), development partners, NGOs, and research and education institutions.

The NAPA-I + will follow the existing project implementation and management procedures, as described in the NAPA-I Project Document (Attachment 1). In summary, NAPA-I has a project execution support structure involving:

- National Implementing Partner (Department of environment) with a National Project Manager, National Project Coordinator and Community Organizers, supported by National Climate Change Advisory Board and Technical Advisory Groups;
- Technical and operational oversight support provided by UNDP through the Fiji Multi-Country Office (technical and operational programme staff), Asia-Pacific Regional Center in Bangkok (with a Regional Technical Advisor out-posted in Samoa) and Headquarters (with a Senior Technical Adviser out-posted in Bangkok).

The NAPA-I project follows well established UNDP procedures for work planning, reporting on substantive and financial matters, monitoring and evaluation in complete alignment with donor requirements (in this case, the GEF/LDCF requirements). The ultimate decision making body of the NAPA-I project is its Project Board, comprising NAPA-I community representative as Senior Beneficiary, UNDP as Senior Supplier, and the Department of Environment as Executive of the Board, assisted by Home Affairs, Agriculture, Fisheries, Finance and Public Works, ensuring cross-sectoral coordination.

**Figure 2: Project Organization Structure**



The NAPA-I project monitoring and evaluation processes are managed by the UNDP Fiji Multi-Country Office as outlined in the monitoring and evaluation plan established in the Project Document (Attachment 1), in accordance with established UNDP and GEF procedures, Annual Work Plans and Budgets. The NAPA-I financial management, monitoring and evaluation plan and processes are detailed in Section I, Part IV of NAPA-I Project Document (Attachment 1) comprising the following key elements:

- Quarterly Expenditure Reports, Activity and Progress Reports;
- Annual Report/Project Implementation Review and Tri-Partite Meetings;
- Mid-term and Terminal Evaluations; and
- Periodic Thematic Reports and site visits.

The above institutional arrangements and procedures are expected to remain in place for the NAPA-I + programme. Based on these, specific annual reports will be provided to AusAID on substantive and financial aspects of NAPA-I + implementation.<sup>2</sup> Technical reports, knowledge management and communication materials capturing experience developed through NAPA-I + will be shared with AusAID. Specific NAPA-I + meetings will be held with the involvement of NAPA-I Project Board and representative(s) of AusAID on the occasion of the Annual Tri-Partite Meetings, in order to discuss annual work plans, programming of funds, implementation and any relevant issues. Australian support will be acknowledged for all Australian funded activities.

<sup>2</sup> In line with section 3.2 of the standard AusAID-UNDP cost-sharing agreement

UNDP will provide a set of Specialised Technical Services, as direct implementation support to the programme. The nature of the UNDP Specialized Technical Services will vary depending on project need but may include the tasks outlined in Annex 1.

The upcoming NAPA-I project mid-term review (February 2012) will assess NAPA-I results and processes to date and provide recommendations on how to improve performance of the overall program going forward, including the Australian funds to be employed in NAPA-I +.

Risks and issues that might emerge throughout NAPA-I + implementation will be detected, recorded, mitigated and closely monitored through the existing monitoring mechanisms and based on risks and assumptions identified in the project result framework. NAPA-I + funded adaptation activities will be identified and selected in consultation with communities based on site-specific technical assessments as necessary (vulnerability assessments, socio-economic analysis, cost-benefit analysis).

Detailed work plans and budgets for Australia's contribution to the NAPA-I project will be developed and refined as part of annual and quarterly NAPA-I project work planning processes, in consultation with AusAID and approved by the NAPA-I Project Board. The first Annual Work Plan and corresponding Quarterly Work Plan will be drawn up following the formalization of the agreement for the AusAID contribution and upon receiving the funds, and will be approved by the Project Board by July 2011.

Tables 1(a) – 1(c) below present examples of on-ground adaptation measures (Outcome 2) that could be implemented through NAPA-I + support.

