

Community-Level Adaptation to Climate Change: Action in the Pacific

Proceedings of the Regional Workshop on
Community-Level Adaptation to Climate
Change, Suva, Fiji: 21-23 March 2005

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Executive Summary

Pacific island people are currently experiencing the adverse effects of climate change on their way of life. Adaptation could significantly reduce these effects. To reduce the vulnerability of Pacific Islanders to climate change, the resilience of their cultural, ecological, and socio-economic systems needs to be enhanced. This can be achieved through building institutional capacity and implementing suitable adaptation measures at the community level.

Over the years, a number of climate change-related projects have been implemented in the region. These have focused largely on building institutional capacity and assessments of vulnerability. It was not until 2002 that the first climate change adaptation implementation project was piloted in the Pacific region — in the Cook Islands, Fiji, Samoa and Vanuatu. This initiative, titled ‘Capacity Building for the Development of Adaptation Measures in Pacific Island Countries’ (CBDAMPIC), was funded by Canadian International Development Assistance (CIDA) and executed by the Secretariat of the Pacific Regional Environment Programme (SPREP).

This project is an important global development, as the Pacific now has some of the first countries to actually implement adaptation pilots at the community level. Decision 11 of the First Conference of the Parties (COP 1) laid out three stages of adaptation. Stage I focuses mainly on planning and impact studies and appropriate capacity-building; Stage II on measures for implementation, including further capacity-building; and Stage III on actions to facilitate adequate adaptation, including insurance and other adaptation measures as envisaged by Article 4.1(b) and Article 4.4 on resilience of vulnerable ecosystems.

The CBDAMPIC project is the first Stage III type project to be piloted in the Pacific region. It is one of only a handful of projects world-wide that has actually achieved tangible improvements in the capacity of countries and communities to deal with risks associated with climate change. At the regional workshop to conclude the project (Suva, 21–23 March 2005), the distinctive accomplishments of the CBDAMPIC project received accolades from experts, representatives of the pilot countries, and non-participating country representatives alike. The CBDAMPIC project methodology was proposed as a preferred model for international adaptation efforts, including in the Caribbean.

Representatives of the pilot project countries have indicated their intentions to seek support to continue addressing real needs of communities and improving the livelihoods of people in their national programs and their international interventions. They noted particularly: the practical focus of the project, the ability to go beyond studies into implementation, the engagement of communities, and the flexibility provided by CIDA and SPREP to allow countries to adapt an approach to be effective in their countries.

As countries and organisations in the region review their Pacific Islands Climate Change Framework, provide direction for national and regional programmes, and attract donors (including from the fields of Climate Change, disaster management, poverty reduction, livelihood enhancement and sustainable development), it was suggested by participants that the adaptation component be based largely on the CBDAMPIC experience and model.

Discussion outcomes

Climate change adaptation is a cross cutting issue that needs a broad and long term programme of implementation so countries can be strategic in addressing adaptation needs beyond small scale pilot projects. Adaptation costs will be manageable and feasible when shared and carried out in a

collaborative way. However mainstreaming climate change adaptation should not mean transferring full adaptation costs to Pacific Island governments.

Climate change has major implications for development and needs to be factored into the current and future sustainable development priorities of Pacific Island governments, although climate issues can also warrant their own agenda, beyond disaster management, at local and national levels.

To empower local communities to adapt, a participatory bottom-up and top-down approach to climate change adaptation is considered the best approach for the Pacific region. Decision making for adaptation implementation needs to be systematic and transparent, and grounded on robust socio-cultural, ecological and economic assessments of vulnerability and coping capacity. Furthermore, cost-effective and culturally appropriate technologies can enhance communities' resilience to climate related risks.

Capacity building for climate change needs to be an on-going process, across diverse sectors, and efforts should focus on how to maintain progress already accomplished. Avenues should also be sought to mainstream community vulnerability and adaptation needs into the operational policy and plans of government ministries, departments and international development agencies.

This report documents the proceedings of a three day Regional Workshop on Community-Level Adaptation to Climate Change, held in Suva, Fiji: 21-23 March 2005. Section One is an overview of the challenges presented by climate change in the Pacific region and provides a brief background of the CBDAMPIC project. Section Two describes workshop objectives and their format. Section Three provides verbatim the address and welcome statements of SPREP, CIDA and the chief guest Mr Cama Tuiloma, Chief Executive Officer, Ministry of Local Government, Housing, Squatters and Environment, Government of Fiji. Section Four summarizes the technical presentations and discussions and reports from breakout sessions. This section also includes lessons drawn from presentations made in the technical sessions.

Lessons for the future

Summarised below are some of the main lessons learned, gleaned from the workshop as a point of departure for future climate change adaptation projects in the region. These lessons are drawn from the informative presentations and discussions, as well as from the experiences of the project coordinators at national and regional levels. The lessons are structured into two main parts, the first is institutional or systemic and the second is technical. Each lesson is expressed first in general terms applicable to other projects and then with specific reference to the project or discussions during the workshop. Capacity building in all facets of climate change needs to be an on-going process while also maintaining capacity that has already been built.

Institutional lessons

The most effective approach to climate change adaptation in the Pacific should represent a mix of national, top-down institutional capacity building and bottom-up, community-level project implementation.

Careful consideration needs to be made of the approach to be taken when carrying out climate change adaptation in the Pacific region.

At the global level, climate change adaptation has been approached through climate change impact studies. This approach takes into consideration projections of future greenhouse gas emissions, from which climate change scenarios are specified, biophysical impacts are modelled, selected socio-economic impacts are estimated, and adaptive options to moderate detrimental impacts are

assumed. While a climate change impacts study estimates potential climate change impacts, it does not analyse actual adaptation processes and is not structured to contribute to capacity building.

The Community Vulnerability and Adaptation Assessment and Action (CV&A) approach to vulnerability and adaptation as utilized by the CBDAMPIC project in the Pacific, begins with documenting the current exposure and current capacity of the community to cope with climate change. The objective is to identify opportunities to strengthen the adaptive capacity of communities to climate change. The engagement of local stakeholders is encouraged at each stage of the assessment process. This approach was actively promoted given also that most Pacific Islands lacked the climate modelling and scenario generating capacity necessary for detailed climate change impacts studies.

Mainstreaming climate change should not mean transferring full climate change adaptation costs to Pacific Island Governments.

Mainstreaming climate change is commonly described as the incorporation of climate change issues into operational plans, policies and budgetary processes of governments. A concern raised during this session which may warrant further debate (and not only in the Pacific), is that mainstreaming may inadvertently transfer climate change adaptation costs to vulnerable developing country governments. It was recognised that these governments are already facing an enormous resourcing burden at the national level that encompasses education, health, waste, poverty eradication, housing, increases in squatter settlements and many others.

Article 4.4 of the UN Framework Convention on Climate Change notes that developed country parties shall assist the developing country parties that are particularly vulnerable to the adverse effects of climate change in meeting the costs of adaptation to those adverse effects. In essence, this means that adaptation should be a shared cost between the major emitters of greenhouse gases that lead to global warming and climate change, and people who are suffering the consequences.

For the Pacific region this is an important consideration. A more detailed analysis will need to be made to determine adaptation issues to be mainstreamed for government support and the urgent adaptation needs that will require GEF support and other multilateral and bilateral funds.

Adaptation to climate change will be manageable and cost-effective when shared and carried out in a collaborative way.

People who do not have financial means to carry out adaptation have other resources that they can contribute to significantly reduce the cost of adaptation measures.

Presentations from the CBDAMPIC pilot projects indicate that the costs of adaptation can be manageable when shared amongst interested parties. In the case of the CBDAMPIC project in Samoa, the cost of the sea wall to minimise coastal erosion was reduced by 50 percent when the community provided labour and raw materials for backfill such as armour rock and soil. In the Torres Islands in Vanuatu, the CBDAMPIC project was only responsible for 30 percent of the total cost of relocation. The Lateu community and the Church of Melanesia absorbed most of the costs, as they had to move their own dwellings and the church to the new site. In the Cook Islands communities used their own resources to upgrade community rainwater tanks once these had been identified as a priority through the project. Communities also use an existing health inspection system for ongoing monitoring.

Climate change adaptation should be pursued on its own merits but long-term success will require factoring climate change adaptation into sustainable development planning at national, regional and international levels.

Climate change has major implications for development and should be factored into current and future sustainable development priorities of Pacific island governments, however climate change issues also warrant their own agenda at local and national levels.

Discussion approached this issue from several angles. First, it was suggested that adaptation has to be factored into national plans and policies because current development priorities have funding earmarked either directly from government finances or through overseas development assistance (ODA).

Another viewpoint was that climate change may be absorbed under disaster management, which for the Pacific has meant focusing largely on disaster rehabilitation and recovery as opposed to preparedness. This approach would stifle any momentum of climate change preparedness being implemented at national and regional levels.

A third viewpoint expressed was that climate change is a global issue that warrants a stand-alone agenda at the national and community level. Its present and long-term impacts would be disastrous to national development and people's livelihoods. Pacific Island communities contribute the least to this global problem, but have fewer resources to cope with the additional shocks and stresses under a changed climate. Assistance from developed countries is needed to adapt to specific local circumstances.

Technical lessons

Empowering the local community to adapt through a participatory process that combines bottom-up and top-down approaches is the best option for the Pacific region.

These two approaches must be employed simultaneously with one feeding off the other for better appraisal and understanding.

Presentations by CBDAMPIC project countries noted that at the outset of project implementation at the community level, a good rapport needs to be struck between Climate Change Country Teams who represent government interests, and the Core Community Vulnerability and Adaptation (CV&A) teams that include community representation. From experience, a continuous dialogue and exchange of information between these two parties creates an atmosphere of understanding and tolerance of each other's needs and constraints.

Capacity building in all facets of climate change needs to be an evolutionary process and every effort should be made to develop the capacity of all ministries and communities to carry out climate change adaptation activities.

Efforts should also focus on how to maintain capacity that has been built.

One of the major challenges described by country representatives is the lack of capacity at the national and community level. Most of the capacity-building to date has been with Environment Departments. Due to the limited number of personnel within Environment Departments who can implement climate change activities locally, external expertise is sought, often at very high costs. There is a need to broaden the capacity base and to enhance awareness levels. More effort is needed with institutional arrangements and human resource development.

