

**AIDE MEMOIRE OF THE
FIRST JOINT MISSION (ADB/WB/UNDP/AusAID-DCCEE/DFID) FOR THE
KINGDOM OF TONGA COMPONENT OF THE
PILOT PROGRAM FOR CLIMATE RESILIENCE (PPCR)
18–19 May 2010**

A. Introduction

1. The Pilot Program for Climate Resilience (PPCR) is the only adaptation funding window of the Climate Investment Fund (CIF), which was established by the multilateral development banks (MDBs) to finance climate change support for their developing member countries (DMCs). PPCR seeks to mainstream climate change adaptation¹ into national development planning through a long-term programmatic approach which, ideally, frames all donor climate change adaptation interventions. The Pacific region is one of two regional and nine country pilots. The PPCR is structured in two phases. Phase 1 (preparatory) will (i) prepare a detailed design for Phase 2 (investment), and (ii) undertake initial institutional strengthening and capacity building activities in preparation for Phase 2.

2. The Pacific PPCR has four components: country activities in three countries (Papua New Guinea [PNG], Tonga [TON] and Samoa [SAM]) and a region-wide component. The three countries were chosen, and accepted, to participate in the PPCR as pilot countries.² Under an agreed division of labor, ADB is leading in PNG and TON, while WB leads in SAM. The region-wide component is undertaken jointly, with ADB in the administrative lead. After the three countries' acceptance of the offer to participate in PPCR in September 2009, informal scoping missions were undertaken from November 2009 to March 2010.

3. Following the said scoping missions, a Joint Mission³ led by ADB and including WB/IFC, UNDP, and AusAID visited Tonga from 18–19 May 2010. The Mission held discussions with relevant government offices, development partners (DPs), and NGOs (see **Appendix 1** List of Persons Met) to (i) take stock of current climate change adaptation activities in the country; (ii) assess opportunities for mainstreaming climate change adaptation in national planning/budgetary processes; and (iii) identify the scope, activities, and implementation arrangements for PPCR Phase 1.

4. This Aide Memoire summarizes the Mission's findings and recommendations, as well as the immediate next steps for Government and ADB to take, leading to the completion of the design of PPCR Phase 1 and the submission of the Proposal to CIF. The Mission discussed this Aide Memoire with: the Honourable Afualo Matoto, Minister for Finance and National Planning; Mr. Aiseke Eke, Secretary for Finance and National Planning; Secretary Halatuituia, Secretary of Lands, Survey, and Natural Resources; Mr. Leveni 'Aho, Acting CEO of Ministry of Works, Dr.

¹ Given the close synergies between climate change adaptation and disaster risk management, the former term is used broadly to include both.

² The Kingdom of Tonga submitted its Acceptance of the Offer to Participate in PPCR to the CIF Administrative Unit in September 2009.

³ The Mission comprised Anne Witheford, Governance Specialist and Pacific Climate Change Team Member, Pacific Department, ADB (Mission leader); Siosaia Faletau, WBG; Steve Blaik, Senior Water Supply and Sanitation Specialist, ADB; Alain Goffeau, Project Administration Unit Head, ADB South Pacific Sub-Regional Office (Suva); Asenaca Ravuvu, UNDP (Suva); Ryan Medrana, Pacific Adaptation Strategy Assistance Program (PASAP) Manager, Australian Department of Climate Change and Energy Efficiency (Apia); Mahendra Kumar, Consultant, ADB South Pacific Sub-Regional Office (Suva); and Tom Oppenheimer, Deputy High Commissioner, UK High Commission (Honiara)

Siale 'Akauola, CEO of Ministry of Health; Ms. Kapreen 'Aho Veetutu, Deputy Secretary, Ministry of Tourism; Mr. Asipeli Palaki, Acting Director of the Ministry of Environment and Climate Change (MECC); and Mr. Busby Salesi Kautoke, Chief Secretary and Secretary to Cabinet, Prime Minister's Office.

B. Mission Findings

1. Climate Resilience in Tonga

5. Tonga is highly vulnerable to climate change and natural disasters, especially in the outer islands. Tonga is prone to earthquakes, volcanic eruptions, tsunamis, cyclones, coastal flooding and droughts. The effects of climate change have exacerbated these naturally occurring phenomenon. Low-lying areas of the islands are affected by rising sea levels, with extensive tidal flooding affecting coastal villages, particularly on Nuku'alofa. Impacts of sea level rise are significant for ground water supplies and agricultural production. In addition to sea level rise, coastal erosion is a critical issue for Tonga. The increased denudation of mangroves and coastal trees, illegally mining of beach sands and sand dredging of off-shore sand dunes for construction purposes, as well as live coral removal, have exacerbated coastal erosion and loss of key coastal infrastructure.

6. The flow-on social and economic dislocation caused by a natural catastrophe in a small island nation is extreme. Tonga's vulnerability to climate change is further increased by the fact that its economy is based largely on agriculture, with over 58% of economically active Tongan's reliant on primary production for their livelihood. Industries such as tourism, fisheries and forestry are also important for GDP and are adversely impacted by projected change in climate and sea level.

7. The Tonga Government requested that PPCR interventions align with ongoing national development climate change adaptation and disaster risk management mainstreaming. A well-defined programmatic approach should encourage donor coordination under the PPCR umbrella, and the approach should be country-determined and country-driven. Furthermore, the PPCR should build on, or harmonize with, existing government and donor adaptation/disaster risk management initiatives.

8. There is no Cabinet-endorsed government strategy for climate change adaptation formally in place yet in Tonga. However, the MECC has, with draft inputs from some other ministries, drafted a *Joint National Action Plan on Climate Change Adaptation and Disaster Risk Management 2010-2015 (JNAPCCADRM)*⁴, with SPREP and SOPAC assistance (**Appendix 2**).⁵ This draft is still undergoing whole-of-government consultation, and is planned to be submitted to Cabinet for endorsement before end June. The six strategic goals in the draft Plan include the following relevant for CCA/DRM: (i) improved good governance (mainstreaming and strengthening institutional policy frameworks); (ii) enhanced technical capacity and awareness; (iii) improved analysis/assessments; (iv) enhanced community preparedness and resilience; and (v) strong partnerships across government and with NGOs/civil society. In addition to these issues, the missions consultations revealed that food security, health impacts (dengue and other vector borne diseases) and information/data gaps are priority concerns (see Summary of

⁴ See Appendix 2 for Logframe summary of the *Joint National Action Plan on Climate Change Adaptation and Disaster Risk Management 2010-2015 (JNAPCCADRM)* (draft). The text of the Plan is currently being drafted by the Tonga Government.

⁵ This Plan is currently in draft version, with MECC planning to submit the draft to the Cabinet Committee on Climate Change for approval by the end of June 2010.

Discussions in **Appendix 3**). The JNAPCCADRM is drafted in alignment with *Tonga's National Strategic Planning Framework (NSPF 2009-2019)*, which highlights "integration of climate change and environmental sustainability in all national planning" as one of seven priority national development objectives. The JNAPCCADRM is also consistent with the Pacific region's *Pacific Plan* and *Pacific Islands Framework for Action on Climate Change 2006-2015* (PIFACC) and *Pacific Disaster Risk Reduction and Disaster Management Framework for Action (2005-2015)*

9. The main institutional responsibility for climate resilience presently is still with the environment portfolio. In 2007, a broader high-level Cabinet Committee on Climate Change was formed. This included the Ministers for Environment (Chair), Transport, Public Works, Justice and the Attorney General. At the working level, the Ministry of Environment and Climate Change (MECC) has carriage for climate change matters. In terms of whole-of-government involvement in climate change matters, there is a technical working group (TWG) at the working level that provides some input from other ministries, such as the Ministry of Finance and National Planning (MoF) and the following line agencies: MECC and Ministry of Agriculture, Food, Fisheries and Forestry (MAFFF). A CEO has yet to be appointed to the MECC (note MECC only became a separate ministry in late 2009).