**Table 1(a). Indicative NAPA-I + On-Ground Adaptation Measures (Water Management)**

Islands	NAPA-I Demonstration	Potential NAPA-I + Funded Activities
<b>1. Nanumea, Nui, Vaitupu, Nanumaga</b>	<p>Output 2.1 Community-based adaptation plans for coastal protection, water supply security, and agricultural livelihood sustainability are developed for all islands in Tuvalu.</p> <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.</p>	<p>At least 100 m<sup>3</sup> of fresh water supply and water storage systems capacity provided to support agriculture in at least 4 atolls (Nanumea, Nui, Vaitupu, and Nanumaga).</p> <p>Applying the design developed under the NAPA-I project, NAPA-I + funds could be used to replicate rainwater harvest and storage systems for an additional <b>400 m<sup>3</sup></b> of fresh water supply and water storage systems capacity to support agriculture in at least the 4 identified atolls (Nanumea, Nui, Vaitupu, and Nanumaga). This expansion through NAPA-I + essentially means a national level up-scaling, extending water sector adaptation to households across the entire island(s).</p>

**Table 1(b). Indicative NAPA-I + On-Ground Adaptation Measures (Coastal Protection)**

Islands	NAPA-I Demonstration	Potential NAPA-I + Funded Activities
<b>2. Funafuti, Nukufetau, Niutao, Nukulaelae, and Niulakita</b>	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.	
	Model demonstration projects of planting mangrove and non-mangrove species planted and maintained by communities in at least 5 atolls (Funafuti, Nukufetau, Niutao, Nukulaelae and Niulakita)	Expanded area of model demonstration projects of planting mangrove and non-mangrove species planted and maintained by communities in at least the 5 identified atolls (Funafuti, Nukufetau, Niutao, Nukulaelae and Niulakita)

**Table 1(c). Indicative NAPA-I + On-Ground Adaptation Measures (Food Security)**

Islands	NAPA-I Demonstration	Potential NAPA-I + Funded Activities
<b>3. Nanumea, Nui, and Nanumaga</b>	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 <i>designed and implemented in at least 1 pilot site on each of Tuvalu's 9 islands</i> .	
	At least 12 plantations of pulaka, breadfruit, and banana cultivation are protected from saline groundwater in at least 3 atolls (Nanumea, Nui, and Nanumaga)	Additional 12 plantations of pulaka, breadfruit, and banana cultivation are protected from saline groundwater in at least the 3 identified atolls (Niutao, Niulakita and Nanumaga)

## 5. Programme Budget

Australia will make an overall contribution to the NAPA-I project of AU\$1m indicative allocations are presented in Table 2 based on the ratio determined in the NAPA-I design. Funds will be reallocated based on community demands and consultation with government of Tuvalu and AusAID. Australia's contribution will be made in a single payment in mid-2011 with implementation progressing until the NAPA-I project end date of 31 December 2013.

**Table 2. NAPA-I + Budget**

Outcome	NAPA-I + Component	Budget (AUD)
NAPA-I 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	<b>Community-level adaptation measures</b> Funafuti: coastal protection Nanumea: Water storage and supply for domestic and agricultural purposes Vaitupu: Water storage and supply Nui: Water storage and supply Nukufetau: Coastal protection Niutao: Coastal protection and food security Nukulaelae: Coastal protection Niulakita: Coastal protection and food security Nanumaga: Water storage, coastal protection and food security	300,000 70,000 90,000 90,000 90,000 70,000 20,000 80,000
	<b>Specialized Technical Services</b>	50,000
General Management Support fee (as per standard Cost Sharing Agreement)		70,000
	<b>Total Australian Contribution</b>	<b>1,000,000</b>

Community-specific allocations will support replication and up-scaling of adaptation interventions within the NAPA-I project (NAPA-I Outcome 2), and will be distributed to specific activities in response to demand from participating communities and NAPA-I project need, in consultation with the Government of Tuvalu and AusAID. UNDP will provide Specialized Technical Services as direct implementation support (see Annex 2) at a cost amount up to 50,000 AUD to be charged to the project budget. Australia's contribution will be subject to the standard General Management Support (GMS) service fee of 7% as per the standard AusAID-UNDP cost sharing agreement. This fee covers indirect costs incurred by UNDP Headquarters, regional and country office structures.