This constraint brings us to examine the wider capacity building issues in the region; to consider whose capacity is being built, and to what extent this will promote community adaptation. In this

regard there is a need to look at the broader development community and who may be able to assist at the national and regional levels. NGOs and the church's capacity to take on some of the adaptation responsibilities, particularly at the community level, also need to be augmented.

Implementation of climate change adaptation should utilize an open, transparent and highly-participatory process that engages the community in the exploration of options to reduce vulnerability and effectively balances the needs and interests of a variety of stakeholders.

The process of arriving at who and what should be assisted in an adaptation programme in the Pacific region, where communal living is the norm in many rural areas, needs to be clearly mapped out before any implementation. Analysis needs to be grounded on thorough cultural, ecological and socio-economic assessments of vulnerability and coping capacity and this should be communicated well to the people to avoid misunderstandings and internal rifts.

Adaptation projects implemented at the community level have a potential to cause division in the community if handled in a non-transparent way. Adaptation projects should be aware of sensitive issues such as who needs to be supported in terms of adaptation; is it the community, individual households, or specific stakeholder groups like farmers or fishers? Project partners need to avoid misunderstandings or creating ill will amongst stakeholders. An open line of communication with the community and better understanding of vulnerability and coping capacity will help define the necessary boundaries.

Cost-effective and culturally appropriate technologies can enhance communities' resilience to climate-related risks.

The pilot projects made use of a number of technologies in their efforts to increase the resilience of communities to climate change. These included water resource solutions (tanks, springs, filters, purification, hydroponics, roof catchments, etc.), engineering bridge and drainage designs, and also preservation, promotion and use of traditional knowledge and adaptive technologies (e.g. old wells in water shortages).

Participants also heard about the Radio and Internet (RANNET) programme that began in Africa in 1998, and is now being introduced in the CBDAMPIC pilot project sites in Vanuatu. The objective is to make weather and related environmental information more accessible and useful to rural and resource poor populations in order to assist with day-to-day resource decisions to prepare for natural hazards. The system improves dissemination capacities of national hydrological and related national services, NGOs, and other information producers, and enhances adaptive capacity by providing access to the latest information on the weather, storms or the general climate. The system is multi-purpose and is used by a diversity of sectors including education, health, agriculture, and environment. Activities are carried out in collaboration with communities and the National Meteorological Departments.

A conduit should be established to enable community vulnerability and adaptation needs to be mainstreamed into the operational plans of government ministries and departments and international agencies.

Based on the CBDAMPIC project experience, three entry points are proposed; i) that the CV&A guideline currently used by the National Community Vulnerability and Adaptation Assessment Team (National CV&A Teams) be endorsed as one of the main assessment tools used by government to carry out community vulnerability and adaptation assessments; ii) institutionalise a multi-sectoral CV&A Assessment Team that will work at the community level to carry out vulnerability and adaptation assessments and develop adaptation recommendations that would be mainstreamed into the planning and budgeting machinery of government; and iii) communities to use existing channels that are available within government to route their community adaptation recommendations for funding assistance and implementation by government.

Acknowledgements

Without funding from the Canadian International Development Agency (CIDA), this regional workshop would not have been possible. On behalf of the Pacific Island countries, SPREP wishes to express its sincere appreciation to CIDA. In many ways the Pacific is indebted to CIDA for providing financial support that enabled the region to pilot some of the first UNFCCC Stage III adaptation type work globally. It has opened new avenues and ways forward that will benefit the region for many years to come.

Much appreciation also goes to the facilitators and the rapporteurs of the technical workshop sessions, including Mr Epeli Nasome, Ms Ilisapeci Neitoga, Dr Graham Sem, Violet Saena, Professor Barry Smit, Dr Neville Trotz, Mr Frank Wickham and Ms Veena Nair.

We wish to thank Ms Eileen Shea from the East West Centre, Hawaii, for availing time from her busy schedule to provide valuable comments on the manuscript. Thanks also to Chris Peteru and Jaap Jasperse (SPREP) for publishing support. Please accept this as our way of saying *vinaka vakalevu* and *fa'afetai* for your efforts.

SPREP would also like to thank the Fiji Department of Environment for co-hosting the regional workshop, and providing the necessary logistical and facilitation support. SPREP always values the collaboration, partnership and input of its member countries in the work it carries out.

Acronyms

ACCC – Adapting to Climate Change in the Caribbean

AOSIS – Alliance of Small Island States

AIACC – Assessment of Impacts and Adaptation to Climate Change

BPOA – Barbados Programme of Action

CDM – Clean Development Mechanism

CIDA – Canadian International Development Assistance

CBDAMPIC – Capacity Building for the Development of Adaptation Measures in Pacific Island Countries

CLIMAP – Asia Development Bank (ADB) Climate Adaptation in the Pacific project

COP – Conference of the Parties

CROP – Council of Regional Organisations in the Pacific

CV&A – Community Vulnerability and Adaptation Assessment and Action Guide

FORSEC – Pacific Islands Forum Secretariat

FSPI – Foundation of the People of the South Pacific

GCM – Global Climate Model

IPCC – Intergovernmental Panel on Climate Change

MDGs – Millennium Development Goals

NAPA – National Adaptation Programme of Action

NCSA – National Capacity Self Assessment

PDF – Project Document Framework

PIC – Pacific Island Countries

SIDS – Small Island Developing States

SOPAC – South Pacific Applied Geosciences Commission

SPC – Secretariat of the Pacific Community

SPREP – Secretariat of the Pacific Regional Environment Programme

TAR – Third Assessment Report

UNFCCC – United Nations Framework Convention on Climate Change

USP – University of the South Pacific

WWF – The Global Conservation Organisation (South Pacific Programme)

1. Overview

For well over a decade, Pacific Island Countries have highlighted the potentially dangerous consequences of climate change on their fragile environments and economies, as a result of global warming. The adverse effects of climate change and sea-level rise present significant risks to the sustainable development of small island developing states, while the long-term effects may threaten the very existence of some small island countries.

Based on the International Panel on Climate Change (IPCC) Third Assessment Report (2001), the exact nature of the impact of climate change on extreme events is still unclear, although certain things are likely including; higher maximum temperatures and more hot days over nearly all land areas, higher minimum temperatures, fewer cold days and frost days over nearly all land areas, increased summer continental drying and associated risk of drought. There is little consistent evidence that shows changes in the projected frequency of tropical cyclones and areas of formation. However, some measures of intensities show projected increases, and some theoretical and modeling studies suggest that the upper limit of these intensities could increase. Mean and peak precipitation intensities from tropical cyclones are also likely to increase appreciably. Estimates of recent disasters in the Pacific suggest extensive losses. Cyclones, drought, tidal surges and storms alone have cost the region close to \$6 billion, with about \$US 2.8 billion alone since the 1990s. Adding to the vulnerability mentioned above are non-climate related pressures which include; rapid population growth, social change, geographical isolation, fragile island ecosystems, finite land resources, dependence on marine resources, and economic transformations.

Pacific Island Countries have highlighted the need to pilot climate change adaptation implementation programmes and projects at regional and national levels. Most climate change projects implemented in the region since the early 1990s have concentrated on assessments and capacity building and were reliant on donor assistance (Annex 1.). While those initiatives are highly commended, countries have continued to call for urgent adaptation action that is implemented in anticipation of the pressures of future changes in climate related extreme events.

Since 2002, four Pacific Island states, viz., the Cook Islands, Fiji, Samoa and Vanuatu, have had the opportunity to pilot a Stage III type adaptation implementation project at the national and community level. The Secretariat of the Pacific Regional Environment Programme (SPREP) Council meeting held in Apia, Samoa, during September 2003, recognised the CBDAMPIC adaptation project executed by SPREP and funded by the Government of Canada (CIDA), as directly benefiting communities by undertaking climate change adaptation at selected pilot sites.

This CBDAMPIC adaptation project is now in its final stages of implementation. In March 2005, a regional workshop with 40 participants was held at the Southern Cross Hotel, Suva, Fiji, to reflect on some of the lessons learned and experiences of this project at both the national and community level, and to plan how the Pacific could best strategise climate change adaptation into the future.

1.1 CBDAMPIC Project - background

The CBDAMPIC project was an initiative funded by the Canadian International Development Agency (CIDA). It aimed to improve the sustainable livelihoods of Pacific Island people by increasing their adaptive capacity to deal with climate change risks at national and community levels. CBDAMPIC was developed in response to a call by Pacific Island states for assistance to develop and implement a capacity building programme to reduce their vulnerability to climate change..

The CAN\$2.2 million dollar initiative was coordinated and executed by SPREP. It was a three-year project (January 2002 to March 2005) involving four countries: Cook Islands, Fiji, Samoa and Vanuatu. The project had two main objectives, to increase the capacity of Pacific Island government institutions to deal with climate change risks through mainstreaming, and to increase the resilience of communities to climate related risks through implementation of adaptation recommendations (Figure 1).

