ADAPTATION FUND

DATE OF RECEIPT:
ADAPTATION FUND PROJECT ID:
(For Adaptation Fund Board Secretariat Use Only)

PROJECT/PROGRAMME PROPOSAL

PART I: PROJECT/PROGRAMME INFORMATION

PROJECT/PROGRAMME CATEGORY**:**	**Regular project**
COUNTRY/IES**:**	**Fiji**
TITLE OF PROJECT/PROGRAMME:	**Enhancing Resilience of Rural Communities to Flood and Drought-Related Climate Change and Disaster Risks in the Ba Catchment Area of Fiji** (UNDP PIMS ID 4572)
TYPE OF IMPLEMENTING ENTITY:	**MIE**
IMPLEMENTING ENTITY**:**	**United Nations Development Programme (UNDP)**
EXECUTING ENTITY/IES:	**Department of Environment, Government of Fiji**
AMOUNT OF FINANCING REQUESTED**:**	**5,728,800 (**In U.S Dollars Equivalent)

PROJECT / PROGRAMME BACKGROUND AND CONTEXT:

Provide brief information on the problem the proposed project/programme is aiming to solve. Outline the economic social, development and environmental context in which the project would operate.

Geography and Climate[1]

The Republic of Fiji is located in the southwest Pacific Ocean between latitudes 15^{o} and 22^{o} South. Fiji's Exclusive Economic Zone (EEZ) of 1.3 million square kilometres contains approximately 330 islands, of which about a third are inhabited. The Fiji Group contains two major islands, Viti Levu and Vanua Levu, with land areas of approximately 10 500 and 5 500 km^2 respectively. Other large islands are Taveuni (470 km^2), Kadavu (411km^2), Gau (140km^2) and Koro (104km^2). The Republic includes the island of Rotuma (43km^2), located 650 kilometres northwest of Suva.

The two major islands make up 87% of the total land area and are of volcanic origin. The numerous smaller islands are a mixture of volcanic, low-lying atolls, and elevated reefs. The largest islands have a diverse range of terrestrial ecosystems, including extensive areas of indigenous forest. Coastal ecosystems include mangroves, algae and sea-grass beds in shallow

[1] *Fiji's First National Communication Under the UN Framework Convention on Climate Change,* 2005

reef and lagoon areas, and various reef types such as barrier, fringing platform and atoll or patch reefs.

Fiji has an oceanic tropical climate. The high islands have distinct wet and dry sides due to prevailing wind patterns; rainfall is typically 60% higher in SE Viti Levu than it is on the west and NW of the island. The South Pacific Convergence Zone (SPCZ), a zone associated with high rainfall, fluctuates northeast to southwest of Fiji. The SPCZ has a strong influence on both seasonal and inter-annual variations in climate, particularly rainfall. The El Nino-Southern Oscillation (ENSO) phenomenon influences the SPCZ and strongly affects rainfall patterns.

Fiji lies in an area normally traversed by often severe tropical cyclones which occur mostly during the November-April wet/cyclone season. Cyclones bring about severe flooding and landslips which destroy assets, disrupt agriculture and commerce, interrupt essential social services, and contribute to disease. While the prevailing wind is from the southeast, tropical cyclones and depressions tend to track from the north and west. Thus, although the west of Viti Levu is drier on average it can experience very heavy rainfall events and associated flooding. Cyclones, however, are not the only cause of floods in Fiji. It is estimated that historically only about 60% of floods in the west of the main island have been associated with cyclones; the rest were triggered by isolated severe rainfall events.

During an ENSO event, conditions drier and hotter than normal can be expected from December to February and drier and cooler conditions from June to August. El Niño events, which lead to a northeast positioning of the SPCZ, are the major cause of drought in Fiji.

Economy

Fiji's gross domestic product (GDP) grew from about F$2.4 billion in 1995 to about $2.9 billion in 2007 in constant dollars, equivalent to a real annual growth rate averaging 1.8% over the period.[2] Within this growth, the share of agriculture, including fisheries and forestry, declined in both proportional and absolute terms from 19% in 1995 to about 14% in 2007. The share of the sugar industry, a traditional mainstay of the economy, declined from 11% in 1995 to about 5% in 2007, in real terms, due to declining productivity. The decline in agriculture, however, was more than made up by growth in manufacturing (13% of GDP in 1995 increasing to 14% in 2007) and services (67% increasing to 71%). Tourism (included in the services sector) contributed close to F$500 million in export revenues to the economy in 2001, or about 19.2% of GDP at that time, and remains an economically significant growth sector[3].

Population[4]

The current population of Fiji is approximately 840,000 (2007 Census) of which more than 670,000 (or more than 80%) live on the main island of Viti Levu. The Western Division, comprising the southeastern, western, and northwestern half of Viti Levu and including the urban

[2] Reserve Bank of Fiji, *Quarterly Review* June 2010

[3] *Fiji's Sugar, Tourism, and Garment Industries: A Survey of Performance, Problems, and Potentials*, Narayan, Paresh and Prasad, Biman, Fijian Studies, Fiji Institute of Applied Studies

[4] Fiji Bureau of Statistics, Census 2007

areas of Nadi, Lautoka, Ba, Tavua, and Rakiraki, has a population of about 330,000, of which about 15,000 live in and around the Ba catchment area. By a recent estimate based on a review of the 2008/2009 Household Income and Expenditure Survey (Wadan Narsey[5]), one-third of the national population or about 270,000 people are living in poverty. Poverty is particularly acute in rural agricultural areas, including the Ba region.

The Ba Province

The Ba Province in one of 14 provinces in the nation (and one of the eight based in the main island of Viti Levu). It is Fiji's most populous province with approximately 232,000 people – more than a quarter of the nation's total population. The Ba Province covers a land area of approximately 2,600km2 and is the second largest of any province. The province includes the towns and districts of Ba, Magodro, Nadi, Nawaka, Tavua, and Vuda. The city of Lautoka and the Yasawa Archipelago, off the western coast of Viti Levu, are also in Ba Province. Notable residents of Ba Province include Fiji's former President, and Prime Ministers of two previous governments. Vuda Point, in Ba Province, is the traditional landing of the canoes that brought the Melanesian ancestors of the Fijian people to the islands. The nearby village of Viseisei (former President's hometown) is traditionally considered to be the oldest in Fiji. The province is governed by a Provincial Council.

Ba Catchment Area[6]

The catchment area is home to approximately 18.000 inhabitants[7]. The Ba River drains an area of 937 km^2 on the north-west side of Viti Levu (SOPAC, 2000). The river originates a distance of 83 km from the sea, with an average steepness of about 1 in 75, with marked contrasts between the upper reach (1 in 20) and lower reach (1 in 300) (JICA, 1998). Steep valleys like that of the upper Ba River promote particularly rapid-rising floods during heavy rain. Downstream of Ba, the flat land broadens into a large delta. The Ba River Valley contains substantial areas of forest, approximately 43% of the catchment area (JICA, 1997). The dominant land use in the lower valley is sugar cane cultivation, which occupies more than 150 km^2 (16%) of the valley. Grassland utilised for grazing is the main land use in the remainder of the valley. According to records kept by the sugar industry in Ba covering a period of 111 years, flooding has always affected areas adjacent to the Ba River (Yeo, 1998). Major floods occur in the area once in 4 years on average. The first known flood was recorded in 1871, the most disastrous one occurring in 1931. Improved watershed management is essential for the mitigation of flood peaks, but at least as important for the reduction of flood damages is the strengthening of measures to control development on floodplains and to effectively warn those who live and work in flood-liable areas[8].

[5] Radio Australia Pacific Beat Story: Fiji Poverty Statistics Paint a Disturbing Picture, 2010

[6] *Ba Community Flood Preparedness Project: Final Report*, Yeo, Stephen, April 2000, SOPAC Technical Report 309

[7] *Fiji Islands Bureau of Statistics - Key Statistics : June 2010*

[8] From *Flooding in Fiji: Findings from a 100-Year Historical Series*, Yeo, Stephen; Blong, Russell; and McAneney, John

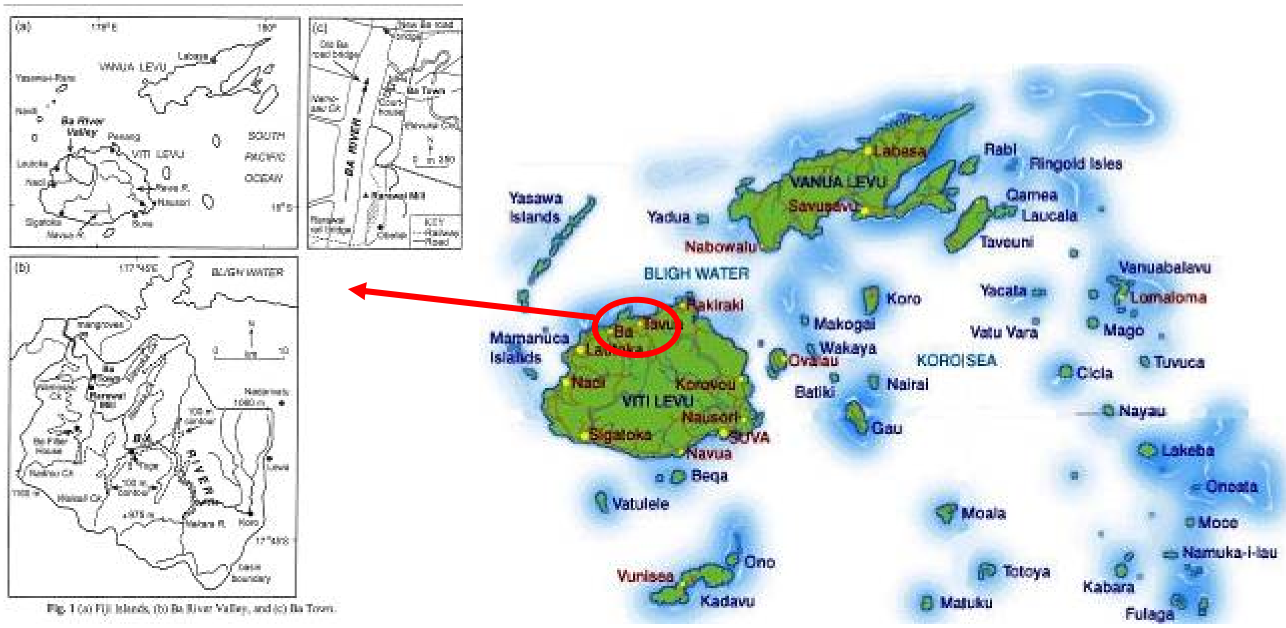

Fig. 1 (a) Fiji Islands, (b) Ba River Valley, and (c) Ba Town.