**Table 3. NAPA-I Strategic Results Framework amended with NAPA-I + targets and links**

<b>Project Strategy</b>	<b>Objectively verifiable indicators</b>					
	<b>Outcome/Output</b>	<b>Indicator</b>	<b>Baseline</b>	<b>Target (NAPA-I)</b>	<b>Target (NAPA-I +)</b>	<b>Sources of verification</b>
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	<p>Number of hectares of mangrove and non-mangrove species planted and continuously maintained by communities</p> <p>Number of people trained and participating in mangrove nursery and maintenance</p> <p>Number of households benefiting from improved water storage</p> <p>Number of pulaka pits and breadfruit cultivation areas protected from high soil salinity</p>	<p>Coastal afforestation programs have begun under UNCCD and AusAID assistance, though they are not mutually well coordinated;</p> <p>Measures to ensure the sustainability of coastal mangroves and other protective species not implemented, and the potential for protection against climate change-induced hazards is not fully realized</p> <p>Staple crops are damaged by increasingly saline groundwater induced by climate change;</p>	<p>By the end of the project,</p> <ul style="list-style-type: none"> <li>Model demonstration projects of planting mangrove and non-mangrove species planted and maintained by communities in at least 5 atolls (Funafuti, Nukufetau, Niutao, Nukulaelae, and Niulakita)</li> <li>At least 100 m<sup>3</sup> of fresh water supply and water storage systems capacity provided to support agriculture in at least 4 atolls (Nanumea, Nui, Vaitupu, and Nanumaga)</li> <li>At least 12 plantations of pulaka, breadfruit, and banana cultivation are protected from saline groundwater in at least 3 atolls (Nanumea, Nui, and Nanumaga)</li> </ul>	<p>By the end of the project,</p> <ul style="list-style-type: none"> <li>Expanded area of model demonstration projects of planting mangrove and non-mangrove species planted and maintained by communities in at least the 5 identified atolls (Funafuti, Nukufetau, Niutao, Nukulaelae and Niulakita)</li> <li>Additional 400 m<sup>3</sup> of fresh water supply and water storage systems capacity provided to support agriculture in at least the 4 identified atolls (Nanumea, Nui, Vaitupu, and Nanumaga)</li> <li><b>Additional 12</b> plantations of pulaka, breadfruit, and banana cultivation are protected from saline groundwater in at least the 3 identified atolls (Niutao, Niulakita)</li> </ul>	<p>Project progress reports</p> <p>Field visit reports</p> <p>Photographic documentation</p> <p>Independent evaluation reports</p> <p>Inventory stock list of equipment provided through the project (e.g. seedlings, rainwater tanks)</p> <p>Training protocols</p> <p>Impact assessment reports</p>	<p>Communities are willing to participate in coastal afforestation and agricultural activities.</p> <p>A sufficient number of seedlings survive the nursery stage and can be planted</p> <p>Rainfall in affected islands is sufficient to make measures to protect crops from saline groundwater effective</p> <p>Land for the pilot areas is not lost to an extreme event during the project</p> <p>Vessel transport available to deliver water tanks</p>

<b>Project Strategy</b>	<b>Objectively verifiable indicators</b>					
	<b>Indicator</b>	<b>Baseline</b>	<b>Target (NAPA-I)</b>	<b>Target (NAPA-I +)</b>	<b>Sources of verification</b>	<b>Risks and Assumptions</b>
		communities have no means or knowledge to address the problem	By the end of the project, 80% of households in all vulnerable communities have participated in the implementation of community-based adaptation activities financed by the project	and Nanumaga)  By the end of the project, <b>85%</b> of households in all vulnerable communities have participated in the implementation of community-based adaptation activities financed by the project with demonstrated benefits for men and women.		

**Table 4. Indicative NAPA-I + Implementation Schedule**

Outputs / Activities	Exe cuti on	2011				2012				2013				
		1	2	3	4	1	2	3	4	1	2	3	4	
<b>Outcome 2: Demonstration measures to increase resilience in coastal protection, agricultural food security and water management.</b>														
<b>Output 2.2 Adaptation measures identified are implemented with demonstrated benefits for men and women</b>														
Activity 2.2.1 – Carry out detailed design of gender-sensitive adaptation measures														
Activity 2.2.2 – Establish implementation plan														
Activity 2.2.3 – Implementation of the gender-sensitive adaptation measures at NAPA-I + site														
Activity 2.2.4 – Evaluation and monitoring of adaptation measures including reporting on progress on how women are participating and benefitting														
Activity 2.2.5 – Review and finalization of the sectoral guidelines through integration of experience from implementation activities														

