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LDCF AND SCCF PROGRAMMING UPDATE

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I. INTRODUCTION

1. The Least Developed Countries Fund for Climate Change (LDCF) and the Special Climate Change Fund (SCCF) were both established by the GEF in accordance with guidance received from the Conference of Parties of the United Nations Framework Convention on Climate Change (UNFCCC)¹. As agreed by the Council, the operations and administrative costs incurred in connection with managing both the LDCF and the SCCF are kept separate from those of the GEF Trust Fund.

2. This paper reports on the current status and approved operations under the LDCF and the SCCF.

II. LEAST DEVELOP COUNTRIES FUND (LDCF)

Update on COP guidance, Council Decisions, and Pledging meetings

3. Since the last meeting of the LDCF/SCCF Council, no new guidance has been given to the GEF on the operationalization of the LDCF. In June 2006, the programming paper for the LDCF was adopted in June 2006 in response to the decision approved by the UNFCCC COP at its eleventh session in Montreal². During the year 2006, two pledging meetings were held to mobilize resources for the LDCF: one on April 28 in Copenhagen, Denmark, and one on October 31 in Paris, France. Updated and detailed information on the financial status of the LDCF is presented in the document “Status Report on the Climate Change Fund (Report by the Trustee)” (GEF/LDCF.SCCF.2/Inf.2)

Report on NAPA Operations under the LDCF

4. As of May 21, 2007, four additional NAPAs have been completed (Burundi, Cambodia, Kiribati and Rwanda), bringing the total number of completed NAPAs to 15. The remaining portfolio of 29 on-going and drafted NAPA preparations are all expected to be completed before the end of 2007. The NAPA in Timor-Leste is still in its preparatory stage. A full list of all NAPAs and their current status can be found in table 1. All completed NAPAs can be accessed through the UNFCCC website on the web links listed in table 1, and hard copies of any or all of them can be made also available upon request from the GEF Information Desk at this Council meeting.

5. In summary, the following fifteen NAPAs have been completed: Bangladesh, Bhutan, Burundi, Cambodia, Comoros, Djibouti, Haiti, Kiribati, Madagascar, Malawi, Mauritania, Niger, Rwanda, Samoa, and Senegal. Nine additional NAPAs are at an advanced draft stage, including Burkina Faso, Democratic Republic of Congo, Lao PDR, Maldives, Mozambique, Sao Tome and Principe, Sierra Leone, Tuvalu and Yemen.

¹ UNFCCC Decisions 7/CP.7; 6/CP.9; and 5/CP.9

² UNFCCC Decision 3/CP.11 Further guidance for the operation of the Least Developed Countries Fund.

Table 1. Status of preparation of NAPAs

Country	Agency	Current Status	Completion Date or Expected Completion Date	Web link for full NAPA document (completed NAPA's only)
Bangladesh	UNDP	Completed	November 2005	http://unfccc.int/resource/docs/napa/ban01.pdf
Bhutan	UNDP	Completed	May 2006	http://unfccc.int/resource/docs/napa/btn01.pdf
Burundi	UNDP	Completed	February 2007	http://unfccc.int/resource/docs/napa/bdi01e.pdf
Cambodia	UNDP	Completed	March 2007	http://unfccc.int/resource/docs/napa/khm01.pdf
Comoros	UNEP	Completed	November 2006	http://unfccc.int/resource/docs/napa/com01e.pdf
Djibouti	UNEP	Completed	October 2006	http://unfccc.int/resource/docs/napa/dji01f.pdf
Haïti	UNEP	Completed	December 2006	http://unfccc.int/resource/docs/napa/hti01f.pdf
Kiribati	UNDP	Completed	January 2007	http://unfccc.int/resource/docs/napa/kir01.pdf
Madagascar	World Bank	Completed	December 2006	http://unfccc.int/resource/docs/napa/mdg01f.pdf
Malawi	UNDP	Completed	March 2006	http://unfccc.int/resource/docs/napa/mwi01.pdf
Mauritania	UNEP	Completed	November 2004	http://unfccc.int/resource/docs/napa/mau01e.pdf
Niger	UNDP	Completed	July 2006	http://unfccc.int/resource/docs/napa/ner01e.pdf
Rwanda	UNEP	Completed	May 2007	http://unfccc.int/files/adaptation/napas/application/pdf/napa-rwanda-final-fr.pdf
Samoa	UNDP	Completed	December 2005	http://unfccc.int/resource/docs/napa/sam01.pdf
Sénégal	UNEP	Completed	November 2006	http://unfccc.int/resource/docs/napa/sen01f.pdf
Afghanistan	UNEP	On-going	Q4 - 2007	
Benin	UNDP	On-going	Q3 - 2007	
Burkina Faso	UNDP	Draft NAPA available	Q2 - 2007	
Cape Verde	UNDP	On-going	Q4 - 2007	
Central African Republic	UNEP	On-going	Q4 - 2007	
Chad	UNDP	On-going	Q4- 2007	
Democratic Republic of the Congo	UNDP	Draft NAPA available	Q2 - 2007	
Eritrea	UNDP	On-going	Q3 - 2007	
Ethiopia	UNDP	On-going	Q2 - 2007	
Gambia	UNEP	On-going	Q4 - 2007	
Guinea	UNDP	On-going	Q3 - 2007	
Guinea Bissau	UNDP	On-going	Q3 - 2007	