Figure: Map of Fiji and the Ba Catchment

Climate change vulnerabilities, impacts and risks[9]

Fiji is subject to highly destructive cyclones, intense rainfall events, and devastating droughts. The Western Division including Nadi and the Ba region are particularly hard hit by flood and drought, due to their paradoxical location on a common cyclone path and within Viti Levu's "rain shadow" (which makes the areas drier than the eastern part of the island on average). These effects will be exacerbated by climate change: as the climate warms, droughts are expected to increase in frequency and severity, rainfall is expected to become more concentrated but more intense (and destructive) rainfall events, cyclones may increase in frequency, and variability will increase as El Nino-related oscillations are likely to become more extreme.

The ENSO of 1997, for example, was the worst since 1905. In September of 1997, most parts of the country recorded rainfall 20% to 50% below the average. The western parts of the country recorded less than 10 mm of total rainfall, that is, 93% below the average. In December, all sites recorded rainfall 50% to 90% below average. All coastal sites in Viti Levu and parts of Vanua Levu recorded lowest-ever rainfall totals for the period of 8 consecutive months from September 1997 to April 1998. Agriculture in general and the sugar industry in particular was devastated by this drought. The drinking water supply in many villages was greatly imperilled.

In contrast, in the first week of January 2009, severe flooding took place in Viti Levu (SOPAC 2009[10]). The Nadi, Ba and Sigatoka rivers broke their banks, leading to destructive flooding in the surrounding towns and countryside. Eleven people lost their lives in the floods, and the Government of Fiji declared a state of disaster. The Ba area inundated by flood waters suffered losses of over F$86 million. Of this total, businesses lost an estimated F$31 million and

[9] Fiji's First National Communication

[10] *Ba Floods Economic Costs January 2009*, SOPAC Technical Report 425, September 2009

households lost almost F$56 million, in the form of structural damage, lost possessions, lost business, and destroyed assets.

As is common during major flooding events, the 2009 floods disrupted utilities and basic services. On average, it took approximately 16 days before basic services were restored. Water quality was reported to have deteriorated significantly during the floods and, weeks later, many families continued to report that the water in their taps or in the river was not safe to drink. A large proportion of businesses and householders around Ba stated that they did not receive warnings that floods were imminent, that the warnings of imminent flooding (and what to do) came too late, and/or that (for some) the radio warnings were too technical to follow.

Serious flooding in the Ba region has historically caused loss of life, and damage to property and infrastructure. Social and economic activity is often stopped or severely impeded for weeks or months following these. In turn, flood hazards are putting major pressure on current and planned developments. The flooding, and some of the factors worsening the severity of flooding such as land erosion and channel sedimentation, has also had significant impacts on river and ecosystem health and biodiversity, as well as on the estuary and coastal regions of Ba.

While flooding has been a significant problem in the past, the frequency and severity of these floods appears to be increasing (SOPAC 2010[11]). Climate change and climate variability and the associated expected intensification and frequency of high rainfall/cyclone events and increased sea levels (reducing the ability of flood waters to drain from low lying areas) is a critical issue that greatly increases the need for an integrated approach. In the future, flood waters can be expected to stand for longer periods with flood levels much higher than at present. Consequently, progressive pressures are likely to cause the impacts of floods to become worse in the future for the Ba catchment area.

Failure to address the impact of flooding occurs because responsibilities for land and water management in the catchment are fragmented, technical assessment capacity has been unable to identify the impacts of development proposals, and assessment of development occurs on an individual project basis without reference to an integrated flood or catchment plan. Institutions usually have geographical and functional boundaries; often this is coped with by developing larger institutions with wider geographical and functional boundaries. This can create clumsy and inefficient organisations, out of touch with local situations. There is a need to cut across institutional boundaries and to integrate the work of such institutions with local community plans and actions. Under present circumstances, the “legs” of flood management in Ba (the communities) are cut off from the “head” (government technical, resource management, early warning and support services) with neither learning much from the other.

Previous work in Ba town on Community Flood Preparedness (SOPAC 2000[12]) has highlighted the need for better interagency coordination, mainly between the Fiji Meteorological Service and the Public Works Department (Hydrology) for the installation of automatic monitoring equipment, and between Fiji’s National Disaster Management Office (NDMO), Ba Police, and Ba Town Council for the establishment of best possible flood warning and emergency response measures

[11] *Integrated Flood Management in the Pacific, A Pilot Project for Nadi* (Project Concept Note), SOPAC 2010

[12] Ibid., footnote 5

at the local level. The Government of Fiji is currently committed to install flood warning systems within the Ba and Nadi River Basins. The EU funded HYCOS Project will upgrade the Rewa River Flood Forecasting and Warning System (in the SE part of Viti Levu) to reduce flood risks for communities on the Rewa floodplain.

Responses to flood and drought risks in the Pacific have been largely ineffective, being commonly reactive and tactical rather than proactive and strategic. In Fiji, there is no strategic flood management framework including a "Flood Early Warning System", as an identified gap in its NDMO programme, to help direct the allocation of scarce government resources towards a risk reduction approach. Historically, dredging has been the common flood mitigation measure although there is little evidence that it has any significant impact on the destructiveness of flood events (UNDP 1973, JICA 1998, SOPAC 2008e[13]). There is an absence of a strategic and integrated risk based approach coupled with an absence of a capacity to strategically assess its effectiveness. Effectively addressing both flood and drought risks, increasing due to climate change, will require such an integrated approach and strategic capacity.

Preferred solutions for climate change adaptation (normative situation):

Ideally, adaptation measures are implemented systematically throughout the Ba Catchment Area, treating in an integrated way the villages' river, coastal, agriculture and forestry land areas with a holistic watershed approach. This is necessary as the problems caused by worsening climate change induced risks and pressures requires solutions that modify current flood control, agricultural and forest use practices. In a normative situation, the planning and implementation of the adaptation measures is fully informed through climate information services tailored to flood and drought disaster risk management, agricultural and forestry applications and packaged in user-friendly ways for community practitioners who have the capacity to understand and use these. Communities also have the capacity to collaborate in monitoring impacts of climate change in coastal, riparian, and terrestrial ecosystems and related natural resources use, and can plan and implement effective community-based adaptation projects. The integration of climate risks and resilience into flood and drought protection is dealt with comprehensively through water use and agricultural practices, harnessing traditional knowledge. The implementation of community-based adaptation measures is supported by an enabling environment at the national policy level, with line departments and the Met Service having sufficient capacity to generate climate information, assess climate risks and support communities and businesses to translate these to sustainable climate resilient livelihood practices. Policies and related legal frameworks, instruments, corporate plans and budgets in the agriculture, water supply, and forestry sectors are strengthened to integrate climate risks and resilience, and supported through enhanced coordination with national entities linking effectively to village councils and community stakeholders. The experience and lessons learnt generated through adaptation activities in different sectors are systematically captured, analyzed and disseminated using different communication channels and media suited to the technical capacity and needs of different user groups (e.g. government officials, community leaders, farmers, educators, and

[13] **JICA (1998):** The Study of Watershed Management and Flood Control for the Four Major Viti Levu Rivers in the Republic of Fiji Islands. Final Report; **UNDP (1973):** Preliminary Study of Flood Problems in the Rewa Delta;, **SOPAC (2008):** SAMOA - Flood Management Action Plan 2007-2012, with specific reference to Vaisigano River.

businesspeople, etc.). Past and ongoing climate change awareness and education programmes are updated and upgraded using the latest climate change science and adaptation lessons learnt, and their outreach is further expanded in Fiji urban and rural communities. Adaptation lessons learnt are widely shared cross the Pacific region and amongst other SIDS, and within the broader international adaptation community.

Current barriers to climate change adaptation, needs and gaps in adaptive capacity

Limited awareness, lack of information and capacity to assess flood and drought-related climate and disaster risks and implement integrated climate change adaptation measures in the villages of the catchment area, related to commercial agriculture and subsistence food production, land use, and watershed management practices

In regard to the 2009 floods, common perceptions were that poor drainage and lack of river dredging caused the flooding. Consequently local communities strongly believed the government should tackle these issues in the area. However, localised studies dating back to 1973 (UNDP 1973, JICA 1998, SOPAC 2008[14]) have documented that river dredging has limited impact on flood control. Currently, there is limited awareness and knowledge of community-based and integrated adaptation approaches that in the long run can have a much more telling effect than river dredging alone. Such typology of responses is expected by the Government of Fijito be effective in terms of enhancing communities' resilience to floods and their ability to spring back from increasingly periodic climate change induced events (i.e resilience). There is a great deal that communities themselves can do to ameliorate flood damage and to protect against droughts, including more informed land use and farming practices to minimise run-off, river bank protection through appropriate planting projects, sea coast protection with mangroves and similar techniques, water storage, and generally heightened community and household preparedness for flood and drought conditions. In the case of flood, localised assessments conducted by CROP agencies such as SOPAC have indicated that early warning systems will be an instrumental part of empowering communities to minimise or avoid damages (SOPAC 2000[15]).

For community-based adaptation to be effective, public awareness of the linkages between climate change and non-climatic factors underlying floods needs to be improved. Integrated water management projects that communities can actively lead and participate in need to be identified and implemented. More generally, awareness of flood risks in Ba needs to be increased, given that around 50 per cent of the community in Ba were found to be unaware in 2009 that they lived in a flood risk area. Such awareness raising could include increased community meetings (especially during cyclone season), the distribution of posters and pamphlets, and the delivery of advertisements on local radio.

