# South-South Cooperation between Pacific and Caribbean SIDS on Climate Change Adaptation and Disaster Risk Management

## Project Document

## 2010-2012

## COVER PAGE

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| Country: | Inter-Regional Programme (Pacific and Caribbean) |
| Project Title: | South-South Cooperation between Pacific and Caribbean SIDS on Climate Change Adaptation and Disaster Risk Management |
| Project Start Date: | March 2010 |
| Project End Date: | December 2012 |

**UNDP Strategic Plan (2008-2011) Outcomes for Crisis Prevention and Recovery:**

1. Enhancing conflict prevention and disaster risk management capabilities.

**Expected Outcome(s) as per the UNDP Asia-Pacific Regional Programme Document (2008-2013):**

1) Improved and effective capacity of Governments and CSOs to prevent, manage and respond to conflict and natural disaster.

**Expected Outcome of the Project 2010-2012:**

Strengthened safety and resilience of Pacific and Caribbean SIDS communities to a range of natural hazards by facilitating and supporting a South-South cooperation program targeted at strengthening climate change adaptation and disaster risk reduction capacity in SIDS, based on the transfer of appropriate 'southern' expertise and technologies.

**Expected Outputs:**

***1. Identification, documentation and dissemination of best practices on integrated climate change adaptation and disaster management specific to the SIDS context.***

Indicator 1.1: Number of best practices on integrated disaster management and integrated climate change adaptation documented and disseminated via knowledge products.

Indicator 1.2: Presentations made at regional meetings on replicable southern solutions to reduce the risk of disasters and climate change for SIDS countries.

**Targets:**

- 5 knowledge products published outlining best practices in Caribbean and Pacific SIDS for addressing risk and vulnerability issues.
- 3 contributions made to electronic bulletins or networks to share lessons learned on improving climate risk management in SIDS.
- Participation by Pacific delegation in Caribbean regional meeting, as part of relevant thematic panel.
- Virtual platform developed to enable systematic and sustained exchange on best practices and solutions relevant to SIDS-based practitioners in disaster risk management and climate change adaptation.

***2. Transfer and exchange of technologies currently being used by SIDS for effective, equitable and appropriate disaster risk management and climate change adaptation, between the Pacific and the Caribbean regions.***

Indicator 2.1: Number of technical specialists or professionals from the climate change and disaster management sectors trained in appropriate technologies applied in other SIDS countries for risk management.

Indicator 2.2: Exposure of DRM and ACC practitioners to a range of technologies and tools used in the Pacific and Caribbean regions for effective climate risk management.

**Targets:**

- 4 training courses led by Caribbean experts to train Pacific technical specialists or professionals in appropriate technologies for risk management in SIDS.
- 3 exchange visits conducted for peer learning of the application of a specific methodology for risk management in a SIDS country.
- Technology exchanges linked with the SU-SSC's South-South GATE System's Global Climate Technology Exchange (Track IV)

3. ***Disaster risk management and climate change adaptation included in the broader development agenda through support for national action planning, mainstreaming and advocacy work in the Pacific and Caribbean regions and countries.***

Indicator 3.1: Participation of Pacific representative in the planning or implementation of mainstreaming or advocacy work in Caribbean country or region.

Indicator 3.2: Increased effectiveness of mainstreaming and advocacy programmes in SIDS due to suggestions for improvement from DRM practitioners from the other region.

**Targets:**

- Guidelines and templates used for development of National Action Plans in the Pacific shared with Caribbean representatives.
- Presentation on best practice for mainstreaming and advocacy on climate risk management shared and discussed with regional representatives.
- 1 joint Caribbean-Pacific publication produced to provide guidance on mainstreaming of DRM and ACC for SIDS

**Implementing Partner:** Direct Execution by UNDP Pacific Centre (DEX)

**Other Partners:** Pacific Islands Applied Geo-Science Commission (SOPAC), South Pacific Regional Environmental Programme (SPREP), Secretariat of the Pacific Community (SPC), University of the South Pacific (USP), Caribbean Disaster and Emergency Management Agency (CDEMA), CARICOM Climate Change Centre (CCCCC), University of the West Indies (UWI), Caribbean Risk Management Initiative (CRMI), Cuban National Institute of Meteorology (INSMET), UNDP Unit for South-South Cooperation (Bangkok)

**Overview**

With the greatest concentration of small island states worldwide, both the Pacific and the Caribbean regions face common threats based on the similar geography of small islands, accelerating climate change and the increasing frequency and intensity of related disasters; tropical cyclones and seawater flooding are annual occurrences, with the consequent damages and setbacks for human development. Seismic risk is also a substantial concern in the both regions, with an incidence of tsunamis as well as active above ground and underwater volcanoes in several locations. Populations and key infrastructure concentrated heavily in coastal zones are exposed to recurrent flooding and sea level rise induced by climate change. The social and economic vulnerabilities common to SIDS are apparent in both the Caribbean and the Pacific, due to their small scale and limited economic diversification, which hampers the resilience of such states and their populations for recovery post-disaster.

At the same time, SIDS countries and local communities have a range of capacities and practices for effective disaster prevention

and management, as well as for coping with and adapting to climate change. Some of these techniques are based on traditional practices which stand the test of time and prove remarkably resilient, whereas others involve the use of new technologies suited for developing countries with SIDS characteristics and limited resources. There is great potential for exchange of ideas, experiences and best practices between SIDS in the Pacific and the Caribbean, in order to find suitable solutions and replicate best practices for addressing the various threats posed by climate change and disasters. The way forward for SIDS countries also entails the harmonization of disaster risk management and climate change science, for a more integrated approach which grasps the critical linkages between these fields of work.

To date, exchanges between these two regions to address common climate change adaptation and disaster management issues have been sporadic, with interest repeatedly expressed in various fora but insufficient follow-up to capitalize on the opportunities to identify and share southern solutions. Under this initiative, UNDP as a neutral broker with long-term presence on the ground in both regions and their member countries will play a facilitation role to lay the ground work for sustained south/south cooperation on these urgent development issues.

Given the complexity of the inter-regional coordination required, involving multiple regional and national actors, this project will be implemented through Direct Execution Modality (DEX).

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| **Allocated resources:** | |
| • In-kind Pacific Centre | $189,468 USD |
| • Core funds – Special Unit for South/South Cooperation: | $200,000 USD |
| • Cost-Sharing (unfunded budget): | $393,000 USD |
| • GMS (7%): | $27,510 USD |
| **Total Project Cost:** | **$809,978 USD** |

**Agreed by (Manager, UNDP Pacific Centre):**

**Agreed by (Director, Special Unit for South-South Cooperation):**

**Agreed by (Executive Director, Caribbean Disaster Emergency Management Agency - CDEMA):**

**Agreed by (Director, Pacific Islands' Applied Geo-Science Commission - SOPAC):**

## Acronyms

ACC – Adaptation to Climate Change
AWP – Annual Work Plan
CARICOM – Caribbean Community
CCCCC - Caribbean Community Climate Change Centre
CDEMA – Caribbean Emergency Disaster Management Agency
CDM – Comprehensive Disaster Management
CIMH – Caribbean Institute of Meteorology and Hydrology
CMO – Caribbean Meteorology Organization
CPR – Crisis Prevention and Recovery
CRMI – Caribbean Risk Management Initiative
CROP – Council of Regional Organizations of the Pacific
CSO – Civil Society Organization
DEX – Direct Execution
DRM – Disaster Risk Management
DRR – Disaster Risk Reduction
GATE – Global Assets and Technology Exchange
GDP – Gross Domestic Product
GEF – Global Environment Facility
GES – UNDP's Gender Equality Strategy 2008-2011
GGCA – Global Gender and Climate Change Alliance
INSMET – National Institute of Meteorology of Cuba
IPCC – Inter-Governmental Panel on Climate Change
IUCN – International Union for the Conservation of Nature
LDC – Least Developed Country
MCO – UNDP Multi-Country Office
M & E – Monitoring and Evaluation
MSI + 5 – Mauritius Strategy Implementation 5 years after Initiation
NAP – National Action Plan
NAPA – National Adaptation Program of Action
NDMO – National Disaster Management Office
NEMO - National Emergency Management Office
NZ – New Zealand
OCHA – UN Office for the Coordination of Humanitarian Affairs
ODPEM – Office for Disaster Preparedness and Emergency Management
PACC- Pacific Adaptation to Climate Change project
PC – UNDP Pacific Centre
PIFS – Pacific Islands' Forum Secretariat
PM – Prime Minister
PNG – Papua New Guinea
PRECIS – Providing Regional Climates for Impacts Studies
SIDS – Small Island Developing State
SNC – Second National Communications report (under UNFCCC)
NSCA – National Strategy for Climate Adaptation
SOPAC – Pacific Islands' Applied Geoscience Commission
SPC – Secretariat of the Pacific community
SPREP – Secretariat of the Pacific Regional Environment Programme
SU-SSC – UNDP Special Unit for South-South Cooperation

SURF – Sub-Regional Resource Facility
TAF-OFDA – The Asia Foundation - Office of Foreign Disaster Assistance (United States)
UN – United Nations
UNDP – United Nations Development Programme
UNFCCC – United Nations Framework Convention on Climate Change
USD – United States dollars
USP – University of the South Pacific
UWI – University of the West Indies

## Section I - Narrative

### Section I a). Inter-Regional Situation Analysis – SIDS' Vulnerability

Both the Pacific and the Caribbean regions face common and escalating threats based on the similar geography of small islands, and their location in the cyclone corridors: tropical cyclones and seawater flooding are annual occurrences, with the consequent damages and setbacks for human development. Seismic risk is also a substantial concern in the both regions, with a tsunami hitting Solomon Islands in 2007 and active above ground and underwater volcanoes in several Caribbean locations, as well as the volatility of the Tonga trench in the Pacific region. Populations and key infrastructure concentrated heavily in coastal zones are exposed to recurrent flooding and sea level rise induced by climate change. The social and economic vulnerabilities common to SIDS are apparent in both the Caribbean and the Pacific, due to small scale and limited economic diversification, which hampers the resilience of such states and their populations for recovery post-disaster.

A 2006 report by World Bank notes the considerable cumulative impact of disasters on Pacific Island countries in recent decades. "Since 1950, natural disasters have directly affected more than 3.4 million people and led to more than 1,700 reported deaths in the region (outside of Papua New Guinea). In the 1990s alone, reported natural disasters cost the Pacific Islands region US$2.8 billion in real 2004 value. Between 1950 and 2004, extreme natural disasters, such as cyclones, droughts and tsunamis, accounted for 65 percent of the total economic impact from disasters on the region's economies." [1] The report also points to the increasing incidence of disasters, with 10 of the 15 most extreme events reported over the past half a century occurring in just the last 15 years.

The most recent scientific evidence and observations show alarming predictions for SIDS countries in both regions for the near future, with the worst-case scenarios outlined in the IPCC's 4th Assessment Report from 2004 now considered quite likely. Global warming is rising more quickly than anticipated, with average temperatures now expected to rise between 1.4 and 5.8 degrees Celsius by 2100, compared to the 1990 baseline.[2] For small islands already balancing precarious ecosystems, global warming will have a devastating impact on key livelihoods and social welfare sectors, impacting water resources, biological diversity, fisheries, agriculture, energy access, health, tourism and even human settlements and infrastructure. Even in the lower range to this prediction, some scientists advise that warming above 1 degree Celsius will trigger a broad range of impacts on ecosystems such as coral reefs and seagrass beds, which are of vital importance to the economic and social well-being of island communities. Ecosystems in the Pacific region are highly climate sensitive, with ocean acidification and water temperature changes killing coral and driving fish to new zones, thereby impacting incomes and subsistence, as many Pacific Islanders earn their living and feed their families via the commercial or artisanal fisheries sector. Coconuts are another staple and key export (in the form of copra) for smaller islands, such as Kiribati and Tuvalu, and this hardy plant is also endangered by climate change, with rising seas moving inwards and coconut palms gradually toppling into the ocean. In atoll countries such as Marshall Islands, Federated States of Micronesia, Kiribati, Tuvalu and Tokelau, fresh water is available mainly through small underground lenses, which due to sea level rise, compounded by king tides and storm surge, are increasingly exposed to saline contamination.

Sea level rise as a result of climate change is becoming an urgent matter for the Pacific, with devastating consequences already unfolding. In the Pacific region, 50% of the population lives within 1.5 kilometres of the coastline. In some atoll countries composed of small strips of land – such as Tokelau --100% of the population lives within 50 meters of the coast. In the capital of Kiribati, the maternity wing of a local hospital is already routinely flooded by high tides, as are the yards of local residents, with saltwater poisoning home gardens used for subsistence. Sinking countries such as Tuvalu and Kiribati will be uninhabitable within a few decades, while other islands – most notably the Carterets in Papua New Guinea – are already attempting to evacuate and relocate residents, as their islands go under water, but a viable and conflict-free solution has yet to be found. In the Caribbean region, sea level rise is also proceeding inexorably, most evident in progressive coastal erosion which threatens homes and the tourism

[1] World Bank, Not If But When: Adapting to Natural Disasters in the Pacific, 2006.
[2] UNDP, "Impacts of Climate Change in the SIDS – Basic Facts and Figures," draft report, August 2009.

industry on which a high proportion of the population depend for their incomes. Low-lying islands with predominantly flat geography -- such as Bahamas, Turks and Calcos and Barbados – are most exposed to this trend, as even a few centimetres of sea level will extend seawater flooding far inland. In Tarawa, Kiribati, a 50 cm rise in sea level - almost certain before the end of 2100 – combined with a reduction in rainfall by 25% would reduce the freshwater lens by 65%. With a 50 cm sea level rise, over one-third of the Caribbean's beaches would be lost, and in the case of Grenada 60%, affecting not just homes but also hugely impacting the tourism industry, in on which many SIDS countries heavily depend as a motor for their economies and as one of the main sources of employment, due to limited economic diversity. In Trinidad, some beaches are retreating as much as 2 meters per year, while in Fiji beaches have retreated by 30 meters since 1960.

Increases in sea surface temperature as a result of climate change will heighten tropical cyclone intensities by up to 10% more by 2020, with peak precipitation rates likely to increase by 25%. [3] This means more frequent and severe cyclones for both the Pacific and Caribbean region, as well as more recurrent extreme flooding. The incidence of hurricanes has already increased markedly in the Caribbean region within the last decade, now with an average of 4 severe hurricanes —category 4 or 5 on the Saffir-Simpson scale– sweeping through each year, causing major damage. Climate change may also mean that the Caribbean hurricane corridor shifts in the near future, with hurricanes starting to encroach as far south as Trinidad, which has previously been largely spared from these threats. The southwest Pacific region currently is hit by an average of 4 hurricane-strength cyclones each year, and this pattern is also expected to intensify in the next few years due to climate change trends, with the El Niño phenomenon considered a significant trigger in that dynamic.

By 2080, flood risk is projected to be 20 times greater than at present for Pacific Island countries, many of which are already struggling to cope with current levels of floods due to heavy rainfall and compounded by storm surge and king tides. Flooding destroys not just homes and crops, but also essential infrastructure needed to ensure decent living conditions and basic services. Floods in 2001 in Pohnpei, Micronesia, caused $1.5 million USD in damage to a key hydropower plant, which took 5 years to rebuild.