10. Limited attention has been given beyond MECC to climate risk concerns in national and sector policy planning and budgetary processes or in the design of individual projects. However, in recent months, efforts have been taken to incorporate climate change considerations, primarily at the national strategic level, with the preparation of the draft *JAPCCADRM* as outlined above. There have been initial ad hoc ideas on mainstreaming, for example ensuring incorporation of DRM and DRM aspects in local building codes, but this has yet to receive CEO or Cabinet level endorsement, and any such efforts at implementation are likely to be severely resource-constrained. On the budgetary side, MECC is planning to submit costings for the draft *JAPCCADRM* to the Tonga Government's Expenditure Review Committee (ERC) for the July 2010-June 2011 budget proposal from MECC (costings were not submitted for this financial year). Therefore, climate risk management is still to be integrated holistically into policy, planning, and budgetary processes. There is limited budget to meet even current priority development needs, let alone the cost of adaptation, limited understanding of climate risks, and a lack of technical capacity to integrate climate risk management into planning processes. There is also no evidence of any training at national, sectoral, or provincial/local levels to provide this capacity.

2. Stock-taking of Donor Activities

11. The main development partners on climate change adaptation, and their activities, are summarized below (see **Appendix 4** for detail).

AUSTRALIA:

The AUS\$150,000,000.00 International Climate Change Adaptation Initiative (ICCAI) delivered jointly by AusAid and the Australian Department of Climate Change and Energy Efficiency (DCCEE) focuses on: improved scientific information and understanding; strategic planning and vulnerability assessments; implementing, financing and coordinating adaptation measures; and multilateral support for climate change adaptation. As part of ICCAI Australia has provided \$40M to the PPCR. TONGA also has access to funding and support through a number of regional programs including those recently announced such as the

Pacific Adaptation Strategy Assistance Program, support to regional organizations (SPREP & SPC); the Community-based Adaptation Activities, and the Pacific Future Climate Leaders Program; ongoing programs such as the South Pacific Sea Level and Climate Monitoring Project; and bilateral assistance for priority, practical adaptation programs.⁶ In addition, TONGA has been an active participant in the ICCAI Pacific Climate Change Science Program designed to develop better understanding of how climate change will impact the region.

LIST OF UNDP-GEF FUNDED PROJECTS:

UNDP-GEF has funded various climate change adaptation and other climate change related projects in Tonga. Projects are listed hereunder were completed.

- Tonga's Initial National Communication Project (USD325,000);
- Capacity building activities including Technology Needs Assessment. Total funds (USD100,000);
- National Capacity Self Assessment Project (USD200,000);
- National Biodiversity Strategic Action Plan Project (USD325,000);

UNDP-GEF currently assisting with the following projects;

- Tonga's Second National Communication on Climate Change Project (to be completed by 2010 (USD405,000.00);
- Pacific Adaptation on Climate Change (to be completed by 2012: USD750,000.00)
- Small Grant Projects (USD69,835,00 for 2010);
- PIGGAREP to be completed by 2013 (USD360,000)
- Programme of Action on Protected Areas to be completed by 2010 (USD tbc)
- Integrated Water Resource Management Project (USD 7 million) to be completed by 2012
- Third National Communication on climate Change (USD500,000)

UNEP-GEF projects;

- Ozone Depleting Substance Project USD30,000 for 2010
- Persistent Organic Pollutants Projects USD386,000.00 by 2010

GOVERNMENT OF GERMANY (GTZ/SPC)

- Climate Change Adaptation Project USD 4.2 million for three pacific pilot countries, including Tonga.

EU

Energy Development Fund 10 :

- Renewable Energy (not yet decided software & hardware) Euro 5 million

JICA

- Renewable Energy (soft & hard ware). Outer Islands TBU (2) Vv (11) USD 5.9 million (designing, supply hard ware. Cofinance PIGGAREP GEF/UNDP for institutional set up and technical training and consultancy, community consultation.

⁶ AUD 25 million has been allocated for bilateral activities in the Pacific. While Tonga is eligible for support under this program, an allocation to Tonga or any activities has yet to be agreed with the Government of Tonga.

ADB

The ADB has provided support for regional climate change projects through its Pacific Climate Change Program. These include (i) conduct of climate risk studies (including Tonga) leading to the preparation of climate risk profiles which could serve as bases for climate change adaptation initiatives for various development sectors; (ii) mainstreaming of climate change adaptation and mitigation in the Country Partnership Strategy to ensure that climate change implications are incorporated in the economic development policies and planning processes; and (iii) incorporation of climate change adaptation in infrastructure processes, such as the forthcoming Urban Integrated Development Project (Phase II). The ADB Pacific Region Work Program for 2010-2012 includes numerous proposed loan-financed projects that either focus directly on adaptation or have climate adaptation features incorporated in their design, as well as number of technical assistance projects, which are aimed at either helping the Pacific Nations develop their capacity for adaptation or ensuring that climate adaptation is incorporated in the design of proposed investment projects.

WB

- Tonga Education Sector Project (IDA), USD 1 million, to be completed by Dec 2010 from World Bank and USD 4.1 million from New Zealand Trust Fund
- Transport Sector Consolidated Project: USD 5.4 million , 2012, PRIF/Australia USD 9.2 million, 2013
- Renewable Energy Road Map USD 8 million, Energy DPL USD 10 million
- Post-Tsunami USD 4 million
- Broadband Connectivity USD 10 million

IUCN (International Union for conservation of nature) ; Italy and Austria

- Renewable Energy Projects (completed 2010 started 2008) USD 350,000 installation of solar panels in Haapai outer-islands (2; Mango & Moungaone)
- Mangrove Eco-System for Climate Change and Livelihood to be completed by 2014 (USD 2.297 million)

GOVERNMENT OF FRANCE

- Renewable Energy (wind resource assessment –finding suitable place for wind monitoring)
Started in 2006 -2011 (USD 100,000)

C. Mission Recommendations**1. PPCR Focus**

12. Given the wide range of potential activities for the PPCR in Tonga, the Mission and Government agreed on a *focused intervention* that would deliver a "transformational" change through a successful pilot program that could be upscaled with additional CIF PPCR funding. Some factors informing the decision on the focus were:

- (i) country needs/priorities; as outlined in the Tonga Joint National Action Plan on Climate Change Adaptation and Disaster Risk Management (JNAPCCDRM);
- (ii) Phases 1 and 2 resource envelopes for Tonga (since it is only one of four PPCR components, likely to be \$0.25 million for Phase 1 and \$6 million for Phase 2);

- (iii) CIF guidelines suggesting that PPCR should complement existing/planned MDB investments and government activities, and build on climate resilience donor/regional organization/NGO initiatives; and
- (iv) consideration of what is the best added value of MDBs in climate risk and resilience mainstreaming, since they are the CIF-designated implementers of PPCR (For ADB, infrastructure, focusing on water supply and sanitation and transport; for WB, transport and energy infrastructure).