Fiji forms part of the Pacific Adaptation to Climate Change (PACC) regional project, financed through GEF and being implemented by UNDP in partnership with SPREP. The Fiji component is focusing on adaptation in agriculture and related flood-plain management in the Nausori area,

[14] **JICA (1998):** The Study of Watershed Management and Flood Control for the Four Major Viti Levu Rivers in the Republic of Fiji Islands. Final Report; **UNDP (1973):** Preliminary Study of Flood Problems in the Rewa Delta; **SOPAC (2008):** SAMOA - Flood Management Action Plan 2007-2012, with specific reference to Vaisigano River.

[15] Ibid.

close the capital city of Suva. The project, currently in its initial stages o implementation, has been focusing so far largely on dredging of drainage canals and enhancing related infrastructure (like flood gates). A need for an integrated approach, with more active community participation and community-based measures, has been requested by village representatives following recent project activities.

An IWRM regional project, funded through GEF-UNDP and implemented by SOPAC, is also executed in Fiji by the Land and Water Resources Department. This project focuses on the Nadi catchment area. The IWRM initiative aims to improve water resource and wastewater management and water use efficiency in order to balance overuse and conflicting uses of scarce freshwater resources. This is pursued through policy and legislative reform and implementation of applicable and effective Integrated Water Resource Management (IWRM) and Water Use Efficiency (WUE) plans'. Fiji's component focuses on an Environmental and Socio-Economic Protection through Integrated Flood Risk Management in the Nadi River Basin with the purpose of improving flood preparedness and integrating land and water management planning within the Nadi Basin using an integrated flood management approach. The IWRM initiative is closely related to the objective of the proposed AF project. Synergies will be build where appropriate, and building on this experience, the AF supported project will replicate interventions in the Ba catchment with the added difference that this new initiative will fully integrate climate change considerations as they relate to both flood and drought risks.

A number of programmes and projects have aimed at implementing demonstrations at the village level to improve land use and agricultural production practices in Fiji, but without integrating information and responses to address the additional risks caused by climate change:

For example, a GEF financed SLM project addresses land management issues that will assist in mitigating land degradation problems and minimize the degradation or destruction of Fiji's land resources. As well as initiating practical on-farm sustainable land management technologies, strengthening and reinforcing institutional capability, capacity building of human resources, resource information technology development and national land use planning will be an integral part of this project. Nevertheless, climate change risks need to be incorporated into SLM activities, to ensure long-term sustainability is not jeopardized by changing climatic effects.

There are a number of community-based adaptation projects, like the Tikina-Wai project focusing on mangrove and reef conservation implemented through WWF and SGP, and a series of pilot projects addressing river bank protection and water supply issues in 6 villages, implemented through the University of South Pacific (e.g. in Buretu, Rewa delta). These projects provide very valuable experiences in participatory adaptation planning processes and ecosystem-based adaptation approaches, but remain at pilot levels, with need to systematically replicate in other vulnerable areas and communities, including the Ba area. USP is planning to extend these pilots, through AusAid funding, but the impacts of such projects is still limited unless scaled up to benefit communities in larger areas.

Limited technical resources and human capacities to provide tailored information on climate change trends and associated flood and drought risks, as well as monitoring of climate impacts on natural resource base, in order to make informed decisions in water use and agriculture-related sectors

The Fiji Meteorological Service has been progressively developing its capacity to provide early warning and climate information services, but is relatively under-staffed and lacks the adequate technical foundations for an effective system (e.g. complete data bases of information on where people live and the risks they face as well as likely to emerge, observation stations and other hard- and software needs), considering spatial diversity of the country in terms of climatic factors and vulnerabilities in different parts of its main islands and many smaller island groups. There is a need to provide further training to strengthen the skills of Meteorology Service Staff.

The Australian-funded Pacific Climate Science Support Programme (PCSSP-ICCAI) provides capacity building to Pacific Meteorological offices, including Fiji. However the current support programme provides information that is general climate projections, and needs to be further customized in order to be applied to manage risks in key sectors in the country.

The Fiji Meteorology Service regularly collects rainfall data. However, there is only one manual observation station at the mouth of the Ba river, close to town. Data is being recorded by Fiji Sugarcane Cooperation staff. There is a Government plan to supplement it with automated rain gauges for near real time data access. There is also a Government recognized need to install fully automated climate stations (including rain fall, temperature, radiation, soil temperature, air temperature, relative humidity), at selected locations of the catchment area, especially in agriculturally intensive zones, and at least in mid-section and uphill areas of the river source (3-5 stations). The expectation by local experts is that the information generated by these instruments is key to provide drought and flood early warning and climate information for agricultural production.

The Fiji Meteorology Service has a functioning database, called CliCom, to capture the rainfall data. However, this pre-dates-Windows and is a DOS system established in 1995. This creates problems with more recent technologies for monitoring and forecasting ranges of possibilities. The database needs to be upgraded and reformed in a user-friendly way to capture real time data with networking functions. This is essential in order to process information for effective drought and flood early warning and climate information services.

The historical climate and meteorology data is not digitized (1930-1970). This record is a critical piece of information for calibration purposes including for climate forecasting, and risk mapping. There has been a project supporting re-arranging records, enhancing inventories, and identifying data storage options (Pacific Island Climate Data Rescue – funded by AusAid). However it does not provide resources for the digitization of data.

The Fiji Meteorology Service provides the following climate information services:

- Monthly climate summary report (with seasonal forecasts)
- Monthly rainfall outlook
- Bulletin for renewable energy sector (hydro) – provided to Fiji Electricity Authority

- Fiji Sugar Cane Rainfall Outlook, provided to Fiji Sugar Cane Corporation (this was funded through the Pacific Islands Prediction Project by AusAid in 2005)

In the agriculture sector climate information services are only available for sugarcane production, distributed by the Fiji Sugar Cane Corporation to farmers in only in printed format, given their limited Internet access. There is a need to extend climate information to other types of agricultural production and practitioners, based on assessment of user needs (different type of farmers, like vegetable, rice, fruit) and crop requirements.

As determined through Fiji's National Capacity Self Assessment exercise, the Fiji Agriculture-Land Use and Water Management Section lacks dedicated and qualified agro-meteorologists to analyse data and provide tailored information to different types of agricultural users specifically aimed for preparation of sensitive areas against adverse effect of climate change. This function needs to be supported by a data-base developer and administrator.

There has been past initiatives to establish flood early warning system, such as the current system at the Navua river.However, there has been various problems and constraints occurring with the maintenance of the system, especially with the communication network and data management and storage, hindered by government restructuring processes. Flood and drought early warning information is handled by NDMO, based on forecasts advised by the Fiji Meteorology Service. Yet, there are capacity gaps in terms of accurate drought and flood predictions and communication of information to communities and users. An example of the absence of climate information to ensure adaptive capacity in flood protection was experienced in the severe flood of early 2009, as discussed above. The households and businesses in the affected area were almost wholly unprepared for this occurrence and hence suffered massive property losses, loss of business and wages, and substantial loss of life. Had relevant climate information been made available, it is hypothesized that the communities would have been better prepared and subsequently been able to carry out a more strategic adaptive response.

Flood early warning systems are currently being addressed through the IWRM project in the Nadi pilot catchment area, including the establishment of hydromet stations, community coordination and capacity building. Climate change has been just recently been introduced as a smaller component in this initiative, and the process underpinning the implementation of this project is not fully informed by climate change related risks.

None of the above projects address drought early warning, and related monitoring of groundwater resources, information systems for farmers for preparedness and response measures. Currently, the Department of Hydrology does not have the capacity to monitor groundwater capacity, starting from measurement of water resources extracted through boreholes . A database and information system is absent. Hydrological information currently is handled in a fragmented way by a number of departments (Water, Land and Water Resources Management, Mineral Resources). There is a need to harmonize this inormation by establishing a central database and information management system to consolidate information from various data collection and research agencies on the existing hydrological systems, supply and use of national water resources, effects of climate change on water quantity and quality, sanitation and the ecosystem. In order to develop this centralized system and data sharing mechanisms, there is a need to undertake a thorough data gap analysis, and institutional capacity assessment.

Currently there is very limited information available on crop agronomical and water requirements, crop and forestry models that incorporate existing and potential climate change risks. There is a lack of information for extension officers and farmers on crop and forest species suitability according to soil properties, vegetation, topography and land use information overlayed with climate information. There is a need to establish a GIS-based system that brings together currently fragmented information, complete with information layers on climatic conditions under different possible scenarios, in a coordinated fashion between the Fiji Meteorology Service and line departments, with related training activities. As determined through Fiji's National Capacity Self Assessment exercise, the Agriculture-Land Use and Water Management Section lacks dedicated and qualified staff to conduct assessment of impact of climate change on drought as well as the ability to project impacts in order to inorm farmers for drought prone areas such as the in the Western Division that includes the Ba catchment area.

Above all, the Ba catchment area can serve as a good demonstration ground for the development and implementation of the above-mentioned integrated information systems, integrating climate and disaster risks.

Lack of capacity to integrate climate risk and resilience into watershed management, agriculture, and forestry sector related policies, strategies and instruments.

The Government of Fiji has started to address climate change systematically in the national policy context recently, through reviving its National Climate Change Country Team (endorsed by the Cabinet), establishing a Climate Change Unit with corresponding budget allocated, within the Department of Environment. Through these recently established mechanisms, the formulation of a National Climate Change Policy has been initiated. While climate change is recognized in some policy frameworks (like the Environment Management Act (EMA) - 2005, the Strategic Development Plan 2007-2011, Rural Land Use Policy for Fiji - 2006, and the Fiji Forest Policy Statement - 2007), there is a lack of national capacity to mainstream climate change into policy instruments and implement them effectively. Fiji needs support for both the formulation, and implementation of climate change polices and strategies at the overall national and sectoral levels.