It must be noted that the ravages of climate change and related disasters do not impact evenly on all island populations, with some people and communities much more vulnerable than others, and these differences must be taken into account for effective disaster preparedness, management and development planning. Significant differences are often found between disaster impacts on women and men, as globally women are more likely to be killed during disasters, and at a younger age then men.[4] At the same time, the capacities of various groups and individuals must be acknowledged and tapped into for improved preparedness and planning at the community level, whereas often -- due to traditional stereotypes and gendered division of labour -- women are portrayed more as victims than as agents of change, and their contributions to exploring adaptation options, finding solutions and in re-building post-disaster are underestimated. This south-south program will incorporate gender sensitivity into all levels of planning and implementation, as the safety and resilience of SIDS countries and their populations depends on effective and appropriate disaster management actions and systems, which in turn requires gender equality and the empowerment of women to make decisions and contribute at the regional, national and local levels. Therefore, systematic efforts will be made to engage and include women, along with men, in all project planning and activities.

Despite the troubling panorama outlined above, at the same time SIDS countries and local communities have a range of capacities and practices for effective disaster prevention and management, as well as for coping with and adapting to climate change. Some of these techniques are based on traditional practices which stand the test of time and prove remarkably resilient, whereas others involve the use of new technologies suited for developing countries with SIDS characteristics. Remote outer island communities in the Solomon Islands have developed coping mechanisms for food security, using traditional food preservation techniques, such as burying root vegetables underground, to ensure food security post- disaster. Some types of traditional housing – such as *fales* with no walls in Samoa -- are inherently resilient to gale force winds and can be rebuilt at minimal cost if knocked down. Women in rural Guyana take charge of safeguarding banks of seeds which are resistant to droughts or floods, and maintain oral knowledge of the range of crop varieties of staple foods related to these climate-proof characteristics. Communities in both regions also have been known to use traditional methods, such as drums or church bells for effective early warnings, and have

[3] Ibid.
[4] Lorena Aguilar, Training Manual on Gender and Climate Change, IUCN/UNDP, San Jose, 2009.

conserved indigenous knowledge of how to read environmental indicators on natural phenomena, such as incoming tsunamis. Appropriate technologies developed and used resourcefully by small island countries can include selection and adaptation of the PRECIS climate model to run on a cluster of use computers rather than a costly supercomputer, as under way in Cuba, or a simplified early warning system for floods operated by communities in Jamaica. These are just some examples of the great potential for exchange of ideas, experiences and best practices between SIDS in the Pacific and the Caribbean, in order to identify suitable solutions and the replicate best practices for addressing the various threats posed by climate change and disasters.

Current practices for the development and implementation of disaster management systems, or for assessments and research, at times tend to rely heavily on high-priced consultants from the wealthy neighbouring countries, such as Australia and New Zealand in the Pacific, or the United States and England in the case of the Caribbean. Similar dependency is often found in relation to the climate information and projections produced and analyzed for SIDS. These arrangements and mechanisms are not necessarily set up in ways which build capacity for national technical staff in SIDS countries to undertake the work themselves, or even define the preferred parameters. On the community level, early warning systems and other technologies vital for ensuring the safety of residents in the event of a disaster, or for monitoring the effects of climate change locally, may rely on technologies which are not sustainable and which fail to adequately incorporate traditional knowledge or coping mechanisms. In contrast, this project as part of a larger UNDP commitment to south-south cooperation as a strategy for capacity-building, seeks to promote the exchange of expertise and knowledge among SIDS countries to develop national and local level capacity for climate risk management which would prove sustainable over the long term.

The way forward for SIDS countries also entails the harmonization of disaster risk management and climate change science, for a more integrated approach which grasps the critical linkages between these fields of work. Traditionally, in most countries, the disaster management community tends to be more action-oriented and focuses on the short term, while the climate change scientists and sectoral specialists addressing adaptation issues speak a different language and work against a long term time horizon, and to a certain extent work in isolation. The separation of these two communities undermines the effectiveness of development planning and disaster management, so opportunities must be found to bridge the two groups and encourage them to talk to each other and engage more systematically in joint planning and implementation. This project will bring both groups to the table, encourage the translation of complex climate science into more understandable terms, and point out specific ways in which both communities depend on each other to fulfil their complementary mandates. For example, early warning systems for droughts, floods and other extreme events process scientific data, which must be made easily available to people on the ground operating these systems, as well as to national disaster management offices. Extreme weather forecasting information which can estimate cyclone trajectories within a 3-day or 5-day time frame must be systematically conveyed to disaster managers, so that measures to protect the population at risk can be effectively implemented. In turn, climate change scientists will understand the full implications of their work only if they engage regularly and build a constructive working relationship with the disaster management community. The project will endeavour to identify examples where such a harmonized DRM and ACC integration has been achieved in SIDS contexts, as best practice to adapt and emulate.

This project focuses on climate change adaptation rather than mitigation as most critical for the survival of small island dwellers, as the preferred area in which human talents and resources must urgently be invested. While mitigation of climate change is of paramount importance globally, any investments by SIDS countries in mitigation will be symbolic rather than exert a tangible influence on global greenhouse gas emissions. Small island states represent about 5% of the world's population and account for only 1.3% of total greenhouse gas emissions[5]. This percentage is too small to have any impact on climate change trends. For this reason, SIDS efforts on mitigation focus at the level of international negotiations under the AOSIS bloc to aim for stringent targets from the larger countries which do have a decisive impact on the overall global emissions fuelling climate change, rather than focusing on emission reduction by SIDS themselves. Even in the event of drastic emissions cuts obtained under the post-Kyoto regime, the complex processes and interactions between the atmosphere, biosphere, cryosphere are hydrosphere cannot be reversed quickly, and climate change will continue to accelerate for decades under all scenarios. Therefore, it is often recognized that development actions in the SIDS countries should focus resources on adaptation activities for best impact.

[5] Ibid.

## Section I b). Recent disaster impacts in the Caribbean and the Pacific

Caribbean region impacts

A 2007 Inter-American Development Bank Report noted that over the past 30 years, an average of 40 important disasters have impacted the Central American and Caribbean region, leaving 4 million people affected, 5000 deaths, US$3.2 billion in direct losses and an estimated similar amount of indirect losses.

As predicted under the IPCC 4th Assessment Report, the frequency and intensity of hurricanes is increasing in the Caribbean region. Hurricane Ivan in 2004 went on record as one of the most devastating disasters to impact on the region, and especially on Grenada and the Cayman Islands where damages and losses equalled over 200% and almost 140% of GDP respectively. Grenada's two main crops -- nutmeg and cocoa -- were completely ruined, and it is estimated that it will take 10 years for the plantations to be re-established enough to make a contribution to GDP. Grenada is known as "the spice island" due to the heavy reliance of its small island economy on these crops. The country's socio-economic development was eroded by at least a decade by this single extreme weather event, which lasted for only a few hours.

The previous hurricane to have such destructive impact in the Caribbean was Hurricane Gilbert on Jamaica, the 20th anniversary of which was recently commemorated. In 2008, Hurricane Dean left in its trail damage to assets in Dominica of over USD $47 million; production losses/increased operational expenses and revenue losses equalled an additional USD $13 million. For Belize, total impact was 7.3% of GDP. However the agricultural sector bore the brunt of the damage – losses in this sector accounted for over 63% of the agricultural GDP.

With each disaster, critical infrastructure and productive capacity are lost; eroding years of hard-earned development achievements and gains with each impact. Unfortunately, 2008 was another very active year for cyclone activity in the Caribbean. Hurricane Ike ravaged the Turks and Caicos Islands, where over 90% of homes on two of the islands were damaged, as well as public facilities like hospitals, schools. Roads were flooded, bridges washed away and airports on three of the islands inundated.

Cuba has been one of the Caribbean countries most relentlessly battered by hurricanes. The country has been hit by 20 tropical storms in the last 10 years, 14 of which were full-fledged hurricanes; of these, seven impacted the country at highest intensity, classified as category 4 or 5. In keeping with the escalation in hurricane frequency, 2008 was a very active year, with 28% of the country's 11 million population evacuated, more than 500,000 houses damaged, as well as 113,00 hectares of crops. Destruction of critical infrastructure was extensive, affecting electricity systems, schools, and health care facilities. Preliminary estimates place the total damage at $10 billion USD, equivalent to 10% of the country's GDP.

Pacific region impacts

The Pacific region is also highly vulnerable to climate-related threats. In addition to the shared threats of tropical cyclones, floods, droughts, this region faces hazards such as earthquakes, tsunami and volcanoes as well as steady sea level rise that threaten all countries.

In 2005, the Cook Islands were hit by five cyclones in the space of two months, with total damages estimated at $20 million NZ. Tropical Cyclone Percy left 640 people homeless in the northern islands, and infrastructure including a solar power station was demolished. During the recurring El Niño phenomenon, the southern islands experience severe drought, affecting agriculture and sometimes leaving households without water for months. The contrasting La Niña phase unleashes flash floods on the southern islands and causes drought on the northern group. Sea level rise, coral bleaching and coastal erosion are major concerns for the Cook Islands, and are expected to be further aggravated by climate change, compounded by human-made environmental degradation.

Tokelau, comprising of three low-lying atolls scattered across a vast expanse of ocean – is also highly vulnerable to both climate change impacts and sudden onset hazards such as tropical cyclones. In 2005, Cyclone Percy also struck Tokelau, leaving many homeless, and causing millions of dollars of damage to crops and property, including critical infrastructure such as school, hospitals, power lines and sea walls. Drought due to environmental degradation is a

growing concern, as well as the slow onset hazard of sea level rise. Given that atolls consist of a narrow land mass compressed between two large bodies of sea, the close proximity of homes and infrastructure to the coastline is unavoidable.

The tiny Pacific nation of Samoa, with a total population of 185,000 was hit successively by Cyclones Ofa and Val in 1990, resulting in loss of 92% of the crops on this largely rural country, which depends heavily on subsistence agriculture. Total damages to the Samoan economy from these two cyclones exceeded $300 million USD.

Niue is known as "the rock" of the Pacific, due to its unique and rugged geography, and is situated on the edge of the southern cyclone belt and in the zone of the south-east trade winds. In 1990, Cyclone Ofa damaged crops, houses, wharfs and corals, but its destructive force was outdone in 2004 by Cyclone Heta, which struck the island as a category 5 cyclone. Heta left the country reeling, with damage totalling NZ$38 million for the microstate of 1700 people. The western side of the island was badly affected with Alofi South on the southwest coast the worst impacted with the country's only hospital , national museum and library completely destroyed, 90% of houses damaged. The island's communications system, and infrastructure particularly those located along the coast were severely damaged by wind and rubble thrown up by surging waves. This experience was traumatic for the population and underscored the need to strengthen disaster preparedness systems and coastal development guidelines to limit the impact of future cyclones and associated storm surge. Whereas Niue had previously been a net food exporting country, after Cyclone Ofa it became dependent on food imports for the subsequent two years. The country experienced significant out-migration of its population following these hurricanes, due to sharp loss of livelihoods and people's concerns for their safety from disasters.

Heavy sea swells wreaked havoc in Papua New Guinea, Kiribati, the Marshall Islands and the Federated States of Micronesia in 2008, with OCHA reporting that at least 75,300 were displaced by these destructive sea swells and the consequent seawater flooding. Salt deposits from the high tide floods can take up to 12 months to be cleared for land cultivation. Kiribati and Tuvalu experience King Tides within any given year, inundating roads and arable land.

Intense rainfall caused extensive flooding in Nadi, Ba and other parts of Fiji in January 2009 resulting in FJ$113 million in estimated damage to infrastructure and lifelines. Post disaster technical assessments have highlighted the need to invest in technical/scientific based risk analyses to determine appropriate structural mitigation measures that the government and development partners should invest in to support reconstruction. These analyses using flood models and maps will help determine if the structural mitigation measures to be implemented will in fact reduce flood risks.

The small cluster of Carteret Islands, 85 km. north east of the Papua New Guinea's autonomous Bougainville region, has highlighted its plight in resisting rising sea-levels. Sea walls and replanting mangroves have made little or no impact on keeping the sea at bay. One of the islands has already split in two, due to rising seas, shorelines are further inland and vegetable gardens are being poisoned by salt water. Other Pacific countries most acutely at risk of sea level rise induced by climate change over the coming decades include low-lying atolls such as Marshall Islands, Tokelau and Kiribati.

### Section I c). Institutional context

Interest has been expressed by diverse stakeholders within the UN and regional institutions over the past few years in facilitating south-south cooperation between Small Island Developing States (SIDS) in the Caribbean and Pacific regions on shared issues in climate change adaptation and disaster risk management and how these are being addressed in the SIDS contexts.

Cooperation in general between the Pacific and the Caribbean appears to be increasing, in particular involving Cuba – one of the key sources of expertise in the Caribbean region on climate risk management. The 1st Cuba-Pacific Islands Ministerial Meeting was held in Havana on Sept. 17-19, 2008. Senior government officers from 10 Pacific Islands participated, including: president of Kiribati, PM of Tuvalu, foreign ministers of Fiji, Nauru and Solomon Islands, also permanent representatives to the UN of Tonga, Vanuatu, Samoa, Micronesia and PNG. As a result, the first ever Cuba-Pacific framework agreement established, to focus on cooperation in four areas: health, education, sports and

climate change. At this meeting, the Cuban foreign minister warned of the danger of climate change and called for cooperation agreements among small nations to face natural disasters.

At the stakeholder consultation held in 2008 in Belize by the UNDP's regional program Caribbean Risk Management Initiative (CRMI), interest was expressed by key regional actors in exploring a long term cooperation program in the area of climate risk management, between the Caribbean and the Pacific, based on common concerns and interests. The potential for such a program was noted also over the last year by the former Caribbean SURF and by a UN-Habitat regional mission.

Subsequently, in May 2009 representatives from key regional organizations leading climate change and disaster risk reduction strategies in the Caribbean region attended the annual Pacific Platform meeting in Fiji. One of the stated objectives of this regional meeting of Pacific stakeholders on disaster risk management and climate change was to establish south-south collaboration among small island developing states (SIDS). The Caribbean contributions on previously identified topics such as catastrophe risk insurance schemes, and the integration of climate change and disaster risk reduction into development planning, were welcomed with keen interest at the Platform. The meeting's final recommendations indicate a consensus to undertake broader and more sustained collaboration on the disaster risk reduction and climate change issues affecting SIDS, for transfer of expertise, technology and lessons learned. Areas chosen for particular attention include methodologies for generating climate information, and strategies for integrating disaster risk reduction into sectors such as agriculture, tourism, water and sanitation, health and others.

This south-south cooperation program outlined in this document will facilitate the interaction of various institutions in the two regions. Some of the expected participants on the Pacific side include the Secretariat of the Pacific Regional Environmental Programme (SPREP) and the Pacific Islands Applied Geoscience Commission (SOPAC); and from the Caribbean, Caribbean Disaster Emergency Management Agency (CDEMA) and the Caribbean Community Climate Change Centre (CCCCC). The UNDP Pacific Centre and CRMI will facilitate this coordination, under the direction of the Project Board.