Lao People's Democratic Republic	UNDP	Draft NAPA available	Q3 - 2007	
Lesotho	UNEP	On-going	Q3 - 2007	
Liberia	UNEP	On-going	Q3 - 2007	
Maldives	UNDP	Draft NAPA available	Q2 - 2007	
Mali	UNDP	On-going	Q3 - 2007	
Mozambique	UNDP	Draft NAPA available	Q3 - 2007	
São Tomé and Príncipe	World Bank	Draft NAPA available	Q4 - 2007	
Sierra Leone	UNDP	Draft NAPA available	Q2 - 2007	
Solomon Islands	UNDP	On-going	Q3 - 2007	
Sudan	UNDP	On-going	Q3 - 2007	
Timor-Leste	UNDP	Proposal in draft form	N/A	
Togo	UNDP	On-going	Q4 - 2007	
Tuvalu	UNDP	Draft NAPA available	Q3 - 2007	
Uganda	UNEP	On-going	Q3 - 2007	
United Republic of Tanzania	UNEP	On-going	Q3 - 2007	
Vanuatu	UNDP	On-going	Q2 - 2007	
Yemen	UNDP	Draft NAPA available, but not yet circulated	Q3 - 2007	
Zambia	UNDP	On-going	Q4 - 2007	
Angola	----	Not started*	-----	
Equatorial Guinea	----	Not started*	-----	
Myanmar	----	Not started*	-----	
Nepal	----	Not started*	-----	
Somalia	----	Not party to the UNFCCC	-----	

Note: Green indicates NAPA completed, yellow indicate NAPA in preparatory phase and red indicate that NAPA has not been initiated.

* Angola, Myanmar, Nepal and Equatorial Guinea have not finalized project proposals to finance the preparation of their NAPAs.

Report on Project Submissions for NAPA Implementation under the LDCF

6. As of May 21, 2007, 6 NAPA implementation projects have been officially submitted to the GEF under the LDCF: Bangladesh, Bhutan, Malawi, Mauritania, Niger and Samoa. All these projects have been “PIF-approved,” which means that the early-stage submissions have been identified as consistent with the LDCF eligibility criteria and that they have been entered into the LDCF pipeline. The details of the current pipeline of approved projects NAPA implementation under the LDC Fund are listed in Table 2 below. Brief project summaries for these six projects are listed in Annex I.

General observations

7. Despite a relatively slow start, the GEF Secretariat is satisfied to report a steady progress in the LDC work on the implementation of NAPAs. The first six submissions strictly follow the priority areas of intervention as identified by the NAPAs; are country driven; and already present a differentiated range of options to address the urgent and immediate risks due to the adverse impacts of climate change. All projects show the link between adaptation and development. The next PIF's expected to be submitted for NAPA implementation under the LDCF are from Djibouti and Cambodia.

8. Like in other projects in the GEF adaptation portfolio, a particularly high level of cooperation among the all stakeholders, including the LDCs, the GEF Secretariat staff, the Agencies and other parties has been necessary to ensure the progress to date in preparing the existing LDCF pipeline. Innovative approaches to more inclusive participation must be sought to achieve the best results, maximize resources, utilize existing knowledge and harmonize different levels of expertise. This initial experience has been positive. However, in future, it may be necessary to seek co-implementation of LDCF projects when the expertise needed on the ground exceeds the range of one single agency.