## Annex 1. Indicative Specialised Technical Services

Stage/Category	UNDP GEF Unit: Headquarters and Regional Technical Teams
<b>General</b>	<ul style="list-style-type: none"> <li>Upstream policy dialogue and engagement with donors and SOFs on environmental finance and thematic technical issues</li> <li>Substantive policy research and analysis</li> <li>Substantive technical research and analysis</li> <li>Programme development</li> </ul>
<b>Identification, Sourcing/Screening of Ideas, and Due Diligence</b>	<ul style="list-style-type: none"> <li>Research and development</li> <li>Support the identification and formulation of project ideas with technical and operational policy advisory services</li> <li>Related training for Country Offices and partners</li> </ul>
<b>Appraisal</b>	<ul style="list-style-type: none"> <li>Provide detailed screening against technical, financial, environmental, social and risk criteria</li> <li>Verification of technical reports and project conceptualization</li> <li>Determine likely eligibility against identified SOF</li> </ul>
<b>Partners</b>	<ul style="list-style-type: none"> <li>Identifying appropriate sources of financing based on the scope of the project idea</li> <li>Support accessing sources of funds</li> <li>Policy advisory and aid coordination support in combining and sequencing of funds to meet client objectives</li> <li>Support COs to secure partnerships based on technical and policy advisory support services</li> </ul>
<i>Obtain Clearances</i>	<ul style="list-style-type: none"> <li>Obtain SOF clearances including addressing review comments required by SOF managers</li> </ul>
<b>Project Development</b>	<ul style="list-style-type: none"> <li>Technical support, backstopping and troubleshooting</li> <li>Support discussions on management arrangements</li> <li>Verification of technical reports and project conceptualization.</li> </ul>
<i>Initiation Plan</i>	<ul style="list-style-type: none"> <li>Sourcing of technical expertise</li> <li>Guidance on SOF expectations and requirements</li> <li>Quality assurance and due diligence</li> <li>Negotiate and obtain clearances by SOF</li> <li>Respond to information requests, arrange revisions etc.</li> <li>Facilitate issuance of DOA</li> </ul>
<b>Project Oversight and Implementation</b>	<ul style="list-style-type: none"> <li>Review AWP, ensure receipt of signed cover page for files</li> <li>Allocate ASL and release first GMS/IA fee instalment</li> </ul>
<i>Project Start/First Disbursement</i>	
<i>Project Launch/Inception Workshop</i>	<ul style="list-style-type: none"> <li>Advise Project Launch/Inception Workshop on technical and SOF related issues</li> </ul>
<b>Management Arrangements</b>	<ul style="list-style-type: none"> <li>Technical input and support to TOR development.</li> <li>Troubleshooting support</li> <li>Support in sourcing of potentially suitable candidates and subsequent review of CVs/recruitment process</li> </ul>
<i>Annual Work Plan</i>	<ul style="list-style-type: none"> <li>Review AWP, allocate ASL based on AWP and available project balance</li> </ul>
<b>Financial Management</b>	<ul style="list-style-type: none"> <li>Monitor projects to ensure activities comply with donor agreements</li> <li>Ensure allocation, budget, or expenditure (plus advances) does not exceed available balance</li> <li>Periodically review financial status of project, identify exceptions, and support Country Offices in remedying any problems</li> <li>Maintain record of reporting deadlines, ensuring timeliness and accuracy of interim reports</li> <li>Review the financial certified statement submitted by OFA</li> <li>Coordinate Annual External or internal Audits of Trust funds and provide analysis</li> <li>Review cumulative expenditure annually and release delivery-based GMS/IA Fee</li> </ul>
<b>Results Management</b>	<ul style="list-style-type: none"> <li>Technical advisory services when required</li> <li>Technical support, backstopping and troubleshooting</li> <li>Provide operational guidance on SOF requirements</li> <li>Quality assurance</li> <li>Monitor implementation issues that may impact project progress or where there are implications for donor relations, ensure donors are informed</li> <li>Monitor project milestones, analyze data to identify trends and support Country Office in remedying any problems</li> <li>Project visits – at least one technical support visit per year</li> </ul>
<i>Evaluation</i>	<ul style="list-style-type: none"> <li>Technical support, progress monitoring, validation and quality assurance of mid-term, final, and other evaluations</li> <li>Technical analysis, compilation of lessons, dissemination of technical findings</li> <li>Identification and consolidation of learning</li> </ul>