SOPAC focuses on providing assistance to its member countries in three key programme areas: oceans and islands, community lifelines, and community risk. SPREP provides assistance in order to protect and improve the environment and to ensure sustainable development. CDEMA is responsible for coordinating an immediate response to any disastrous event affecting any Participating State once such assistance is requested. Additionally, CDEMA has a responsibility to support Participating States in mitigation of hazard impacts and capacity development to address comprehensive disaster management. CCCCC is the region's official repository and clearing house for regional climate change data, providing climate change-related policy advice and guidelines to the Member States to coordinate the region's response to climate change. A comprehensive list of the potential partner institutions is attached (Annex 1).

While there is to date no direct precedent for an inter-regional cooperation program such as this one focusing on a addressing climate change risk management issues by SIDS, the program does take into account learning and findings from several prior pertinent initiatives. Given that this program has a strong emphasis on knowledge management and seeks to establish a platform for continuous exchange among SIDS, some of the previous initiatives considered include SIDSNet, the Caribbean Risk Management Initiative (CRMI) and PestNet. SIDSNet was established in 1997, initially was quite dynamic but after the early years its activity waned substantially. It proved quite effective as a clearinghouse or archive for SIDS-related documents, but was less effective as discussion forum. The founder notes in hindsight that this was mainly due to two factors: (1) the development of electronic networking technology was in its infancy at the time SIDSNet was launched, so its full potential as an on-line discussion forum was never realized; (2) it was designed so as to focus primarily on UN actors, and did not have sufficient outreach to practitioners to bring them into the network. In contrast, PestNet was referred to as a south-south Pacific network that has fostered a vibrant community of practice, facilitating contacts and discussions among practitioners and in maintaining momentum after even 10 years, because it addresses a very practical need -- for practitioners in often isolated locations to be able to consult and interact informally in between face-to-face meetings. Another factor in the success of PestNet was the securing of two dedicated experts who keep the discussion flowing through a commitment to address questions posed by users and by tracking down sources of specific expertise. Along these lines, the Solutions Exchange model developed by UNDP and applied successfully in many parts of the world also relies on a core staff team, involving a dedicated networker and editor, and should be considered as an attractive model for the

establishment of a network platform for this project, in combination with a user-maintained social networking dimension, and in that way would harness the best modalities found in current global practice.

The Caribbean Risk Management Initiative as a regional UNDP-led program in the Caribbean is perhaps the most immediate precedent for this inter-regional south-south project . As a logical expansion of its constituency and as instructed by its Program Steering Committee, the CRMI after 4 year of existence decided to initiate outreach to another region to deepen its knowledge management. Whereas both Central America and the Pacific were considered for this initial inter-regional engagement, the Pacific proved to be more receptive and the similarities between the regions more compelling because of SIDS' risk profiles. An external evaluation of the CRMI conducted in 2008 noted that it had been quite successful in bridging language-based (mainly French, English and Spanish in the Caribbean) communities and cultural differences within the Caribbean region, and specifically that "Cuba's relation with the anglophone and francophone countries is probably the most successful manifestation of CRMI's transcultural agenda." Cuba is an important element of the CRMI due to its "hardcore capacity... on issues like disaster preparedness and the science of climate change." It can be argued that CRMI's abilities to bring stakeholders and practitioners together beyond linguistic and cultural differences within the Caribbean region was achieved because of the value added of UNDP as a global organization with long term country presence in 166 countries, and therefore its proven ability to mobilize and convene in and between different cultural contexts. This value added will also be decisive for achieving successful facilitation of this inter-regional project, as the cultural differences between Caribbean and Pacific are clearly more profound and challenging than those within one region. The CRMI's evaluation also noted that the potential for south-south exchange of experiences with a view to building capacity was still not fully tapped, and that "there are many instances of capacity or ground level experiences in other countries that can or should be promoted." In order to capitalize on these lessons learned under SIDSNet, PestNet and CRMI, we can ascertain three factors that must be taken into account for the current inter-regional project's design and implementation: (1) the critical role of the UNDP in bridging and facilitating transcultural exchange and communication, (2) the opportunity to fully exploit electronic networking capacities which are now well-developed and generally understood, (3) the need to reach beyond UN institutions, and involve and serve practitioners on the ground, in the exchange of experiences and comparisons of practices relevant to SIDS.

This cross-cultural facilitation role assumed by UNDP will be even more critical for the current project, acknowledging that despite their common characteristics as SIDS, the island countries in the Caribbean and the Pacific also possess different characteristics and histories which pose challenges to effective communication and collaboration. A recent study by the World Economic Forum highlights many of these differences. Firstly, Pacific countries have enjoyed only about 40 years on average of self-governance, in contrast to 200 or more years of self-governance in most Caribbean countries. This means that logically national institutions in the Caribbean are much more consolidated, whereas in the Pacific, regional organizations are more robust, providing a counterweight to the fragility of national institutions. The magnitude of the challenges to disaster risk management and climate change adaptation in the Pacific are considered more formidable, as the Pacific countries are "twice as isolated" across vast ocean distances, with the implications of very high cost for transport and travel, high fuel costs, and hundreds of outer islands which can be very difficult to reach. The Pacific countries maintain traditional chiefly governance structures, often in parallel to more modern parliament-based systems, and maintain traditional cultures with complex protocols and taboos which differ significantly from one nation to the next, and between the sub-regional groupings of Melanesia, Micronesia and Polynesia. Governance as it pertains to risk management is therefore more complicated in the Pacific than in the Caribbean, and customary or traditional land tenure is one major factor in this regard as well. Whereas the majority of Caribbeans communicate amongst themselves in romance languages which are spoken widely in other countries as well, the Pacific maintains native languages, and in some countries (such as Solomon Islands and Vanuatu) numerous languages and dialects. Therefore, the communication of risks may be more straightforward in the Caribbean, and easier to support through north-south cooperation.

However, while the Pacific seems to face greater challenges than the Caribbean, at the same time it has resources which bolster its resilience, such as conservation of traditional coping practices, community solidarity and reciprocity and strong extended family structures. The strong oral tradition of the Pacific must also been seen as an asset and leveraged for the communication of risks and the organization of community networks.

## Section II - Strategy

### Section II a). Linkages to international mandates

As noted in international agreements such as the **Havana Program of Action**, south-south technical cooperation is a particularly appropriate and valuable strategy for building capacity in developing countries to address urgent development issues. There is consensus that LDC countries in particular would benefit from this approach, and a number of LDCs are found in the Pacific region (Kiribati, Vanuatu, Tuvalu and Solomon Islands), and one in the Caribbean (Haiti). The **Mauritius Strategy** notes that SIDS countries in various parts of the world face common concerns, such as climate change trends which threaten traditional ways of life and economies and which are playing out in terms of more frequent and intense hazards such as tropical cyclones, floods and droughts. Therefore it calls for global alliance and cooperation among SIDS to tackle common threats and vulnerabilities, and develop a shared policy agenda.

The **Inter-Governmental Panel on Climate Change (IPCC) 4th Assessment Report**—the most definitive assessment to date of the current and projected magnitude of climate change – devotes a special section to "small islands" due to their extreme vulnerability to climate change impacts. It finds that small islands are particularly susceptible to sea level rise – projected to submerge some entire countries within a few decades – and to coastal flooding and erosion, which will harshly affect livelihoods options such as fishing and agriculture, as well as access to basic water resources.

The **Hyogo Framework of Action** was established as a result of the World Conference on Disaster Reduction in 2005, and provides a blueprint for improving disaster management and reduction, which governments and key regional agencies have officially endorsed. It calls on subscribing states to provide technical and financial assistance to disaster-prone developing countries and specifically encourages South-South cooperation as a strategy for enhancing disaster reduction.

Pacific Leaders in 2005 approved the **Pacific Disaster Risk Reduction and Disaster Management Framework for Action 2005 – 2015** (Regional DRM Framework) which has identified six thematic areas for investment in practical measures to address issues related to the vulnerability to Pacific communities to natural and other hazards and to promote sustainable national development. Subsequent to the endorsement of the Regional DRM Framework, SOPAC facilitated the establishment of the Pacific DRM Partnership Network to assist Pacific countries with the implementation of initiatives under the framework. The establishment of this partnership has provided Pacific countries with significant DRM opportunities directly through regional and national mechanisms and further opportunities are anticipated through the sharing of South-South experiences and learning.

In 2005, Pacific leaders also endorsed **the Pacific Islands Framework for Action on Climate Change**, with the goal of ensuring that Pacific Islands peoples and communities build their capacity to be resilient to the risks and impacts of climate change. Of the six guiding principles of this framework, three are embodied in this proposed partnership: improving understanding of climate change; education, training and awareness; and partnerships and cooperation. SPREP was given the mandate to lead climate change research and planning for the Pacific region, and in that regard developed the "Action Plan for the Implementation of the Pacific Islands Framework for Action on Climate Change 2006-2015." One of the key areas identified under this action plan is to "share lessons learned from best practices in the implementation of climate change programs."

Relevant experience from Caribbean and Pacific SIDS would be shared under this project, specifically contributing to achievement of mutually beneficial outcomes consistent with the intent as expressed by Pacific country representatives as well as partner organisations attending the recent meetings of the **Pacific Platform for Disaster Risk Management** held from 7th – 15th May 2009.(including the Joint Meeting of Pacific Regional Meteorological Service Directors and Disaster Managers held on 11th May 2009).

**The UNDP** has a long history on the ground at regional and national levels and therefore is well –positioned to facilitate and support this south-south cooperation program. **The UNDP Pacific Centre** has the mandate to promote south-south cooperation as a key strategy for capacity development, as well as the mission to serve Pacific countries and regional organizations in attaining sustainable development. In recent years, the governance and MDG units of the Pacific Centre have conducted intermittent exchanges with suitable Caribbean organizations on specific topics, and this programme will build on those experiences, as well as provide a potential model for development of sustained south-south programming to build capacity in one area. On the Caribbean side, coordination with the Caribbean actors will be supported by the UNDP regional program **Caribbean Risk Management Initiative (CRMI).**

Pacific and Caribbean countries have been implementing enabling, reporting and implementation activities in climate change adaptation in line with **UNFCCC** obligations and recommendations, through a variety of sources. UNDP in the Pacific and in the Caribbean have been supporting countries to develop their NAPAs, National Communications and National Self-Capacity Assessments. In the Pacific UNDP is supporting NAPA follow up projects in Tuvalu and Samoa, implementing the Pacific Adaptation to Climate Change project involving 13 Pacific Island Countries, as well as regional programme on Community-Based Adaptation through the Small Grants Programme (SGP) mechanism. These projects involve enhancing climate information and early warning systems, as well as implementing policy changes and pilot demo projects in priority vulnerable sectors and locations. Exchange between Caribbean and Pacific experiences from these processes and projects can further support tangible implementation of DRR and CC adaptation actions at the policy and local site levels.

**Section II b). Partnership Strategy**

Key development actors charged with developing and implementing the climate change policy for their respective regions from both the Pacific and the Caribbean sides would be involved, including the following: the CARICOM Climate Change Centre (CCCCC), the Secretariat of the Pacific Regional Environment Programme (SPREP), the Caribbean Disaster Emergency Management Agency (CDEMA), Pacific Islands' Applied Geoscience Commission (SOPAC), Secretariat for the Pacific Community (SPC), University of the West Indies (UWI), University of the South Pacific (USP). Many national organizations holding top expertise in this field, and with experience facing SIDS challenges such as coastal risk management and sea level rise, are members or close collaborators of these mandated regional agencies. Additional partners which can potentially contribute pertinent expertise include the Caribbean Meteorology Organization (CMO), Caribbean Institute of Meteorology and Hydrology (CIMH) and the Cuban National Institute of Meteorology (INSMET) and other Pacific regional and international partner organisations under the Pacific DRM Partnership Network.

National governments will be consulted and involved via the regional organizations on each side which have been mandated as the technical agencies to work on the climate-related and disaster management issues for their respective region. For this reason, both CCCCC and CDEMA are key partners as they have been entrusted with this mandate by CARICOM leaders, and are required to report back to the national governments through CARICOM mechanisms. Similarly, key partners on the Pacific side are SPREP, SOPAC and SPC, which have been entrusted with these mandates by the national governments in the Pacific, through the Pacific Islands' Forum Secretariat (PIFS). National governments will also be involved at a more practical level, through the participation in various project activities of various national agencies in charge of disaster management or climate change, when these national agencies have been identified by the regional agencies as a source of expertise on a specific topic, or as the owner of a best practice.

Concerted efforts will be made to seek synergies with and complement ongoing and upcoming regional and inter-regional networks and systems, including the Comprehensive Disaster Management (CDM) mechanism, Pacific Disaster Risk Management Partnership, SIDS Dock, and other initiatives. One point of entry for exploring climate

change adaptation projects which have proven successful at the community level could be the GEF Small Grants Programme managed by UNDP, given that climate change adaptation is necessarily local in nature, and the Small Grants Program is active in 15 SIDS countries in the Caribbean and 15 in the Pacific. Identification and sharing of best practices for climate change adaptation in SIDS countries will also serve as an entry point for engaging with the Maldives, which can be a key additional partner for enriching the collaboration under this program.

Under the direction of the Project Board, overall coordination and facilitation will be done by the UNDP Pacific Centre (on behalf of the Pacific DRM Partnership Network) and the Caribbean Risk Management Initiative (CRMI), as these entities have the broad overview of the expertise and priority issues in each region, and experience in facilitating exchange and dialogue within and across regions. Given its extensive field presence, contacts and close relations with governments and regional bodies in both regions, the UNDP can play a brokering role for this program, while the other partners will contribute expertise and lead the determination of priorities areas for collaboration and activities. The Pacific Centre will lead the coordination, administration and resource mobilization, under the responsibility of the Program Specialist for Natural Disaster Reduction and Transition, and in close coordination with the CRMI. Work planning meetings involving all key partners will be held annually, or more frequently if required.

The Special Unit for South-South Cooperation in UNDP was directed by the UN Secretary General in 2008 to lead efforts in the UN to address the challenges of Food security, HIV/AIDS and climate Change through South-South Cooperation. Furthermore, the Unit has a long history of supporting SIDS. The Unit launched the Global Climate Change Technology exchange under the Global Assets and Technology Exchange System. Accordingly, the UNDP Special Unit on South/South Cooperation will provide seed funding for this strategic initiative, recognizing its value in addressing two pressing challenges of SIDS: climate change and disaster risk reduction. The Unit has decided to prioritize its limited funding for this project, given its ambitious scope in facilitating inter-regional south-south cooperation between two regions with different cultures and histories but which face common challenges, and so have great potential to learn from and support each other. The Unit will also facilitate access to the technology transaction modules under the SS GATE System.

The South-South Cooperation Unit at UNDP Bangkok Regional Centre will provide various types of support as needed, including technical support and assistance in the development of knowledge products as a one key output of this program. This Unit will also provide guidance on community-based disaster risk reduction and climate change adaptation aspects, as relevant.