There is growing recognition on the need to integrate climate change into sectoral policies and related legal instruments. For example, Fiji's Initial National Communication outlined the need for a standard code for coastal management i.e. an integrated coastal management plan (ICM), integrating all aspects of conservation and environmental protection with climate change risks. The ongoing UNDP-GEF PACC Project recently established a target to review the Drainage Act, currently largely outdated, in order to broaden its scope, better link with other legal frameworks (e.g. labour regulations, land use) and integrate climate change considerations. Similarly, there is recognition of the need to revise the National Water Resources and Sanitation Policy to integrate climate risks, and enact a National Water and Sanitation Code revising and compiling the laws governing ownership, utilization, and protection of water resources and climate change risks. Fiji's Town and Country Act was designed with specific conditions for EIA approvals prior to passing of survey and master plans of project developments. This policy however lacked a lot

of basis to begin implementing necessary climate change adaptation options, for example in the area of coastal engineering for protection of coastal zones. Town and Country planning acts are old and outdated with very little reference to conservation and sustainable development, now utilizes provisions of the Environmental Management Act on Environmental Impact Assessments.

To undertake effective climate change mainstreaming processes based on thorough risk assessments, there is a need to train policymakers and planners in the Land and Water Resources Management Division, Department of Environment, Department of Agriculture, Department of Forestry, National Disaster Management Office, Water Authority, Fiji Meteorological Service. This AF financed initiative can directly support mainstreaming processes, through its integrated approach linking policy level work and on-the-ground implementation in the Ba catchment cross various sectors.

A number of projects and policy frameworks currently address sustainable land use, watershed management and forestry in Fiji (e.g. SLM, IWRM) but without systematically incorporating climate change risks and adaptation measures. This is primarily the result of current capacity shortages in the relevant Departments to use climate information, risk assessment techniques and modify strategies and policy instruments accordingly. The absence of harmonized and integrated information management systems, approaches and related government capacity, as described in the section above, presents a serious impediment to climate risk analysis and consequent adaptation planning.

Moreover, the vision of the NDMO is to build the nation's resilience to disasters and build capacity of communities by accelerating implementation of disaster risk reduction and disaster management policies, planning and programmes to address current and emerging challenges. Despite the current capacity and programs being implemented through the NDMO, key policy gaps relevant to this AF initiative include the lack of an emergency climate information system, drought support plans, flood early warning systems and emergency management volunteer services.

Lack of systematically analyzing and disseminating cross-sectoral adaptation experience in order to support integrated adaptation measures in communities

While ongoing projects related to adaptation (like PACC) or sustainable natural resource use (like IWRM, SLM) do have knowledge management components, they mainly deal with single-sector applications, sustainable resource use, and flood management practices without addressing cross-sectoral experience related to climate change adaptation assessments and measures. These projects are in their initial stages of implementation, with lessons learnt, good practices and related knowledge products expected to be generated in future stages (e.g. through projects' communications and action plans). The early community-based adaptation experiences developed through UNDP/GEF and USP projects in Fiji has been analysed, and shared to some extent through integrating into USP courses, or through the regional MAP-CBA-SGP project (e.g. the Tikina Wai case study has been presented by WWF at the launch workshop of this regional programme), but with rather limited impacts to influence community-level development work, agricultural and water use practices within Fiji and the broader Pacific region. There is a need to capture, analyze and disseminate climate change adaptation good

practices and lessons learned in the setting of integrated village development processes in a more systematic way. There is also a need to make available the country's adaptation experience on the policy and implementation front more broadly in the Pacific and other SIDS regions.

PROJECT / PROGRAMME OBJECTIVES:

Project Objectives

The overall objective of the project is to reduce the exposure and increase adaptive capacity of communities living in the Ba catchment area to drought and flood-related climate and disaster risks.

The proposed project will contribute towards the two objectives of the Adaptation Fund Strategic Results Framework (AFB/EFC.2/3 from 31 August 2010),through the following outputs:

Output 1.1. Risk and vulnerability assessments conducted and updated at national level
Output 1.2 Strengthened capacity of national and regional centers and networks to rapidly respond to extreme weather events
Output 1.3 Targeted population groups covered by adequate risk reduction systems
Output 1.4 Targeted population groups participating in adaptation and risk reduction awareness activities
Output 2.2 Vulnerable physical, natural and social assets strengthened in response to climate change impacts, including variability
Output 2.4. Targeted individual and community livelihood strategies strengthened in relation to climate change impacts, including variability

Project Strategy

The proposed project will address the above-mentioned barriers and needs in a highly integrated way, combining concerted efforts at the community and household levels in the Ba watershed area to increase local resilience to flood and drought risks and hazards through implementation of on-the-ground adaptation measures. The framework for this project strategy includes an integrated and climate-sensitive flood and drought management plan, specifically developed for the Ba watershed area, through community consultation processes, involving national and local authorities and backed by technical expertise and assessments.

The outputs and activities to be implemented to attain the outcomes listed below are not sequential; they are inherently linked and supportive of each other. While the focus is on community-based adaptation measures, the early warning system and the institutional strengthening components are designed to provide the enabling environment that would allow the systematic development and implementation of on-the-ground measures within an integrated watershed development plan, supported by adequate instruments and user-tailored climate information services. The knowledge management component is designed to allow the capturing of good practices and lessons learnt both from the policy processes and community-based adaptation implementation, ensuring that the experience generated will support longer-term adaptation processes and future generation of professionals and practitioners, as part of the project sustainability strategy.

PROJECT / PROGRAMME COMPONENTS AND FINANCING:

PROGRAMME COMPONENTS	EXPECTED CONCRETE OUTPUTS	EXPECTED OUTCOMES	AMOUNT (US$)
1. Climate early warning and information systems	• Flood and drought early warning system and climate information services established • Training provided to Fiji Meteorological Service, NDMO, line departments, provincial and local authorities, officers and extension services, and target communities on managing the enhanced early warning systems and using climate information services or decision-making	Reduced exposure to flood and drought related risks and hazards in the Ba catchment area	**500,000**
2. Community-based adaptation to flood and drought related risks and hazards	• Development of an integrated and climate-sensitive flood and drought management plan for the Ba area • Integrated climate resilient flood-protection measures are implemented at the community level • Climate-resilient agriculture and forestry management practices are implemented at the community level • Water supply capacity to communities is enhanced under conditions of changing climate	Increased adaptive capacity of communities in the Ba watershed to flood and drought related risks and hazards	**3,600,000**
3. Institutional strengthening to support climate- and disaster-resilient policy frameworks	• Climate change and disaster risks and resilience are integrated into agriculture, land use, water and coastal zone management related polices and planning frameworks at • Training provided to policy makers at the national and provincials and district offices, institutions and extension services to implement climate-sensitive policies and plans	Strengthened institutional capacity to integrate climate change and disaster risks into sectoral policies and management practices	**350,000**
4. Awareness raising and knowledge management	• Lessons learned and best practices are generated are captured and distributed to other communities, civil society, policy makers in government and globally through appropriate mechanisms. • Climate change awareness and education programmes developed and	Strengthened awareness and ownership of adaptation and climate risk reduction processes at national and local	**350,000**

	implemented for schools and technical centres	levels	
6. Programme Execution cost			**480,000**
7. Total Programme Cost			**5,280,000**
8. Programme Cycle Management Fee charged by the Implementing Entity			**448,800**[16]
Amount of Financing Requested			**5,728,800**

PROJECTED CALENDAR:
Indicate the dates of the following milestones for the proposed project/programme

MILESTONES	EXPECTED DATES
Submission of Concept to AF	October 25, 2010
Approval of the Concept by the AF Board (Estimate)	Dec 15, 2010
Submission to AF of a Full Project Proposal	May 15, 2011
Start of Project/Programme Implementation	June 2011
Mid-term Review (if planned)	June 2013
Project/Programme Closing	June 2015
Terminal Evaluation	July 2015

PART II: PROJECT / PROGRAMME JUSTIFICATION

A. Describe the project / programme components, particularly focusing on the concrete adaptation activities of the project, and how these activities contribute to climate resilience. For the case of a programme, show how the combination of individual projects will contribute to the overall increase in resilience.

During the programme formulation phase the following outputs and activities will be further specified and a detailed programme document will be presented for final AF approval.

[16] *On the request of the Government of Fiji, the project will be implemented by UNDP using the MIE modality. UNDP is able to provide the following implementation services through its country office, regional and headquarters networks: project identification, formulation, and appraisal; determination of execution modality and local capacity assessment of the national executing entity; briefing and de-briefing of project staff; oversight and monitoring of AF funds, including participation in project reviews; receipt, allocation and reporting to the AF Board of financial resources; thematic and technical capacity building and backstopping; support with knowledge transfer; policy advisory services; technical and quality assurance; and troubleshooting assistance to the national project staff. Further details on the types of specialized technical support services which may be provided are articulated in the table provided to the AFB Secretariat on 14 May 2010 (as annexed).*

Component 1: Climate early warning and information systems

Outcome 1: Reduced exposure to flood and drought related hazards and threats in the in the Ba catchment area

Output 1.1: Flood and drought early warning system and climate information services established

Indicative activities:

- Review of existing early warning systems that cover preparedness and response of vulnerable Ba communities to flood and drought-related hazards, identify specific information, communication and capacity gaps
- Enhance the observational capacity and meteorological recording network of the Fiji Metrological Service, in the Ba area, through establishing rainwater gauges at communities living by rivers, install fully automated climate stations (to measure rainfall, temperature, radiation, soil temperature, air temperature, relative humidity), at selected locations of the catchment area, especially in agriculturally intensive zones, and at least in mid-section and uphill areas of the river source
- Upgrade the current CliCom database, to capture real time data with networking functions, from the enhanced climate stations and gauges, and prepare a user-friendly interface.
- Establish effective alert and communication system for communities, involving NDMO, village councils and local disaster management committees
- Establish and strengthen evacuation centers and voluntary emergency services in the catchment area
- Establish a GIS-based agro-meteorological information system. This will serve as basis for climate information services in agriculture sector (overlaying soil, crop, topography and landuse, with climate variables). The agro-metrological information will be extended to different types of crops, like vegetables, rice, fruits, beyond the current focus on sugarcane.
- Establish a hydro-meteorological information systems, bringing together the currently fragmented information management. This will involve enhancement of groundwater monitoring capacity and establishment of a centralized database involving all related departments and authorities (Water, LWRM, Hydrology, Mineral Resources) on supply and use of water resources, effects of climate change on water quantity and quality, sanitation and the ecosystem.
- Develop enhanced climate and weather information products and services (monthly outlook, seasonal forecasting, longer term projections), tailored particularly for flood and drought preparedness and agriculture sector users (local government officials, farmers, communities, extension services). Establish related communication and distribution systems (including materials prepared in local languages).
- Develop climate-sensitive crop suitability and cultivation guidelines and manuals, with user-friendly information packages, customised to the climate/landscapes, and different crop varieties and forest types of the Ba watershed area.