13. Based on these considerations, it was decided that the starting point for PPCR interventions would be the national climate change adaptation plan and priority activities identified in NAPA and DRM. PPCR would **include an "infrastructure plus" approach, namely building climate resilience of infrastructure (water, transport and energy) and climate-proofing of government infrastructure projects.**—The potential impact of infrastructure development on environmental and social concerns is well-known, and related economic, social and health impacts including dengue and vector borne diseases health concerns and livelihoods impacts will be included as important considerations in PPCR infrastructure design and implementation. PPCR Phase 1 will broadly focus on:

- (i) building or enhancing institutional capacity for mainstreaming climate change resilience into 'whole-of-government' and sectoral legislation, policies, plans, and operational activities of selected ministries with responsibilities for the provision of infrastructure;
 - a. for example, revision of the building code to incorporate substantial climate change impacts
 - b. for example, updating of climatic design parameters (wind speeds, rainfall intensity, storm search levels)

Sub-activities will be:

- (ii) undertaking additional vulnerability assessments in critical sectors and/or places;
- (iii) awareness raising and outreach on the impacts of climate change and importance of climate resilience planning responses; and
- (iv) strengthening civil society, community and private sector engagement and gender considerations of climate change resilience building

14. The Tonga Government's draft National Action Plan on Climate Change Adaptation and Disaster Risk Management, outlines priorities for support across all government portfolios and PPCR could potentially address a number of these. **Appendix 5** outlines an initial alignment analysis between PPCR activities and key action items of Tonga's JAPCCADRM. A more detailed analysis will be undertaken following the mission. PPCR activities may also help progress other JAPCCADRM priorities not specifically listed in Appendix 5.

15. There are a number of potential infrastructure sub-sectors and activities that could be addressed by the PPCR. These include:

- (i) Buildings, including building codes
- (i) Water supply, drainage and sanitation
- (ii) Transport infrastructure; and
- (iii) Energy infrastructure

16. **Appendix 5** outlines major infrastructure donor (ADB, WB and AusAID) investments (2010-2012) that could be included in PPCR climate-proofing.

2. Implementation Arrangements

17. **Government Implementing Agencies.** The Ministry of Environment and Climate Change (MECC), combined with MoF, will be responsible for overall coordination of PPCR implementation across Government, and for overall PPCR program monitoring and oversight. The MECC will report to the Cabinet Committee on Climate Change for approval and endorsement of the PPCR program. Key focal agencies will be the Ministry of Finance and National Planning (MoF) and the Ministry of Environment and Climate Change (MECC), and these agencies will be responsible for overall PPCR program monitoring and oversight. The Technical Working Group (TWG) for Climate Change, comprised of technical experts from government, NGOs and statutory boards, and the PPCR working level focal points (MoF and MECC) will provide inputs from other ministries at the working level.

18. It is vital for PPCR success that political leadership on a whole-of-government cross sectoral climate change adaptation mainstreaming approach comes from the highest level of government the Prime Minister's Office, in accordance with the Prime Minister's role driving climate change strategies and plans at the national level. It is equally important that key urban infrastructure and other line agencies (Ministry of Transport, Ministry of Works, Ministry of Lands, Tonga Water Board) are fully engaged in PPCR, being the frontline agencies in its implementation. Their meaningful engagement in PPCR will require a significant "mind shift" to consider climate change impacts and implications. While PPCR efforts can somehow help with awareness-raising and outreach, this shift will need to be internally driven by the Tonga Government. In addition to the Government arrangements, the existing government-non government partnership mechanisms (technical working committees formed on an issue by issue basis) can ensure that non-State actors, such as civil society and private sector, are able to fully participate in PPCR-decision making.

19. **MDB Arrangements for Phase 1.** The MDBs, with ADB at the lead, will continue to coordinate and engage with the Tonga Government and stakeholders. It is proposed that the PPCR grant be managed by ADB as the Executing Agency (EA). Details will be elaborated in the Phase 1 Proposal.

20. ADB will identify programming opportunities, including climate-proofing, with key infrastructure donors, especially World Bank and AusAID (as per **Appendix 5**).

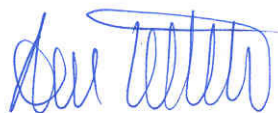
D. Next Steps

21. The Government and the Mission agreed on the following next steps:

Finalization of Aide Memoire by Government following whole-of-government and stakeholder consultation	25 June 2010
Cabinet endorsement of Joint National Action Plan for Climate Change Adaptation & DRM	end June 2010
Finalization of Phase 1 & technical mission	July 2010
Submission of Phase 1 Proposal to CIF	end August 2010 ⁷

⁷ Exact time will depend upon CIF's meeting schedule for approving country and regional pilots Phase 1 proposals. All four components of the PPCR Pacific pilot are to be submitted concurrently.

22. The Mission wishes to express its appreciation to the Government, particularly MECC and MoF, for the assistance provided to the Mission. In accordance with CIF guidelines, a publicly available report of the Mission will be prepared and forwarded to CIF.



ANNE WITHEFORD
Mission Leader, ADB



SAIA FALETAU
WBG

- Appendix 1: List of Persons met
- Appendix 2: Joint National Action Plan on Climate Change Adaptation and Disaster Risk Management 2010-2015 (JNAPCCADRM) logframe (draft, May 2010)
- Appendix 3: Summary of mission discussions
- Appendix 4: Stocktake of donor activities on climate change adaptation and disaster risk management in Tonga
- Appendix 5: Alignment of PPCR with Tonga's draft JNAPCCADRM
- Appendix 6: Potential ADB, WB and AusAID investments (2010-2012) for climate proofing under PPCR

Appendix 1: List of Persons met

Government

Name	Title	Organization	Phone	Email
Afu'alo Matoto	Minister for Finance			
Aisake Eke	Secretary	Ministry of Finance and National Planning (MoF)		
Natalia Latu	Principal Economist	MoF		
Sione Tukia Lepa	Head, Climate Change Division	Ministry of Environment and Climate Change (MECC)	676 25050	sionelepa@yahoo.com.au
Lupe Matoto	Head, Technical & Assessment	MECC		Lupe.matoto@gmail.com
Kath Zischka	Marine Biologist	MECC		K_Zischka@hotmail.co
Luisa Tuiafitu Malolo	Climate Change Coordinator	MECC		lvtuiafitu@yahoo.com
Asipeli Palaki	Acting Director	MECC		A_palaki@yahoo.com
Viliami T Manu	Acting Director	Ministry of Agriculture and Food, Forests and Fisheries (MAFFF)		mafsoils@kalianet.to
Vailala Matoto	Deputy Director	MAFFF		vailala@kalianet.to
Maliu Takai	Deputy Director Works	National Emergency Management Office (NEMO)	676 26340	matakai@kalianet.to
Lavenia Aho	Acting Deputy Director	Ministry of Works (MOW)	76 23100	Levenih5@gmail.com
Hepeti Takuifanga	Acting Deputy Director	Ministry of Education, Women's Affairs and Culture	676 23511	H_takuifanga@yahoo.com.au

		(MEWAC)		
Kepreen Aho Ve'etutu	STO	Ministry of Tourism (MOT)	676 25334	kepreenv@tub.gov.to
Moana Taukolo	Deputy Director	MICI	676 23688	moanat@mici.gov.to
Kelela Tonga	Environment Officer	MOT	7702363	keleafunaki@yahoo.com
Kelepi Mafi	Geologist	Ministry of Lands, Survey, Natural Resources and Environment (MLSNR)	7765786	geology@kalianet.to
Tukua Tonga	Director	Planning and Urban Management Agency (PUMA)	676 45102	tukuatonga@gmail.com
Siale Akauola	Director Health	Ministry of Health (MOH)	676 23200	sakauloa@health.gov.to

Development Partners

Name	Title	Organization	Phone	Email
Asenaca Ravuvu	Environment Specialist	UNDP	679 312500	Asenaca.ravuvu@undp.org
Tom Oppenheim	Deputy High Commissioner	British High Commission, Solomons	677 21705	Tom.oppenheim@fco.gov.uk
Cameron Darragh	Program Manager	Department of Climate Change (DCCEE), Australia/SPREP Samoa	66279	Cameron.darragh@sprep.org , Cameron.darragh@climatechange.gov.au
Ryan Medrana	First Secretary	Aust High Commission, Fiji	679 7071255	Ryan.medrana@dfat.gov.au
Alain Goffeau	Head of Project	ADB	679 3318101	agoffeau@adb.org
Mahendra Kumar	Climate Change Specialist	ADB	679 3318101	Mkumar.consultant@adb.org
Stephen Blaik	Water & sanitation Specilaist	ADB	632 6127	sblaik@adb.org