Synergies will be sought also with Japanese government assistance to SIDS countries, in relation to enhancing climate change adaptation, as recently reiterated under the PALM V declaration. The program will specifically seek to link with the Cool Earth Partnership promoted by Japan, which covers the Maldives as well as the following countries in the Caribbean and the Pacific: Guyana, Haiti, Suriname, Belize and Dominican Republic in the Caribbean; and in the Pacific, Cook Islands, Fiji, Kiribati, Marshall Islands, Micronesia, Nauru, Niue, Palau, Papua New Guinea, Samoa, Solomon Islands, Tonga, Tuvalu and Vanuatu. Although the project focuses in the first instance on consolidating the exchange between the Pacific and the Caribbean, other SIDS countries -- such as Maldives and Mauritius -- will also be brought in, as they can provide important contributions based on their shared concerns and risks. In particular the virtual discussion platform associated with the program will invite and encourage participation of these countries, for enrichment of the discussions.

To complement the overarching strategy facilitating south-south cooperation, relevant expertise and lessons learned will also be leveraged as pertinent under a north-south cooperation dimension. Synergies will be sought with Japan, in part as a funder which through its commitment recognizes the value of this project's vision in making a concerted effort to consolidate linkages among small island states facing common risks. Japan is an island state as well, located on the Pacific rim and with high exposure to many of the same hazards which affect the Caribbean and the Pacific, such as tsunamis, earthquakes and cyclones. While Japan has access to different levels of government commitment and often sophisticated and costly tools for risk management, at the same time it can provide some experiences and lessons learned which also applicable for SIDS countries, therefore Japan will be brought into the discussions. One area in which Japan has relevant expertise is in community-oriented disaster awareness materials and insights into how to build community resilience, as well as harnessing traditional coping practices. There are additional entry points for including appropriate north-south cooperation under this program, given that the Pacific countries have ongoing extensive involvement of Australia and New Zealand in both climate change science and disaster risk management

systems, which can offer both negative and positive lessons learned. Of particular interest is the Australia-sponsored Climate Change Science program soon to be launched in the Pacific. Another northern actor with significant involvement in both the Caribbean and the Pacific regions is TAF-OFDA, which will be brought into the discussions and the scan of potential best practices through the relevant regional organizations (in this case CDEMA and SOPAC). Given the current US administration's recognition of the need to tackle climate change issues and how these hamper development, OFDA has now become an interlocutor on this issue. Finally, the introduction of an electronic platform on the model of Solutions Exchange will of course be open to practitioners from north and south, so as to cast the net as widely as possible in order to capture and disseminate relevant expertise.

Mainstreaming of gender equality in the project will be ensured by UNDP, given its longstanding institutional commitment and capacity in working on this key dimension of development. UNDP's Gender Equality Strategy 2008-2011 (GES) specifies how gender equality will be mainstreamed into all programs, and the south-south collaboration envisioned here will address all three objectives of the GES in the following ways: influencing gender-equitable policies in the field of disaster risk reduction and climate change adaptation (objective 1); empowering women for decision-making (objective 2); and insisting on sex-disaggregated and better quality data on which to base DRM and ACC policies and actions (objective 3). In order to operationalize the GES, UNDP has guidelines and tools available which will help to emphasize and clarify this aspect, such as the "Eight-Point Agenda for Women's Empowerment and Gender Equality in Crisis Prevention and Recovery," and various toolkits and manuals. Also, as a founding member of the Global Gender and Climate Alliance (GGCA), UNDP can help to articulate and address the links between climate change and women's empowerment. Pacific Centre as a UNDP office has been contributing to this work in the Pacific region, with a 2009 publication based on consultations with Pacific island countries, entitled "Stories from the Pacific: Gendered Dimensions of Disaster Risk Management and Adaptation to Climate Change." The recommendations issued under that consultation, based on gaps, needs, constraints and opportunities identified for integrating gender into disaster risk management and climate change adaptation, will be taken into account to ensure the success of this project. By the same token, the CRMI on the Caribbean side as a regional UNDP programme has led research and training on gender sensitive climate change studies and disaster risk management, so is also well positioned to ensure that gender is mainstreamed in this project. Attention will be paid to ensuring gender balance in the project's governing structure, as well as in the selection of participants to benefit from its activities, and to represent regional and national viewpoints.

It should also be mentioned that the project will endeavour to engage with the private sector, as an emerging potential partner which is already being considered as such by the project's main stakeholders. There is a debate internationally about the current and potential role of the private sector in disaster risk management and climate change adaptation, in particular regarding the tourist industry, mining companies, insurance businesses, and the telecommunications industry. As this topic is already being introduced in the regional fora in the Caribbean and the Pacific, that will be taken as a point of departure for the project to consider the role of the private sector, for the SIDS context in particular.

**Section II c). Exit Strategy**

The project is designed to facilitate sustained interaction and engagement among a range of actors involved in disaster risk management and climate change adaptation in the Caribbean and Pacific regions, specifically focusing on southern solutions that are appropriate and applicable in SIDS countries.

The ultimate accomplishment of the program should be a consolidation of the south-south cooperation and exchange between the Caribbean and the Pacific in this field—climate risk management – which would constitute a qualitative advance beyond the current situation, which consists mainly of sporadic and ad hoc contacts, with insufficient follow-up and which more regularly addresses policy (such as under AOSIS) rather than practice issues. Currently there is very limited familiarity with the institutional arrangements in the other region, who is doing what, strategies and programs of work.

At the project's conclusion after three years, we expect to have made the following progress:

- Consolidated and deeper relationships between the key institutions in this field and the leading experts and most innovative practitioners, who would by then would have had personal contact, be familiar with the

program of work in each region, and would have established channels and acquired the habit of regular communication and well-organized participation in existing regional fora in the other region;
- Documentation of a suite of good practices and lessons learned detected under this program which are applicable to SIDS in general and which previously had little dissemination;
- Transfer of several methodologies and tools appropriate to SIDS risk management and climate change adaptation, which gave been tested in one region and are relevant for the other region;
- A virtual platform designed on the basis of a survey among partners and needs assessment conducted by in-house UNDP knowledge management experts, which will be an important mechanism for ensuring the sustainability of this inter-regional exchange and engagement over the medium term.

At the programme's conclusion, there will need to be a stocktaking and discussion among the key players as to how best to take this south-south collaboration to the next level, and what a subsequent phase of cooperation would ideally entail. Given the modest capacity of these partners and the largely unprecedented nature of the project, it is expected that UNDP would continue to have significant value added as a facilitator for this cooperation. Therefore, there would be an evolving engagement, but needs would change somewhat and new demands for assistance and partnership would arise, and UNDP should continue to support these as a reliable and committed partner.

**Section II d). Range of activities**

Under this inter-regional initiative, possible activity areas for collaboration and knowledge transfer include the following:

1. Identify, document and disseminate best practices on integrated climate change adaptation and disaster risk reduction specific to the SIDS context.
- Publications developed on topics such as: traditional and contemporary practices in risk management and community resilience; varieties of disaster resistant housing; best practices in early warning systems for cyclones, floods or droughts; gender sensitive disaster risk management; others.
- Publications developed on good practices exemplifying the harmonization of disaster risk reduction and climate change adaptation.
- Review sectoral adaptation practices, in particular in relation to coastal protection measures, and consider what has worked effectively for SIDS
- Presentation and discussion of case studies and lessons learned at relevant fora

2. Transfer of technologies currently being used by SIDS for effective and appropriate disaster risk management and climate change adaptation, between the Pacific and the Caribbean regions.
- Training and distance education provided on selected technologies of mutual interest on which there is current expertise, such as:

  Climate change monitoring and adaptation:
  - climate change modelling suited to SIDS;
  - near shore and coastal morphology and bathymetry;
  - climate change impacts assessment in agriculture, coastal zones and marine resources, fisheries, health, forestry, tourism, and water sectors;

  Disaster reduction and disaster management:
  - simulations, evacuation and shelters;
  - computer models for extreme weather forecasting;
  - hazard mapping and risk assessment in coastal zones;
  - storm surge and flood modelling;
  - emergency communications systems and protocols;
  - local centres for integrated risk management (Cuban experience)

3. Ensure that disaster risk reduction and attention to climate change are included in the broader development agenda through support for national action planning, mainstreaming and advocacy work in the Pacific and Caribbean regions and countries.

- Comparison of processes and models used for national action planning among the countries and regions
- Identification of best practices in mainstreaming and advocacy work for the integration of disaster risk reduction across sectors and in priority sectors such as agriculture, tourism and water resources
- Joint advocacy initiatives in relation to global platforms and negotiations processes
- Linkages with ongoing climate change adaptation enabling activities, policy processes and implementation projects (eg. SNC, NSCA, NAPAs, PACC and others) addressing the integration of climate change resilience into overall national sustainable development strategies and sectoral plans

**II e). Resource mobilization**

Major efforts are under way to raise resources to cover the full budget required for optimal implementation of this initiative, using the seed funds provided by the Special Unit for South-South Cooperation as leverage. The SU-SSC has identified Japan as a good partner for the components of this project which remain as yet unfunded. Discussions with Japan have been led by the SU-SSC from its headquarters, and positive feedback has been received following a review of the draft proposal by the Japan-UNDP Partnership Fund Steering Committee. Therefore, and given ongoing strong support by the SU-SSC to secure these funds, there is substantial confidence that this contribution will be secured, which would result in full funding for the project.

In the event these expected additional resources are not obtained, the Project Manager will prioritize resource mobilization with additional prospective donors, in close collaboration with the SU-SSC. Any additional funding sources will be incorporated by a project revision, as per standard procedure.

## Section III - Management Arrangements

It is proposed that this project be directly implemented under DEX modality by the UNDP's Pacific Centre, given the project's complexity in terms of engaging a wide range of regional and national partners from two different regions and therefore the difficulty of identifying one regional implementing agency. It will be based on Prince 2 and Results-Based Programming, with UNDP in-country presence and operational support. The project will be situated under the Pacific Centre's CPR Unit, as part of the regional PeacePac project managed by the Senior Regional CPR Advisor and Programme Manager.

As a DEX project, UNDP Pacific Centre will maintain project accounts and financial responsibility. The Pacific Centre was established in 2006 with the purpose of managing regional projects and programmes. Over the last three years, the Centre has demonstrated capacity to deliver effectively under the DEX modality and is therefore considered to be in the best position to continue in this role for Pacific-wide and inter-regional projects to be implemented under the 2008-2011 Asia Pacific regional programme. During this time the Pacific Centre has gone through two audits as well as periodic evaluations, all resulting in positive assessments of its programme management capacity, therefore we are confident that it will not face any challenges in managing this inter-regional project .

The key to the success of the Pacific Centre's projects has always been their capacity to engage with and retain the support of an extensive network of stakeholders. It is critical that the projects are delivered in an effective manner, reflecting responsiveness and timeliness in delivery. For this to occur, it is important that the decision-making processes are streamlined and that as much as possible the management and execution of the projects is seamless with decisions on expenditure against the agreed work programme decentralized to the region as much as possible.

Management arrangements include the southern partners in both Pacific and the Caribbean regions on the Project Board to fulfill the client role – including SOPAC (SPC), SPREP, CCCCC and CDEMA – as foreseen under Prince 2.

Extensive bilateral and collective consultation during the project formulation indicated consensus that UNDP coordination of the project under DEX modality would be the most viable alternative for centralizing implementation and management.

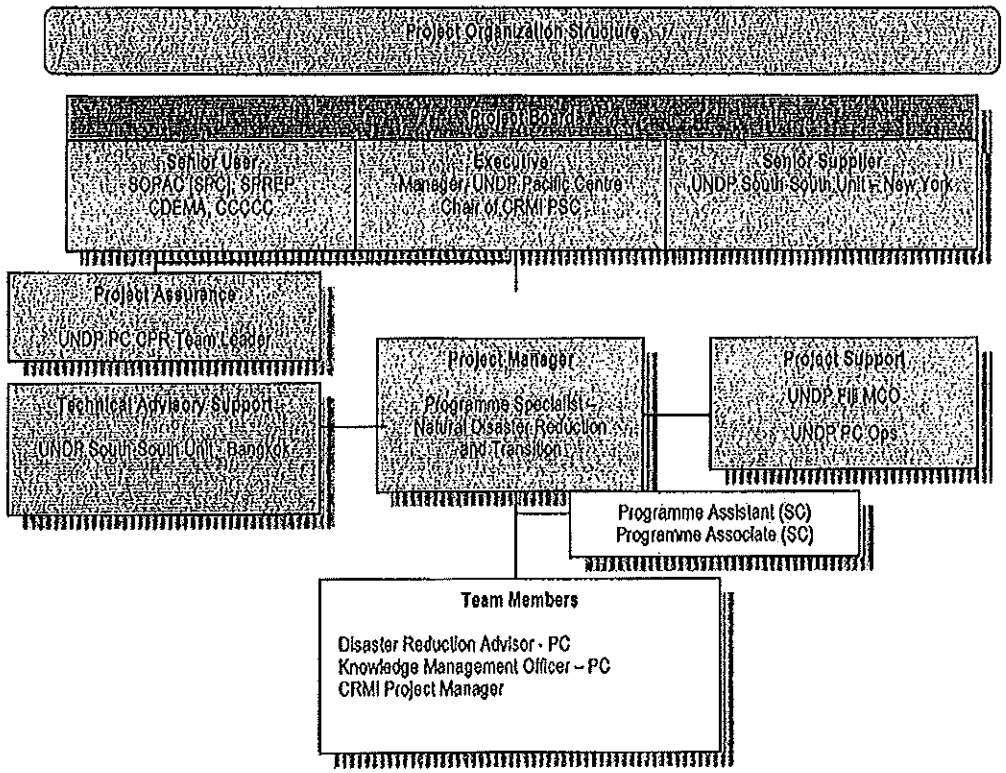
The project will have a Board comprised of an Executive, Senior Supplier, and Senior User that will be supported by project assurance. The Executive will be made up of the Manager of the Pacific Centre and the Chair of the Caribbean Risk Management Initiative (CRMI) Project Steering Committee, which will provide overall direction and strategic guidance for the project. The Senior Supplier will be a representative from the UNDP South-South Cooperation Unit, which will be supporting the project through technical and financial assistance. The Senior Users will be the owners of the project from a user viewpoint and be made up of representatives from CROP agencies – SPC and SPREP -- and Caribbean regional organizations – CDEMA and CCCCC.

The function of the Project Board will be to guide the Project Manager through the implementation of the project, by reviewing annual progress and making recommendations on the direction that the project should take. Meetings of the Board will be annual and will take place following the compilation of the annual project report. The Board will approve the annual work plan, submitted by the Project Manager. At the end of the project, the Board will help to derive lessons learned from the project's implementation.

The project will be managed on day-to-day basis by the UNDP Pacific Centre Programme Specialist for Disaster Reduction and Transition. The project manager will be responsible for strategic planning, monitoring, reporting of progress, and management of team members to ensure project deliverables. The project manager will be supported by team members from CPRU and the Knowledge Management Officer, who will assist with day-to-day programme implementation and tasked with specific deliverables according to technical expertise. The project will receive operational support from the UNDP Pacific Centre and UNDP Fiji Multi-Country Office. At the technical level the project will benefit from support provided by the regional UNDP South-South Unit in Bangkok.