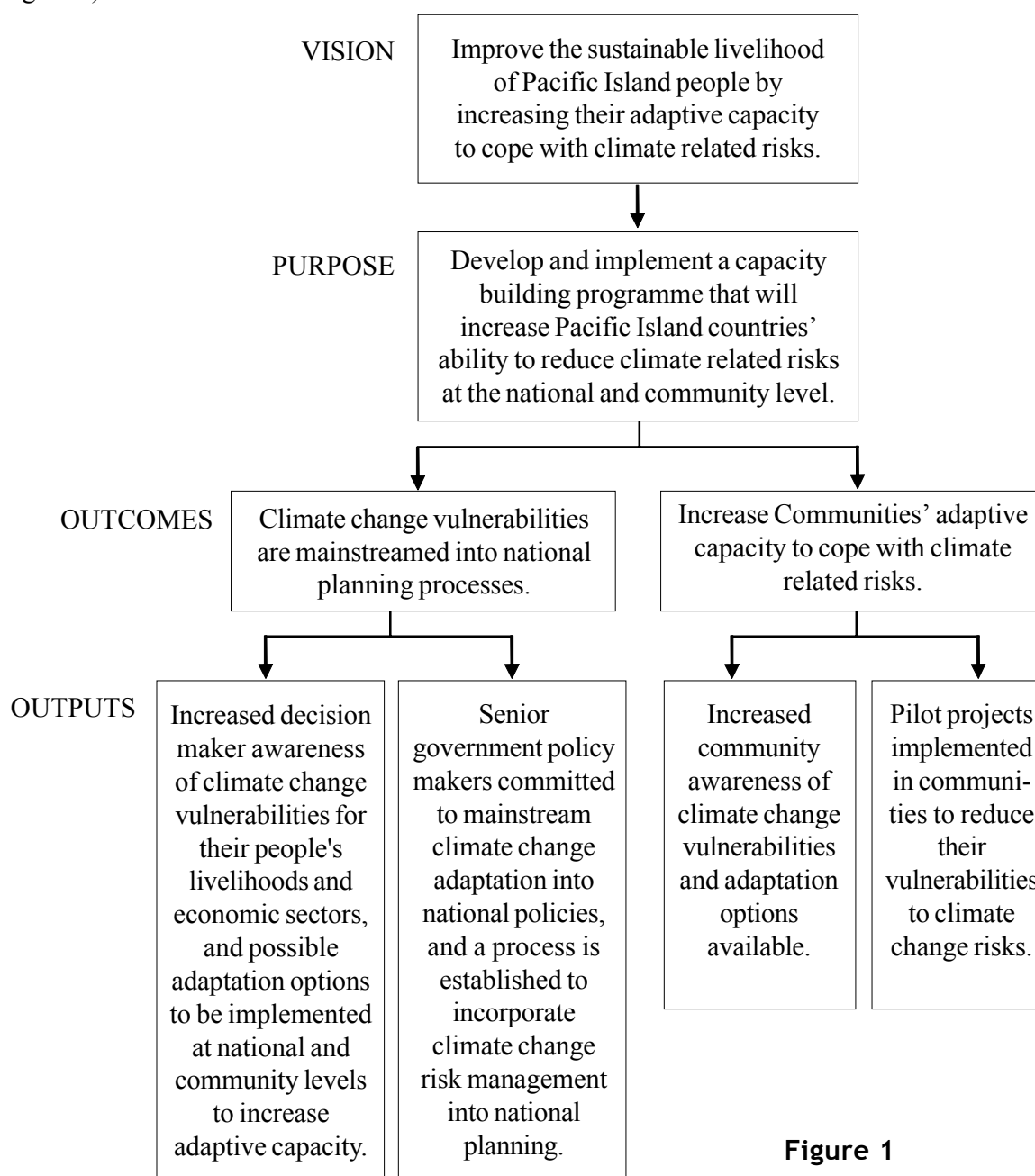


Figure 1
CBDAMPIC Project Framework

The project was two-tiered in the sense that it employed a “top-down” and a “bottom-up” approach, thereby linking government institutions with communities. The project supported the building of capacity at the national level in order to engender a clear direction on how adaptation programmes can be incorporated into institutional frameworks, ministry operational plans and policies, and three - five year national government strategies already in place or being developed. It also focused on increasing community level capacity using a participatory approach to assess and evaluate vulnerability to climate change and adaptation options in order to plan and implement locally appropriate adaptation activities.

2. Workshop Objectives and Format

The Regional Workshop on Community Level Adaptation was held at the Southern Cross Hotel, Suva, 21 – 23 March 2005. One of its main purposes was to draw out lessons and experiences gained after implementing the CBDAMPIC project over three years. It was also a chance to take stock of current developments and strategies on approaches to climate change adaptation for the region. This reflection was also important because it provided an opportunity for adaptation experts from the region to contribute their views into the adaptation section of the Pacific Islands Climate Change Framework that is currently under review by countries and the Council of Regional Organisations in the Pacific (CROP) and mandated during the 2003 Pacific Forum Leaders meeting in Auckland.

2.1 Workshop Participants

The workshop brought together 40 people, including 1 from the Caribbean, representatives from 10 Pacific Island countries [Cook Islands, Federated States of Micronesia, Fiji, Kiribati, Marshall Islands, Samoa, Solomon Islands, Tonga, Tuvalu, and Vanuatu], an observer from the International Global Environment Strategies (IGES), Japan, and a CDM officer from the New Zealand Climate Change Office. Representatives of several institutions were also present including the University of the South Pacific (USP), two international NGOs: World Wide Fund for Nature (WWF) and Foundation of the People of the South Pacific International (FSPI), officials from the New Zealand development aid agency (NZAID) and the United Nations Development Programme (UNDP), and intergovernmental organisations such as the South Pacific Applied Geosciences Commission (SOPAC). Participants included policy makers and senior and middle-level managers of national governments engaged in adaptation.

2.2 Workshop Themes

The workshop covered a range of themes including; emerging issues in community adaptation, updates on the science, international developments in adaptation funding mechanisms, effects of climate change on the community and different sectors, linking climate change adaptation to other development priorities, mainstreaming adaptation, plus methodological issues such as stakeholder engagement, vulnerability assessment and identifying and evaluating adaptation options. A major segment of the workshop was apportioned for countries to share their studies and implementation experiences when carrying out work at their various pilot project sites.

2.3 Workshop Outcomes

There were three main expected outcomes for the workshop:

- provide a synthesis of lessons learned and determine key policy issues on adaptation;
- identification of gaps and a way forward; and
- development of elements for national and regional adaptation strategies to support adaptation at the national and community levels.

To achieve these three outcomes, three specific objectives were set:

1. to chart progress of the adaptation debate at the international, regional and national levels for the benefit of future adaptation initiatives in Pacific Island countries and regional organisations;
2. to review the accomplishments and lessons learned from CBDAMPIC and other projects to assist identify adaptation needs and opportunities for the future; and
3. to develop an adaptation strategy (national and/or regional) that can feed into the Climate Change Framework that is currently under review by PICs, CROP and partners (donors).

2.4 Workshop Agenda

The workshop consisted of presentations by experts and community level practitioners, technology experts, plenary sessions, and group discussions on climate change and adaptation issues (see Annex 2 for more detail).

2.5 Funding Support

The regional workshop was fully funded by the Canadian International Development Assistance and jointly organised by SPREP and the Department of Environment, Ministry of Local Government, Housing, Squatter Settlement and Environment, Fiji. It was originally planned that the regional sharing of lessons learned would only be limited to the four participating countries under the CBAMPIC project. With endorsement and extra funding assistance from CIDA, all the Pacific Island countries as listed in Annex 3 were able to participate.

3. Statements and Welcome Address

3.1 Secretariat of the Pacific Regional Environment Programme (SPREP) Address

Hon. Minister of Environment, Housing and Squatter Settlements;

Chief Executive Officer, Environment, Housing and Squatter Settlement; Representatives from Pacific Island Countries;

Representatives of international and regional organisations present here today.

Ladies and Gentlemen,

Good Morning.

On behalf of the Director of SPREP Asterio Takesy, I would like to warmly acknowledge and thank Mr Cama Tuiloma, Chief Executive Officer Environment, Housing and Squatter Settlement for being with us today and for his opening remarks. This adaptation workshop is very important for a number of reasons:

It is becoming increasingly obvious that the international effort to limit the rate of increase of atmospheric greenhouse gas emissions is not succeeding as much as small island states as ours would have liked.

The international scientific community has predicted that in the Pacific, we and our children face an unpleasant future. It will be hot. The global average surface temperature will rise between 1.4° and 5.8°C by this century. Sea levels will rise between 9 and 88cm. These projected rates are much larger than the observed changes during the 20th century, and are likely without precedent during at least the last 10,000 years. We will face many more cyclones and they will become more intense. And there will be greater extremes of drying and heavy rainfall.

It is understandable then that our leaders and our officials have identified adaptation to the adverse impacts of climate change as a top national priority for our countries and our region.

The recent Mauritius Strategy for the further implementation of the BPOA, again highlights adaptation to the adverse effects of climate change and sea level rise as a major priority for SIDs. Before that our leaders and ministers made the same point in the AOSIS Ministerial Declaration at the 10th Climate Change Conference of the Parties, Forum Leaders Decisions going back over 10 years. Adaptation was also identified by the region as its top priority climate change issue in the SPREP Action Plan 2005-2009.

So the entire world has to be aware about the importance we place on adaptation. A question I often ask myself is, if the tap of adaptation assistance turned on tomorrow, would we be able to collect that assistance?

The answer in my mind is not so clear for the following reasons. It is rare that adaptation assistance will come largely in the form of a grant like the Canadian funded local community project we are reviewing. And may I take this opportunity, through the SPREP Director, to thank CIDA again for the very kind assistance provided through this project.

More often than not when funding is given at the national level, donors like to see that adaptation is indeed a priority and the best way of knowing that is to see adaptation factored into countries' national development plans and strategies. How many of us have done that?

Secondly, many donor institutions and countries do not want to fund infrastructure developed as part of a country's developmental process. They are looking for that extra bit of development that countries are doing to build their resilience to climate change. This being the case, baseline data and research capacity in the different sectors is very important. This means building the capacity not only of our environmentalists but our meteorologists, hydrologists, climatologists, agriculturalists and development planners.

At the regional level the Pacific Island Countries have identified adaptation as a priority. Donors, who want to fund regional projects, would like to see a regional adaptation strategy along with priorities and timeframes of action. We will be discussing the elements of such a strategy at this meeting drawing on our CIDA community project work. This adaptation strategy will feed into the Regional Climate Framework Forum Leaders will endorse this year.

At the international level, you will also be aware that there is a GEF Strategic Programme on piloting adaptation. This raises exciting possibilities for us as a region because until a few years ago there were no GEF programmes specifically targeting adaptation. I would like you to consider the submission of a proposal into the GEF under this programme so that we are provided for in the GEFs next replenishment period.

To conclude, opportunities for adaptation assistance exist and have emerged. Our challenge for the next few days, is how best can we make the most of these opportunities.

Mr Andrea Volentras

SPREP Co-ordinator Climate Change

3.2 Canadian International Development Assistance (CIDA) Address

It is fitting that this regional workshop is being held in Fiji, with the focus in part to look back on the lessons learned from the CBDAMPIC project, given that it was in June 2001 that the project was first moved forward in a similar meeting.

Since that time a great deal has happened, both through the CBDAMPIC project and internationally on the issue of climate change. From the CIDA side, we have watched and tracked the project's progress, with the national level mainstreaming efforts, the community pilots, and the participation in side events at the COP negotiations. Our expectations and hopes from back in 2001 have been more than met, and that must be fully credited to the hard work by SPREP and the member countries, and by the communities themselves. In particular the performance of Taito Nakalevu, Pasha Carruthers, Bobby Bishop, Violet Wulf Saena, Brian Phillips and Illisapeci Neitoga are to be commended in their perseverance and efforts in the project's implementation.