Saia Faletau	Country Officer	Worldbank Group	282 90	sfaletau@finance.gov.to
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Civil Society (NGOs and Private Sector)

Name	Title	Organization	Phone	Email
Saula Maasi	Program Assistant	Tonga Chamber of Commerce	676 25168	Saula.maasi@tongachamber.org
Simi Silapelu	President	TANGO	676 25512	Tango.nukualofa@yahoo.com
Monalisa Tukuafu	Project Manager	Aloua Maa Tonga	676 7718597	monalisatukuafu@yahoo.com
Inoke Taufu	Project Researcher	TANGO	676 25512	veaprina@gmail.com
Sione Fakaosi	Executive Director	Tonga Trust	676 21494	s.fakaosi@yahoo.com
Emele P Latu	Capacity Development Officer	Civil Society Forum	676 24274	emzpetelo@yahoo.com

Appendix 2: Joint National Action Plan on Climate Change Adaptation and Disaster Risk Management 2010-2015 (JNAPCCADRM) logframe (draft, May 2010)

VISION

SAFE, SECURE AND RESILIENT COMMUNITIES TO CLIMATE CHANGE IMPACTS AND DISASTER RISKS

TONGA NATIONAL ACTION PLAN ON CLIMATE CHANGE ADAPTATION AND DISASTER RISK MANAGEMENT 2010 - 2015

Goals:

1. Improved good governance for climate change adaptation and disaster risk management (mainstreaming, decision making, organizational and institutional policy frameworks).
2. Enhanced technical knowledge base, information, education and understanding of climate change adaptation and effective disaster risk management
3. Analysis and assessments of vulnerability to climate change impacts and disaster risks
4. Enhanced community preparedness and resilience to impacts of all disasters
5. Technically reliable, economically affordable and environmentally sound energy to support the sustainable development of the kingdom
6. Strong partnerships, cooperation and collaboration within government agencies and with civil societies and NGOs

**GOAL 1: IMPROVED GOOD GOVERNANCE FOR CLIMATE CHANGE ADAPTATION AND DISASTER RISK MANAGEMENT
(MAINSTREAMING, DECISION MAKING, ORGANIZATIONAL, AND INSTITUTIONAL POLICY FRAMEWORKS).**

Suggested:

GOAL 1: IMPROVED DECISION MAKING AND GOOD GOVERNANCE FOR CLIMATE CHANGE ADAPTATION AND DISASTER RISK MANAGEMENT

Objectives:

- Develop an enabling policy and capacity to strengthen planning and decision making processes with the incorporation of relevant climate change and disaster risk management considerations
- Strengthen institutional arrangements and capacity for climate change and disaster risk management in Vavaú, Haápai, Éua and in the Niuas

Rationale:

Mainstreaming of Climate Change and Disaster Risk Management at levels of government, non-government, private sector services and communities is critical so that adequate measures can be undertaken to minimize their adverse consequences. The mainstreaming will ensure that appropriate actions and resources are committed to enhance safety of people their properties and resources located in high vulnerable areas. Effective mainstreaming of CCA and DRM into development planning and budgetary processes require an enabling policies, strong institutional arrangements at all levels and improved good governance demonstrated in sound and integrated decision making.

Outcomes:

- Strong institutional arrangements for climate change and disaster risk management
- Climate change and disaster risk management mainstreamed into planning, decision making and budgetary processes

Outcome Indicators:

- CCA and DRM considerations mainstreamed into Government Min/Depts Annual Management Plan
- District Emergency committees established and functional
- District emergency offices establishment as coordinating centers for DRM in the outer islands
- Strengthened Water Board capacity

Goal 1 Key Actions and Sub Actions

Key Actions	Sub Actions	Responsible Agencies	Partner agencies
1.1 Review land/water (coastal area/lagoon waters) policy for sub-divisions to incorporate risks management criteria	1.1.1 Prepare TOR and engage a TA for 1 month to review of current land/coastal area sub-division's policy 1.1.2 Organise a 2 day workshop with related ministry to formulate a cabinet submission	MLSNR, MECC, Fisheries	TWB,
1.2 Implement existing Lagoon Management Plan	1.2.1 Seed funding for the initial implementation of priorities 1.2.2 Engage a TA for cost and develop grant proposals for full implementation	MECC, MLSNR	TWB, Fisheries, Community groups
1.3 Conduct CCA and DRM mainstreaming training for key national stakeholders	1.3.1 Conduct CCA & DRM mainstreaming workshops for CEO and Deputy CEOs. 1.3.2 Conduct 1 day mainstreaming workshop for senior officials to ensure incorporation of CCA and DRM issues into Annual Management Plan. 1.3.3 Conduct 2 day mainstreaming workshop with PMO and Planning Office staff for incorporation of CC/DRM issues into the outer islands development plans.	MECC, NEMO	Ministry of Finance and Planning, PMO
1.4 Establish district emergency office and staff in Éua, Haápai, Vavaú and Niuas	1.4.1 Prepare costing for establishment of new offices in the outer islands. 1.4.2 Seek Cabinet approval for new offices and related resource requirements 1.4.3 Provide resources for the operation of new offices	NEMO	PMO, Governors' Offices
1.5 Establish district office for the Ministry of Environment and Climate Change in Vavaú, Éua and Niua	1.5.1 Prepare costing for establishment of new offices in the outer islands. 1.5.2 Seek Cabinet approval for new offices and related resource requirements 1.5.3 Provide resources for the operation of new offices	MECC	PMO, Governors' Offices
1.6 Establish district climate change and emergency committees and plans (Vavaú, Haápai, Niua, Éua)	1.6.1 Facilitate the establishments of committees through consultation and workshops at Vava'u, Haápai. Niuas to enable the establishment of climate change and emergency committees and development of plans	MECC, NEMO	PMO, Governors' Offices
1.7 Conduct training for the formulation of agency's emergency support plan (including evacuation plan)	1.7.1 Engage TA to: (i) conduct relevant training for selected reps from key agencies. (ii) facilitate for 3 days the development of an agency emergency support plan.	NEMO, MECC	PMO, Governors' Offices

Key Actions	Sub Actions	Responsible Agencies	Partner agencies
1.8 Assess and implement institutional and policy strengthening needs of the TWB/MOH/MLSNR to improve water governance in urban areas/ villages and outer islands	1.8.1 Engage a TA to review current TWB/MOH/MLSNR institutional and technical arrangements requirements in line with the proposed Water Bill 1.8.2 Implement priority findings from the review (1.8.1)	TWB,MLSNR, MOH	PMO, Governors' Offices
1.9 Develop mechanism to formalise and promote strong sectoral coordination among sectors responsible for CCA and DRM	1.9.1 Organise quarterly meetings (to ensure continuity) of the CC and DRM technical committees	MECC, NEMO	All line agencies

GOAL 2 ENHANCED TECHNICAL KNOWLEDGE BASE, INFORMATION, EDUCATION AND UNDERSTANDING OF CLIMATE CHANGE ADAPTATION AND EFFECTIVE DISASTER RISK MANAGEMENT

Objectives:

- **Improve science and technical knowledge base within key government agencies**
- **Increase relevant education and community awareness programmes**
- **Strengthen evidence base decision and policy making through use of relevant and updated information**

Rationale:

Efficient, effective, timely dissemination of accurate up-date and science base information (information management) is a vital element of climate change adaptation and disaster risk reduction (DRR) and disaster management (DM) necessary to retaining and/or strengthening traditional and contemporary knowledge. Use of these information systems will increase the effectiveness and sustainability of climate change adaptation and DRM at national and community levels. Community resilient are indicators that DRM and CCA are to withstand hazards impacts and that communities are able to maintain promote sustainable development continuity and survival.