The Pacific Centre CPR Team Leader (Senior Regional Advisor) is the Project Assurance Officer and in this role will carry out objective and independent project oversight and monitoring functions and will review products/deliverables via quality reviews. The Project Manager's tolerances will be monitored by the Project Assurance Officer. The Board will be consulted if and when the Project Manager's tolerances (in terms of time and budget) have been exceeded. Part of the project assurance function will be to ensure the overall coherence of this project as a component of the larger PeacePac regional project, in line with a focus on south-south cooperation as a cross-cutting issue in the CPR regional work. The CPR Team Leader is the budget owner under Atlas for this project.

Periodic project reviews by the Board will be done in accordance with key reporting requirements of UNDP, which will require a final evaluation. The final evaluation will include detailed information on the status of project implementation and the achievement of project outputs and outcomes as outlined in the project's Results Framework. The detailed expenditure report will indicate expenses by category as outlined in the original project budget.


Project Organization Structure
Project Board
Senior User
SOPAC (SPC), SPREP, CDEMA, CCCCC
Executive
Manager UNDP Pacific Centre
Chair of CRMI PSC
Senior Supplier
UNDP South-South Unit – New York
Project Assurance
UNDP PC CPR Team Leader
Technical Advisory Support
UNDP South-South Unit, Bangkok
Project Manager
Programme Specialist – Natural Disaster Reduction and Transition
Project Support
UNDP Fiji MCO
UNDP PC Ops
Programme Assistant (SC)
Programme Associate (SC)
Team Members
Disaster Reduction Advisor - PC
Knowledge Management Officer – PC
CRMI Project Manager

## Section IV - Reporting, Monitoring and Evaluation

In accordance with the programming policies and procedures outlined in the UNDP User Guide, the project will be monitored systematically. The M & E and Reporting Framework for the Pacific Centre will apply to this inter-regional project. All activities supported by the project will report on their performance against standard indicators and targets as set out in the RRF and Annual Workplan. These indicators will be disaggregated by sex, location of beneficiaries and specific vulnerable groupings, and all programme monitoring and evaluation will take a gender and human rights based approach. Biannual monitoring reports will be prepared to elicit feedback from project stakeholders.

The project is subject to an independent final evaluation to assess its overall performance, the outputs and outcomes produced against its initial targets, the impact it has brought or would likely to bring about with a focus on the progress made towards sustainability of the outputs, their relevance to regional and national contexts, and management efficiency. The evaluation will pay specific attention on intended and unintended impacts on vulnerable groups and provide mechanisms for the free and meaningful participation of local stakeholders – including women and targeted vulnerable groups. Opportunities will be sought for collaboration with programme partners in conducting the evaluation.

| **OUTPUT 1: Identification, documentation and dissemination of best practices on integrated climate change adaptation and disaster management specific to the SIDS context.** | | |
|---|---|---|
| **Activity Result 1.1 (Atlas Activity ID)** | Documentation of best practices in climate risk management for SIDS published and disseminated, with attention to roles and capacities of both men and women. | Start Date: 01/03/11<br>End Date: 01/10/12 |
| **Purpose** | To raise awareness of appropriate practices successfully applied in some SIDS countries for climate risk management, which could be replicated in other SIDS countries in other regions. | |
| **Description** | • Presentations made at regional conferences of stakeholders to share knowledge and generate discussion.<br>• Contributions made to on-line knowledge networks detailing lessons learned on risk management for SIDS.<br>• Publication of case studies to highlight good practices in climate risk management for SIDS<br>• Exploration of possible knowledge platform to ensure sustainability of the south-south engagement.<br>• Development of a virtual discussion platform with a social networking component. | |
| **Quality Criteria**<br>*how/with what indicators the quality of the activity result will be measured?* | **Quality Method**<br>*Means of verification. What method will be used to determine if quality criteria has been met?* | **Date of Assessment**<br>*When will the assessment of quality be performed?* |
| Proposed presentations accepted by conference hosts. | Conference proceedings. | 01/12/12 |
| No. of contributions published on virtual knowledge networks. | Summary report on virtual contributions and number of on-line comments received. | |
| Perceived relevance of case study publications. | Documentation of distribution and demand for publications. | |
| Extensive consultation on most appropriate knowledge platform to share south-south knowledge and experience. | Survey among potential users. | |

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| **OUTPUT 1: Identification, documentation and dissemination of best practices on integrated climate change adaptation and disaster management specific to the SIDS context.** | | |
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| **Activity Result 1.2 (Atlas Activity ID)** | Training and guidelines provided to facilitate replication of lessons learned on climate risk management for SIDS | Start Date: 01/02/11<br>End Date: 01/12/12 |
| **Purpose** | To enhance capacity to implement proven good practices applied in some SIDS countries for climate risk management. | |
| **Description** | • Guidelines published on EWS, gender sensitive DRM and other practices used effectively in small islands<br>• Manuals and checklists produced to facilitate easy application of technical and practical knowledge for DRM and ACC.<br>• Training provided to reinforce knowledge transferred in manuals, guidelines and checklists. | |

| **Quality Criteria**<br>*how/with what indicators the quality of the activity result will be measured?* | **Quality Method**<br>*Means of verification. What method will be used to determine if quality criteria has been met?* | **Date of Assessment**<br>*When will the assessment of quality be performed?* |
|---|---|---|
| Broad inter-regional coverage of training provided.<br><br>Level of satisfaction with training.<br><br>Perceived utility of manuals and guidelines produced. | List of countries and individuals trained.<br><br>Course evaluation forms.<br><br>Survey on number of relevant departments using and requesting the guidelines and manuals. | 01/10/12 |

| **OUTPUT 2: Transfer and exchange of technologies currently being used by SIDS for equitable, effective and appropriate disaster risk management and climate change adaptation, between the Pacific and the Caribbean regions.** | | |
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| **Activity Result 2.1 (Atlas Activity ID)** | Technical training courses on climate information and analysis held. | Start Date: 06/10/10<br>End Date: 01/12/12 |
| **Purpose** | To transfer appropriate technologies and methodologies currently being used in other SIDS for equitable disaster preparedness and management, and for the production and analysis of climate information. | |
| **Description** | • Technical training courses held, targeting specific professionals or volunteers in the DRM and ACC fields. | |

| **Quality Criteria**<br>*how/with what indicators the quality of the activity result will be measured?* | **Quality Method**<br>*Means of verification. What method will be used to determine if quality criteria has been met?* | **Date of Assessment**<br>*When will the assessment of quality be performed?* |
|---|---|---|
| Perceived applicability of training provided.<br><br>Relevance of the technologies transferred. | Training course evaluations completed by participants.<br><br>List of institutions subsequently adapting these technologies or methodologies. | 01/12/11<br><br>01/12/12 |

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| Assimilation of gender-sensitive practices and tools by participating countries. | Survey. | |

| **OUTPUT 2: Transfer and exchange of technologies currently being used by SIDS for effective and appropriate disaster risk management and climate change adaptation, between the Pacific and the Caribbean regions.** | | |
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| **Activity Result 2.2 (Atlas Activity ID)** | Field visits conducted to other SIDS region to study good practices for DRM and ACC in implementation. | Start Date: 06/10/10<br>End Date: 01/12/12 |
| **Purpose** | To provide direct in-context exposure to appropriate practices currently being used in other SIDS for disaster preparedness and management, for optimal assessment and assimilation. | |
| **Description** | • Exchange visits conducted for peer learning of successful methodologies, tools and systems applied in SIDS countries in another region. | |

| **Quality Criteria**<br>*how/with what indicators the quality of the activity result will be measured?* | **Quality Method**<br>*Means of verification. What method will be used to determine if quality criteria has been met?* | **Date of Assessment**<br>*When will the assessment of quality be performed?* |
|---|---|---|
| Perceived replicability of practices observed.<br><br>Sustainability of peer contacts developed. | Field visit evaluations completed by participants.<br><br>Questionnaire. | 01/12/11<br>01/12/12 |

| **OUTPUT 3: Disaster risk management and climate change adaptation included in the broader development agenda through support for national action planning, mainstreaming and advocacy work in the Pacific and Caribbean regions and countries.** | | |
|---|---|---|
| **Activity Result 3.1 (Atlas Activity ID)** | Inter-regional support on mainstreaming and advocacy. | Start Date: 06/10/10<br>End Date: 01/12/12 |
| **Purpose** | To facilitate integration of DRM and CCA effectively into the broader development agenda, building on lessons learned by SIDS countries in other regions. | |
| **Description** | • Presentations to provide advice on improved mainstreaming based on SIDS' experiences.<br>• Design of Pacific-Caribbean joint advocacy materials to address shared challenges for mainstreaming. | |

| **Quality Criteria**<br>*how/with what indicators the quality of the activity result will be measured?* | **Quality Method**<br>*Means of verification. What method will be used to determine if quality criteria has been met?* | **Date of Assessment**<br>*When will the assessment of quality be performed?* |
|---|---|---|
| Increased awareness and understanding of DRM and ACC mainstreaming in small islands | Annual reports issued by regional and national agencies | 01/12/12 |

| **OUTPUT 3: Disaster risk management and climate change adaptation included in the broader development agenda through support for national action planning, mainstreaming and advocacy work in the Pacific and Caribbean regions and countries.** | | |
|---|---|---|
| **Activity Result 3.2 (Atlas Activity ID)** | Discussion and planning for any follow-up or subsequent phase of the south-south programme. | Start Date: 01/10/10<br>End Date: 01/12/12 |
| **Purpose** | To capitalize on the preliminary exchange around lessons learned by SIDS countries facing similar DRM and ACC challenge in other regions. | |

| **Description** | • Planning and review session involving key regional and national partners from both regions. | |
|---|---|---|
| **Quality Criteria**<br>*how/with what indicators the quality of the activity result will be measured?* | **Quality Method**<br>*Means of verification. What method will be used to determine if quality criteria has been met?* | **Date of Assessment**<br>*When will the assessment of quality be performed?* |
| Broad stakeholder participation in planning and review. | Minutes from work session. | 01/12/12 |

## Section V - Legal Context

The project document shall be the instrument envisaged in the Supplemental Provisions to the Project Document, attached hereto.

Consistent with the above Supplemental Provisions, the responsibility for the safety and security of the executing agency and its personnel and property, and of UNDP's property in the executing agency's custody, rests with the executing agency.
The executing agency shall:

a) Put in place an appropriate security plan and maintain the security plan, taking into account the security situation in the country where the project is being carried;
b) Assume all risks and liabilities related to the executing agency's security, and the full implementation of the security plan.

UNDP reserves the right to verify whether such a plan is in place, and to suggest modifications to the plan when necessary. Failure to maintain and implement an appropriate security plan as required hereunder shall be deemed a breach of this agreement.

The executing agency agrees to undertake all reasonable efforts to ensure that none of the UNDP funds received pursuant to the Project Document are used to provide support to individuals or entities associated with terrorism and that the recipients of any amounts provided by UNDP hereunder do not appear on the list maintained by the Security Council Committee established pursuant to resolution 1267 (1999). The list can be accessed via http://www.un.org/Docs/sc/committees/1267/1267ListEng.htm. This provision must be included in all sub-contracts or sub-agreements entered into under this Project Document.

## Section VI – Results and Resources Framework

### Results and Resources Framework

**Intended Outcome as stated in the Regional Programme Results and Resource Framework:**
1) Improved and effective capacity of Governments and CSOs to prevent, manage and respond to conflict and natural disaster

**Outcome indicators as stated in the Regional Programme Results and Resources Framework, including baseline and targets:**
**Indicator:**
1.1. Risk analysis and gender-responsive assessment tools and methods developed and advocated for policy and planning processes;
1.2. Additional skills developed at regional and national levels;
**Baseline:**
1.1. Low utilization rate and capacity to undertake risk analysis;
1.2. Limited national surge capacity to respond rapidly following conflict and natural disasters and delays in provision of essential life-saving goods and services
**Target: 1.1.** Systematization of lessons learned in implementing gender-responsive conflict analysis in 5 countries and at least one regional organization;

Partnership Strategy The execution of the project is DEX.

ATLAS Award ID: 00048493 CRISIS PREVENTION & RECOVERY PROJECT FOR THE PACIFIC
Project title: South-South cooperation between pacific and Caribbean SIDS on climate change adaptation and disaster risk management

| INTENDED OUTPUTS | OUTPUT TARGETS FOR (YEARS) | INDICATIVE ACTIVITIES | RESPONSIBLE PARTIES | INPUTS |
|---|---|---|---|---|
| **Output 1: Identification, documentation and dissemination of best practices on integrated climate change adaptation and disaster management specific to the SIDS context.**<br><br>Baseline: Limited identification and dissemination of best practices on integrated climate change adaptation and disaster risk management in SIDS contexts.<br><br>Indicators:<br><br>Indicator 1.1: Number of best practices on integrated disaster management and | Targets<br>• 5 knowledge products published outlining best practices and lessons learned in Caribbean and Pacific SIDS for addressing risk and vulnerability issues.<br>• 3 contributions made to electronic bulletins or networks to share lessons learned on improving climate risk management in SIDS.<br>• Participation by Pacific delegations in Caribbean annual regional meeting, and | **1.1 Activity Result: Documentation of best practices in climate risk management for SIDS published and disseminated, with attention to roles and capacities of both men and women.**<br><br>Actions:<br>• Presentation made at CDM by Solomon Islands NDMO on traditional coping strategies for food security in outer islands post-disaster, including specification of differentiated roles and capacities of men and women<br><br>*1 person X 7 days – DSA and plane tkt - $6500*<br><br>• Overview presented by Pacific regional | Solomon Island NDMO<br><br>target audience = 65 Caribbean DRM stakeholders | $6500<br>Travel and DSA |

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| integrated climate change adaptation documented and disseminated via knowledge products.<br><br>Indicator 1.2: Presentations made at regional meetings on replicable southern solutions to reduce the risk of disasters and climate change for SIDS countries. | vice versa, as part of relevant thematic discussion panels.<br><br>• Virtual discussion platform developed to facilitate exchange. | organization on good practices in community-based climate change adaptation in SIDS<br>*1 person X 7 days – DSA and plane tkt - $7000* | SPREP<br>target audience = 65 Caribbean DRM stakeholders | $7000<br>Travel and DSA |
| | | • Presentation by Caribbean partners at Pacific Platform on the lessons learned from the Caribbean experience in gender sensitive DRM and ACC<br>*2 person X 5 days – DSA and plane tkt - $10,000* | CDEMA, UNECLAC, CRMI<br><br>target audience = 50 Pacific DRM stakeholders | $10,000<br>Travel and DSA |
| | | • Contribution prepared for knowledge networks sharing lessons learned in gender-sensitive risk management by SIDS which could be replicated<br>*No cost – in kind staff time* | UNDP PC, CRMI<br><br>target audience = 150 SIDS DRM practitioners | No cost – in kind staff time |
| | | • Feasibility study conducted for on-line portal for Caribbean/Pacific exchange on DRM and ACC issues relevant for SIDS<br>*1 person X 10 days X $200/day – in kind $2000* | UNDP PC, ECLAC, SU-SSC<br><br>target audience = 150 SIDS DRM practitioners | $2000 – in kind staff time |
| | | • Launching of on-line portal for south-south exchange on DRM and ACC issues relevant for SIDS<br>*2 persons X $400/day X 6.25 days - Design and publicity - $5000 in kind* | UNDP PC, SU-SSC<br><br>target audience = 150 SIDS DRM practitioners | $5000 – in kind staff time |
| | | • Publication of Pacific-Caribbean case studies to promote integration of DRM and ACC at the community level, with attention to gendered dimensions of | CRMI, UNDP PC, UWI, USP<br><br>target audience = 200 SIDS DRM and ACC practitioners | $20,000<br>Local consultants<br>Travel and DSA<br>Print publications |