CIDA has learned a great deal from the South Pacific through our involvement, and we look forward to seeing the workshop proceedings. The CBDAMPIC project obtained funding from the Canadian Climate Change Development Fund, established in 2000. The CIDA climate fund has supported projects in the areas of emission reduction, carbon sequestration, core capacity building and in adaptation. It is in this final sector, adaptation to climate change, that we as a donor have learned the most in terms of our development mandate. Much mainstreaming is taking place in the Pacific, and CIDA too is looking to mainstream climate change into our programming. We, along with many others in our global community, will be drawing on lessons learned from the community vulnerability assessment methodology developed in the Pacific, along with the pioneering work in mainstreaming adaptation at the national level. Given CIDA's poverty alleviation focus, reducing climate related vulnerability among the most poor and marginalized will be of particular importance.

It is heartening to note the sources of adaptation funding that are becoming available. Potential future resources include the NAPA process, the GEF, a Kyoto "tax", and support from other donors.

At CIDA we are hopeful that the project has been of benefit to the participating communities and countries. Visiting some of the pilot community locations over the course of the project, it was clear that some of the communities were indeed highly vulnerable. It is hoped that the project support has helped in some small way.

Our thanks go out to all those who put in the efforts needed to make the project a success, and our thanks as well to be able to be involved in the process.

Prof. Barry Smit

University of Guelph / CIDA Consultant

3.3 Statement by Chief Guest Mr Cama Tuiloma, Chief Executive Officer, Ministry of Local Government, Housing, Squatter Settlement and Environment

Distinguished Representatives from Pacific Island Countries.

I believe there is also a guest from the Caribbean Region who is here with us. We warmly welcome Dr Ulric Trotz to the Pacific and Fiji Islands, Professor Barry Smit a consultant for CIDA and SPREP, members of International, Regional and Non-Government Organisations, representatives from SPREP, Ladies and Gentlemen

Bula Vinaka and a very warm welcome to you all.

It gives me great pleasure to be invited here today to deliver an opening statement to this very important meeting.

First, let me thank the organisers and our brother from Vanuatu for opening this Workshop with a prayer. I also thank Andrea and Professor Smit for their kind words on Fiji's win in the World Cup Sevens in Hong Kong last night. Friends, that win is also a win for us Pacific Islanders. There are a whole lot of celebrations going on and we are not only overwhelmed by the win but also by the intensity of Kava sessions (*Piper methysticum*) and exaggerated discussions that went on long after the game ended.

Today, is approximately four weeks and five days after the coming into force of the Kyoto Protocol, and we all agree that this marks the beginning of a significant environmental development globally, "the fight against climate change". After the historic final ratification came in November last year when Russian President, Vladimir Putin, put his signature on the Russian Duma's endorsement, the fight for stabilizing the climate and securing the stability of the planet is now finally out of the blocks and running. However, we are still a long way off, and the Kyoto Protocol – the world's first global effort to reduce atmospheric carbon emissions – is only a necessary and urgent first step, but a much more comprehensive long-term effort is needed to achieve the necessary emission reductions.

Ladies and gentlemen, as you well know, "climate" has influenced the lives of Pacific Islanders since the beginning of time. It has influenced the way we live, build or plan our daily existence and activities such as planting, harvesting, sailing and other economic, social and cultural activities. A change in climate touches on the very source of sustenance and livelihood of our people, and so, it is an issue that is very close to the hearts of the Pacific Island people.

While we, as Small Island Developing States (SIDS), are among those that contribute least to global climate change and sea level rise, we are among those that would suffer most from the adverse effects of such phenomena, as stated in the Barbados Declaration. There is no doubt, that the coming into force of the Kyoto Protocol will have a far-reaching impact not only on the whole planet, but also on the environment and climate of the Pacific region into the future.

The coming into force of the Kyoto Protocol would greatly accommodate the objective of this important workshop whereby we will review the accomplishments and lessons we have gained from the Capacity Building Development of Adaptation Measures in Pacific Island Countries Project (CBDAMPIC project), to identify adaptation needs and opportunities for the future.

And I believe we need to start strategising now on how we can best assist each other and work together as a region to access the various instruments of the UNFCCC Convention and Kyoto Protocol, particularly on climate change adaptation for the benefit of our people and region today and into the future.

The CBDAMPIC Project has paved the way forward for us to tackle the adverse impacts of climate change. Through this project, we have begun to address some of the urgent adaptation needs of our people. Importantly, we have started using the bottom-up approach, we begin with the people, understanding their situation and implementing programmes that will help them be more resilient to current and future climate change.

I see this workshop as a very timely one, as it provides the opportunity for all of us to come together and map a way forward for the region to access the benefits of the Kyoto Protocol, and really, the onus is on capable representatives such as yourselves, to be at the forefront of negotiations and developments on climate change for the region.

I would like to take this opportunity to thank the Government of Canada for taking the initiative at the global level to pilot adaptation projects at the national and community levels here in the region, and I commend them for their foresight and tangible assistance supported with effective actions. This has enabled us to pilot climate change adaptation in four Pacific Island countries. This important initiative has allowed several regions globally to start piloting climate change adaptation at the community level. The rippling effects of these types of initiatives are tremendous for our communities in the region.

I am aware that through initiatives such as this, Small Island Developing States, should now be better positioned to leverage additional resources from the GEF to mainstream adaptation into our ongoing sectoral, national and regional development strategies and plans. I would like to acknowledge and applaud the Global Environment Facility for its overall goal of supporting adaptation and establishing pilot or demonstration projects to show how adaptation planning and assessment can be practically translated into projects that will provide real benefits and can be integrated into national policies and sustainable development planning.

While I am still on the GEF, let me also inform this workshop that a recent study carried out in late 2004 by a team of consultants on the effectiveness of the Global Environment Facility in the Pacific Region noted that GEF recognises Small Island Developing States (SIDS) as a special case within the world community.

However, the report also noted that since the inception of the fund, \$365 million has been allocated by GEF to 225 SIDS projects, attracting another \$571.6 million in co-financing. Within the \$365 million, approximately one third has been allocated to Pacific countries and the other two thirds to the Caribbean Region. The key difference, as noted by the report is the greater number of regional initiatives being made in the Caribbean. This is something you may need to consider and discuss specifically in this meeting.

May I also take this opportunity to commend SPREP for their effort and assistance in the implementation of the CBDAMPIC project in the region. It is a cutting edge project that addresses our community needs in terms of adaptation. I believe more work is still to be done and as I have already said, one of the main purposes of this workshop is to reflect on the progress of climate change adaptation in the region, re-examine the successes and challenges, and chart a way forward for our adaptation projects in the Pacific.

Now that the Kyoto Protocol is in force, several funding instruments are also now available, for example, the Kyoto Protocol Adaptation Fund and the Special Climate Change Fund. As a region, we will need to see how best we can effectively position ourselves to access these funding mechanisms for the needs of the region and our communities. This, I believe, is critical.

For Fiji, our Government recognises that small, rural and poor communities particularly in the low lying and coastal regions, islands and drought prone areas, are often the most severely affected by, yet the least equipped to deal with, the adverse effects of climate change. I cannot emphasise enough how critical it is, for us to develop community-based capacity and tools to better equip ourselves to adapt to the adverse effects of climate change, to seek assistance to finance diverse community-based adaptation projects, and to disseminate lessons learned at the community level for effective adaptation.

The CIDA/SPREP CBDAMPIC Project has enabled us to get a better sense of the level of vulnerability at the community level and valuable lessons have been learnt on the process we used. Unfortunately, we also face technical and administrative challenges and we are working diligently to overcome these.

For us here in Fiji, this project has also assisted us develop a Climate Change Policy that will be presented to the Cabinet in the not too distant future for endorsement and adoption. This project has given us the impetus and resolve to seriously address the scope and magnitude of the risks associated with climate change, and it represents a challenge to the environmental and economic goals that we must now take into account. I hope that this workshop will play a major role and take into account these challenges and come up with answers at the end of your 3-day meeting.

Again, I emphasise the need for the CIDA/SPREP CBDAMPIC climate change adaptation project initiative to be reviewed and developed further. There are many countries in the Pacific that have yet to pilot adaptation projects and they will need our collective effort and assistance, and of course, those countries that have started the project, they have to further develop their adaptation measures.

I therefore would like to also take this opportunity to humbly appeal to our developed country partners and international donors such as GEF, for their financial support to continue where the Government of Canada has left off.

The need to plan well into the future cannot be over-emphasised for the very survival of some of our Pacific Islands if not all, but we can unite and work together as a region to better prepare for the possible impacts of climate change. To that end, we have a climate change framework that is currently under review and I am hopeful that resolutions from this Workshop will enhance this framework in better defining country needs and priorities.

Ladies and Gentlemen, I wish you all a successful and fruitful three days of deliberations and hope that the outcomes of the workshop will go a long way in addressing our capacity to adapt to current and future climate change.

GOD BLESS YOU ALL, and, I am very honoured to declare this Workshop open.

Thank you very much.

4. Synthesis of Workshop Presentations

4.1 Understanding the Global and Regional Climate Change Adaptation Development

Mr Epeli Nasome, Director of the Department of Environment, Government of Fiji, chaired this session which included presentations from Professor Murari Lal, Dr Graham Sem and Professor Barry Smit.

4.1.1 Review of climate change science

Professor Murari Lal of the University of the South Pacific, focused on the current understanding of climate variability and climate change in the region, including the linkages of inter-annual variability in weather patterns with El-Nino Southern Oscillation (ENSO) and South Pacific Convergence Zone (SPCZ). He reported the prospects for an increased frequency of ENSO events, a shift in their seasonal cycle and changes in intensity of tropical cyclones in PICs. He also noted the interaction between the ENSO variability on decadal timescales and the thermohaline circulation is not well understood. According to Prof Lal, if the Pacific does not know how much climate is changing, it will be difficult to plan for adaptation, therefore it is important for the region to be able to generate its own climate change scenarios to be better informed.

4.1.2 Adaptation Implementation under the UNFCCC

Dr Graham Sem reviewed the UNFCCC negotiations and informed the workshop of the areas that the Buenos Aires Programme of Work on Adaptation provides for that the region needs to be aware of, including:

- adverse effects of climate change;
- information and methodologies - data collection and information gathering, and the analysis, interpretation and dissemination to end-users, in-country capacity-building, improving GCMs;
- vulnerability and adaptation – pilot demonstration projects, capacity-building, technologies and technical training;
- modelling – workshop on integrated assessments, regional workshops and one expert meeting on SIDS; and
- reporting –providing details of adaptation support measures in National Communications including adaptation needs in national communications.