Table 2. LDCF Adaptation Program (pipeline projects)

Country/ Region	Project Title	IA/EA	Project Status	Expected LDCF Grant (US\$m)	Expected Co- financing (US\$m)	Expected Total Financing (US\$m)
Bangladesh	Strengthening adaptive capacities to address climate change threats on sustainable development strategies for coastal communities in Bangladesh	UNDP	PIF approved	3.10	6.15	9.25
Bhutan	Reduce climate change-induced risks and vulnerabilities from glacial lake outbursts in the Punakha-Wangdi and Chamkhar Valleys	UNDP	PDF-B	3.63	3.75	7.38
Malawi	Climate Adaptation for Rural Livelihoods and Agriculture (CARLA)	AfDB	PIF approved	3.26	24.39	27.65
Mauritania	Reducing Vulnerability of Arid Oasian Zones to climate change and variability through Improved Watershed Management	UNEP	PIF approved	1.66	1.41	3.08
Niger	Implementing NAPA priority interventions to build resilience and adaptive capacity of the agriculture sector to climate change in Niger	UNDP	PIF approved	2.1	4.15	6.25
Samoa	Integrated Climate Change Adaptation in Samoa (ICCAS)	UNDP	PIF approved	2.09	2.01	4.1
TOTAL				15.84	41.86	57.70

III. SPECIAL CLIMATE CHANGE FUND (SCCF)

Update on COP guidance, Council Decisions, and Pledging meetings

9. At its twelfth session, the Conference of the Parties to the UNFCCC gave new guidance to the GEF on the operationalization of the SCCF, specifically on the items c) energy, transport, industry, agriculture, forestry and waste management; and d) activities to assist developing countries whose economies are highly dependent on income generated from the production, processing and export, and/or on consumption of fossil fuels and associated energy-intensive products in diversifying their economies. In response to this new guidance, the GEF has submitted to this meeting of the LDCF/SCCF Council the document entitled: “Programming to Implement the Guidance for the Special Climate Change Fund adopted by the Conference of the Parties to the United Nations Framework Convention on Climate Change at its Twelfth Session” (GEF/LDCF.SCCF.2/4)

10. With respect to available resources, the two pledging meetings that were held in 2006 to mobilize resources for the LDCF were also used to accept pledges for the SCCF. Updated and detailed information on the status of pledges and resources available under the LDCF is disclosed in the document “Status report on the Climate Change Fund (Report by the Trustee)” (GEF/LDCF.SCCF.2/Inf.2)

Report on Operations under the SCCF

11. The review process for projects submitted under the SCCF is similar to that of the projects submitted under the GEF Trust Fund. Any changes made in the GEF project cycle will be considered and applied to the SCCF project cycle, as appropriate. Like other GEF projects, SCCF projects should meet quality standards that include the identification of indicators to measure progress and concrete measures for monitoring and evaluation.

12. Experience to date in the operations of the SCCF adaptation program has raised three issues. The first has to do with the need for significant upstream consultations. Given the novelty of programming in support of adaptation to climate change, experience has shown that there is a much greater need for upstream consultations between the agencies, the GEFSEC, and interested stakeholders. Maintaining coordination and frequent consultations are essential to maximize cost-effectiveness and portfolio coverage while minimizing the risks of duplication between sources of adaptation funding.

13. Second, a portfolio of projects that is balanced in terms of sectoral coverage and regional participation will not emerge automatically. To date, there has been a tendency for certain agencies to focus on specific regions where there is either a task manager especially interested in adaptation projects or a task manager with expertise in a particular priority sub-sector. Hence, the current pipeline and the concepts under discussion reflect this imbalance. The GEF Secretariat has an important role to play in ensuring that the SCCF adaptation program maintains balanced coverage of vulnerable countries and regions (including SIDS and Africa) and priority sectors (such as agriculture).

14. Third, given that adaptation is fundamentally a development issue affecting all sectors of economic activity, programming under the SCCF adaptation program will require engagement with a number of institutions that have only tangentially been involved in GEF programming to date. In particular, input from institutions with expertise in the areas of agriculture, disaster risk management and health may need to be sought more pro-actively. With the support of such institutions, the SCCF adaptation program can develop activities focused more on prevention than on recovery and reconstruction. Organizations that may usefully be engaged directly include disaster/risk management units in multilateral institutions, the World Health Organization (WHO), and the International Red Cross.