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| | | community practices<br>*1 researcher X 16 days X $300/day - $4800*<br>*Trips X 3 countries – DSA and plane tkt - $10,200*<br>*Design and printing 3000 copies- $5000*<br>*Total = $20,000*<br><br>**1.2 Activity Result: Training and guidelines provided to facilitate replication of lessons learned on climate risk management for SIDS.**<br>• Publication of 2nd knowledge product publication on best practices for climate risk management in SIDS *(topic to be determined)*<br>*1 researcher X 16 days X $300/day - $4800*<br>*Trips X 3 countries – DSA and plane tkt - $10,200*<br>*Design and printing 3000 copies- $5000*<br>*Total = $20,000*<br><br>• Publication of guidelines on emergency communications for SIDS, focusing on outer islands and remote locations, and ensuring effectiveness of communications for women, men and children<br>*1 researcher X 16 days X $300/day - $4800*<br>*Trips X 2 countries – DSA and plane tkt - $5200*<br>*Design and printing 3000 copies- $5000*<br>*Total = $15,000* | UNDP PC, UWI, USP<br><br>target audience = 200 SIDS DRM and ACC practitioners<br><br>SOPAC, CDEMA<br><br>target audience = NDMO offices in 30 Caribbean and Pacific countries | $20,000<br>Local consultants<br>Travel and DSA<br>Print publications<br><br>$15,000<br>Local consultants<br>Travel and DSA<br>Print publications |

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| | | • Manual developed for climate observers in SIDS, for the benefit of both male and female observers<br>*1 researcher X 13 days X $400/day - $5200*<br>*Translation –4 X $1950- into 4 Pacific languages - $7800*<br>*Design and printing 500 copies X 5 languages (incl. English)- 5 X $2000 = $10,000*<br>*Total = $23,000* | CIMH, SPREP, INSMET<br><br>target audience = 2500 climate observers in Pacific SID, especially in remote locations | $23,000<br>Local consultants<br>Travel and DSA<br>Print publications<br>Translation |
| | | • Training provided on gender-sensitive DRM for SIDS, with emphasis on remote territories and outer islands<br>*2 persons X 5 days – DSA and plane tkt - $10,000* | UNECLAC, CRMI, UNDP PC<br><br>target audience = 50 Pacific DRM stakeholders | $10,000<br>Travel and DSA |
| | | • Checklist prepared on how to ensure gender equity in SIDS throughout the DRM cycle<br>*3 researchers X 5 days – in kind staff time*<br>*Design and printing 3000 copies- $5000* | UNECLAC, CRMI, UNDP PC<br><br>target audience = 2000 SIDS DRM practitioners + 1000 intl DRM practitioners | $5000<br>In kind staff time<br>Print publications |
| **Output 2: Transfer and exchange of technologies currently being used by SIDS for effective, equitable and appropriate disaster risk management and climate change adaptation, between the Pacific and the Caribbean regions.**<br><br>Baseline:<br>Transfer of appropriate climate-related technologies relevant to SIDS currently sporadic and infrequent. | Targets<br><br>• 4 training courses led by Caribbean or Pacific experts to train technical specialists or professionals in appropriate technologies for risk management in SIDS.<br><br>• 3 exchange visits conducted for peer learning of the application of a specific methodology for | **2.1 Activity Result: Technical training courses on climate information and analysis held.**<br><br>Actions:<br><br>• Discussion facilitated by e-mail, teleconference and at CDM on priorities for technical training and exchanges in 2010 and 2011, with gender balanced leadership and participation.<br>*Project manager travel to CDM conference* | CRMI, UNDP PC, SOPAC, CDEMA<br><br>target audience = 50 Pacific and Caribbean stakeholders | $6000<br>Travel and DSA |

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| Indicators:<br><br>Indicator 2.1: Number of technical specialists or professionals from the climate change and disaster management sectors trained in appropriate technologies applied in other SIDS countries for risk management.<br><br>Indicator 2.2: Exposure of DRM and ACC practitioners to a range of technologies and tools used in the Pacific and Caribbean regions for effective climate risk management. | risk management in a SIDS country.<br><br>• Technology exchanges linked with the SU-SSC's South-South GATE System's Global Climate Technology Exchange (Track IV) | *1 person X 7 days – DSA and plane tkt - $6000*<br><br>• Technical training course for Pacific network of climate observers, led by and benefitting both women and men<br><br>*Trainers = 2 persons X 5 days – DSA and plane tkt - $10,000*<br><br>*Participants = 10 persons (10 countries) X 5 days – DSA and plane tkt - $50,000*<br><br>*Venue costs – in kind*<br><br>*Total = $60,000* | CIMH, SPREP<br><br>target audience = 10 Pacific climate observers, as trainers of 50 climate observers in respective countries. | $60,000<br>Travel and DSA |
| | | • 2nd inter-regional technical training course held on production and analysis of climate information *(topic to be specified)*, with gender balanced participation<br><br>*Trainers = 2 persons X 5 days – DSA and plane tkt - $10,000*<br><br>*Participants = 12 persons (12 countries) X 5 days – DSA and plane tkt - $60,000*<br><br>*Venue costs – in kind*<br><br>*Total = $70,000* | SPREP, CCCCC, CIMH<br><br>target audience = 12 SIDS climate scientists | $70,000<br>Travel and DSA |
| | | • Technical training courses held on storm surge modelling or tsunami modelling, with gender balanced participation<br><br>*Trainers = 2 persons X 5 days – DSA and plane tkt - $10,000*<br><br>*Participants = 12 persons (12 countries) X 5 days –* | SPREP, INSMET CCCCC<br><br>target audience = 12 SIDS Meterology or Geo-science office staff SPREP, INSMET CCCCC | $70,000<br>Travel and DSA |

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| | | *DSA and plane tkt - $60,000*<br>*Venue costs – in kind*<br>*Total = $70,000* | | |
| | | • Technical training course held on production and analysis of climate information for the agricultural sector, considering the gendered division of labour found in SIDS agriculture sub-sectors<br>*Trainers = 2 persons X 5 days – DSA and plane tkt - $10,000*<br>*Participants = 10 persons (10 countries) X 8 days – DSA and plane tkt - $60,000*<br>*Venue costs – in kind*<br>*Total = $60,000* | SOPAC, SPC, SPREP, CCCCC<br><br>target audience = 10 SIDS agro-meteorologists or Ministry of Agriculture staff | $70,000<br>Travel and DSA |
| | | **2.2 Activity Result: Field visits conducted to other SIDS region to study good practices for DRM and ACC in implementation**<br>• Exchange visit conducted to study best practices in evacuation, DRR and DRM for SIDS with Cuban Civil Defence and other national NDMOs, promoting women's decision-making and active leadership<br>*Participants = 7 persons (from 7 countries) X 5 days – DSA and plane tkt - $50,000*<br>*Total = $50,000* | Cuban Civil Defense and Caribbean NDMOs (Jamaica and St. Lucia)<br><br>target audience = 7 Pacific NDMO staff Cuban Civil Defense and Caribbean NDMOs (Jamaica and St. Lucia) | $50,000<br>Travel and DSA |

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| | | • Exchange visit conducted by Caribbean partners to atoll country to learn about CC-related sea level rise, water resource management issues and gender-equitable solutions applied<br>*Participants = 7 persons (from 7 countries) X 5 days – DSA and plane tkt - $50,000*<br>*Total = $50,000* | SOPAC, Tuvalu NDMO<br>target audience = 7 Caribbean NDMO staff | $50,000<br>Travel and DSA |
| | | • Exchange visit conducted to view and assess Early Warning Systems suitable for SIDS, taking into consideration the differences between men and women in accessing information, literacy, mobility and family responsibilities<br>*Participants = 7 persons (from 7 countries) X 5 days – DSA and plane tkt - $50,000*<br>*Total = $50,000* | CDEMA, SOPAC<br>target audience = 7 SIDS NDMOs staff | $50,000<br>Travel and DSA |
| **Output 3: Disaster risk management and climate change adaptation included in the broader development agenda through support for national action planning, mainstreaming and advocacy work in the Pacific and Caribbean regions and countries.**<br><br>Baseline: Regional bodies mandated under HFA recognize the need to implement mainstreaming, some steady progress has | Targets<br>• Guidelines and templates used for development of National Action Plans in the Pacific shared with Caribbean representatives.<br>• Presentation on best practice for mainstreaming and advocacy on climate risk | **3.1 Activity Result: Inter-regional support on mainstreaming and advocacy.**<br>Actions:<br>• Presentation by Vanuatu NDMO at CDM conference on Vanuatu's experience in mainstreaming DRM and ACC as a best practice, including attention to sectoral policy issues of concern to women<br>*1 person X 7 days – DSA and plane tkt - $12,000* | Vanuatu Meteorology Office<br>target audience = 65 Caribbean DRM stakeholders | $12,000<br>Travel and DSA |

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| been made, in particular in the Pacific.<br><br>Indicators:<br><br>Indicator 3.1: Participation of Pacific representative in the planning or implementation of mainstreaming or advocacy work in Caribbean country or region.<br><br>Indicator 3.2: Increased effectiveness of mainstreaming and advocacy programmes in SIDS due to suggestions for improvement from DRM practitioners from the other region. | management shared and discussed with regional representatives.<br><br>• 1 joint Caribbean-Pacific publication produced to provide guidance on mainstreaming of DRM and ACC for SIDS | • Publication of Pacific-Caribbean guidelines for mainstreaming of DRM and ACC into national planning, including gendered dimensions of sectoral policy issues<br><br>*2 researchers X 12.5 days X $400/day - $10,000*<br><br>*Trips X 2 countries – DSA and plane tkt - $10,000*<br><br>*Design and printing 3000 copies- $5000*<br><br>*Total = $20,000* | SOPAC, CDEMA, SPC<br><br>target audience = 500 SIDS DRM stakeholders and gov't officials | $20,000<br>Local consultants<br>Travel and DSA<br>Print publications |
| | | • Presentation made by SOPAC at 2009 CDM conference on mainstreaming in the Pacific via National Action Planning process in keeping with HFA<br><br>*1 person X 7 days – DSA and plane tkt - $7000* | SOPAC<br><br>target audience = 65 Caribbean DRM stakeholders | $7000<br>Travel and DSA |
| | | • Presentation by Caribbean partners at 2010 Pacific Platform meeting on progress toward mainstreaming within the CDM mechanism<br><br>*1 person X 7 days – DSA and plane tkt - $6500* | CDEMA<br><br>target audience = 50 Pacific DRM stakeholders | $6500<br>Travel and DSA |
| | | **3.2 Activity Result: Discussion and planning for any follow-up or subsequent phase of the south-south programme.**<br><br>• Inter-regional work session held to plan follow-up and next steps for continued south-south exchange on SIDS risk issues, with active leadership by women<br><br>*Travel for Project Manager as facilitator* | UNDP PC, CRMI, CDEMA, SOPAC<br><br>target audience = 50 SIDS DRM and ACC stakeholders | $5000<br>Travel and DSA |

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| | | *1 person X 5 days – DSA and plane tkt - $5000* | | |

## Annex 1:

## PROFILES OF MAIN PARTNERS

**Secretariat of the Pacific Regional Environmental Programme (SPREP)**
SPREP's mission is to promote cooperation in the Pacific islands region and to provide assistance in order to protect and improve the environment and to ensure sustainable development for present and future generations. SPREP is regionally mandated to work on Climate Change and Integrated Coastal Management. SPREP can contribute to establishing a substantial and rigorous body of evidence on the linkages and potential impacts of climate change on conflict in the region.

**Secretariat of the Pacific Community (SPC)**
SPC is an international organization that provides technical assistance, policy advice, training and research services to 22 Pacific Island countries and territories in areas such as health, human development, agriculture, forestry and fisheries. All of these areas are critical to the eight million people of the Pacific, who continue to face challenges from their remote locations and scarce resources, as well as new challenges from growing populations, decreasing food security and the effects of climate change. SPC's vision for the region is 'a secure and prosperous Pacific Community, whose people are educated and healthy and manage their resources in an economically, environmentally and socially sustainable way'.

Note that as of January 2010, due to streamlining of CROP agencies as mandated by the leaders through the Pacific Islands' Forum Secretariat, several of SOPAC's programmes most closely linked to this south-south initiative will be re-located under a new division of SPC's campus in Suva, Fiji.

**Pacific Islands Applied Geoscience Commission (SOPAC)**
The Pacific Islands Applied Geoscience Commission (SOPAC) is an intergovernmental, regional organisation with 21 member countries, including 18 Pacific Island countries and territories, as well as Australia and New Zealand. SOPAC's work is carried out through its Secretariat, based in Suva, Fiji.

SOPAC was established in 1972 under the Economic and Social Division of the UN as a project called the Committee for Coordination of Joint Prospecting for Mineral Resources in South Pacific Offshore Areas (CCOP/SOPAC), to promote offshore mineral and petroleum prospecting. The secretariat became autonomous in 1984 with the funding of its member countries, donor countries and international agencies to steer its annual operations. While the initial focus of its work was on marine mapping and geosciences, recent years have seen a broadening of this scope to include hazard assessment and disaster risk management, environmental vulnerability, oceanography, energy, water and sanitation and information and communication technologies.

SOPAC's mandate is to contribute to sustainable development, reduce poverty and enhance resilience for the people of the Pacific by supporting the development of natural resources, in particular non-living resources, investigation of natural systems and the reduction of vulnerability, through applied environmental geosciences, appropriate technologies, knowledge management, technical and policy advice, human resource development and advocacy of Pacific issues.

SOPAC focuses on supporting national and regional initiatives and actions in relation to its mandate in collaboration and cooperation with a range of regional and international donor and development partner organisations. Its assistance to its member countries is channelled through three key technical programme areas:

> **Ocean and Islands** which seeks to improve technical knowledge of ocean and island ecosystems for the sustainable management of natural resources, through: resources use solutions; monitoring physical and chemical change in ecosystems; and, natural resources governance.

**Community Lifelines** is a diversified programme that strengthens and improves community access to energy, water and sanitation, and information and communication technologies through: resources assessment, development and management; asset management; and, community lifelines governance and advocacy.

**Community Risk** which seeks to build safer communities through improved disaster risk management practices by: strengthening resilience to disasters, mitigating the effects of hazards; and mainstreaming disaster risk management.

These technical programmes are supported by **Corporate Services** which maintains an information technology unit, provides publication and library services and offers technical and field services for work programme delivery.