Scientific knowledge, modelling and projections through appropriate use of Information Communication Technology (ICT), must be fully utilized to fully understand global environmental effects of al Niño and la Niño which have increasingly contributed to more predictions natural disasters extreme events, and tropical cyclones, and geological hazards such as earthquakes, slides *etc.*). Tonga needs to establish and streamline a ICT Network system throughout the public and with the civil societies to enable and facilitate an effective infrastructure to combat and reduce the disastrous aftermaths.

Both formal and informal education and awareness programme are necessary instruments for improved awareness aspects of climate change and DRM and how the ICT could be the vehicle for this improved awareness. Education, ongoing research, and application of scientific principles promote the survival and continuity of communities, as this promotes democratization of processes and social justice, and the overall welfare of the country.

Climatic change adaptation needs to be prioritized to highlight the increasingly significance of this aspect in the 21st Century.

Outcome (s)

- Increased and more comprehensive understanding of climate change and disaster risk
- Smart and effective use of ICT for climate change and disaster risk management information management
- Improve capacity for climate change projection and applications on development planning

Outcome Indicators

- Increased availability of accurate data and information to support CCA and DRM initiatives
- Improved understanding of climate change and disaster risk management issues at all levels
- Increased national capacity for CCA and DRM

Goal 2 Key Actions and Sub-Actions

Key Actions	Sub Actions	Responsible Agencies	Partner Agencies
2.1 Develop and make available to the public coastal vulnerability maps	2.1.1 Undertake LIDAR (light detection and ranging) surveys to facilitate bathymetry and topographic data and information (survey, data analysis, training and map preparation) for Tongatapu 2.1.2 Prepare maps of highly vulnerable coastal areas in Tongatapu 2.1.3 Conduct workshops to inform community and private sectors of the vulnerable coastal areas in Tongatapu.	MLSNR, MECC	MAFFF, TDS, TWB, Red Cross
2.2 Improve and update existing fish data base to assess impacts of climate change	2.2.1 Engage a TA to evaluate existing database and recommend improvements 2.2.2 Seed funding for initial implementation of priority improvements arising from the evaluation	Department of Fisheries (MAFFF)	MECC
2.3 Document traditional knowledge on early warning, food preservation and land management	2.3.1 Develop TOR for a TA to compile current knowledge 2.3.2 Engage a TA to (i) compile traditional DRM knowledge (ii) establish a database on traditional knowledge 2.3.3 Publish findings of the TA 2.3.4 Conduct community awareness of traditional knowledge	Ministry of Education	MECC, NEMO, USP
2.4 Develop an integrated information system to manage temporal and spatial information on climate change and disaster risk	2.4.1 Conduct a 5 day workshop on Disaster Information Management System for all stakeholders 2.4.2 Procure hardware and software requirements to support an efficient information system 2.4.3 Train key personnel to maintain the information management system 2.4.4 Engage a TA to develop an improved and practical information sharing policy between government departments and civil societies and NGOs	NEMO, MECC, TWS,	Geology, Fire, Police, TDS, Health
2.5 Provide targeted and long term community awareness programmes on CCA and DRM issues; vegetation/watershed services and functions in relation to CCA and DRM	2.5.1 Develop brochures/audio on natural hazards and their origins and impacts 2.5.2 Develop brochures/audio on climate change their causes and impacts 2.5.3 Distribute brochures/audio to NGO's, community groups and schools 2.5.4 Conduct TV and radio programs 2.5.5 Publish in newspaper 2.5.6 Develop nationwide annual (for the next five years) school quiz program on CC and DRM	MECC, NEMO, TMS, MAFFF, Ministry of Education, Media & Print	Civil societies and NGOs
2.6 Develop and implement public awareness programme on climate change and related diseases	2.6.1 Develop TV and radio announcements	Ministry of Health	Red Cross, Ministry of Education

Key Actions	Sub Actions	Responsible Agencies	Partner Agencies
2.7 Determine climate change impacts on fisheries in relation to fish poisoning	2.7.1 Engage a TA for a study on the impact of climate change on fisheries. 2.7.2 Implement priority actions arising from the study	Ministry of Fisheries	
2.8 Build capacity of social workers on disaster trauma counselling	2.8.1 Engage a TA to (i) develop training program on counselling (ii) conduct training of social workers and village leaders on counselling	Red Cross	Ministry of Health, Ministry of Education

GOAL 3 ANALYSIS AND ASSESSMENTS OF VULNERABILITY TO CLIMATE CHANGE and DISASTER'S IMPACTS

Objectives

- Implement appropriate coastal protections systems
- Improve fisheries management in view of climate change
- Strengthen community based capacity in vulnerability and analysis
- Strengthen the capacity for implementing and enforcement of impact assessments
- Assess water resources and supply capacity in capitals
- Assess impact of climate change on vector borne diseases

Rationale:

The effects of climate change and hazardous events can be reduced when people are well informed and motivated to take action as a culture of prevention and resilience. Informed climate adaptation and disaster risk reduction activities based on community priorities are the basis for supporting community resilience and sustainable development.

Outcomes:

- Protection of coastal areas along the most vulnerable low lying areas and agricultural land
- Rational data and information on disaster occurrence and climate change impacts will be available for Tonga
- Reduction of underlying risk factors
- Adequate supply of marine sea foods
- Effective plant rehabilitation at coastal areas
- Establishment of vector control unit

Outcome indicators:

- Number of Coastal erosion projects completed
- Number of Coastal vegetations projects completed
- Rate of fishery resources production at SMA
- Reduction in the number of dengue fever outbreak (cc related diseases)
- High capacity of water resources in capitals
- Good roadside drainage systems

Goal 3 Key Actions and Sub Actions

Key Actions	Sub Actions	Responsible Agencies	Partner Agencies
3.1 Develop site specific guidelines for coastal and in-land reclamation	3.1.1 Engage a TA to develop guidelines on reclamation 3.1.2 Submit guidelines for endorsement by relevant authorities and Cabinet. 3.1.3 Conduct awareness workshops on new guidelines	MECC, MLSNR, MOW	
3.2 Design site specific forms of coastal protection	3.2.1 Engage a TA to evaluate existing forms of coastal protection 3.2.2 Develop a plan for coastal protection in specific areas 3.2.3 Develop resource requirements and costs for coastal protection plan	MECC, MLSNR, MOW	
3.3 Evaluate existing replanting schemes and implement lessons learned	3.3.1 Engage a TA to: (i) assess existing replanting schemes including coconut replanting (ii) assess state of indigenous and introduced hard wood (iii) identify areas that need replanting as the best means of minimising sea spray and reducing coastal erosion (iv) review existing nurseries (v) recommend improvements to ensure ownership and sustainability 3.3.2 Conduct replanting schemes 3.3.3 Develop a multipurpose tree species nursery including (i) nursery establishment (ii) awareness raising on the importance of planting hard wood (iii) distribution of planting materials to farmers	MAFFF, MLSNR, MECC	Community groups
3.4 Develop crops that are tolerant to the impacts of CC	3.4.1 Select and make available crops and cultivars that are tolerant to CC impacts	MAFFF	
3.5 Promote the use of indigenous and locally adapted plants and traditional farming systems	3.5.1 Produce planting materials 3.5.2 Conduct community training on organic, traditional mixed farming on Tongatapu, Ha'apai, Vavaú 3.5.3 Establish community pilot projects 3.5.4 Prepare education leaflets to be distributed to farmers throughout the country	MAFFF, NGO/CSO	
3.6 Enhance the management and monitoring capacity of community Special Management Areas (SMA)	3.6.1 Undertake training for communities in management and monitoring of SMA 3.6.2 Conduct community fish stock assessments and fish catch data collection 3.6.3 Conduct fishery resources enhancement programme (aquaculture, including farmed coral and aquaculture of giant clam) 3.6.4 Procure boats and engines to effectively monitor SMA 3.6.5 Extend the SMA and FADs programmes to other communities	Department of Fisheries (MAFFF)	CSO
3.7 Minimise livestock impacts on vegetation and crops in view of CC projections	3.7.1 Engage a TA to assess linkages between livestock farming, vegetation, crops and climate change impact and disaster risk 3.7.2 Review and amend where necessary	MAFFF	