Current and Future SCCF Portfolio

15. To date, six projects (4 MSPs and 2 FSPs) have been approved under the SCCF adaptation program and two FSP's are submitted for approval at this Council meeting. Table 3 below summarizes the status of approved projects and the two projects submitted for consideration at this council meeting. Table 4 summarizes the status of projects in the pipeline that are expected to be submitted for approval during upcoming Council meetings. This status report shows that the demand for projects in the adaptation program under the SCCF is high. The GEF has communicated to donor countries the urgency to contribute to the SCCF adaptation program.

Table 3. SCCF Adaptation Portfolio

(approved projects and projects to be considered at this LDCF/SCCF Council meeting)

Country/ Region	Project Title	IA/ EA	Expected SCCF Grant (US\$m)	Expected Co-financing (US\$m)	Expected Total financing (US\$m)
Ecuador	Adaptation to CC through Effective Water Governance	UNDP	3.35	6	9.35
Ethiopia	Coping with Drought and Climate Change	UNDP	1.00	1.87	2.86
Guyana	Conservancy Adaptation Project	World Bank	3.8	16.2	20
Kenya	Adaptation to Climate Change in Arid Lands (KACCAL)	World Bank/UNDP	6.79	44.84	51.63
Mozambique	Coping with Drought and Climate Change	UNDP	0.96	0.93	1.89
Regional (Bolivia, Ecuador, Peru)	Design and Implementation of Pilot Climate Change Adaptation Measures in the Andean Region	World Bank	7.29	20.1	27.39
Tanzania	Mainstreaming CC in Integrated Water Resources Management in Pangani River Basin	UNDP	1.00	1.57	2.57
Zimbabwe	Coping with Drought and Climate Change	UNDP	0.98	1.16	2.14
TOTAL			25.17	92.67	117.84

**Table 4. SCCF Adaptation Program
(pipeline projects)**

Country/ Region	Project Title	IA/ EA	Expected SCCF Grant (US\$m)	Expected Co-financing (US\$m)	Expected Total financing (US\$m)	Status
China	Mainstreaming Adaptation to Climate Change Into Water Resources Management and Rural Development	World Bank	5.00	50.00	55.00	PPG app'd
Chile	Targeted Research on Climate Change Impacts on Southern Mid-Latitude Ice Masses	UNEP	~ 1.00	~ 1.00	~ 2.0	PDF-A
Egypt	Adaptation to Climate Change in the Nile Delta	UNDP	4.00	5.20	9.20	PIF app'd
Fiji	Adaptation to Climate Change in the Tourism sector in Fiji Islands	UNEP	~ 1.00	~ 1.00	~ 2.0	PDF-A
Global	Piloting Climate Change Adaptation to Protect Human Health	UNDP	6.47	18.00	24.47	PDF-B
India	Climate-resilience Development and Adaptation	UNDP	4.25	16.00	20.25	PDF-B
Maldives	Implementing Tourism Adaptation to Climate Change	UNDP	~ 1.0	~ 1.00	~2.00	PDF-A
Mexico	Adaptation to climate change impacts on the coastal wetlands in the Gulf of Mexico through improved water resource mgt	World Bank	4.80	9.00	13.80	PDF-B
Philippines	Climate Change Adaptation Project	World Bank	5.00	50.00	55.00	PPG app'd
Regional (Cook Islands, Micronesia, Fiji, Nauru, Papua New Guinea, Samoa, Solomon Islands, Tonga, Tuvalu, Vanuatu)	Pacific Islands Adaptation to Climate Change Project (PACC)	UNDP	11.60	70.80	82.40	PDF-B
TOTAL			41.22	219.08	260.80	

Note: “~” denotes an expected, approximate value.

ANNEX I: PROJECT CONCEPT DESCRIPTIONS FOR THE LDCF PIPELINE

Bangladesh: Strengthening adaptive capacities to address climate change threats on sustainable development strategies for coastal communities in Bangladesh

Anticipated LDCF/GEF Funding Request: \$3,100,000

Anticipated Total Cost of Project: \$ 9,250,000

Due to its bio-geo-physical characteristics, its economy, and its high population density, especially in coastal and urban areas, Bangladesh is one of the most vulnerable countries in the world to the adverse impacts of climate change. Without adaptation, the low lying areas of deltaic floodplains in Bangladesh, and much of its coastline, is likely to be severely affected by inundation and saltwater intrusion, caused by sea level rise, over the coming 50 years. In turn, agricultural yields are expected to decrease and lowland areas will have to be abandoned, potentially leaving millions without neither home nor livelihood and having to be forced into already overpopulated urban and rural environments. Furthermore, increased frequency of extreme weather events could lead to severe storm surges and devastation, especially along the coastline, which is already highly vulnerable to storms due to massive conversions of protective mangroves into commercial shrimp farms and firewood.