Output 2.1: Fiji Meteorological Service, NDMO, line departments, provincial and local authorities, officers and extension services, and target communities are trained on managing the enhanced early warning systems and using climate information services

Indicative activities:

- Organize provincial, district and village level consultations, linked with awareness raising

events on climate-related risks and hazards
- Hold technical workshops on the establishment, maintenance and use of climate early warning system, including the interpretation and application of tailored climate information services
- Enhance coordination between provincial, district and village level authorities, representatives of other government departments, agriculture extension services, and village leaders.
- Train farmers and extension officers on the climate-sensitive crop suitability and cultivation guidelines
- Provide customized training to up-skill junior meteorologist and climatologist Meteorology Service Staff
- Train members of the voluntary emergency services, the use of evacuation centers, and conduct drills on emergency and evacuation protocols

The above indicative activities will contribute to reduce the exposure and vulnerabilities of communities in the Ba catchment to flood and drought-related hazards, allowing effective preparedness and response measures, reducing hazard damages to assets and life, and supporting informed decision making for the development of an integrated flood and drought management plan, the design and implementation of the community-based flood protection, agriculture and forestry adaptation measures, proposed to be implemented under this project.

Component 2: Community-based adaptation to flood- and drought-related risks and hazards

Outcome 2: Increased adaptive capacity of communities in the Ba watershed to flood and drought related risks and hazards

Output 2.1: Development of an integrated and climate-sensitive flood and drought management plan for the Ba area

Activities under this output will be closely linked to the establishment of the early warning system and climate information services. This will indicatively involve:
- A comprehensive analysis and mapping of hazard impacts along the Ba watershed under alternative climate scenarios
- Carry out surveys on riparian, floodplain and coastal vegetation (catchment mapping) and infrastructure cover in the Ba catchment
- Undertake detailed assessments of water resources (rate of infiltration, extraction, water table monitoring) under alternative climate scenarios
- Review of existing flood control, water management, land use, and related plans (i.e. Ba river dredging master plan) and the application of national policies and acts in the Ba area, such as the Town and Country Act, Water and Sanitation Policy (water delivery systems, legal and financial measures and incentives, water allocation and use). The review will enable policy makers to ascertain vulnerabilities under alternative climate scenarios
- Review the function of current water supply systems and flood management structures, like community water storage facilities, reticulated systems, drainage canals, dams, reservoirs, dikes, levees, flood gates, and flood embankments including implications under alternative climate scenarios
- Carry out a series of community consultation and participatory adaptation and disaster risk reduction planning, to identify a set of suitable options for the specific districts and villages under alternative climate scenarios.

- Develop flood plain zoning, land and water use plans, and effect related regulations that recognize emerging climate change risks
- Adoption of appropriate land use practices in flood zones under conditions of changing climate, climate-resilient construction techniques and materials (application of building codes)
- Establish post flood and drought recovery plans, and explore the application of risk transfer mechanisms (e.g. flood and drought insurance)
- Establish community-based monitoring processes on land-use, water use, flood control measures, and conservation of related ecosystems (e.g. mangroves, forests)
- Establish and support a Ba Catchment Committee, to coordinate the development and implementation of the flood and drought management plan, ensure effective links with district and village level authorities, and coordinate with national agencies.

Output 2.2: Integrated climate resilient flood-protection measures are implemented at the community level

Indicative activities:

- Undertake replanting and conservation of mangroves in coastal areas (establish mangrove nursery for supply of seedlings)
- Explore the establishment of community-managed mangrove reserves
- Upgrade current flood management structures, like drainage canals, dams, reservoirs, and related facilities (dikes, levees, flood gates, and flood embankments) to anticipated rainfall patterns
- Construct riverside protection structures (principally using locally available materials, combination of soft and hard structures, e.g. gabion from tree-trunks, stones)
- Complement riverside protection structures with vegetation planting along riverbanks
- Organize workshops to train provincial and local officials and communities on flood protection techniques

Construction of river bank protection structures using local materials, and planting of vetiver grass for bank stabilization (Buretu, Fiji – USP CBA project)

Output 2.3 Climate-resilient agriculture and forestry management practices are implemented

Indicative activities:

- Identify and introduce climate change resilient crop varieties and suitable crop cultivation

techniques

- Establish Research Stations for germplasm plots and community nurseries in the Ba area, with appropriate distribution systems to ensure the continuous supply of climate-resilient plant species to farmers
- Establishment of a gene bank to preserve traditional and climate resilient crop varieties
- Introduce soil and water conservation techniques (e.g. mixed cropping, mulching, contour planting, etc.)
- Strengthen extension services to provide ongoing technical advice on suitable crops and cultivation techniques, based on land use plans
- Implement climate-resilient forestry management techniques (e.g. rehabilitation of cyclone-affected and disturbed areas with climate resilient native species, replacement of exotic species, adoption of appropriate watershed management land use practices throughout forested areas, forest fire control measures)
- Explore the possibility of establishing community conservation areas in customary lands
- Introduction of post-harvest processing and food storage techniques (including traditional techniques)
- Introduce enhanced grazing ground and livestock management practices
- Organize training workshops for local officers, communities and extension services on the cultivation techniques of climate-resilient crops and forest species

Output 2.4: Water supply capacity to communities is enhanced

Indicative activities:

- Enhance surface water management, establish community reservoirs
- Enhance rainwater catchment, community and household storage capacity
- Enhance groundwater management: controlling quantity, quality, establish further wells, maintenance
- Enhancing efficiency of existing reticulated systems
- Demand management: community awareness programme on water saving practices, application of water-related regulations and incentives (such as the Water and Sanitation Code, water allocation schemes, conflict resolution processes)

Component 3: Institutional strengthening to support climate- and disaster-resilient policy frameworks

Outcome 3: Strengthened institutional capacity to integrate climate change and disaster risks into sectoral policies and management practices

Output 3.1: Climate change and disaster risks and resilience are integrated into agriculture, water, forestry and coastal zone management related polices and planning frameworks at the national and sub-national levels

Indicative activities:

- Analysis of climate change gaps in agriculture, water and forestry management related polices, legal and planning frameworks at the different levels, and in related institutional capacities (desk review and consultations)
- Establish plans and timelines for mainstreaming process, agreeing on mainstreaming objectives and policy instruments to be modified or developed.
- Consultations on reviews required for integration of CC policies.
- Modification of policy instruments for CC integration, or development of new CC policy where appropriate (drafting of revised or new policy).

- Application of modified or newly created policy frameworks and instruments in target provinces and districts, and integration of on-the-ground experience informing policy frameworks
- Official approval, process of the revised policies and related instruments (e.g. Cabinet endorsement).

Output 4.2: Policy makers at the national and provincials and district offices, institutions and extension services are trained to implement climate-sensitive policies and plans

Indicative activities:

- Organize workshops and seminars on climate and disaster risk assessments, policy and planning processes and techniques for key agencies involved (Land and Water Resources Management Division, Department of Environment, Department of Agriculture, Department of Forestry, National Disaster Management Office, Water Authority, Fiji Meteorological Service)
- Prepare regular policy briefs to inform higher level policy makers on the CC and DRM mainstreaming and related adaptation processes
- Support inter-ministerial and cross-sectoral coordination and dialogue through the programme implementation process, via the National Climate Change Country Team – NCCCT, and the province and district-level representatives of the participating agencies

Component 4: Awareness raising and knowledge management

Outcome 4: Strengthened awareness and ownership of adaptation and climate risk reduction processes at national and local levels

Output 4.1: Lessons learned and best practices are generated are captured and distributed to other communities, civil society, policy makers in government and globally through appropriate mechanisms

Indicative activities:

- Develop case studies, photo stories, short videos, posters and brochures (including in local languages) on lessons learned and best practices generated by communities, and regularly distribute to them (through local governments, extension services, NGOs)
- Establish a project communication plan, to disseminate regular information using range of national and local media
- Setup a national adaptation knowledge sharing web-based platform managed by DE
- Include knowledge management products in regional and global platforms, such as the SPREP CC portal, or the Adaptation Learning Mechanism (ALM)
- Hold national and provincial climate change and disaster risk management forums
- Present knowledge on adaptation practices at regional forums and meetings
- Organize exchange site visits between participating communities, for on-site cross-learning experience, within Ba catchment area, and also between other communities of other related projects (E.g. Nadi basin communities participating in IWRM, communities in the Nausori area participating in PACC project).

Output 5.2 Climate change awareness and education programmes carried out

Indicative activities:

- Integrating experience drawn from flood and drought adaptation measures into training materials, school programmes, community awareness programmes

- School materials developed to support education activities related to climate change
- Training of teachers and educators on climate change issues, and programme experience in education institutions of the target provinces
- Organize school visits and presentations
- Explore collaborations with USP, to integrate project experience into curricular and research activities (joint technical and case studies and research)

B. Describe how the project / programme provides economic, social and environmental benefits, with particular reference to the most vulnerable communities.

As it is detailed in the project context section, severe flood and drought related events have caused significant damage to properties, community assets and life loss in the past, and the frequency and severity of these hazards appears to be increasing. The 2009 flood in the Ba area alone caused losses of over F$86 million (US$43m), most of it household properties. By implementing integrated flood and drought risk reduction and adaptation measures, this project is expected to provide important livelihood benefits, through protecting vital livelihood assets of communities in the relatively densely populated area of the Ba watershed (over 18,000 people). The flood and drought protection measures will enhance agriculture production and water supply, avoiding mayor disruption due to climate-related hazards. Through enhancing food and water security, nutrition and related health conditions are expected to improve as well. Linkages will be created with water management that is used for both household and agricultural production purposes, as well as community based forest protection in upland areas to regulate and ensure sustainable supply of water resources. By reducing climate risks to the long-term sustainability of natural resources use, this project will contribute to maintaining life and livelihoods in the project area.