Key Actions	Sub Actions	Responsible Agencies	Partner Agencies
	existing legislation on piggery management/ ownership in line with the assessment in 3.7.1 3.7.3 Implement proposed changes 3.7.4 Conduct awareness of the new legislation		
3.8 Provide training on integration of climate change and disaster risk management in the EIA process	3.8.1 Strengthen technical capacity of the CC/DRM agencies to systematically apply risk assessment and vulnerability assessments measures and tools in development planning and decision making processes	MECC, MLSNR, TVB	All line agencies
3.9 Improve/develop roadside drainage systems	3.9.1 Assess the conditions of roadside drainage systems in rural areas of Tongatapu, Vavau and Eua 3.9.2 Prepare a plan and costing for the improvements of roadside drainage 3.9.3 Implement plan priorities	MOW, MOT	
3.10 Assess water resource capacity in urban centres, villages and outer islands	3.10.1 Provide monitoring facilities equipment and hardware for comprehensive assessment 3.10.2 Engage a TA to assess water capacities, quality and quantity in urban centres, villages and outer islands 2.10.3 Develop grant proposals	MLSNR, TWB, MOH	
3.11 Develop water resources capacity models on CC scenarios	3.11.1 Engage a TA to develop the model 3.11.2 Conduct training of local personnel on the application of the model	MLSNR, TWB, TMS	
3.12 Conduct assessments and training on the impacts of CC on vector borne diseases	3.12.1 Engage a TA to assess vector incidences in Tongatapu, Éua, Ha'apai, Vavaú and Niuaus 3.12.2 Develop vector control unit laboratory within the existing facilities of the Ministry of Health 3.12.3 Support identified staff to undergo specialised training on vector control 3.12.4 facilitate a national workshop on vector control for key public health personnel – collection, preservation, identification and reporting 3.12.5 Collection of vectors for identification	MOH	USP, SPC, WHO
3.13 Strengthen capacity in running, interpretation and application of climate change models	3.13.1 Engage a TA to (i) to conduct training on running of climate change models, interpretation and application in planning (ii) Select appropriate models that can better reflect national situation	MECC, MAFFF, NEMO, TMS	SPREP, SPC

GOAL 4 ENHANCED COMMUNITY PREPAREDNESS AND RESILIENCE TO IMPACTS OF ALL DISASTERS

Objectives:

- Improve community safety and resilient
- Strengthen, schools and tourism sector preparedness, response and recovery

Rationale:

Tonga is highly vulnerable to a series of climatic and non climatic related hazards because of its geographical location and geological characteristics . It is located to the southern tip of the Cyclone Belt hence prone to all sorts of hydro-meteorological events. It is also located along the subduction zone where the Australian and the Pacific tectonic plates meet and where a lot of seismic activities occurred. Since most of the island group are atoll with low altitude they are susceptible to sea level rise, storm surge and tsunami. As such, it is vital that an effective disaster management system is in place to ensure the country is well prepared to respond effectively and efficiently to any form of hazard and to recover quickly from its impact.

Outcomes:

- Strong and safe buildings in the school and tourist sector
- Safe and relaxed students and tourists
- Sufficient supply of food and water in the event of a disaster
- Effective early warning system
- Well informed community
- Effective and efficient health providers
- Healthy population

Outcome indicators:

- Safe, healthy and happy community
- Effective and efficient Government services
- Thriving economy
- High living standard

Goal 4 Key actions and sub-actions

Key Actions	Sub Actions	Responsible Agencies	Partner Agencies
4.1 Enforce building code through retrofitting school building and tourist facilities	4.1.1 Engage a TA to (i) assess existing school buildings and tourist facilities for retrofitting purposes (ii) prioritise the schools that need urgent retrofitting (iii) develop a manual for school retrofitting based on assessments undertaken 4.1.2 Contract an engineer to supervise the retrofitting 4.1.3 Implement the retrofitting program of schools	MOW, MOE, NEMO	
4.2 Strengthen community capacity in rainwater harvesting and maintenance systems	4.2.1 Conduct training on simple rainwater system maintenance in Tongatapu, Hihifo, Éua, Ha'apai, Vavaú, Niuas (2) 4.2.2 Seed funding for the procurement of rainwater harvesting and for the development of a full proposal	MOH, MLSNR	SOPAC
4.3 Develop capacity in the Ministry of Education to conduct regular drills for schools	4.3.1 Engage a TA to develop Preparedness and emergency Response plan for every school facility 4.3.2 Test plans once per semester through drills as the basis for annual review and update as well as maintaining awareness	Ministry of Education	SOPAC
4.4 Develop waste management strategies for post disaster situations	4.4.1 Engage a TA to assess and recommend best alternative waste management in all islands 4.4.2 Implement priorities under new strategy	Waste Authority, MECC, MOH	
4.5 Incorporate water, food hygiene, and sanitation management in disaster preparedness plans	4.5.1 Conduct community workshops in Tongatapu (Hihifo, Ha'apai, Vavaú and Niuas for incorporation of food hygiene and sanitation in community disaster plans	MOH, TWB	Tonga Red Cross
4.6 Train emergency providers in water and food hygiene practices during disasters	4.6.1 Engage a TA to conduct training of public health practitioners on (i) emergency microbiological water testing (H2S) (ii) emergency water purification 4.6.2 Conduct training of food inspectors on minimum standards	MOH, NGOs, TWB	Tonga Red Cross
4.7 Strengthen aquaculture fisheries to support food security and adaptability of coastal resources and habitats to CC impacts and disaster risk	4.7.1 Conduct hatchery production experimental for sea cucumbers resources, seaweed, pearl oysters and sea urchin.	Department of Fisheries (MAFFF), MECC	SPC
4.8 Assess and upgrade existing EW and monitoring systems for all natural hazards	4.8.1 Engage a TA to appraise and recommend improvements to all EWS (meteorological, geological) and alert systems 4.8.2 Implement improvements to EWS 4.8.3 Support training program of agencies involved in EWS 4.8.4 Improve dissemination of EW information – preparedness and sources of early warning 4.8.5 Develop evacuation and exercises 4.8.6 Establish appropriate alert system for disasters – siren, SMS etc	TMS, NEMO, MECC, MLSNR, NGOs, MOE	

Key Actions	Sub Actions	Responsible Agencies	Partner Agencies
4.9 Strengthen and maintain training for health care providers to provide response during disasters	4.9.1 Support the establishment of a health disaster officer 4.9.2 Engage a TA to develop a health emergency manual for Tonga 4.9.3 conduct training on emergency procedures for health personnel	MOH	Tonga Red Cross
4.10 Strengthen provision of relief supplies	4.10.1 Initiate pre-impact arrangements with suppliers of emergency relief items through MOUs to store relevant relief items 4.10.2 Identify at strategic locations throughout the kingdom existing places for storage that are currently suitable or can be made suitable with retrofitting (eg., schools, churches) and or build new storage facilities where no suitable place exists 4.10.3 Strengthen partnership with NGOs and donor partners 4.10.4 Seed funding for relief supplies	Tonga Red Cross, NEMO	TDS, Police