## **Annex 2. Policies, strategies and guidelines on cross-cutting issues (environment, social, gender)**

NAPA-I+ is directly aligned with Tuvalu's development priorities. The Tuvalu NAPA on which the project is based was developed to support the Kakeega II, the National Strategy for Sustainable Development 2005-2015, in harmony with other action plans and other development aspirations of the government of Tuvalu. This policy is committed to the realization of the MDGs, in particular to (i) improving the quality of life for every Tuvaluan; (ii) providing the enabling environment for employment and private sector development; and (iii) strengthening human capacity and ensuring sustainable development and conservation of Tuvalu's natural resources and protection of the environment.

NAPA-I+ is consistent with Tuvalu's Initial National Communication (INC) to the UNFCCC, the GEF Pacific Alliance for Sustainability Program Framework (G-PAS), where this NAPA project has been listed as a top priority, as well as the Pacific Regional Climate Change Framework for Action on Climate Change 2006-2015. Complementaries with the SCCF-funded Pacific Adaptation to Climate Change Project (PACC<sup>3</sup>) and the GEF-funded sustainable Integrated Water Resource Management (IWRM) regional projects will be secured through the existing NCCAB that will oversee both this project as well as the PACC and ensure that activities are complementary and that project lessons on functional community-based adaptation options are exchanged on a regional scale.

NAPA-I+ is aligned with the existing institutional setup to address climate change issues in Tuvalu. Much of Tuvalu's environmental legislation is relevant to coastal zone management, and there are a number of Acts and Ordinances that clearly contribute to Tuvalu's framework for coastal zone management as part of Tuvalu's climate change adaptation framework. This includes et al, the **Conservation Areas Act 1999**, the **Falakaupule Act 1997**, the **Marine Pollution Act 1991** and the **Marine Resources Act 2006**.

The **Environment Protection Act 2007** is designed to integrate the relevant legislation, policies and activities applicable to coastal zone management and climate change adaptation. The objectives of the Act give the ministry the responsibility "to coordinate the role of government in relation to environmental protection and sustainable development". The establishment of a National Environment Council under the Act provides a logical focal point for coordination and integration of Tuvalu's efforts to achieve an integrated approach to coastal zone management and consequently a coordinated and integrated approach to community-based adaptation which takes into account all sectoral interests. The Council's proposed mandate of providing advice to the Minister on "matters relating to environmental protection and sustainable development within and, where relevant, outside of Tuvalu" provides a means to coordinate sectoral interests and activities. Additionally, the establishment of Island Environment Committees under the

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<sup>3</sup> The PACC, through its pursuit of enhancing the long-term resilience of key economic sectors, is a wholistic framework for a regionally-coordinated and nationally-executed strategic program on addressing climate change adaptation in three focus areas: food security, coastal management, and water resource management. The PACC is a US\$13.1 million 5-year regional project aimed at promoting adaptation in 13 Pacific island countries, including Tuvalu. PACC's Inception Workshop was held in Samoa in early July 2009 to finalize the first annual work programme and to help countries to prepare for implementation at the national level. The IWRM is a regional project administered by SOPAC to promote water resource supply security and quality monitoring and control.

proposed Act by the Kaupule will provide a coordinating, reporting and implementing mechanism for on-the-ground activities under the Act.

### **Institutional Relationships within the Tuvalu National Government that are Relevant to Climate Change and Coastal Zone Management**

The following table summarises the roles of various key Government Departments which have relevance to coastal zone management (CZM) and climate change, and which would have a role in project implementation.