Given that the project will develop integrated watershed, district and village-level adaptation plans, communities will be intimately involved and will benefit from awareness raising and training activities, through participatory consultation processes engaging community governing and social institutions, such as village councils, church, youth, or women's groups. The communication and awareness raising activities will engage local and national media, and will also target the primary and secondary schools in the catchment area, reaching out to different generations and economic strata of the country.

The policy changes introduced in sectoral plans and capacity building components of the project will be designed in a way to create an enabling environment that will secure the long-term sustainability of the project. The national capacity in the provision of climate information services, technical capacity of line departments and their extension/advisory services will be enhanced to provide support to communities in their on-the-ground adaptation measures in the long run. Linkages with other policy processes and related initiatives and projects will ensure an effective maintenance and replication of the adaptation techniques introduced to support livelihood activities of villagers.

In summary, the expected main benefits of the project are increased resilience to damage from climate change-induced extreme events such as drought and floods (including reduction of disease and fatality rates associated with such events), asset protection (both natural and man-

made), enhanced food and livelihood security, and social benefits (enhanced awareness of climate change, empowered communities and public institutions through the participatory planning and implementation process, including the involvement of women and youth), and nutrition benefits (quality and consistency of food supply).

The project is expected to deliver the following environmental benefits, among others: enhanced soil fertility, improved slope, river bank, and flood zone stability, reduction of pest/disease risks to crops and humans, and conservation of forest areas (rehabilitation of degraded areas, enhanced coverage of native species) and mangrove areas.

The socio-economic and environment benefits will be quantified to the extent possible during the detailed design phase, based on the definition of the project result framework.

C. Describe or provide an analysis of the cost-effectiveness of the proposed project / programme.

The proposed interventions in this project have been outlined in close collaboration with national entities of Fiji, involving members of the Climate Change Country Team, coordinated by the Department of Environment, and based on key national and sectoral policies, project documents and technical studies done by government agencies and regional technical agencies, such as SOPAC and USP. Initial considerations were given to a number of alternative responses during the concept development stage, based on past and ongoing projects and initiatives in land use, water resource management, flood management, agriculture, and forestry practices. For the identification of the proposed interventions under this project, methodologies used and experiences generated have been especially considered from the IWRM and PACC projects currently ongoing, and the recently implemented community-based adaptation projects by WWF-SGP and USP. This project will build on these experiences and related existing delivery mechanisms and institutional structures, further strengthen and adjust them to reduce current and projected climate risks.

It is well-proven that efficient climate early warning systems combined with preparedness and integrated adaptation measures, are much more effective to tackle hazards, than reactive response measures. The climate early warning and information system to be implemented in the Ba area under this project will build on experiences gained elsewhere in the country, harnessing and further strengthening expertise and capacities of the Fiji Meteorological Service, the National Disaster Risk Management Office and related institutions. Floodplain management activities have been largely focusing on dredging and maintenance of canals, but the recent (2009) flood events proved that current measures are largely ineffective. It can be argued that a more integrated approach combining land use planning, watershed management including upland forest areas can be more effective to reduce the severe natural and human asset losses.

During the project preparatory meetings with national stakeholders and regional organizations in-depth discussions were held on the scope and focus of the proposal, in order to formulate it through a cross-sectoral, integrated approach, involving a range of government institutions, in order to carry out adaptation actions in a comprehensive way in the Ba watershed area. The Ba catchment area was selected considering multiple criteria, including proven and well-documented vulnerabilities of the area, its national importance considering relatively high density

of population and economic importance, existing information and institutional structures that can ensure an effective project delivery, its representativeness in terms of development and climate change adaptation needs across the nation, and the suitability to demonstrate a wide range of adaptation measures cross agriculture, water, forestry, drought and flood risk management fields, that can be replicated in other areas of Fiji, and more broadly in the Pacific.

At the operational level, cost effectiveness of the programme concept is reflected through the following characteristics:

- Throughout the project, AF resources will be aligned with the financing and delivery of project Outputs that have competitive procurement components to ensure best value for money. In this regard, the project will apply best practices identified by other, ongoing climate change adaptation projects in the country region (e.g. IWRM, PACC, SGP-CBA, USP-CBA).
- This project will utilize existing government structures and processes for implementation, such at the national, provincial, district and village levels. By building on existing government and institutional structures, the programme will also harness in-kind support and contributions from offices at the national, provincial, district and local levels (office space, staff time, communications, etc.)
- The programme, once designed, will be closely built on existing baseline programmes, especially considering the IWRM and PACC projects, similarly addressing flood-related issues.
- The bulk of programme financing will be directed to community-level activities and connect directly to local opportunities for the procurement of goods and services.

Considering the above, the concept is deemed to be in line with basic cost-effectiveness criteria. During the project formulation phase, cost-effectiveness of the proposed project outcomes and indicative outputs will be further addressed and outlined in the final project document that is submitted for Board approval. Alternative means of removing key barriers outlined in this concept will be discussed including why the proposed approach is deemed to be more cost-effective.

D. Describe how the project / programme is consistent with national or sub-national sustainable development strategies, including, where appropriate, national or sub-national development plans, poverty reduction strategies, national communications, or national adaptation programs of action, or other relevant instruments, where they exist.

The project directly addresses the climate risk related priorities identified in Fiji's Initial National Communication and National Self Capacity Assessment. It is in line with and aims at supporting the development of the National Climate Change Policy, and integrating climate risk and resilience to national and sectoral policy frameworks, such as the Strategic Development Plan, the National Water Resources and Sanitation Policy, Rural Land Use Policy, the Fiji Forest Policy Statement, or the Fiji National Disaster Risk Management Plan.

The project will itself represents an action plan envisaged by the National Climate Change Policy, particularly in the context of flood and drought management. As detailed in the section on barriers, a thorough overview of existing relevant national policies (land use, coastal zone, water resource and watershed management, forestry) and related technical studies have been

analyzed to assess current gaps and needs in capacities to integrate climate change risk and resilience into livelihood policies and management practices. The community-based adaptation initiatives will be implemented in a coordinated and integrated fashion, complementing existing initiatives, such as the IWRM, PACC, SLM, or SGP projects.

Building on existing government institutions at the different levels, the project will foster inter-ministerial and cross-sectoral coordination on climate change adaptation issues. Cross-sectoral climate change coordination mechanisms will be created and strengthened for flood and drought management in the Ba Catchment Area for replication and use nation-wide.

Additional details will be specified in the full project proposal to be submitted for AF Board approval.

E. Describe how the project / programme meets relevant national technical standards, where applicable.

All UNDP supported donor funded projects are required to follow the procedures outlined in the UNDP Programme and Operational Policies and Procedures (UNDP POPP). This includes the requirement that all UNDP development solutions must always reflect local circumstances and aspirations and draw upon national actors and capabilities.

In addition, all UNDP supported donor funded projects are appraised before approval. During appraisal, appropriate UNDP representatives and stakeholders ensure that the project has been designed with a clear focus on agreed results. The appraisal is conducted through the formal meeting of the Project Appraisal Committee (PAC) established by the UNDP Resident Representative. The PAC representatives are independent in that they should not have participated in the formulation of the project and should have no vested interest in the approval of the project. Appraisal is based on a detailed quality programming checklist which ensures, amongst other issues, that necessary safeguards have been addressed and incorporated into the project design.

The project will be consistent with all national social and environmental safeguards and standards, such as:

- Environment Management Act (including Environmental Impact Assessment)
- Drainage Act
- Water and Sanitation Code
- Town and Country planning acts
- Forestry Act
- Natural Disaster Management Act

As detailed in the barriers section, existing policy frameworks in Fiji do not sufficiently incorporate climate change information, risk and adaptation measures. It is anticipated that the project will provide for the incorporation of climate information into existing and planned policies, strategies and legal frameworks.

Further details on national standards will be provided in the project document

F. Describe if there is duplication of project / programme with other funding sources, if any.

The project will be developed and implemented to create synergies with and implement complementary actions to the following projects and initiatives:

Initiative	Status, results, limitations	Complementarity of proposed AF project
The Pacific Adaptation to CC (PACC) 2009-2013 (UNDP-GEF),	Focusing on dredging of canals and related flood protection infrastructure (flood gates) in the Nausori area as demo. Community-based elements and policy mainstreaming (revision of Drainage Act), has been identified as a need and introduced recently.	Lessons learnt, techniques can be replicated in Ba catchment, complementing with integrated watershed management plans and actions, drought and flood early warning systems
Integrated Water Resources Management Project (IWRM) – 2009-2013 (UNDP-GEF)	Aims at developing and implementing an integrated flood risk management plan (flood early warning, setting up hydroment stations), and establishing a catchment basin committee. CC has been just recently introduced as a smaller component, the process is not fully informed on CC risks and on how to modify practices to integrate CC and DRR risks. This project does not deal with drought-related risks, early warning systems and adaptation measures	Experience can be replicated and adjusted in Ba catchment area, complementing with drought risk adaptation measures and related climate early warning system, integrating agriculture and forestry sector activities.
SLM	All 11 villages involved in Nandi Catchment (4 districts), different strategies for on-the-ground demos. Assessments has been carried out through community consultations, next steps: participatory landuse planning, then followed by demos in selected vilalges	Lessons learnt can be transferred to Ba, targeting communities (90% customary lands). Need to be complemented with introducing CC resilient crops and techniques to support SLM (develop farmer's capacity to use climate info, irrigation networks).
Ba river and dredging master plan	Currently being developed, in concept phase, EIA is being undertaken. It is being designed to handle a 1 in 5 years flood event based on rainfall data 20 years ago. The initiative tries to introduce small scale check dams (community operation) – 2 of these are being introduced in Nandi	AF project can support integrating info on CC risk (climate proofing masterplan), undertake hydromet assessment of return periods and design discharge, and support implementation
Pacific Islands Prediction Project (AusAid in 2005)	Climate info service was developed for the sugar cane industry in forms of monthly Rainfall Outlook, provided to Fiji Sugar Cane Corporation. There is a need to develop similar services for other types of crop	Expand similar climate info services based on assessment of user needs (different type of farmers) and crop requirements

	production (rice, vegetable, fruit)	
Pacific Island Climate Data Rescue –	Funded by AusAid, this project supported rearranging records, enhancing inventories, identifying data storage options, but did not provide resources for the digitization of data. Digitization of historical climate and met data (1930-1970) is needed for climate forecasting, and disaster risk mapping activities.	Support the management and digitization of historic data and its application for climate forecasting and risk analysis
Pacific Climate Change Science Programme (PCSSP-ICCAI), funded through the AusAid ICCAI initaitive	Downscaled climate projections are being prepared for Pacific Island Countries, accompanied by a user programme called Climate Futures. MET services, including that of Fiji are benefitting through the Climate Futures Country Reports (expected by June 2010) and related regional training. There will be a need to customized the regional data base and projection tools to country capacities and needs.	This project will serve to further build the capacity of the Niue MET Service on the use of climate change projections and information database and related climate info system developed under PCSSP. AF resources will be used to build capacity to provide tailored climate information service, drought and flood early warning systems. Project funds will serve also to train the end-users (farmers, village leaders) on how to interpret and use this information for the shorter term seasonal and longer term planning and management of their activities.