The proposed project will increase the resilience of coastal communities to the imminent impacts of climate change by:

- a) Implementing pilot measures at the community level, serving as the platform for increased learning about various climate change risk management strategies;
- b) Increasing the capacity to address emerging hazards and risk reduction at the national and community levels, including institutional and technical capacity building and improvement of an Early Warning System; and
- c) Integration of climate risk management into existing policies and action plans addressing coastal communities.

Bhutan: Reduce climate change-induced risks and vulnerabilities from glacial lake outbursts in the Punakha-Wangdi and Chamkhar Valleys

Anticipated LDCF/GEF Funding Request: \$3,635,050

Anticipated Total Cost of Project: \$7,381,274

Due to its mountainous topography, and a population largely concentrated in its large river valleys, Bhutan is highly vulnerable to the adverse effects of climate change. Glacial retreat caused by rising temperatures is one of the most urgent concerns across the Himalayans, including in Bhutan. Climate induced disasters such as landslides and floods has always been widespread in Bhutan, but glacial melt water from rapidly retreating glaciers promises to significantly exacerbate such problems for the densely populated and economically important communities in key river valleys. The main concern raised is that the current holding capacity of high mountain glacial lakes will reach a critical threshold, leading to catastrophic flash floods

downstream when natural dams fail under increasing water pressures. Such massive flash floods, e.g. from a collapse of the huge Thorthormi and Raphstreng lakes, would pose a major threat to life, infrastructure, and economy in the affected valleys.

The proposed project will aim “*to enhance the adaptive capacity to climate-induced disaster impacts in Bhutan*” and “*reduce climate change-induced risks and vulnerabilities from glacial lake outbursts*”. In order to fulfill this objective, the project will focus on three outcomes:

- a) Increased Disaster Risk Management capacities in the most vulnerable valleys;
- b) Artificially lowered water level in Thortomi Lake; and
- c) An Early Warning System operational in the most vulnerable valleys.

These measures are based on the priorities found in the recently concluded Bhutanese NAPA, which, based on a wide consultation process, identified the development of a disaster management strategy as its top priority, followed by the lowering of the water level at Thorthormi Lake to mitigate the immediate threat posed by the Thorthormi and Raphstreng Lakes.

Malawi: Climate Adaptation for Rural Livelihoods and Agriculture (CARLA)

Anticipated LDCF/GEF Funding Request: \$ 3,254,700

Anticipated Total Cost of Project: \$ 27,648,450

Malawi is a country heavily dependent upon rain-fed subsistence agriculture, with more than 80% of the population generating their daily livelihoods from small-scale agriculture. Currently, around 60% having insecure access to food on a year-round basis. Faced with increasing rates of extreme weather events such as recurrent floods and droughts, the current initiatives aimed at fostering sustainable economic growth and improved rural livelihoods in Malawi has been put at a high risk of failing. In turn, this could lead to deteriorating food security and failing livelihoods among the large group of already vulnerable people of rural Malawi, as well as to the economy of Malawi as a whole. Malawi has a large volume of fresh water resource, which could be utilized to cushion the effects of climate change, but these are vastly undeveloped at present.

The proposed project will have two key components:

- a) Investments aiming to improve agricultural practices, land management and natural systems as well as rural livelihoods through targeted adaptation interventions in e.g. crop diversification, cropping sequences, conservation tillage, food storage and irrigation and efficient water use.
- b) The creation of an enabling environment for climate risk management, including activities in policy development and implementation, institutional coordination, generation of knowledge on climate risk management and awareness raising.

The project will largely build on the current baseline activities supported by the African Development Bank: “Smallholder Crop Production and Marketing Project” (SCPMP).

Mauritania: Reducing Vulnerability of Arid Oasian Zones to climate change and variability through Improved Watershed Management

Anticipated LDCF/GEF Funding Request: \$1,665,000

Anticipated Total Cost of Project: \$3,076,000

Mauritania's geographical setting at the very edge of the Saharan desert makes it extremely sensitive to further limitations in water availability. Recent times have seen an increasing tendency for chronic drought, and a real decline in rainfall leading to exacerbation of water stresses due to current climate changes. Water resource management is a key priority in Mauritania's adaptation efforts. Of special concern is the recharging of freshwater into ground water aquifers and oasian zones, which are threatened as a result of decreasing rainfall, unsustainable water management and the construction of structures on top of key groundwater recharge zones. Availability of freshwater is also a key concern for the aspiring tourism industry in Mauritanian oases.