GOAL 5 TECHNICALLY RELIABLE, ECONOMICALLY AFFORDABLE AND ENVIRONMENTALLY SOUND ENERGY TO SUPPORT THE SUSTAINABLE DEVELOPMENT OF THE KINGDOM

Objectives:

- 15% reduction of GHG emissions based on 2000⁸ level by 2015 through implementing RE and EE programmes
- Improve energy security through improved planning and response mechanisms

Rationale:

This Energy project concept is to reduce the Kingdom's reliance on fossil fuel while at the same time provide energy security, contribute to the global efforts in reducing GHG emissions and increasing access to electricity in Tonga. Although biomass remains important for cooking and crop drying energy, well over half of the national energy needs comes from imported petroleum. Solar energy accounts for less than 1% of the total and there have been no other renewable energy resource developments. Electricity on the urban islands is generated solely by diesel engines. The major customer groups include Tongatapu, 'Éua, Lifuks (Ha'apai) and Neiafu (Vavaú). The quality of power has been good and reliability high. Small grid systems for larger Ha'apai islands were constructed with AusAID funding in 2001-2003. The systems are powered by diesel generators and operated by an electricity cooperative on each island under license from TEPB. Hours of operation vary by island but typically are less than 12 hours a day. The per kWh cost of operation has been higher than predicted due largely to the actual loading being substantially lower than estimated for the design.

Solar home systems provide power for most of the smaller outer islands. The systems provide 24 hour power for lighting and small communications and entertainment appliances with potential for expansion to include applications such as community-based development projects (e.g. water pumping and street lighting).

Outcomes:

- 15% reduction in GHG emissions, based on 2000 year level.
- National policy framework on EE including practical mechanisms developed, adopted and implemented.
- Improved security of energy supply.

Outcome Indicators:

- At least 3 feasibility studies conducted
- At least 10 Gg CO₂-e of GHG emissions reduced being reported in National Communications
- At least 2 companies in the private sector participate in RE and EE initiatives.
- Energy supply contingency plan(s) available
- Risk assessment report(s) completed and available

⁸ 2000 Level was 93Gg CO₂-e

Goal 5 Key Activities and Sub-Actions

Key Actions	Sub Actions	Responsible Agencies	Partner Agencies
5.1 Contribute to reducing by 15 per cent GHG emissions from 2000 levels by 2015	5.1.1 Conduct 3 (Tongatapu, outer islands (Haápai, Vavaú Niua)), technical feasibility studies on appropriate renewable energy sources (i.e. wind, biomass, and biofuels). 5.1.2 Improve good governance to support energy efficiency and energy conservation programmes 5.1.3 Develop fiscal and financial incentives and packages to support private sector participation in RE and EE initiatives.	MLSNR, PMO	MECC, USP, CROP, MEWAC NGOs
5.2 Improve energy security	5.2.1 Conduct risk assessments on all energy infrastructure and make recommendations 5.2.2 Upon basis of recommendations of 5.2.1, develop contingency plans and response mechanisms to address energy supply issues, particularly during and after natural disasters	TPL, Oil Companies	MLSNR, Police, MLCI

GOAL 6 STRONG PARTNERSHIPS, COOPERATION AND COLLABORATION WITHIN GOVERNMENT AGENCIES AND WITH CIVIL SOCIETIES AND NGOS

Objectives

- Value of civil societies, NGOs and private sector contributions
- Engage civil societies and NGOs in implementation of the community based component of this Plan
- Better coordination of all stakeholders

Rationale:

The present situation identifies gaps and weaknesses in the cooperation within government agencies, NGOs and Civil societies in Climate Change Adaptation and Disaster Risk Management. Therefore there is a need to strengthen the cooperation of these key stakeholders to ensure effective implementation of the National Emergency Management Plan. This will avoid duplication of efforts and to ensure that assistance is built on the efforts and experiences of each other

To Establish and sustain national network and partnership in the fields of disaster management and climate change adaptation is paramount. Strengthen government and NGO coordination at national level, community and individual will improve national cooperation, coordination and collaboration. The absence of meaningful and structured engagement between Government and NGO has been identified as a gap and is an area of potential donors support.

Outcomes:

Enhanced participation in CCA and DRM

Outcome Indicators:

- CCA and DRM issues embraced in all agency plans (Corporate, Business, Development)

Goal 6 Key Actions and Sub Actions

Key Actions	Sub Actions	Responsible Agencies	Partner Agenices
6.1 Provide resources and capacity to strengthen community participation in CCA and DRM activities provided in this action plan	6.1.1 Create formal partnership between the Government and civil societies and NGOs 6.1.2 Provide resources and capacity (through training) to strengthen community participation in CCA and DRM activities provided in this action plan	MECC, NEMO	
6.2 Build partnership with civil society groups, NGOs and private sector to implement the National Emergency Management Plan	6.2.1 Specify and formalise roles played by civil society NGO in the NEMP 6.2.2 Revise civil societies and NGOs plans and policies to be inline NEMP	NEMO, NGOs	
6.3 Integration of CCA and DRM into private sector plans	6.4.1 Conduct workshop for private sectors in integrating CCA and DRM in their develop plans	MECC, NEMO, Civil Societies, NGOs	

Appendix 3: Summary of mission discussions

Meeting	Discussion Points
<p data-bbox="165 327 284 359">18th May</p> <p data-bbox="165 361 711 562">Initial meeting with Climate Change Team Asipeli Palaki, Actg Director, Environment Luisa Malolo Talo Fulivai Tukia Lepa Kathy Zischka</p> <p data-bbox="165 1434 522 1465">Technical Working Group</p> <p data-bbox="165 1467 464 1598">Joined by Viliani Manu, MAFFF Vailala Matoto, MAFFF Malin Takai, NEMO</p>	<p data-bbox="834 327 1560 394">Background on PPCR was presented, and the following features highlighted:</p> <ul data-bbox="889 396 1568 562" style="list-style-type: none"> ❖ Programmatic long term approach ❖ Country led, through central Ministry eg Planning ❖ Global Initiative, with voluntary participation by Tonga ❖ Will build on existing initiatives/funding <p data-bbox="834 564 1500 596">The key objectives of the mission were highlighted:</p> <ul data-bbox="834 598 1471 695" style="list-style-type: none"> ❖ Liaise with Govt and stakeholders ❖ Stock-take of ongoing CC activities and gaps ❖ Identify opportunities for mainstreaming <p data-bbox="834 730 1581 961">Four factors should guide decision-making on PPCR focus: (1) country needs/priorities (2) limited resource envelope (3) CIF guidelines specifying PPCR to complement existing/planned MDB and other donor partner and government investments and (4) what MDB's value-add niche role in PPCR could be as the PPCR implementers.</p> <p data-bbox="834 997 1490 1029">The mission is expected to conclude the following:</p> <ul data-bbox="889 1031 1549 1163" style="list-style-type: none"> ❖ Aid Memoire summarizing the results of discussions ❖ Agreement on broad Phase 1 proposal, to be followed by technical mission to flesh out detail. <p data-bbox="834 1199 1572 1535">The Government representatives described the status of current CC projects. The SNC is due to be completed and presented to the UNFCCC in a couple of months. The CCA/DRM National Action Plan is expected to be submitted for endorsement by Cabinet by end of June. The institutional arrangements for climate change projects were described. These involve initial vetting by the Technical Working Groups and endorsement by National Environmental Committee and Climate Change Cabinet Subcommittee before approval by Cabinet.</p> <p data-bbox="834 1570 1533 1696">The vision and goals of the National Action Plan were highlighted. The participants were keen that any proposed PPCR activities are aligned to the priorities identified in the NAP.</p> <p data-bbox="834 1732 1560 1837">The importance of climate proofing climate key infrastructure, for example transport networks, was also outlined. (ADB pipeline and expertise was noted here)</p> <p data-bbox="834 1873 1442 1904">There is a strong desire to harness the work of</p>