4.1.3 Progress on the global climate change adaptation debate

Professor Barry Smit presented the CBDAMPIC project in light of progress made on the global climate change debate and from a development and climate change perspective. He observed that in the development field, the CBDAMPIC project is notable for its substantive consideration of (longer-term) climate change risks in development and resource management planning, and in its efforts to improve adaptive capacities and enhance livelihoods. This is

consistent with recent initiatives in international development and disaster management taking climate change into account in programme development. This project represents an excellent example of such integration. This project is also distinctive in the field of Climate Change impacts and adaptation, particularly in its:

- recognition of a wide range of risks associated with climate change, not only those derived from climate change models/scenarios;
- focus on community-based (and hence community-relevant) vulnerability assessment and community-based (“bottom-up”) adaptation options;
- real community engagement in the processes of improving capacities to deal with climate-related risks; and incorporating adaptation to climate-change risks and related vulnerabilities into existing institutional and decision-making processes (“mainstreaming”), at the community and the national planning levels.

4.2 Partnerships in Adaptation

Dr Graham Sem chaired this session and presenters included Dr Padma Lal from the Forum Secretariat, Ms Veena Nair from USP and Dr Russel Howarth from SOPAC.

Dr Lal informed the workshop about the many international commitments and mechanisms being put in place today, but queried whether they are really addressing the needs and priorities of the region. The Pacific is implementing a number of projects but the question remains whether it has made a difference to the capacity of people at the community level to adapt. She pointed out that under close examination, outcomes had been less than satisfactory, and behavioural change had been assumed. Adaptation programmes need to be people-centred and outcome focused using innovative ways to usher in change. They should be approached from a holistic perspective (science, social science and economics) and employ a programmatic approach.

SOPAC Deputy Director, Dr Russell Howarth pointed out that SOPAC is now focusing on delivery at the national level. The Pacific is now at a crossroads. It needs to prepare a Pacific Plan and climate change is a crosscutting issue that will impact on the sustainable development programmes of PICs. There needs to be a clear strategic approach, country members need to change and implement the approach at the national level. There needs to be a greater collective focus at the national level to help countries achieve the targets they committed to in Johannesburg (WSSD).

Ms Veena Nair informed the meeting that the USP is carrying out capacity building for renewable energy in partnership with SOPAC (wind power postgraduate course). There is also ongoing research and awareness on renewable energy. In addition, the USP is implementing the AIACC project in the Cooks Islands and Fiji. There is still need for more work on capacity building.

The session on partnership in adaptation questioned how effective our efforts in climate change projects have been in the past and how the region can move forward. It was noted that past and existing efforts still focus on research and assessments. While these produce valuable information, there is uncertainty as to the effectiveness of these methods and whether they have impacted on the level of adaptation in communities at the national level.

The presenters emphasised the need to take a more holistic and programmatic approach to adaptation, and to view climate change as a sustainable development and crosscutting issue.

There is a need for CROP agencies to work together and share resources. The focus should be on the needs of the people at the local and national levels and partnerships at the national level should be developed and strengthened.

4.3 Progressing Adaptation at the National Level

This session was chaired by Professor Barry Smit and presentations were made by countries not part of the current CIDA/SPREP CBDAMPIC project including; the Federated States of Micronesia, Kiribati, Marshall Islands, Nauru, Solomon Islands, Tonga and Tuvalu.

Climate change initiatives currently implemented by countries mentioned above reflect international programmes driven by the UNFCCC convention that are largely assessment and capacity building based. Examples of such activities include the First and Second National Communication and the NAPAs. Very little or no climate change adaptation implementation activities have been funded in these countries.

There are some examples of mainstreaming climate change concerns into national policies and programmes taking place in these countries, but it is recognised that more work needs to be done. In the case of the Solomon Islands, the focus at present is on economic and social rehabilitation and restoration. Environment and climate change are not high on government's priorities due to the civil unrest that has plagued the country. In Tonga, a climate change policy is being developed and some adaptation work is currently underway, e.g. foreshore protection of low lying villages suffering from salt water intrusion, and effective community use of lagoon sediment. In FSM, work on climate proofing under the ADB Climate Adaptation in the Pacific project (CLIMAP) has recently been completed and they are looking for financial assistance to fund the incremental cost of the road to be built in Kosrae State. Very little progress has been reported from other countries.

It is noted from the country presentations that awareness levels of policy makers are low and systemic or institutional arrangements at country level are slow and can be cumbersome. There is acknowledgement that coordination of decision-making at the national level is weak for some countries. Other barriers mentioned include a lack of coherence in what donors wish to fund, poorly defined country priorities, lack of data and management, data fragmentation and difficulty in accessing information, and ownership issues.

The presentation from Tuvalu highlighted the dilemma faced by this country in relation to balancing the religious beliefs people have concerning climate change with the views of the scientific community. Many Tuvaluans believe all disasters are acts of God and judge politicians on how they respond with relief and rehabilitation, rather than encouraging their government to instigate proactive and preventative adaptation measures.

Similarly, discussion on this issue noted that disaster response funding is greater than the support provided for disaster prevention. This, in effect, penalises countries that have taken steps to be more resilient to climate extreme events and who thereby do not suffer as many losses as their neighbours. There is a need for success stories in risk reduction and resilience building to demonstrate the benefits of adapting now rather than later as compared with the cost of doing nothing.

In summary, there is a need for more Type III climate change projects, such as the CBDAMPIC, to be implemented at the national level and to act as a catalyst for government, non-government organisations and communities to develop capacity and move directly into implementation.

One of the key challenges for the Pacific region is to see how best it can influence donors to channel funds into adaptation implementation.

4.3.1 Other Programmes Doing Community Adaptation Work

Information was presented on the national and community level mainstreaming work of the Kiribati Adaptation project, an initiative funded by the World Bank.

A presentation by the WWF focused on work carried out as part of the Climate Witness project in Kabara in the Lau Group in Fiji, where they have conducted and are conducting community vulnerability and adaptation assessments. These assessments were used to develop community based adaptation action plans in four villages on Kabara. In all four villages, the over arching concern by the community was access to fresh drinking water, as the island is completely dependent on rainwater for drinking, domestic and agricultural purposes. Records from the Fiji Meteorological Department have since confirmed the community observations of declining levels of rainfall in the Lau group, since the early 1960's. Each community action plan identified measures that may be taken at two levels – the first can be implemented by the community using existing resources, and the second is where external support is needed. For example, to address the community concerns on coral bleaching, actions were taken to ban destructive fishing methods (such as the use of the poisonous 'duva' plant) and the dumping of ship waste within the lagoon area. These measures were put in place to increase the resilience of coral reefs to climate related bleaching. To address concerns related to coastal erosion, a community coastal planting scheme was implemented. In terms of external assistance, WWF sourced funding for community water tanks, to increase storage capacity in all four villages. These funds have since been transferred to the Lau Provincial council, who will implement this component.

At the same time as the community vulnerability assessments, WWF had a second team working on carrying out baseline assessments to determine the health of the marine environment. This team has also worked with community members, training them in coral and sea grass monitoring techniques, and educating them on monitoring for climate related impacts. Kabara relies heavily on its marine resources as a food source, and the community had expressed concern over the impacts that climate change may have on these resources. WWF is now working with these communities to develop a longer-term resilience building strategy, to help make these critical resources more resilient to future climate change impacts.

The final component of the WWF Climate Witness project has been awareness raising – both at the community level, and through the three island schools. This awareness raising has been an on-going component of the project, where both community specific products were developed (addressing the specific areas of vulnerability and adaptation strategies identified by each community) as well as more general information on climate change (what is climate change, how does it effect us, and what can we do about it?) in Fijian vernacular.

4.4 Emerging Issues - Institutional Mainstreaming

This session was chaired by Dr Graham Sem and presentations were made by Professor Barry Smit, Taito Nakalevu (Regional Project Manager CBDAMPIC Project) and representatives from Cook Islands, Fiji, Kiribati, Samoa and Vanuatu.

4.4.1 Incorporating climate change into development plans, strategies and policies

Presenters converged on the idea that mainstreaming climate change responses (adaptation) into poverty reduction strategies or national strategies for sustainable development is one of the main avenues for addressing the adverse effects and to mitigate the negative impacts of climate change. Climate change is a risk to development and will impact adversely on Pacific Island countries' efforts to achieve their Millennium Development Targets (MDGs). This recognition featured strongly in the presentations made by the Cook Islands, Fiji, Samoa and Vanuatu. Some countries noted that aspects of their national development plans were already completed without sufficiently addressing climate change, so separate climate policy documents may need to be developed.

The Kiribati presentation provided a slightly different scenario where the Government is locating climate change programmes in the Ministry of Finance given that the Kiribati Adaptation Project is currently being funded by the World Bank. The approach by Kiribati is another approach to mainstreaming that is gaining momentum in the Pacific region, but needs serious consideration before implementation. In the case of Palau, the climate change office is within the President's office. In the Marshall Islands, there is a separate climate change office. These are some of the mainstreaming dimensions that are 'taking off' in the Pacific. Time will tell which the best option will be.

4.4.2 Raising the profile of community identified risks and needs

A presentation by Mr Taito Nakalevu informed the workshop that the community vulnerability and adaptation assessment work carried out under the CBDAMPIC project has provided a better understanding of the level of risk and exposure people are facing at the grassroots level. The challenge is how to get community perceived priorities documented and presented to policy makers. One of the approaches used by CBDAMPIC was to convene high-level seminars for heads of departments where results from the community V&A assessments were discussed. Most department heads presented with the CV&A results have taken the opportunity to pledge their support for the project and acknowledge the importance of addressing the community-identified priorities immediately.

4.5 Vulnerability and Adaptation Assessment and Action

This section includes presentations from the four countries piloting the CBDAMPIC project, the Kiribati Adaptation Project supported by World Bank and the WWF climate change work carried out in Kabara, Lau in the Fiji group.

The session opened with a presentation from Mr Frank Wickham, SPREP Training Officer, on the Community Vulnerability & Adaptation Assessment (CV&A) process. Briefly, the CV&A process is a systematic approach to assessing communities' vulnerability and capacity to adapt to climate change (Figure 2). SPREP carried out training on the guidelines in the four project countries, which formed core teams that actually visit the pilot communities to carry out vulnerability and adaptation assessments.