SOPAC's focus and efforts in relation to disaster risk management is guided by the Pacific Disaster Risk Reduction and Disaster Management Framework for Action 2005 – 2015: Building the Resilience of Nations and Communities to Disasters. This policy framework was approved by Pacific Leaders (Heads of Government) in their annual meeting held in Madang, Papua New Guinea in October 2005. The 'Madang Framework' is the Pacific regional adaptation of the Hyogo Framework endorsed by World leaders at the 2nd World Conference on Disaster Reduction in January 2005. To assist Pacific countries to implement the Madang Framework SOPAC facilitated the establishment (and is now the annual convenor) of the Pacific Disaster Risk Management Partnership Network in February 2006. This is an open-ended partnership of more than 30 regional and international organisations (including donors) that have a commitment to disaster risk management capacity building in the Pacific.

At their inaugural meeting in 2006 members of the partnership confirmed their support for the implementation of the Madang Framework and since then have collaborated to assist four (4) Pacific countries to develop and implement DRM National Action Plans. An additional four (4) countries will receive support commencing from mid 2009.

In addition partners have collaborated to develop an easily accessible web-based database/portal providing a comprehensive overview of data, information and analysis related to all aspects of disaster risk management in the Pacific. The Pacific Disaster Net was formally launched in Suva on September 18th 2008 and is now live on-line at www.pacificdisaster.net.

**UNDP Pacific Centre**

The United Nations Development Programme Pacific Centre (UNDP PC) was established in 2006 and works in the areas of Crisis Prevention and Recovery; Democratic Governance; and MDG Achievement and Poverty Alleviation and is complemented by two additional centres, one in Bangkok and the other in Colombo. The Pacific Centre provides services specifically for the Pacific Island Countries, while the other two Regional Centres in Bangkok and Colombo are for the entire Asia Pacific region. Through the network of UNDP offices, the Pacific Centre provides support to the 15 Pacific Island Countries.

The UNDP Pacific Centre's Crisis Prevention and Recovery (CPR) programme builds upon and supports the operationalization of the Pacific Plan Regional Framework for Disaster Risk Management. Support to UNDP Country offices is provided within the framework of the UN Development Assistance Framework (UNDAF) and Country Programme Action Plans (CPAPs) for Fiji/Samoa Multi Country Offices (MCOs), and PNG Country Office (CO) and, efforts towards UN reform in the region.

The CPR Unit works in two main areas: conflict prevention and peacebuilding, and disaster risk management (DRM) and at two levels: regional programming and country office support. In January 2008 UNDP Regional Bureau for Asia-Pacific (RBAP) approved the regional CPR project for 2008-2011. The Pacific is one of the most disaster-prone regions in the world, regularly experiencing cyclones, earthquakes, droughts and floods. In addition, the Pacific region will be one of the first to be affected by climate change

As part of its mandate to assist Pacific Island countries in achieving sustainable human development and the Millennium Development Goals, the UNDP Pacific Centre is providing support to a regional initiative on the

mainstreaming of Disaster Risk Management into the development strategies of Pacific Island Countries (PICs). Other regional initiatives at the Pacific Centre include the research and dissemination on the gendered dimensions of disaster risk management in the Pacific; the development of modules for mainstreaming disaster risk management; and facilitating the development of a website and information management tool developed to support decision makers, policy developers and disaster risk management practitioners. At the local level the disaster risk management team is implementing a number of pilot projects on different aspects of local level risk management. Given the synergies between natural disasters and climate change, all the above mentioned disaster risk management activities are being closely aligned with adaptation to climate change in the region.

The foundations of the work of the Pacific Centre are:

- The Pacific Plan to Advance Regionalism
- The UNDP Strategic Plan 2008-2011
- The UNDP Asia Pacific Regional Programme
- UN Development Assistance Framework (UNDAFs) and Country Programme Action Plans (CPAPs) for Fiji, Samoa, and PNG UN Country Teams

**Caribbean Disaster Emergency Management Agency (CDEMA)**

CDEMA is a CARICOM body established in 1991 with responsibility for disaster management. Its main function is to make an immediate and coordinated response to any disastrous event affecting any Participating State, of which there are 16, when such assistance is requested once the country determines that control is beyond the national capacity. CDERA is responsible for soliciting and coordinating assistance from governments, organizations and individuals both within and outside the region, who can provide the specific resources or expertise most urgently needed. The level of response is determined by the specific circumstances and type of assistance required.

Other functions include:

- Securing, collating and channelling to interested governmental and non-governmental organizations, comprehensive and reliable information on disasters affecting the region
- Mitigating or eliminating as far as possible, the consequences of disasters affecting Participating States.
- Establishing and maintaining on a sustainable basis, adequate disaster response capabilities among Participating States
- Mobilizing and coordinating disaster relief from governmental and non-governmental organizations for affected Participating States

Currently CDEMA's principal focus is on effecting Comprehensive Disaster Management (CDM) throughout the region, with attention on all 6 elements of the hazard cycle (prevention, mitigation, preparedness, response, recovery, rebuilding), and involving all aspects of the society. This encompasses all natural and man-made hazards, including floods, earthquakes, chemical accidents, hurricanes, volcanic eruptions, and oil spills. With adoption of the CDM Strategy, activities have also had an increasing focus on disaster risk reduction and climate change adaptation as it relates to disaster management.

With its name change and expanded mandate from CDERA to CDEMA implemented in , its mission now reflects "the recognition of the connection between preparing and responding to the consequences of hazard impacts and the proactive management of the underlying source of the vulnerabilities," stated the Coordinator, Jeremy Collymore at the 19th Meeting of the Board of Directors.

**Caribbean Institute of Meteorology and Hydrology (CIMH)**

CIMH is a training and research organization formed by the amalgamation of the Caribbean Meteorological Institute (CMI) and Caribbean Operational Hydrological Institute (COHI). Responsibility for its operation resides with the 16 Commonwealth Governments which comprise the Caribbean Meteorological Organization (CMO). The objective of CIMH is to improve the meteorological and hydrological services and to assist in promoting the awareness of the

benefits of these services for the economic well-being of the CMO countries through training, research and investigations, and the provision of specialized services and advice. Principally, CIMH fulfils the following functions:

- Provision of facilities for training meteorological and hydrological personnel
- Serve as a research centre for meteorology, hydrology and associated sciences
- Providing contracting and consulting services
- Maintain, repair and calibrate meteorological instruments
- Provision of policy advice to member states
- Collection, analysis and publication of meteorological and hydrological data

The CMO serves to promote and coordinate regional activities in the fields of meteorology and similar applied sciences. Its other branches are the Caribbean Meteorological Council, the Caribbean Meteorological Foundation, and its Headquarters Unit.

**CARICOM Climate Change Centre (CCCCC)**
The Caribbean Community Climate Change Centre (CCCCC) was established by CARICOM in 2005 to coordinate the Caribbean region's response to climate change. It is the key node for information on climate change issues and on the region's response to managing and adapting to climate change in the Caribbean. Through its role as a Centre of Excellence, the CCCCC's mission is to support the people of the Caribbean as they address the impact of climate variability and change on all aspects of economic development through the provision of timely forecasts and analyses of potentially hazardous impacts of both natural and man-induced climatic changes on the environment, and the development of special programs with create opportunities for sustainable development.

It is the region's official repository and clearing house for regional climate change data, providing climate change-related policy advice and guidelines to the Caribbean Community (CARICOM) Member States through the CARICOM Secretariat. In this role, the Centre is recognized by the United Nations Framework Convention on Climate Change (UNFCCC), the United Nations Environment Program (UNEP), and other international agencies as the focal point for climate change issues in the Caribbean. It has also been recognized by the United Nations Institute for Training and Research (UNITAR) as a Centre of Excellence.

As a CARICOM body the CCCCC fully subscribes to the Hyogo Framework of Action, in particular contributing to one the priorities identified under the HFA for regional organizations: to "establish or strengthen existing specialized regional collaborative centres, as appropriate, to undertake research, training, education and capacity building in the field of disaster risk reduction." This a mandate shared by SPREP in the Pacific region, and in partnership the two organizations can strengthen their respective capacity based on sharing lessons learned and tools used in SIDS contexts on each side of the globe.

**University of the West Indies (UWI)**
Established in 1948, UWI is the oldest, fully regional institution of higher learning in the Commonwealth Caribbean, committed to the development of the region through building human resource capacity, research, advisory services to governments and the private sector, and forging links with other institutions across the globe.

**Institute for Sustainable Development**, Mona Campus, Jamaica
ISD's role is to foster sustainable development throughout the region for the benefit of present and future generations. It leads in the coordination of environmental and development activities in the region; and networks with key regional stakeholders including CARICOM, regional governments, academia, NGOs, SIDS, civil society and the business sector. Its work centres on research pursuits and dialogue with policymakers with a view to fostering the incorporation of SD considerations into national plans and policies of the region.

**Disaster Risk Reduction Centre (DRRC)**, Mona Campus, Jamaica
The DRRC was created as an institutional focal point to support DRR research and practice in the Caribbean, and implementing training, advisory and outreach services. The vision is to become a Centre of Excellence for DRR and DM in the Caribbean and the world. Its overarching goal is to reduce the vulnerability of the island to natural

hazards. It will have a role in coordinating and facilitating research in DRR, building capacity through the region, and playing an advocacy role. Its focus will be on provision of technical, advisory and consultancy services to mitigate the risks of disasters) and rapid mobilization of human resource capacity within the University before and after disasters. Its specific objectives are to provide:

- a mechanism for coordinating and focusing the University's attempts to mobilize resources in support of disaster risk reduction
- an integrated and coordinated academic programme in Disaster Risk Reduction for the region
- a facility to meet the training and certification needs of professionals working in DRR
- advisory and consultancy services and policy guidance to regional governments and institutions
- facility for marketing and mobilizing the University's skills in Disaster Risk Reduction within and beyond the region

**Centre for Resource Management and Environmental Studies (CERMES)**, Cave Hill Campus, Barbados
CERMES promotes and facilitates sustainable development through its post-graduate taught and research programs in natural resource management and environmental sciences. Specifically it offers the MSc. programme in Natural Resource and Environmental Management, of which two of the specialization streams are Climate Change and Applied Meteorology. Further, the department provides advisory services to governments, NGOs and the private sector; offers applied consulting services related to environmental issues; and builds awareness and capacity through various outreach activities.

**University Consortium of Small Island States**
UWI serves as the coordinator for the UCSIS, whose mission is to enhance graduate education institutions in small island states by facilitating the development of the capacity needed to implement the Barbados Programme of Action (BPOA). Objectives include:

- improving information flows among members on course offerings, facilities, student needs and relevant documents
- encouraging cooperative curriculum development, research, indigenous knowledge management and outreach in the key areas of sustainable development of SIDS by supporting resilience building for sustainable development
- sharing research findings and reference materials
- utilizing results of SIDS-focused research and field work to assemble curricula relevant to island development
- recommend standards and procedures for inter-institutional accreditation among Members

**OECS Secretariat**
The Organization of Eastern Caribbean States (OECS) comprises the 9 countries of Anguilla, Antigua and Barbuda, British Virgin Islands, Dominica, Grenada, Montserrat, St. Kitts and Nevis, St. Lucia, and St. Vincent and the Grenadines. Its mandate is to contribute to the sustainable development of its Member States by assisting them to maximize the benefits from their collective space, by facilitating their intelligent integration with the global economy; by contributing to policy and program formulation and execution in respect of regional and international issues, and by facilitation of bilateral and multilateral cooperation. The Environmental and Sustainable Development Unit (ESDU) also supports the countries in sustainable use of natural resources to ensure the sustainability of livelihoods of their people.

**Caribbean Risk Management Initiative**
The Caribbean Risk Management Initiative (CRMI) was launched by the UNDP's Bureau for Crisis Prevention and Recovery (BCPR) and Regional Bureau for Latin America and the Caribbean (RBLAC) in 2004 as an umbrella programme designed to build capacity across the Caribbean region for the management of climate-related risk. The CRMI is led by the Cuba and Barbados/OECS UNDP Country Offices, in close collaboration with partners and other UNDP Country Offices in the region.

As part of the UNDP strategy for knowledge management, the CRMI provides a platform for coordinating and sharing knowledge and experiences on risk management throughout the Caribbean, across language groups and

cultures. Our premise is that the most sustainable way forward involves finding and sharing the lessons learned here in the region.

CDERA has been a vital partner of the UNDP and the CRMI in particular. The development, implementation and enhancement of the CDM Strategy have been critical areas of partnership. CRMI has worked closely with the CCCCC and the MACC in the Vulnerability and Capacity Assessment (VCA) project in St Lucia particularly and also implemented in several other Caribbean countries. Furthermore through the CRMI in UNDP Cuba, relationships with Cuban institutions involved in climate risk initiatives are deepening with the CCCCC and also the UWI.

Annex 2:

TERMS OF REFERENCE
PROJECT BOARD

# South-South Cooperation between Pacific and Caribbean SIDS on Climate Change Adaptation and Disaster Risk Management

## Background Information

With the greatest concentration of small island states worldwide, both the Pacific and the Caribbean regions face common threats based on the similar geography of small islands, accelerating climate change and the increasing frequency and intensity of related disasters; tropical cyclones and seawater flooding are annual occurrences, with the consequent damages and setbacks for human development. Seismic risk is also a substantial concern in the both regions, with an incidence of tsunamis as well as active above ground and underwater volcanoes in several locations. Populations and key infrastructure concentrated heavily in coastal zones are exposed to recurrent flooding and sea level rise induced by climate change. The social and economic vulnerabilities common to SIDS are apparent in both the Caribbean and the Pacific, due to their small scale and limited economic diversification, which hampers the resilience of such states and their populations for recovery post-disaster.

At the same time, SIDS countries and local communities have a range of capacities and practices for effective disaster prevention and management, as well as for coping with and adapting to climate change. Some of these techniques are based on traditional practices which stand the test of time and prove remarkably resilient, whereas others involve the use of new technologies suited for developing countries with SIDS characteristics and limited resources. There is great potential for exchange of ideas, experiences and best practices between SIDS in the Pacific and the Caribbean, in order to find suitable solutions and replicate best practices for addressing the various threats posed by climate change and disasters. The way forward for SIDS countries also entails the harmonization of disaster risk management and climate change science, for a more integrated approach which grasps the critical linkages between these fields of work.

To date, exchanges between these two regions to address common climate change adaptation and disaster management issues have been sporadic, with interest repeatedly expressed in various fora but insufficient follow-up to capitalize on the opportunities to identify and share southern solutions. Under this initiative, UNDP as a neutral broker with long-term presence on the ground in both regions and their member countries will play a facilitation role to lay the ground work for sustained south/south cooperation on these urgent development issues.

Given the complexity of the inter-regional coordination required, involving multiple regional and national actors, this project will be implemented through Direct Execution Modality (DEX).

## Objective

The overall objective in creating a Project Board is to provide overall direction and guidance for the effective implementation of the project. The Board is responsible for making strategic management decisions for a project when guidance is required by the Project Coordinator, including recommendation for approval of project plans and revisions. Board decisions shall be made in accordance to standards that shall ensure management for development results, best value money, fairness, integrity, transparency and effective international competition. In case a consensus cannot be reached within the Board, final decision shall rest with the UNDP.