Agencies Currently Relevant to Climate Change and Coastal Zone Management

<b>Department</b>	<b>Responsibility</b>
Home Affairs	<ul style="list-style-type: none"> <li>• Facilitate delivery of programmes of other Departments to all communities.</li> <li>• Entry point of community-based programmes.</li> <li>• Operate under Falakapaule Act 1979.</li> </ul>
Lands and Survey	<ul style="list-style-type: none"> <li>• A data and information agency.</li> <li>• Conduct site surveys as required.</li> <li>• Collect satellite and photo imagery and able to provide recent satellite imagery of islands.</li> <li>• Original satellite imagery funded by NAPA.</li> </ul>
Agriculture	<ul style="list-style-type: none"> <li>• Decentralized with Agriculture extension officers placed on each island. Headquarters on Vaitupu.</li> <li>• Participation in mangrove plantings on 3 islands by women's groups.</li> <li>• Involved in trialling of new yam crops from Federated States of Micronesia</li> <li>• Agriculture Bill to be passed soon.</li> </ul>
Environment	<ul style="list-style-type: none"> <li>• Overall coordination of environmental issues.</li> <li>• Operate under Environment Protection Act 2007</li> </ul>
Fisheries	<ul style="list-style-type: none"> <li>• Undertake data collection on inshore fisheries.</li> <li>• Establish community based management for inshore fisheries on 2 islands, with 3 more in the pipeline.</li> <li>• Foresee development of inshore management plans for all islands upon funding availability.</li> <li>• Record anecdotal evidence of declining catch size and quantity of stock including clams and lobsters. Foresee re-location and rehabilitation of clam hatchery due to operational issues</li> <li>• Operates under Fisheries Act with main focus on offshore fishery</li> </ul>
Education	<ul style="list-style-type: none"> <li>• Recognize the need to officially mainstream environmental issues into school curriculum since students have a fair knowledge of climate change</li> <li>• Developing strategic plan 2006-10 with a focus on community partnerships and revival of community training centres (CTCs). CTCs will include aspects of environmental stewardship.</li> <li>• CTCs to be community driven, offering vocational training with possible funding from AusAid</li> </ul>
National Disaster Coordination Office	<ul style="list-style-type: none"> <li>• Oversee disaster coordination</li> <li>• Prepare plans, standard operating procedures</li> <li>• Include coastal protection</li> <li>• Conduct disaster risk management assessments, including climate change through</li> </ul>

	<ul style="list-style-type: none"> <li>• awareness program on climate change</li> <li>• Disaster plan covered by Act</li> <li>• Conduct community workshop and advise on relevant issues, including climate change</li> </ul>
Budget	<ul style="list-style-type: none"> <li>• Incorporate sectors in development budget</li> <li>• Public Sector Investment Program specifying government infrastructure projects affecting coastal areas will also be relevant to climate-resilient coastal zone management</li> </ul>
Health	<ul style="list-style-type: none"> <li>• Offer outpatient care on islands</li> <li>• Undertake water testing outside Funafuti</li> <li>• Aware of linkages between health and climate change Establish vector control programs in islands</li> <li>• Record of cholera in early 90's,</li> <li>• Typhoid on Vaitupu recently – occasional outbreaks, o malaria – outbreak of dengue but contained</li> </ul>
Public Works	<ul style="list-style-type: none"> <li>• Provide engineering responses to climate change but currently lack capacity to undertake new projects e.g. seawall construction. Hoping to have new staff end of 2009</li> <li>• Manufacture water tanks in Funafuti (10,000L). Face difficulty in distributing tanks to islands,</li> </ul>
Meteorology	<ul style="list-style-type: none"> <li>• Provide morning and evening weather forecasts, and 3-monthly forecasts</li> <li>• Have tide gauge to measure tidal movement, sea temp, winds</li> <li>• Limited capacity for climate change prediction</li> </ul>

Within the UN system there are five inter-related development cooperation principles that must be applied in all country level programming and interventions of UN Country Teams (i.e. through the UNDAF/CCA):

- [A human rights-based approach \(HRBA\);](#)
- [Gender equality;](#)
- [Environmental sustainability;](#)
- [Results-based management \(RBM\);](#) and
- [Capacity development.](#)

UNDP's Strategic Plan (2008-2013) also:

- Focuses our work on four development focus areas: **Poverty eradication and achievement of internationally agreed development goals, including the MDGs; democratic governance; crisis prevention and recovery; and environment and sustainable development.** Please see the [BDP workspace for further policy guidance such as practice notes.](#)
- Supports programme countries, within the framework of **national ownership**, to achieve national development objectives related to human development. UNDP programmes must therefore be firmly anchored in the needs and priorities of programme countries and UNDP's programming processes fully aligned to national processes. Development solutions must always reflect local circumstances and aspirations and draw upon national

actors and capabilities. Fostering national ownership requires the full participation of different parts of government and civil society organisations.