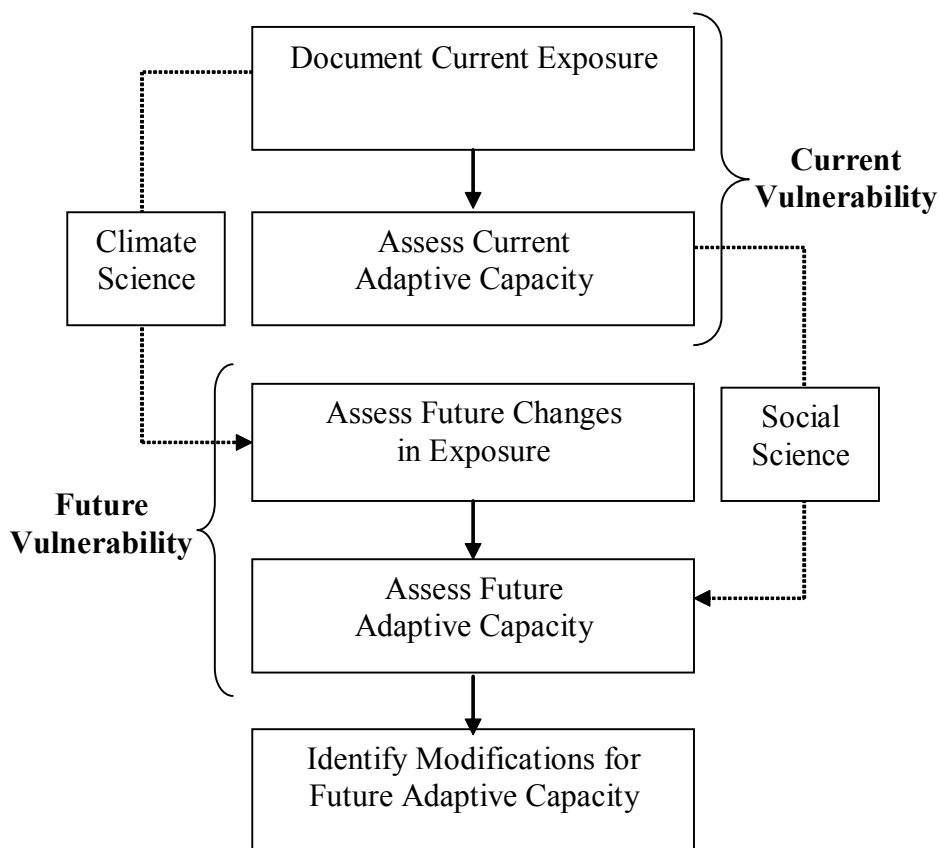


Figure 2 Components of the CV&A process

The training activity was able to develop and strengthen collaboration among national agencies and stakeholders in assisting communities to assess their vulnerabilities and identify adaptation options. One of the critical principles underpinning the work is building a team of national staff to ensure the knowledge stays in-country, as well as giving ownership of the project to the national and community level participants. Greater involvement by the host community in training and related follow-up activities was achieved through the process. This momentum was maintained throughout the project cycle as the process was participatory and encouraged active dialogue.

Two major vulnerabilities that featured in all the presentations were: 1) water shortages - lack of access to water due to periodic droughts and variability in rainfall, and 2) coastal erosion. Other vulnerabilities mentioned included an increase in pests and diseases, agricultural productivity decline, coral bleaching, salinity of underground water lenses, and flooding.

4.5.1 Water shortages

Problem

All the country presentations cited the availability of water as the greatest concern with regards to climate change vulnerability. The water issue affects all aspects of people's livelihoods, including agricultural production, education, health, industry and waste management. Stakeholders who are highly susceptible to variability in water resource availability include farmers, fisher folks, and others who depend on the environment and natural resources for their livelihood.

Causes

Several factors have made water quality and shortages the overriding concern in the pilot countries. These include variability in rainfall and periodic droughts, coupled with a lack of rainwater harvesting and storage capacities. With an increase in population comes greater demand for safe drinking water, and also the risk of contamination. It is clear that government infrastructures are not coping very well with the increases in demand.

In countries like Vanuatu, there are added pressures such as volcanic ash fall-out that contaminates the water with acidic ash making it unsafe to harvest off roofs. In atoll islands such as Aitutaki, the increase in tourism activities places pressure on stressed underground water lenses. Water currently supplied through the system is very salty and is not readily consumed.

Impacts

Most Pacific islands, particularly atolls, depend on precipitation for their water sources. Any change in the pattern or frequency of rainfall adversely affects both the recharge of their groundwater aquifers, and their ability to capture and store rain. At times climate variability leans more toward little or no rain. When rain arrives, the intensity is often so high, it creates flooding problems. Sea-level variations contribute to the salinisation of underground water lenses of some atoll islands in the region. Also, cyclone generated debris, storm surges, and salt spray can overflow, contaminate and degrade community aquifers, wells and water storage facilities.

Volivoli community in Fiji depends largely on precipitation for water and has reported that the climate in the area has been getting drier. This has impacted on water supplies available for farming. Variability is increasing generally bringing less rain; therefore droughts are becoming more frequent and longer. This has meant farmers have changed cropping patterns from rice in the late seventies to sugarcane today, as former swamp lands are becoming very dry.

Is there currently sufficient coping capacity?

People are barely coping with the lack of available water for consumption and are employing various means for addressing the problem. A general observation is that more time is now put aside for household chores because it has to take into consideration time for carting water from its source to the individual households. It is often women or children who carry out this activity each day. Some communities carry water from nearby boreholes; others collect from creeks up to 20 km away from their homes. In certain communities, households have dug their wells very close to the sea, where elevation is lowest. The quality of water from the well is often dirty and salty and its quantity low in volume. During the dry season, there is often no rain and the wells dry up. Households that are able to finance boreholes have done so while others rely on government assistance.

What is being done to address the residual risk?

Several adaptation recommendations are currently being implemented at the community level. In Fiji, bore holes are being explored and will be implemented in the near future. In the case of Aitutaki, the communities are assisted with subsidized water tanks for improvement in storage. In Samoa, underground springs are being protected in case droughts hit the community. In Vanuatu, communities have been assisted with water tanks to support rainwater harvesting.

4.5.2 Loss of land due to costal erosion and inundation

Problem

Land in the Pacific has physical, social and cultural dimensions, which are pertinent in the discussion of coastal erosion, a problem currently affecting most coastal island communities. To Pacific islanders, land means more than just the area one lives on and is identified with just as it is more than the vegetation, animal life, and other objects on it. The Pacific concept of land also includes social and cultural systems — the people, their traditions and customs, beliefs and values, and various other institutions established for the sake of achieving harmony, solidarity and prosperity within a particular social context.

The social and cultural dimensions of land are a source of security and confidence. It provides a sense of identity and belonging. In the words of Professor Asesela Ravuvu, it is an extension of the concept of 'self'. This perspective of land gives a whole new dimension on the land loss affecting the Pacific region's coastal communities.

While we may continue to debate the different perspectives and conceptualisation of land, several families in the village of Saoluafata in Upolu, Samoa, have lost their dwellings to coastal erosion. The village malae, or sacred heritage grounds, where village meetings and cultural activities are held, has been heavily eroded. A family in Togoru near Navua town in Fiji has lost ten acres of land to inundation and erosion as reported by a presentation from the WWF. For the Lateu community on Vanuatu's Tegua island, inundation has forced people to retreat to higher ground and, seeking assistance from the CBDAMPIC project to move.

Causes

In the presentations by participants it was indicated that most communities living near the coast are constantly facing the threat of storm surges and sea level rise, leading to coastal erosion or inundation. It is also recognised that part of the problem lies with unplanned activities such as sand mining or land reclamation.

Impacts

From now on sea level is projected to rise steadily for the Pacific Islands region. This poses the risk of inundation and coastal flooding, and storm surges often associated with tropical cyclones. Sea level rise represents significant risks associated with loss of land and the displacement of communities, salt water intrusion into ground water and the reduction of agriculturally viable crops.

Is there currently sufficient coping capacity?

In most communities, adaptive capacity is considered insufficient to accommodate future changes in exposure to climate related risks. For example, social capital is a key element of adaptive capacity. This social network is both internal in terms of family and neighbours offering shelter, food and labour to those in need, and external in terms of financial remittances sent from relatives working overseas. In the face of increasing extreme events, the social network is currently being activated more frequently to respond to coastal erosion problems. However, most Pacific Island countries are experiencing a transition from the traditional system to a more western-style society. It is uncertain if this social network and the sense of duty to one's community will be sustained.

Seawalls have long been the traditional response to coastal erosion and flooding in many small island states. The construction of a seawall requires significant financial investment, labour, materials and equipment. Certain families in communities have the financial means to adapt and are already doing so, but the majority of people are not in such a position and continue to rely on external assistance to address their coastal erosion or inundation vulnerability. In most cases coastal protection efforts are not planned or carried out with proper guidance from experts. The net effect is that more erosion occurs in unprotected places thus creating more problems to people who are least able to protect themselves.

What is being done to address the residual risk ?

In light of the projected changes in climatic conditions pertinent to most Pacific communities and the assessment of future adaptive capacity to deal with changes in risk exposure, adaptive measures identified included building seawalls, re-vegetation of coastal beachfronts and relocation or retreat.

In the case of Saoluafata village in Samoa, residents are adamant the construction of a seawall will protect their coastal settlement and properties from erosion, storm surges and resulting land loss. They have tried to replant their shorelines with vegetation but this has eroded over the years, and they are convinced that the answer lies in a combination of hard and soft adaptation measures, viz., a hard structure sea wall with plantings in back-fills. According to the village leaders, the safety and security of those living along the coast is the primary concern of the village. They feel strongly about protecting the sacred

grounds and burial plots of their ancestors, both of which are located near the coast and susceptible to loss through coastal erosion. The people of Saoluafata see the land as a part of their heritage and therefore preventing further loss of land is very important to them.

In the case of inundation and erosion problems that the Lateu and Panita communities of Vanuatu are facing, there is no alternative but to relocate the community to higher ground. The CBDAMPIC project is already working with relevant government and non-government organisations and the church to relocate the two communities.