Specifically, the Board will:

1. Provide overall policy guidance for the effective implementation of the project.

2. Based on the approved annual work plan (AWP), the Board will review and approve project quarterly plans when required and authorizes any major deviation from these agreed quarterly plans.

3. Monitor and guide the implementation of project activities, ensuring that the project achieves expected results according to schedule and within budget.

4. Arbitrate on any conflicts within the project or negotiate a solution to any problems between the project and external bodies.

5. To work with UNDP in promoting collaboration between and among project partners in the Pacific and Caribbean regions and help to resolve bottlenecks or conflicts that affect collaboration between governments, regional organizations and other stakeholders;

6. To offer strategic, political and substantive guidance on the preparation of an effective strategy aimed at promoting inter-regional south-south cooperation on climate risk management issues of concern to SIDS.

**Composition**

The Board shall be composed of representatives from the UNDP Pacific Centre, Regional Bureau for Asia-Pacific, the UNDP Special Unit for South-South Cooperation, Caribbean Risk Management Initiative and regional organizations: CCCCC, CDEMA, SPC and SPREP. The Board will meet at least twice a year, and have special meetings from time to time as needed, based on an agenda prepared by the Chair in consultation with Board members.

The Project Team under the leadership of the Project Coordinator shall provide the secretariat and prepare meetings, minutes and facilitate information flow. The Chair shall send the invitations for the meetings and share the proposed agenda, at least 3 weeks before the meeting. The Board members will propose agenda items until 2 weeks before the meeting.

Annex 3:

TERMS OF REFERENCE
PROJECT MANAGER

# South-South Cooperation between Pacific and Caribbean SIDS on Climate Change Adaptation and Disaster Risk Management

**Duration:** 3 years

**Proposed starting date:** September 2009

**Duty station:** Suva, Fiji

**Background Information**

With the greatest concentration of small island states worldwide, both the Pacific and the Caribbean regions face common threats based on the similar geography of small islands, accelerating climate change and the increasing frequency and intensity of related disasters; tropical cyclones and seawater flooding are annual occurrences, with the consequent damages and setbacks for human development. Seismic risk is also a substantial concern in the both regions, with an incidence of tsunamis as well as active above ground and underwater volcanoes in several locations. Populations and key infrastructure concentrated heavily in coastal zones are exposed to recurrent flooding and sea level rise induced by climate change. The social and economic vulnerabilities common to SIDS are apparent in both the Caribbean and the Pacific, due to their small scale and limited economic diversification, which hampers the resilience of such states and their populations for recovery post-disaster.

At the same time, SIDS countries and local communities have a range of capacities and practices for effective disaster prevention and management, as well as for coping with and adapting to climate change. Some of these techniques are based on traditional practices which stand the test of time and prove remarkably resilient, whereas others involve the use of new technologies suited for developing countries with SIDS characteristics and limited resources. There is great potential for exchange of ideas, experiences and best practices between SIDS in the Pacific and the Caribbean, in order to find suitable solutions and replicate best practices for addressing the various threats posed by climate change and disasters. The way forward for SIDS countries also entails the harmonization of disaster risk management and climate change science, for a more integrated approach which grasps the critical linkages between these fields of work.

To date, exchanges between these two regions to address common climate change adaptation and disaster management issues have been sporadic, with interest repeatedly expressed in various fora but insufficient follow-up to capitalize on the opportunities to identify and share southern solutions. Under this initiative, UNDP as a neutral broker with long-term presence on the ground in both regions and their member countries will play a facilitation role to lay the ground work for sustained south/south cooperation on these urgent development issues.

Given the complexity of the inter-regional coordination required, involving multiple regional and national actors, this project will be implemented through Direct Execution Modality (DEX).

**Duties and responsibilities**

The Project Coordinator will play a key role in the successful management of the project and will ensure that the project is implemented in full consultation with all stakeholders. In this connection, she will specifically:

1. Prepare a detailed Annual Workplan for the project, and oversee the implementation of the overall project work plan. She will ensure timely completion of all activities and timely monitoring and evaluation of the project. In doing this, the Project Coordinator will work closely with key partners.
2. Collaborate with and provide the necessary support to key partners such as the regional organizations, the Pacific Centre, the UNDP Special Unit for South-South Cooperation and other stakeholders.
3. Plan, organize and attend meetings of the Board, and provide members with the necessary documentation on time. Also serve as the secretary to the Board.
4. In consultation with the chairperson(s) of the Board, produce and manage the schedule for milestone events.
5. Organize training courses, meetings and other consultations included in the work plan, making sure that adequate lead time is given to stakeholders in preparation for the courses, meetings or consultation.
6. Keep a detailed record for all proceedings of the consultative process.
7. Provide leadership to other project staff, fostering teamwork and efficiency.
8. Prepare terms of reference for the consultants required under the project and help with their recruitment.
9. Oversee the administrative and financial performance of the project in collaboration with the Pacific Centre.
10. Ensure proper management of project funds in accordance with UNDP rules and procedures.
11. Prepare reports and recommend appropriate remedial actions with clear time frame for activities. Copies of reports will be sent to the UNDP and the Board.
12. Ensure proper coordination of all activities as well as tasks that need to be undertaken.
13. Perform other duties assigned by the Board.

Annex 4:

ANNUAL WORK PLANS

# South-South Cooperation between Pacific and Caribbean SIDS on Climate Change Adaptation and Disaster Risk Management

WORKPLAN AND BUDGET

| Expected Outputs | Key Activities | 2010 | 2011 | 2012 | Lead partners | TOTAL BUDGET |
|---|---|---|---|---|---|---|
| | **OUTPUT 1. Identification, documentation and dissemination of best practices on integrated climate change adaptation and disaster management specific to the SIDS context.** | | | | | |
| **Activity Result 1.1** Documentation of best practices in climate risk management for SIDS published and disseminated, with attention to roles and capacities of both men and women | 1.1 Presentation made at CDM by Solomon Islands NDMO on traditional coping strategies for food security in outer islands post-disaster, including specification of differentiated roles and capacities of men and women | 6500 | | | Solomon Islands NDMO | 6500 |
| | 1.2. Overview presented by Pacific regional organization on good practices in community-based climate change adaptation in SIDS | 7000 | | | SPREP | 7000 |
| | 1.3. Presentation by Caribbean partners at Pacific Platform on the lessons learned from the Caribbean experience in gender sensitive DRM and ACC | 10,000 | | | CDEMA, CRMI, UNECLAC | 10,000 |
| | 1.4 Contribution prepared for knowledge networks sharing lessons learned in gender-sensitive risk management by SIDS which could be replicated | 0 | | | UNECLAC, CRMI, UNDP PC | 0 |
| | 1.5 Feasibility study conducted for on-line portal for Caribbean/Pacific exchange on DRM and ACC issues relevant for SIDS | 2000 In-kind | | | UNDP PPC, UNDP SU-SSC | 2000 |
| | 1.6 Launching of on-line portal for south-south exchange on | | 5,000 In-kind | | UNDP PC, CRMI, UNDP SU-SSC | 5000 |

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| | DRM and ACC issues relevant for SIDS | | | | | |
| | 1.7 Publication of Pacific-Caribbean case studies to promote integration of DRM and ACC at the community level, with attention to gendered dimensions of community practices | 20,000 | | | UWI, USP, UNECLAC | 20,000 |
| **Activity Result 1.2** Training and guidelines provided to facilitate replication of lessons learned on climate risk management for SIDS. | 1.8 Publication of 2nd knowledge product publication on best practices for climate risk management in SIDS *(topic to be determined)* | | 20,000 | | CRMI, UNDP PC, UNECLAC | 20,000 |
| | 1.9 Publication of guidelines on emergency communications for SIDS, focusing on outer islands and remote locations, and ensuring effectiveness of communications for women, men and children | 15,000 | | | SOPAC, CDEMA | 15,000 |
| | 1.10 Manual developed for climate observers in SIDS, for the benefit of both male and female observers | 23,000 | | | CIMH, SPREP, INSMET | 23,000 |
| | 1.11 Training provided on gender-sensitive DRM for SIDS, with emphasis on remote territories and outer islands | 10,000 | | | UNECLAC, CRMI, UNDP PC | 10,000 |
| | 1.12 Checklist prepared on how to ensure gender equity in SIDS throughout the DRM cycle | | 5000 | | UNECLAC, CRMI, UNDP PC | 5000 |

| Expected Outputs | Key Activities | 2010 | 2011 | 2012 | Lead partners | TOTAL BUDGET |
|---|---|---|---|---|---|---|
| | **<u>OUTPUT 2.</u> Transfer and exchange of technologies currently being used by SIDS for effective, equitable and appropriate disaster risk management and climate change adaptation, between the Pacific and the Caribbean regions.** | | | | | |
| **Activity Result 2.1** Technical training | 2.1 Discussion facilitated by e-mail, teleconference and at CDM on priorities for technical training and exchanges in 2010 and 2011, with gender balanced leadership and participation | 6000 | | | CRMI, UNDP PC, SOPAC, CDEMA | 6000 |

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| courses on climate information and analysis held. | | | | | | |
| | 2.2 Technical training course for Pacific network of climate observers, led by and benefitting both women and men | 60,000 | | | CIMH, SPREP | 60,000 |
| | 2.3 2nd inter-regional technical training course held on production and analysis of climate information (topic to be specified), with gender balanced participation | | 70,000 | | SPREP, CCCCC, CIMH | 70,000 |
| | 2.4 Technical training course held on storm surge modelling or tsunami modelling, with gender balanced participation | 70,000 | | | SOPAC, SPREP, INSMET, CCCCC | 70,000 |
| | 2.5 Technical training course held on production and analysis of climate information for the agricultural sector, considering the gendered division of labour found in SIDS agriculture sub-sectors | | | 70,000 | SOPAC, SPC, CCCCC, SPREP | 70,000 |
| **Activity Result 2.2** Field visits conducted to other SIDS region to study good practices for DRM and ACC in implementation. | 2.6 Exchange visit conducted to study best practices in evacuation, DRR and DRM for SIDS with Cuban Civil Defense and other national NDMOs, promoting women's decision-making and active leadership | 50,000 | | | CRMI, SOPAC, Cuban Civil Defence, Caribbean NDMOs | 50,000 |
| | 2.7 Exchange visit conducted by Caribbean partners to atoll country to learn about CC-related sea level rise, water resource management issues affecting men and women, and gender-equitable solutions applied | | 50,000 | | SOPAC, Pacific NDMOs | 50,000 |
| | 2.8 Exchange visit conducted to learn and assess Early Warning Systems suitable for SIDS, taking into consideration the differences between men and women in accessing information, literacy, mobility and family responsibilities | | | 50,000 | SOPAC, CDEMA | 50,000 |
| | **<u>OUTPUT 3.</u> Disaster risk management and climate change adaptation included in the broader development agenda through support for national action planning, mainstreaming and advocacy work in the Pacific and Caribbean regions** | | | | | |

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| | **and countries.** | | | | | |
| **Activity Result 3.1**<br>Inter-regional support on mainstreaming and advocacy | 3.1 Presentation by Vanuatu NDMO at CDM conference on Vanuatu's experience in mainstreaming DRM and ACC as a best practice, including attention to sectoral policy issues of concern to women | 12,000 | | | Vanuatu Meteorology Office | 12,000 |
| | 3.2 Publication of Pacific-Caribbean guidelines for on harmonization and mainstreaming of DRM and ACC into national planning, including gendered dimensions of sectoral policy issues | | 20,000 | | SOPAC, CDEMA | 20,000 |
| | 3.3 Presentation made by SOPAC at 2009 CDM Conference on mainstreaming in the Pacific via National Action Planning process in keeping with HFA | 7000 | | | SOPAC | 7000 |
| | 3.4 Presentation by Caribbean partners at 2010 Pacific Platform meeting on progress toward mainstreaming within the CDM mechanism | 6500 | | | CDEMA | 6500 |
| **Activity Result 3.2**<br>Discussion and planning for any follow-up or subsequent phase of the south-south programme, | 3.5 Inter-regional work session held to plan follow-up and next steps for continued south-south exchange on SIDS risk issues, with active leadership by women | | 5000 | | UNDP PC, CRMI, CDEMA, SOPAC | 5000 |
| Total programme costs | | 305,000 | 175,000 | 120,000 | | 600,000 |
| Programme management costs | | 84,216 | 84,216 | 14,306 | UNDP PC | 182,468 |
| **TOTAL COST** | | 389,716 | 259,216 | 134,306 | | **782,468** |
| In-Kind (UNDP Pacific Centre) | | | | | | 189,468 |

| | | | | | | |
|---|---|---|---|---|---|---|
| Core Funds (South South Coop Unit) | | | | | | 200,000 |
| Total Resources Available | | | | | | 389,468 |
| **TOTAL RESOURCES REQUIRED** | | | | | | **393,000** |

## Annex 5:

### RISK LOG MATRIX

| # | Description | Category | Impact & Probability | Countermeasures / Mgmt response | Owner | Author | Date Identified | Last Update | Status |
|---|---|---|---|---|---|---|---|---|---|
| 1 | Delays in securing full funding for budget | Organizational Financial | Delays in project initiation and completion, affecting partnerships and level of confidence built with partners and stakeholders<br><br>P= 1<br>I = 3 | Close collaboration of Project Manager with SU-SSC and RBAP focal points to ensure expeditious resource mobilization<br><br>Regular and coordinated interaction with donors to secur e funds and for reporting | Manager of Pacific Centre | Karen Bernard | Jan 2010 | Jan 2010 | No change |
| 2 | Political crisis in participating region or countries which affects mobility or security of leading organization and participants | Political | Interrupts project progress and diverts efforts and attention<br><br>P = 1<br>I = 3 | Periodic scan of both regions to identify any emerging political crises, and in that event prepare contingency plan | Project Manager | Karen Bernard | Jan 2010 | Jan 2010 | |
| 3 | Major disaster occurs in one of the regions, which hampers the participation of key stakeholders in project impiementation | Environmental | Interrupts project progress and diverts efforts and resources<br><br>P = 2<br>I = 3 | Monitoring of potential new disasters in both regions through the existing monitoring and warning systems | Project Manager | Karen Bernard | Jan 2010 | Jan 2010 | |
| 4 | Staff turnover in project team , which would undermine momentum of implementation | Organizational | Expertise and historical perspective lost from team, negatively affecting quality of activities<br><br>P=2<br>I = 2 | Effective project leadership and communications, which motivate all team members to commit to the project over medium term<br><br>Consideration of staffing costs under project budgeting and future resource mobilization | | | | | |
| 5 | Delays in implementation of activities due to cumbersome bureaucratic | Operational Organizational | Delays in implementation of activities, affecting partnerships and level of | Ongoing communications and good relations with procurement, finance and HR | Manager of Pacific Centre | Karen Bernard | Jan 2010 | Jan 2010 | |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | procedures, lack of clarity on procedures or congestion of systems | | confidence built with partners and stakeholders<br><br>P=3<br>I = 2 | staff to ensure smooth processing of project-related transactions and procedures<br><br>Ongoing communications between project team and senior management to keep up to date on any changes in procedures or expected congestion in the systems | | | | | |