The proposed project has as its goal to improve water management in light of the anticipated climate change impacts and thus improve ecological functioning and human well being. Two main challenges have been identified for the project, based on the Mauritanian NAPA:

- a) To increase the capacity and awareness of the population to manage local water resources in a sustainable and climate resilient way. This element will include funding for demonstration projects such as the construction of breaking water run-of dikes, promotion of water efficient technologies in oasian zones and the dissemination of drip-irrigation in valley and oasian zones.
- b) Putting in place information and policy management systems to ensure improvement of medium and long term planning for sustaining water resources. This activity will include capacity building and management planing initiatives at all levels of society, from national to village levels.

Niger: Implementing NAPA priority interventions to build resilience and adaptive capacity of the agriculture sector to climate change in Niger

Anticipated LDCF/GEF Funding Request: \$2,100,000

Anticipated Total Cost of Project: \$6,250,000

The Sahelian agro-ecological systems are very sensitive to even small changes in climate and climate variability. Rainfall patterns are extremely erratic, and can cause floods one year and drought the next. The projected increase in temperature (leading to increased evapotranspiration) and decrease in rainfall will thus further increase climate vulnerability in a society which is already heavily dependent upon rainfed agriculture and pastoralism for survival. The adaptive capacity of the Nigeran farmers and pastoralists to deal with such challenges is at best marginal, and non-climate driven problems such as maladaptive farming practices (e.g. overstocking with livestock and ploughing of erodible soils), low market access due to poor or non-existent roads, and rapidly increasing rural populations leading to expansion of agriculture into previously

marginal areas, further exacerbates the situation. Existing problems such as periodic food shortages, unsuitable agricultural practices and recurrent water shortages will undoubtedly only increase unless climate resilience strategies are integrated into development efforts in Niger. The project will aim to contribute to the building of adaptive capacity to climate change in the agricultural sector of Niger. This will be achieved by:

- a) Increasing the resilience of food production systems and/or food insecure communities faced with the impacts of climate change. Additional funding will be delivered to a wide spectrum of existing and new initiatives including: water harvesting measures, introduction of drought resilient varieties of traditional crops, facilitation of food banks and promotion of irrigation from the currently undeveloped Niger River;
- b) Increasing the institutional capacity of the agricultural sector, especially in regards to information and extension services to farmers - this will include, among others, distribution of seasonal weather forecasts and providing local advice to the design of water and crop management strategies; and
- c) The dispersion of knowledge and capacities gained through these pilot efforts to the wider region of Sahelian countries and the rest of the world.

Samoa: Integrated Climate Change Adaptation in Samoa (ICCAS)

Anticipated LDCF/GEF Funding Request: \$2,090,000

Anticipated Total Cost of Project: \$4,100,000

Small tropical island states, such as Samoa, are particularly vulnerable to the effects of climate change. Even small increases in sea level can cause extensive loss of productive land, displacement of coastal settlements and saltwater intrusions into very limited fresh water resources. Increasing activity of storms and cyclones can lead to severe flooding, storm surges, comprehensive damage to crops and infrastructure, and health problems. The effects of climate change are already very visible in Samoa, which was confirmed by the recently completed Climate Risk Profile (CRP), reporting of increasing temperatures, increased frequencies of drought, increasing frequency and extremity of torrential rainfall and cyclone events, and a steady yearly sea level rise. These heightened vulnerabilities to climate hazards will have to be actively addressed by future planning and development initiatives in Samoa across all sectors of society.

The project follows an integrated approach to adaptation. Based on the Samoan NAPA, four vulnerable sectors have been identified: health; agriculture; early warning systems; and ecosystems. The identified activities are:

- a) Improvement of the health sector capacity to deal with climate change related health problems. This could include improved monitoring, capacity building and awareness building among health staff and implementation of preventive and responsive public health programs;
- b) Funding of pilot projects to increase resilience in the agriculture and food security sector;
- c). Improvement of existing Early Warning Systems for extreme climatic events such as torrential rain and cyclones; and

d) Rehabilitation of degraded ecosystems (such as mangroves, wetlands and coral reefs) to enhance the natural protection services provided by such systems.