G. If applicable, describe the learning and knowledge management component to capture and disseminate lessons learned.

Recognizing the importance of knowledge management (KM) to enhance impacts and facilitate replication, this initiative integrates various KM related actions. The KM component will ensure the systematic capturing and dissemination of lessons learnt and good practices throughput the project form its initial stages of implementation to its end. There will be a broad range of KM products developed (including, case studies, photo stories, short videos, posters, brochures, and technical reports – in English and in local languages). There will be a range of media and means used for dissemination, including meetings, TV, radio, press, briefing papers for policy makers for higher level meetings and processes, technical workshops, awareness programmes in communities, exchange visits between project sites within the Ba watershed, and also with other project sites (like IWRM in neighbouring Nadi) , and web-based platforms. Awareness raising workshops will be organized at the national level, to inform the broader public on project advances and lessons learnt. To ensure exchange of lessons learnt on climate change adaptation in flood- and drought-prone areas of the region, project results will be presented in relevant regional meetings, supported by the KM products. Also, a community of practice dialogue space on the Adaptation Learning Mechanism will allow project staff to participate in a

growing expert group of adaptation practitioners who share good practices and tacit knowledge to ultimately catalyze action and influence policy processes at national regional and global level.

The project will identify, analyze, and share lessons learned that might be beneficial in the design and implementation of similar future projects in Fiji, elsewhere in the Pacific, and globally. Further details and costing of KM-related outputs and activities will be provided in the project document.

H. Describe the consultative process, including the list of stakeholders consulted, undertaken during project preparation.

The project process will be building on and serve to strengthen existing insitutions and inter-ministerial coordination mechanisms. Consultations during the project preparatory phase will involve, among others, the following national agencies and organizations:

- Land and Water Resources Management Division
- Department of Environment,
- Department of Agriculture
- Department of Forestry
- National Disaster Management Office
- Water Authority
- Fiji Meteorological Service
- CROP agencies (SOPAC, USP, SPC)
- NGOs (like WWF, FSPI)

Given the community-based focus of the project, assessment, planning and implementation of adaptation measures will be carried out through participatory consultations, engaging community-governance structures, such as District, Town and Village Councils, church groups/networks, youth and women groups. Particular attention will be given to the role of women, recognizing their critical role in providing food and water supply to their families. The communication and knowledge sharing activities will ensure that villagers learn directly from each other, through the good practices analyzed and disseminated in conjunction with direct exchange visits, among other means.

Additional stakeholders will be consulted during the project design phase, and a detailed stakeholder engagement plan will be included in the project proposal submitted for AF Board approval.

I. Provide justification for funding requested, focusing on the full cost of adaptation reasoning.

AF funds will be used to expand on, and complement existing baseline programmes and projects, and will be aligned with development priorities of the country, its districts and villages.

Component 1: Climate early warning and information systems

Baseline (without AF resources)

Currently there is no systematic ealry warning sytem in the Ba area, and existing flood preparedness and response measures are ineffective, due to limited capacity of NDMO, Fiji Met Service, national and local authorites. Without AF support, this situation will remain and the population will continue to be highly exsposed to extreme weather events and cosequent damages. Tailored climate information services only exist for the sugarcane industry, but farmers growing other types of crops (especially vegeatbles, fruits) continue to suffer due to loss in yields caused by extended drought or intensive rainfall evetnts, without having adequate information on how to prepare to reduce impacts and implement alternative practices.

Additionality (with AF resources)

AF resources will be used to strengthen the data recording and management capacity of the Fiji MET Service, as basis for preparing climate information services and ealry warning functions. A centralized database will allow to capture the currently fragmented information on agricultural and hydrological functions, allowing to interlay with climate variables, and present them in user friendly GIS-based tools, that can support planning and decision making processes in agriculture, forestry and water management. These functions, combined with strenghtened coordination between the Met Service, NDMO, line ministries and local authorities will allow more effective preparedness and response measures to flood and drought risks and hazards, as well as introducing adaptaion measures to counteract the long-term effects of cliamte change.

Component 2: Community-based adaptation to flood- and drought-related risks and hazards

Baseline (without AF resources)

Currently communities in the Ba area lack knowledge and information on effective adaptation measures. There are some useful, but incipient and ad-hoc experiences in Fiji on community-based flood protection, water management and agricultural practices, but limited to a few pilot projects (like the CBA projects implemented by USP or). Without AF resources, agriculture, forestry, water management and flood protection measures will not be modified to integrate current and anticipated climate risks, and current coping techniques and mechanisms will not be sufficient to protect assets and secure livelihoods. The current flood protection practices, largely focusing on dredging and maintenance of canals, will not be effective without complementary measures planned in an integrated way.

Additionality (with AF resources)

AF resources will support the development of an integrated and climate sensitive flood and drought management plan, based on rigorous technical assessments and broad community consultations. This will provide a framework and coordinated institutional support to implement a series of on-the-ground and community-driven adaptation measures, through introducing riverbank protection measures, drought resistant crop varieties and cultivation techniques, as well as improving water supply to communities. It is expected that employing AF resources, damages and losses caused by flood and drought events to local communities will be significantly reduced and the resilience of livelihoods will be enhanced in the long term.

Component 3: Institutional strengthening to support climate- and disaster-resilient policy frameworks

Baseline (without AF resources)

Although the Governmwent of Fiji has recognized the importance of climate change, the development of a national Climate Change Policy is still very early stages, and currently sectoral policies do not integrate climate risks systematically. Without creating an enabling environment through reviewing current policy frameworks and building capacity of national and local authorities on climate change risks and adaptation techniques, development efforts can be seriously jeopardized in the long term due to adverse effects of climate change.

Additionality (with AF resources)

The project will support systematic analysis of sectoral policies and related instruments in the agriculture, forestry, water and disaster risk management areas. This will be carried out through capacity building activities targeting government officials and planners. Given the cross-sectoral nature of the project, it will serve to strengthen the recently established National Climate Change Country Team, as well as coordination with sub-national level authorities.

Component 4: Awareness raising and knowledge management

Baseline (without AF resources)

As described in the context section, current awareness on flood and climate related risks amongst the Ba area population is very low, and this will continue to impede any effective flood control and adaptation measures. Current awareness raising and knowledge management activities on climate change are limited to a few narrow focused projects (e.g. PACC is focusing on the Nausori area, invited village representatives to its recent inception workshop, and has been present at some national events, but yet to establish a more comprehensive communication plan). USP is the key regional education institute with well-defined environmental and climate change programmes. USP has been also instrumental in piloting community-based adaptation initiatives in the country, which are limited to some 6 villages, but expected to be expanded with further funds. While experiences from these isolated initiatives is very valid, their outreach to communities and field practitioners more broadly in the country is very limited.

Additionality (with AF resources)

The proposed project will build on the above initiatives, and will develop a partnership with USP and other regional organizations (SOPAC, SPC, SRPEP) for awareness and knowledge management purposes, including links with potential research collaborations. AF resources will be used to generate range of knowledge products, that will be disseminated systematically, reaching out to broad professional and general audience, especially targeting communities in the Ba catchment through locally appropriate communication means. Direct experience sharing will be facilitated through peer-to-peer exchanges and site visits, not only within the Ba area, but also between other relevant project areas, such as the Nadi basin currently carrying out the IWRM project, or the PACC demo site in Nausori. The capturing of experiences from early stages of the project will ensure a comprehensive analysis of lessons learnt, documentation of technical solutions and institutional processes that can be replicated elsewhere in Fiji and in the Pacific region.

PART III: IMPLEMENTATION ARRANGEMENTS

A. Describe the arrangements for project / programme implementation.

The Government of Fiji will execute this 4 year project with the support of UNDP under the National Execution (NEX) modality. The Department of Environment (DE) will function as executing agency and will be responsible for ensuring that the stated project objective and outcomes are delivered, and that resources are allocated and disbursed in an efficient and effective manner as detailed in the Project Document. DE is well-positioned as executing agency for this project, considering its currently coordination role through the recently established Country Climate Change Team, which will serve as overall project assurance function. DE will be responsible for ensuring effective coordination between this Project and other relevant projects in Fiji. The Project will be coordinated through a Project Steering Committee (SC) which will provide support for the operational management of the Project. It will be chaired by the Director of the DE, and will consist of Directors of Land and Water Resources Management Division, Department of Agriculture, Department of Forestry, National Disaster Management Office, Water Authority, Fiji Meteorological Service.