- Approaches development in a **holistic, cross-sector approach to human development** with its focus on the expansion and use of institutional and human capabilities which provides the basis for UNDP's focus on capacity development. See [The Human Development](#) website for more information.
- Focuses on **inclusive and sustainable growth** to place particular attention on those that are being left farthest behind.
- Pursues **development of national capacities** as UNDP's core contribution in all UNDP's work across the four development focus areas. Please see the [UNDP Approach to Supporting Capacity Development](#), [UNDP Practice Note on Capacity Development](#) and [UNDP Practice Note on Capacity Assessment](#).
- Promotes the **integration of gender equality and women's empowerment** throughout our programmes guided by the [Gender Equality Strategy 2008-2011](#) (GES).

In addition, UNDP's Programming and Operations Policies and Procedures states that “environmental sustainability, including climate change resiliency, is fundamental to the achievement of development outcomes including the MDGs and must be systematically *mainstreamed into UNDP's Programme and Project Management cycles*. Opportunities to strengthen the environmental sustainability and climate resiliency of programming need to be identified and realized. Potential adverse impacts and risks need to be avoided or minimized, where possible, and mitigated if not”.

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[http://www.undp.org/oslocentre/overview/ogc\\_civil\\_society.html](http://www.undp.org/oslocentre/overview/ogc_civil_society.html)
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- **UNDP Environmental Mainstreaming Strategy - A strategy for enhanced environmental soundness and sustainability in UNDP policies, programmes, and operational processes**, last update 2004
- **UNDP Framework for Mainstreaming Environment and Sustainable Development** (Draft, August 2010)
- **How to Assess Environmental Impacts on Tropical Islands and Coastal Areas**, SPREP, 1989
- **Environmental Impact Assessment Training Resource Manual**, UNEP, 2000

### **Gender Issues (UNDP sources)**

- **Empowered and Equal: Gender Equality Strategy 2008-2011**, Designed to complement and reinforce UNDP's Strategic Plan 2008-2011, by defining how attention to gender equality and women's empowerment will strengthen action in all our areas of UNDP's work. <http://www.undp.org/women/docs/Gender-Equality-Strategy-2008-2011.pdf> (full document, pdf)
- **Gender Mainstreaming: A Key Driver of Environment and Energy**, November 2007, A training manual for UNDP staff and UNDP partners concerning the essential gender dimensions involved in ensuring environmental and energy sustainability. [http://www.undp.org/energyandenvironment/library/Gender\\_Mainstreaming\\_Training\\_Manual\\_2007.pdf](http://www.undp.org/energyandenvironment/library/Gender_Mainstreaming_Training_Manual_2007.pdf) (full document, pdf)
- **Gender and Climate Change. Impact and Adaptation**. Workshop Highlights, Negombo 2008.
- **Gender, Climate Change and Community-Based Adaptation**, July 2010, A guidebook for designing and implementing gender-sensitive Community-based adaptation programmes and projects [http://www.undp-adaptation.org/projects/websites/docs/KM/PublicationsResMaterials/Gender\\_Climate\\_Change\\_and\\_Community\\_Based\\_Adaptation\\_\(2\).pdf](http://www.undp-adaptation.org/projects/websites/docs/KM/PublicationsResMaterials/Gender_Climate_Change_and_Community_Based_Adaptation_(2).pdf) (full document, pdf)
- **Gender Mainstreaming Guidance Series Chemical Management: Chemicals and Gender**, 2011, Sound management of chemicals; gender-differentiated approach in sound chemicals management. Contact [monica.gaba@undp.org](mailto:monica.gaba@undp.org) for a copy, e-version forthcoming on

<http://www.undp.org/chemicals/>

- **A User's Guide to Measuring Gender-Sensitive Basic Service Delivery**, 2009, A guide and tool for making institutional change in the delivery of basic services.  
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