4.6 How Can We Respond Better?

4.6.1 Views from participants

Three discussion groups were formed to discuss what could be the main elements of a climate change adaptation strategy for the region. In summary the main elements include:

- identification of capacity needs and building capacity, mainstreaming and advocacy particularly promoting the CIDA/SPREP/CBDAMPIC approach at national, regional and international level,
- better assessment taking into consideration not only the science but social and economic aspects of adaptation, and
- more action oriented projects which include influencing donor support for adaptation.

Observations were made on the incongruity between what is contained in national sustainable development strategies and the needs of the community. Efforts to develop a lean, easy to read strategy document, often leads to a loss in the linkages between expected outcomes and community needs.

Reported below in detail are suggestions made by the three breakout groups:

Group 1

- Promote implementation of CBDAMPIC activities on a regional scale.
- Advocate for the adoption of CBDAMPIC implementation methodologies in national climate change adaptation activities. This approach should also be reflected in the Pacific Climate Change Framework under review.
- Promote the CBDAMPIC approach as a viable alternative for addressing the articulation and implementation of adaptation priorities under the NAPAs.
- Identify critical capacity requirements at all levels for better implementation of climate change adaptation activities, include the use of the vulnerability and adaptation assessment guidelines developed under the CBDAMPIC project. Capacity requirements to be identified through the NCSA process.
- Promote the CBDAMPIC approach at the international level.
- Integrate as far as possible the CBDAMPIC process in national planning and budgetary activities, and in national programs for addressing Millennium Development Goals.

Group 2

- Identify strategies and opportunities to implement adaptation through other sectoral projects/programmes (agricultural, tourism, fisheries etc.).
- Integrate adaptation into development projects in country;
- Need more action oriented approaches (programmes and projects).
- Build capacity of appropriate agencies (institutional capacity). The issue of whose capacity should be built also needs to be carefully considered.
- Improve access to funding opportunities and promote a better understanding of GEF requirements on issues such as incremental costs and global benefits.

Group 3

- Ensure that national adaptation priorities reflect issues pertinent at the community level. Communities could have different priorities from national priorities.
- Mainstream adaptation at all levels, including CROP.
- There is a need for more awareness raising particularly amongst national planners on climate change adaptation.
- Donor countries need to place a high priority on adaptation. This will make it easier for countries to access funding support.
- Government bureaucracy and processes need to be streamlined for easy access to actual on the ground activities.
- Capacity needs for adaptation at both the community and national levels need to be determined.

4.7 Views from Donors and Adaptation Experts

This section documents the views and presentations made by two Pacific donor partners, NZAID and UNDP, with additional input from recognised adaptation experts.

4.7.1 New Zealand Agency for International Development (NZAID)

In a succinct presentation, Mr Dimitri from the NZAID Suva office outlined the following points in his presentation. In relation to future climate change activities, NZAID is looking forward to the review of the Pacific Islands Climate Change Framework, to guide its support in the area of climate change. The Climate Change Framework would inform NZAID on regional priorities and strategies that will help Pacific island countries address the adverse effects of climate change. He emphasised that the priorities need to be regionally owned, and the strategies regionally driven.

Climate change adaptation is an important issue to NZAID, and is reflected in their mandate, which looks at the elimination of poverty. He acknowledged that climate change threatens sustainable development. Strategic needs have to be identified, and priority areas of action developed to reduce vulnerability and improve resilience.

4.7.2 United Nations Development Programme (UNDP)

Ms Misa Andriamihaja from the United Nations Development Programme presented the UNDP strategy to facilitate adaptation and discussed ongoing initiatives in the region. The four pillars of the strategy include the development of Adaptation Guidelines (the Adaptation Policy Framework is now available to countries), regionally focused adaptation assessments, nationally focused adaptation assessments, and implementation of adaptation policies and projects.

UNDP support for Pacific Island Countries includes assessments of adaptive capacity with on going projects such as National Communications and National Adaptations Plans of Action for LDCs, and adaptation implementation. Two new upcoming projects are implementation of a regional adaptation project, the Pacific Adaptation to Climate Change (PACC) under the new GEF Strategic Priority for Adaptation, and the implementation of community based adaptation activities via the GEF/Small Grants Programme.

4.7.3 New Zealand Climate Change Office - Clean Development Mechanism

One of the problems facing Pacific Island countries relates to equitable access to CDM projects insofar as countries in the Pacific region are competing with big countries such as India and countries in Latin America. Countries in the Pacific may need to bundle projects together through a regional mechanism in order to reduce transaction costs. However, this is a decision that will have to be made by individual countries.

The New Zealand Climate Change Office is trying to determine how best to combine adaptation and mitigation efforts in a single initiative. There are times however when priorities do not line up.

4.7.4 Dr Ulric Trotz, Caribbean Climate Change Centre (CCCC), Belize

Dr Trotz noted that CBDAMPIC has achieved successful implementation and the Pacific needs to promote this work. The region is far ahead with its climate change adaptation method. In the Caribbean some sectoral adaptation work with tourism organisations are being carried out but progress is slow. The CBDAMPIC approach means going to the most vulnerable people which is the community (the fishers and the farmers), and defining their immediate vulnerabilities and adaptation needs, and actually implementing priority responses. There is much to be learnt from this approach and CCCC is interested in piloting this methodology in the Caribbean. Technical assistance will be sought from the Pacific region.

According to Dr Trotz, the Caribbean is committed to further collaborative work with the Pacific region in community vulnerability and adaptation.

4.7.5 Professor Barry Smit, Quelp University

Prof Smit, reiterated the general consensus of opinion that CBDAMPIC, as a project promoting adaptation to climate change, is an extremely successful initiative. It is one of only a handful of projects world-wide that has actually achieved results that tangibly improves the capacity of countries and communities to deal with climate change risks.

It would be unfortunate if these accomplishments of CIDA-SPREP-CBDAMPIC were not effectively disseminated. Apart from simple recognition for significant advances in the field, the lessons from CBDAMPIC should be shared with the international community in order that others can benefit from the experiences, insights and developments gained. SPREP and the countries involved in CBDAMPIC are already working on dissemination in the Pacific region, and there is a need for such sharing of the approach and its distinctive accomplishments to the international climate change communities and the international development communities.

4.8 Caribbean Climate Change - Dr Ulric Trotz

A presentation by the Caribbean representative highlighted the joint activities carried out between the two regions. Incorporating climate change concerns into the EIA process is one such activity reported by Dr Ulric Trotz. For most PICs, the EIA process has been established in one form or another (legislative frameworks or policy process), however despite being in operation for a number of years, there continues to be many teething problems. The processes adopted are unique to each country and based on diverse but established principles of governance. In this regard, it is recommended that for the Pacific, climate change considerations be incorporated into the EIA as suggested below:

- terms of Reference;
- EIA Review Sheet/checklist;
- compliance and Monitoring Systems;
- establishment of Formal EIA Procedures; and
- an EIA Experts Roster.

Some Pacific Island countries like Fiji and Samoa are more advanced in their EIA and associated planning processes and have called for more advanced strategic environmental assessment approaches such as Environment Monitoring Plans (ISO 14,000) to increase accountability and necessitate post-development monitoring. SPREP on behalf of the Pacific and the ACCC project on behalf of the Caribbean region should be publishing a guide to the integration of climate change adaptation into the EIA process in the near future.

4.9 Pacific Adaptation to Climate Change

This is an initiative by the SPREP Secretariat in collaboration with UNDP to develop a full GEF proposal under the ‘new’ GEF Strategic Priority area Adaptation to Climate Change. Under this strategic priority area, the GEF will advance funds for activities that will bring about enhanced adaptive capacity. Some of the potential outcomes that the GEF will consider funding are adaptation pilot projects that:

- build on identified national “baseline” activities to enhance resilience to the impacts of climate change;
- demonstrate the integration of adaptation policy integrated into sustainable development objectives;
- enhance technical support at local and national level to enable achievement of above objectives; and
- increase awareness and capacity to adapt to climate change.

For countries that have been involved in the CIDA/SPREP CBDAMPIC project it will be clear that the above outcomes are very similar. Given this fact and the expressed wish of SPREP members at recent SPREP Meetings the Secretariat has continued to pursue opportunities for furthering CBDAMPIC type adaptation programmes in the region. The Secretariat would therefore take the initial step of developing a full GEF project with UNDP through the development of a PDF proposal. Under the PDF A, the GEF can advance a grant of US\$50,000 to help towards the costs of:

- a regional meeting where countries will design and develop a pilot adaptation project based on their national adaptation priorities; and
- a consultant to develop a full project proposal that will be placed before the GEF Council.

The country representatives present in the meeting endorsed the initiative proposed by SPREP to develop a full project proposal on piloting adaptation. They also indicated that after appropriate consultation with relevant authorities at the national level, Letters of Endorsement for their participation would be sent to SPREP.

5. Conclusion and Lessons for the Future

At the Regional Workshop to conclude the CBDAMPIC project (Suva, Mar 21-23, 2005), Dr Ulric Trotz, the representative of the Caribbean climate change adaptation initiative which is recognized internationally as the cutting edge initiative in this field, repeatedly praised the distinctive accomplishments of the CBDAMPIC project. He proposed the CBDAMPIC project methodology be the preferred model for international adaptation efforts, including in the Caribbean.

Representatives present of the pilot project countries unanimously praised the project (and CIDA and SPREP) as an initiative that accomplished practical implementation results. The project has addressed real needs of communities and improved the livelihoods of their people. They indicated their intentions to continue this type of work in their national programmes and their international interventions. They noted the practical focus of the project, the ability to go beyond studies into implementation, the engagement of communities, and the flexibility provided by CIDA and SPREP to allow countries to adapt an approach to be effective in their countries.

Representatives of other Pacific island countries not directly involved in CBDAMPIC were also impressed and indicated an intention to adapt the approach in their attempts to attract donor support to undertake adaptation projects. As countries and regional organisations review their Pacific Islands Climate Change Framework, the CBDAMPIC experience and model should be incorporated into the adaptation component, to provide direction for national and regional programs and to attract donors, including from the fields of climate change, disaster management, poverty reduction, livelihood enhancement and sustainable development.

Climate change adaptation is a cross cutting issue that needs a broad and long -term programmatic implementation approach for countries to be strategic in addressing adaptation needs and go beyond small scale pilot projects. Adaptation costs will be manageable and cost-effective when shared and carried out in a collaborative way. However mainstreaming climate change adaptation should not mean transferring full adaptation costs to Pacific Island governments.