The project structure will be constituted by a National Project Director (NPD), and a National Project Coordinator (NPC) . To ensure effective coordination with the relevant line departments, the project design phase will explore the possibility of establishing sectoral-sub-coordinators. The Project Director will be responsible for supervising the Project on behalf of DE and will work with the NPC. The NPD is the administrative and executive manager of activities described in the Project Document. The NPC will be supported by a technical team, comprised by technical officers of line Ministries and Departments, CROP agencies, NGOs and technical experts to be hired by the project.

DE will follow the norms and procedures detailed in the UNDP NEX manual for project execution. For its part, UNDP will provide support to the Director and the Coordinator of the project, in order to maximize its reach and impact as well as the quality of its products. Moreover, it will be responsible for administering resources in accordance with the specific objectives defined in the Project Document, and in keeping with its key principles of transparency, competitiveness, efficiency and economy. The financial management and accountability for the resources allocated, as well as other activities related to the execution of Project activities, will be undertaken under the direct supervision of the UNDP Country Office.

Once the project is approved and an operational annual work plan is prepared, the UNDP Office in Fiji will be able, in those specific cases agreed to with project counterparts, to charge the project directly for Execution Support Services, based on transactions and employing a universal price list.

UNDP will undertake the internal monitoring of the Project and of evaluation activities, taking into account from the outset local capacities for administering the project, capacity limitations and requirements, as well as the effectiveness and efficiency of communications between ministries and other institutions that are relevant to the project.

DE will prepare an Annual Work Plan that incorporates project activities and results to be delivered through the Work Plan. The Plan will define the execution time frame for each activity and the responsible parties for its implementation. The first Work Plan will be finalized and incorporated into the Project Document within 30 days of its signature. The participation of project counterparts will be essential for the success of the planning phase, during which the Annual Work Plan will be prepared.

B. Describe the measures for financial and project / programme risk management.

Key assumptions underlying the project which will be explored during the formulation phase include:

- A national consensus on the institutional management of water-, flood- and drought-related priorities in the framework of the National Climate change Policy and NCCCT is reached, meaning that collaboration of key government departments in the project is not hindered by unforeseen influences;
- A series of unusually adverse climatic conditions and extreme events does not damage adaptation measures being implemented, or weaken the interest of key stakeholders to address adaptation issues.
- There is sufficient coordination between District and Village Councils and national authorities to scale up the village-based integrated adaptation actions in an effective manner;
- Political or security complications in project sites does not limit implementation of project activities;
- Stakeholders are able to perceive reductions in vulnerability over the time-scale determined by project duration;
- Stakeholders are able to distinguish vulnerability to climate change from baseline weaknesses in land, coastal, riparian, and water resources management;
- The government remains supportive, politically and financially, to a cross-sectoral and integrated approach to the management of climate risks and opportunities;
- There is sufficient co-operation and commitment within the target communities to support community level action for the adaptation measures;
- The techniques and technologies developed are gender sensitive – i.e. they do not increase inequity between men and women or reduce self reliance;
- The selection of adaptation measures in the villages follows integrated village development plans, vulnerabilty considerations, and the established criteria and is not derailed due to political processes and influences.

While the above risks need to be assessed in detail, strong commitment from the Government of Fiji exists which limits the likely risks of the proposed project. Furthermore, linkages to ongoing and planned baseline development activities implemented by government, as well as local acceptance, will minimize these risks.

The most serious risks are related to lack of institutional coordination, limited qualified staff and high turnover, which are common issues in a number of Pacific countries. The mitigation strategy to address this risk involves early and consistent engagement of senior government decision makers on project progress and monitoring, the application of an awareness programme for policy makers, and the involvement of a group of core technical officers in relevant line departments, as well as village councils and leaders. A more comprehensive risk assessment will be carried out during the project formulation phase and an appropriate mitigation strategy will be outlined in the project proposal. During regular project review meetings, in which UNDP will be an active participant, all risks and mitigation measures will be reviewed and updated as per established practices.

C. Describe the monitoring and evaluation arrangements and provide a budgeted M&E plan.

Project monitoring and evaluation will be conducted in accordance with established UNDP procedures by the project team with the support of UNDP Staff. The Logical Framework for the project (based on the outlined provided in this concept and to be developed and presented in the full project proposal) will provide performance and impact outcome level indicators along with their corresponding means of verification. These will form the basis on which the project's Monitoring and Evaluation system will be built.

The following sections outline the principle components of the Monitoring and Evaluation (M&E) Plan and indicative cost estimates related to M&E activities. The project's M&E Plan will be presented in the final project proposal (including necessary budgetary resources) submitted for AF Board approval and finalized in the Project's Inception Report following a collective fine-tuning of indicators, means of verification, and the full definition of project staff M&E responsibilities.

In accordance with the programming policies and procedures outlined in the UNDP *User Guide*, the Programme will be monitored at the national levels through the following:

Within the annual cycle

- On a quarterly basis, a quality assessment shall record progress towards the completion of key results, based on quality criteria and methods captured in the Quality Management table below (to come).

- An Issue Log shall be activated in Atlas and updated by the Programme Manager/National Project Managers to facilitate tracking and response of potential problems or requests for change.

- Based on the initial risk analysis submitted, a risk log shall be activated in Atlas and regularly updated by reviewing the external environment that may affect the project implementation.

- Based on the above information recorded in Atlas, a Project Progress Report (PPR) will be submitted by the Programme Manager to the Project Board and the National Project Managers to the National Project Boards through Project Assurance, using the standard report format available in the Executive Snapshot.

- A Project Lesson-learned log shall be activated and regularly updated to ensure on-going learning and adaptation within the organization, and to facilitate the preparation of the Lessons-learned Report at the end of the project.

- A Monitoring Schedule Plan shall be activated in Atlas and updated to track key management actions/events.

Annually

- Annual Review Report. An Annual Review Report shall be prepared by the National level Project Manager and shared with the Project Board. As a minimum requirement, the Annual Review Report will consist of the Atlas standard format for the Quarterly Progress Report (QPR) covering the whole year with updated information for each above element of the QPR as well as a summary of results achieved against pre-defined annual targets at the output level.

- Annual Project Review. Based on the above report, an annual project review will be conducted during the fourth quarter of the year or soon after, to assess the performance of the project and appraise the Annual Work Plan (AWP) for the following year. In the last year, this review will be a final assessment. The national review is driven by the Project Board and may involve other stakeholders as required. It will focus on the extent to which progress is being made towards outputs, and that these remain aligned to appropriate outcome(s). The regional review is driven by the Project Board.

Mid-term and terminal evaluation report

According to established UNDP practices, the project will undergo an independent mid-term and terminal evaluation.

D. Include a results framework for the project proposal, including milestones, targets and indicators.

This will be outlined in the full project proposal to be submitted to the Adaptation Fund for approval.

PART IV: ENDORSEMENT BY GOVERNMENT AND CERTIFICATION BY THE IMPLEMENTING ENTITY

A. RECORD OF ENDORSEMENT ON BEHALF OF THE GOVERNMENT[1]

Provide the name and position of the government official and indicate date of endorsement. If this is a regional project/programme, list the endorsing officials all the participating countries. The endorsement letter(s) should be attached as an annex to the project/programme proposal. Please attach the endorsement letter(s) with this template; add as many participating governments if a regional project/programme:

Losana Rokotuibau Act. Permanent Secretary for Local Government, Urban Development, Housing and Environment	Oct 26, 2010

B. IMPLEMENTING ENTITY CERTIFICATION

Provide the name and signature of the Implementing Entity Coordinator and the date of signature. Provide also the project/programme contact person's name, telephone number and email address.

I certify that this proposal has been prepared in accordance with guidelines provided by the Adaptation Fund Board, and prevailing National Development and Adaptation Plans and subject to the approval by the Adaptation Fund Board, understands that the Implementing Entity will be fully (legally and financially) responsible for the implementation of this project/programme.	
 Yannick Glemarec Director Environmental Finance UNDP	
Date: October 25, 2010	Tel. and email: +1-212-906-6843; yannick.glemarec@undp.org
Project Contact Person: Gabor Vereczi	
Tel. And Email: +685 27482 ; gabor.vereczi@undp.org	

1. Each Party shall designate and communicate to the Secretariat the authority that will endorse on behalf of the national government the projects and programmes proposed by the implementing entities.

ANNEX: UNDP Environmental Finance – Specialized Technical Services

Stage	Specialized Technical Services Provided
Identification, Sourcing and Screening of Ideas	Provide information on substantive issues and specialized funding opportunities (SOFs)
	Verify soundness and potential eligibility of identified idea
Feasibility Assessment / Due Diligence Review	Technical support: provide up-front guidance; sourcing of technical expertise; verification of technical reports and project conceptualization; guidance on SOF expectations and requirements
	Provide detailed screening against technical, financial, social and risk criteria and provide statement of likely eligibility against identified SOF
	Assist in identifying technical partners; Validate partner technical abilities.
	Obtain clearances – SOF
Development & Preparation	Technical support, backstopping and troubleshooting
	Technical support: sourcing of technical expertise; verification of technical reports and project conceptualization; guidance on SOF expectations and requirements
	Verify technical soundness, quality of preparation, and match with SOF expectations
	Negotiate and obtain clearances by SOF
	Respond to information requests, arrange revisions etc.
	Verify technical soundness, quality of preparation, and match with SOF expectations
Implementation	Technical and SOF Oversight and support
	Technical support in preparing TOR and verifying expertise for technical positions. Verification of technical validity / match with SOF expectations of inception report. Participate in Inception Workshop
	Technical information and support as needed
	Technical support, participation as necessary
	Advisory services as required
	Allocation of ASLs
	Technical support and troubleshooting, Support missions as necessary.
	Project visits – at least one technical support visit per year.

Stage	Specialized Technical Services Provided
	Technical support, validation, quality assurance
	Return of unspent funds
Evaluation and Reporting	Technical support, progress monitoring, validation, quality assurance
	Technical support, participation as necessary
	Technical support in preparing TOR and verifying expertise for technical positions. Verification of technical validity / match with SOF expectations of inception report. Participate in briefing / debriefing
	Technical analysis, compilation of lessons, validation of results
	Dissemination of technical findings

Service standards:

1. initial response to communication within 2 working days
2. full response to communication (with the exception of a response requiring travel) within 10 working days