Meeting	Discussion Points
	<p>development partners. For example, UNDP in a range of support activities, AusAID (through the ICCAI) and others.</p> <p>The Mission thanked the Government for the briefing, noted the points made and invited discussion on a focus area for PPCR. Discussion ensued.</p>
<p>18th May Meeting with Hon. Afu'alo Matoto, Minister for Finance and National Planning</p>	<p>The Mission briefed the Minister on progress of talks to date and the broad initial proposal of an "infrastructure plus" approach for PPCR. The Minister noted some implementation issues with Phase 1 of the IUDP projects but noted that he hoped and understood the issues can be sorted out so that PPCR support could proceed alongside this and other projects. His Ministry was happy to provide whatever support was required for the implementation of PPCR.</p>
<p>19th May Meeting with CEOs from Govt Ministries Siale Akauola Malin Takoi Leveni Aho H Takuifanga K Aho Veetutu M Taukolo Sione Tukia Kelela Tanga Kelepi Mafi Tukua Tonga</p>	<p>Introduction and presentation on PPCR Timetable: Proposal to be submitted to CIF by end July if possible and commence thereafter. Issues raised: MOH – working with WHO, urgent need to identify vulnerability of health sector, support needed to relocate Haa'pai Hospital, perhaps through PPCR- if not through other donor support. MOW – Need for revision of building codes and enforce legislation and guidelines. This needs to be underpinned by capacity building, education and awareness. It was important for licensing tourist centres. The urgent need to refine the codes in line with the current climate data was stressed. The current code is based on the data from the 70s. For land use planning and hazard mapping, there is need to identify types of land suitable for housing. Education: CDU was effective in raising awareness through curricula, training etc.</p> <p>The Mission described briefly the aims of the Phase 2 IUDSP which will be a long term activity to improve infrastructure: roads, sanitation, water and energy (covered under the Tonga Energy Road Map).</p>
<p>19 May 2010 Meeting with NGOs, Civil Society, Private Sector Savla Maasi Sim Silapulu Monalisa Tukuafi Inoke Takfta Sione Fakaosi</p>	<p>After introduction of PPCR, representatives highlighted the following: TANGO – Non governmental, charitable group, involved in awareness raising, working with communities, villages and with govt on specific projects. It is a member of the National Environment Council. Civil Society Forum – Set up few years ago to take</p>

Meeting	Discussion Points
	<p>those associated with other sectors such as building hospitals, centres for vector borne diseases etc in vulnerable areas etc. The plan was a draft and needed further consultation as well as submission to Cabinet.</p> <p>On the timetable for the next steps, the Aide Memoire needs to be finalized by 25 May (tbc). Participants were invited to forward any further comments to the Mission Leader. Realistically, the NAP should be allowed until the end of June for finalization by Cabinet following inputs from all relevant Government Ministries/Departments. Attendees agreed it would be better to delay the PPCR technical mission until after further whole-of-government consultation on the NAP and it had been endorsed by Cabinet. Costings should also ideally be proposed as part of the budget.</p> <p>The Mission thanked the Government for the excellent Mission arrangements and consultations. The Government thanked the Mission for the fruitful discussions and expressed its support for moving ahead with PPCR.</p>

Appendix 4: Stocktake of Climate Change Adaptation and Disaster Risk Management Activities in Tonga [To follow on request of Tonga Government]

Appendix 5: Alignment of Joint National Action Plan (NAP) on Climate Change Adaptation and Disaster Risk Management, PPCR and Infrastructure Development

<p>National Action Plan(section numbers in parentheses) Key actions</p>	<p>Proposed PPCR Phase I Activities</p>
<p>(1.8) Assess and implement institutional and policy strengthening needs of the TWB/MOH/MLSNR to improve water governance in urban areas/villages and outer islands (2.4) [Develop an integrated information system to manage temporal and spatial information on climate change and disaster risk May be addressed at a regional level (e.g. SOPAC, SPREP) (3.1.3) Strengthen capacity in running, interpretation and application of climate change models (4.5) Incorporate water, food hygiene, and sanitation management in disaster preparedness plans</p>	<p>Component I: Enhance institutional capacity for mainstreaming climate change resilience into whole-of-government and sectoral legislation, policies, plans and operational activities of a few selected infrastructure-related ministries and agencies, including budgetary processes.</p>
<p>(2.5) Provide targeted and long term community awareness programmes on CCA and DRM issues, vegetation/watershed services and functions in relation to CCA and DRM (2.6) Develop and implement public awareness programme on climate change and related diseases (6.2) Build partnership with civil society groups, NGOs and private sector to implement the National Emergency Management Plan</p>	<p>Component II: Strengthen civil society, community and private sector engagement and gender considerations of climate change resilience building.</p>
<p>(3.10) Assess water resource capacity in urban centres, villages and outer islands (3.13) Strength capacity in running climate change models, interpretation of the models and application of climate change models</p>	<p>Enhance capacity for identification of vulnerable areas and prioritization of adaptation measures.</p>
<p>(3.9) Improve/develop roadside drainage systems (5.2) Improved energy security</p>	<p>Component III: Prepare a detailed design for PPCR Phase 2 (investment phase), called Strategic Program for Climate Resilience (SPCR), and related outreach.</p>

Appendix 6: Potential ADB, WB and AusAID investments (2010-2012) for climate proofing under PPCR

ADB

Year	Project Name and Indicative Project Scope	Transport Subsector	Project Cost (US\$ million)
2011	Integrated Urban Development Project, Phase II Improvement of urban infrastructure planning. Construction of urban roads, drainage, and other urban facilities; expanding water treatment, supply, and sanitation coverage; enhancing community awareness of proper hygiene and sanitation and promoting hygienic practices; capacity building in urban facility management for concerned staff; environmental and social safeguards; M&E	Water, transport	9.50

World Bank

Tonga: Anticipated Disbursements and Repayments FY10 – FY13+

Operation	Total Commitment (USD millions)	Credit/Grant	Anticipated Disbursements (USD million)			
			FY10	FY11	FY12	FY13+
<u>Current Activities</u>						
Health	10.900	Credit	1.257			
Education (IDA)	1.000	Credit	1.000			
Education (NZ)	4.100	Grant	1.450			
Transport (IDA)	5.400	Grant	2.540	2.900	0.300	
Transport (PRIF/Australian)	9.200	Grant	0.700	2.500	3.500	2.500
<i>Sub-Total</i>			<i>6.947</i>	<i>5.400</i>	<i>3.800</i>	<i>2.500</i>
<u>Pipeline Activities (Projections)</u>						
Post-Tsunami	5.000	Grant	0.200	2.300	2.000	0.500
Energy DPL	10.00	Grant		5.000	5.000	
Energy Investment	8.000	Grant		1.000	3.000	4.000
Broadband Connectivity	10.000	Grant		1.000	3.000	6.000
<i>Sub-Total</i>			<i>0.200</i>	<i>9.300</i>	<i>13.000</i>	<i>10.500</i>
<u>IDA Repayments</u>						
Outstanding Balance	22.324		0.028	0.028	0.028	0.028

AusAID

Australia is currently providing support to infrastructure in Tonga through the World Bank transport sector support program. 'Maintaining and developing infrastructure to improve the everyday lives of people' has been selected as a priority outcome of the Australia-Tonga Partnership for Development (2010-2015), Australia's development assistance framework for Tonga. Future priorities for Australian support for infrastructure in Tonga will be discussed in this context.