Climate change has major implications for development and should be factored into current and future sustainable development priorities of Pacific Island governments, however climate change issues also warrants its own agenda at local and national levels, beyond disaster management. A conduit that will enable community vulnerability and adaptation needs to be mainstreamed into the operational plans of government ministries and departments and international development agencies should be established.

Decision making for adaptation implementation needs to be systematic and transparent, and grounded on robust socio-cultural, ecological and economic assessments of vulnerability and coping capacity. Cost-effective and culturally appropriate technologies can enhance communities' resilience to climate related risks. Capacity building in all facets of climate change needs to be an on-going process across multiple sectors, and efforts should also be focused on how capacity that has been built can be maintained. In sum, empowering the local community to adapt using a participatory bottom-up and top-down approach to climate change adaptation is the way to go for the Pacific region.

Annex 1: Climate Change Projects

Recent major (over US\$0.5M) Risk Management and Adaptations Projects in the Pacific. Source: Climate Roundtable - Matrix of Projects. Presentation made to the Second High Level Adaptation Consultation, 8-9 May 2003, Sigatoka, Fiji.

Project	Country	Donor/Administrator	Funding (US\$ M)	Focus
Pilot Adaptation:				
CIDA - Capacity Building to Develop Adaptation Measures in Pacific Island Countries (CBDAMPIC)	Cook Islands, Fiji, Samoa, Vanuatu	CIDA/SPREP	1.3	Capacity building, Mainstreaming Community pilots
KAP - Kiribati Adaptation Program	Kiribati	GEF/Japan/World Bank	0.65 + 3.05	Mainstreaming, Pilot adaptation
CLIMAP - Climate Change Adaptation Program for Pacific	FSM, Cook Islands	CIDA/ADB	0.8	Mainstreaming, Climate Proofing
AusAID - Vulnerability and Adaptation Initiative	TBD	AusAID/SPREP	2.0	TBD
NAPAs - Preparation of National Adaptation Programmes of Action	Kiribati, Samoa, Solomons, Tuvalu, Vanuatu	GEF/UNDP	1.0	Preparation of NAPAs
Hazard risk management:				
SOPAC/EC Initiative - Reducing Vulnerability in Pacific ACP States	Regional	EC/SOPAC	8.9	Strengthened national capacity for hazard risk management
Samoa - Infrastructure Asset Mng I&I/Cyclone Emergency Recovery Project	Samoa	World Bank	4.34.1	Strengthened hazard risk mng, Community resilience pilots
CHARM: Comprehensive Hazard and Risk Management	Region - Kiribati, Vanuatu, Tonga and Fiji	Several donors	>2	Various activities: Community risk; community lifelines; Holistic risk management linked to national planning process
Tonga - Cyclone Emergency Recovery and Management Project	Tonga	World Bank	1.8	Strengthened hazard risk management

Annex 2: Workshop Agenda

Day One	Monday, 21 March 2005
8.30 - 9.30	<i>Registration and Official Opening (Facilitator: Mr Epeli Nasome, Director, Environment Department, Fiji)</i>
9.00 - 9.10	Welcome, opening remarks - Andrea Volentras, SPREP
9.10 - 9.20	Overview of Workshop objectives and design - Taito Nakalevu
9.20 - 9.30	Welcoming Address by CIDA Prof Barry Smit (on behalf of CIDA)
9.30 - 9.45	Speech by the Chief Guest - Mr Cama Tuiloma, CEO Local Government, Housing, Squatter Settlement and Environment.
Technical Session I	
<i>Understanding the Global and Regional Climate Change Adaptation Development (Facilitator: Dr Chaalapan Kaluwin; Rapporteur: Ms Ilisapeci Neitoga)</i>	
10.15 - 10.30	Progress on the science of climate change - Professor Murari Lal, University of the South Pacific, Fiji
10.30 - 10.45	Progress on the global climate change adaptation debate: from the science to implementation, Professor Barry Smit, University of Guelph, Canada
10.45 - 11.00	Progress on the International Negotiations (UNFCCC), Dr Graham Sem, New Zealand
11.00 - 11.20	Open Discussion
11.20 - 11.25	Concluding Remarks by Chair
Technical Session II	
<i>Partnerships in Adaptation - Type IIs & Other Initiatives (Reporting on progress) (Facilitator: Dr Graham Sem; Rapporteur: Ms Violet Saena)</i>	
11.30 - 11.40	Dr Padma Lal, FORSEC
11.40 - 11.50	Mr Alan Mearns, SOPAC
11.50 - 12.00	Mr Andrea Volentras, SPREP
12.00 - 12.10	Ms Veena Nair - USP
12.10 - 12.20	The challenges of incorporating Adaptation Science/Inventory into communities and Government strategies. Dr Chaalapan Kaluwin, Regional Coordinator, AusAID South Pacific Sea Level & Climate Monitoring Project-Phase III.
12.20 - 12.30	Open Discussion and Concluding Remarks by Chair
Technical Session III	
<i>Progressing of Adaptation at National Level - Exploring lessons learnt from adaptation to climate variability (Chair: Prof. Barry Smit; Rapporteur: Ms Pasha Carruthers)</i>	
1.30 - 1.40	Country 1
1.40 - 1.50	Country 2
1.50 - 2.00	Country 3
2.00 - 2.10	Country 4
2.10 - 2.20	Country 5
2.20 - 2.30	Open Discussion
2.30 - 2.35	Concluding Remarks by Chair

Annex 2: Continued

Technical Session IV	
<i>Emerging Issues - Institutional Mainstreaming and Community Vulnerability and Adaptation</i>	
3.00 - 3.10	Mainstreaming Adaptation in Light of Climate Change by Professor Barry Smit, University of Guelph, Canada
3.10 - 3.25	Mainstreaming - the CBDAMPIC Approach, Taito Nakalevu
3.25 - 3.40	Country Presentations - Cook Islands, Bobby Bishop and Pasha Carruthers, Cook Islands CBDAMPIC Project
3.40 - 3.55	Country Presentations - Fiji, Ilisapeci Neitoga, Fiji CBDAMPIC Project
3.55 - 4.10	Country Presentations - Samoa, Violet Saena, Samoa CBDAMPIC Project
4.10 - 4.25	Country Presentations - Vanuatu, Brian Phillips, Vanuatu CBDAMPIC Project
4.25 - 4.40	FSPI - Lionel/Hugh - Suva Office
4.40 - 5.20	Open Discussion
5.20 - 5.25	Concluding Remarks by Chair
7.00 - 9.00	WELCOME RECEPTION
Day Two	Tuesday, 22 March 2005
Technical Session V	
<i>Vulnerability and Adaptation Assessment and Action at Community Level (Facilitator: Dr Ulric Neville Trotz; Rapporteur: Ms Veena Nair)</i>	
9.00 - 9.15	Community Vulnerability and Adaptation Assessment and Action Guide, Frank Wickham, SPREP
9.15 - 9.35	Water vulnerability - Community Adaptation in Aitutaki, Bobby Bishop and Pasha Carruthers, Cook Islands CBDAMPIC Project
9.35 - 9.55	Declining precipitation in the Western Fiji - Ilisapeci Neitoga, Fiji CBDAMPIC Project
9.55 - 10.15	Flooding and Coastal Erosion vulnerability - Violet Saena, Samoa CBDAMPIC Project
10.15 - 10.30	Open Discussion
11.00 - 11.20	Inundation and water vulnerability - Brian Phillips, Vanuatu
11.20 - 11.40	Kiribati Adaptation Project - Andrew Teem, Kiribati
11.40 - 12.00	Community Climate Change Adaptation: A Case Study of Kabara, Fiji - Diane McFadzien, WWF South Pacific, Suva
12.00 - 12.25	Open Discussion
12.25 - 12.30	Concluding Remarks by Chair
Technical Session VI	
<i>Role of Technology in Enhancing Resilience (Facilitator: Dr Graham Sem; Rapporteur: Brian Phillips)</i>	
1.30 - 1.50	RANNET - Henry Taiki, WMO Regional Office and Jotham Napat, Director, Vanuatu Meteorological Office
1.50 - 2.20	Incorporating Climate Change Concerns into EIA - Caribbean and Pacific Initiative, Dr Ulric Trotz, Caribbean Climate Change Centre.
2.20 - 2.40	Japan Presentation - to be confirmed

Annex 2: Continued

Technical Session VII	
<i>Identification of Policy Issues (Facilitator: Frank Wickham; Rapporteur: Brian Phillips)</i>	
3.30 - 3.50	Presentation of the CBDAMPIC project Synthesis Report, Professor Barry Smit, University of Guelph, Canada
3.50 - 4.50	Facilitated group discussion on the following issues: Integrating adaptation into development priorities, Barriers and potential countermeasures for mainstreaming adaptation strategies in sector-wide development planning at local, national and regional levels. Relevant adaptation policies and measures for the region
4.50 - 4.55	Concluding Remarks by Chair
Day Three	Wednesday, 23 March 2005
Technical Session VIII	
<i>How can we respond better? (Facilitator: Taito Nakalevu, Rapporteur: Andrea Volentras)</i>	
9.00 - 10.45	Presentation of Rapporteurs and Group Summary How can we respond better? ·Visioning for the future ·Development of Elements of a National/Regional Adaptation Strategy to feed into the Climate Change Framework currently under review
11.00 - 12.30	How can we respond better? Donor presentations by AusAID - ADB - NZAID - NZ Climate Change Office - Ms Jane Desbarats UNDP - Ms Misa Andriamihaja
12.30 - 01.00	Facilitated discussion
2.00 - 4.30	Working session on the regional adaptation programme (PACC) (Facilitator: Andrea Volentras and Misa Andriamihaja, Rapporteur: Taito Nakalevu)
2.00 - 2.15	Presentation of the PACC and where it comes from (SPREP)
2.15 - 2.30	Outline of the PACC (SPREP)
2.30 - 4.15	Individual Discussion with PICs on their baseline and proposed adaptation activities as per SPREP circular /05
4.15 - 4.30	PACC proposal writing and action plan (SPREP)
4.30	CLOSE

Annex 3 Participants list, Workshop on Community Level Adaptation to Climate Change

Southern Cross Hotel, Suva, Fiji, 21-23 March 2005

Name	Area	Role	Position	Location	Phone	Fax	Email
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Annex 3 Continued

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Annex 3 Continued

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Annex 3 Continued

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