



SOPAC

EU EDF 8 – SOPAC Project Report 83:
Reducing Vulnerability of Pacific ACP States



**GOVERNMENT OF THE REPUBLIC
OF VANUATU**



**DISASTER RISK REDUCTION
AND DISASTER MANAGEMENT
NATIONAL ACTION PLAN**

(2006 - 2016)

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In partnership with the Government of Vanuatu and
The Pacific Disaster Risk Management Partnership Network

Publication Date: May 2007

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IMPORTANT NOTICE

This report has been produced with the financial assistance of the European Community; however, the views expressed herein must never be taken to reflect the official opinion of the European Community.



The Vanuatu DRM&DM process was supported by the Pacific Disaster Risk Management Partnership Network, particularly the following partnership members:



The World Bank



Pacific Islands Forum Secretariat



Pacific Regional Environment Programme



United Nations Development Programme



International Strategy for Disaster Reduction



Pacific Islands Applied Geoscience Commission

FOREWORD

The Republic Island of Vanuatu is located in one of the highest disaster-prone areas in the world. In recent years our people have been exposed to cyclones, volcanic eruptions, earthquakes, floods and droughts. Since independence over a quarter of a century ago, our vulnerabilities to disasters have increased not only due to our changing lifestyles but also because we have lost some of our traditional methods for minimising risk and coping strategies in times of disasters. Our people are also becoming more reliant on disaster relief assistance rather than taking preventative, mitigation and adaptive steps to reduce risks, whilst building our self reliance and increasing resilience to disasters.

As the Prime Minister of the Republic, I clearly see that there is a need for a political will to bring about a change in the way we deal with disaster risks and to strengthen our community's resilience through a more holistic approach to disaster risk reduction and disaster management.

Disaster is a development issue. So there must be a political will to ensure disaster risk considerations are fully integrated into all our policies, plans, budgets, and decision-making processes at all levels of government and communities and Vanuatu has shown that will and commitment through this process. The Hyogo Framework for Action: Building the Resilience of Nations and Communities to Disasters and the Disaster Risk Reduction and Disaster Management Regional Framework for Action, 2005-2015 provide guiding principles for developing a holistic, whole-of-country approach to disaster risk reduction and disaster management.

The Vanuatu Government has made a commitment under the Pacific Plan to operationalise the Disaster Risk Reduction and Disaster Management Regional Framework for Action, 2005-2015, which we endorsed together with our fellow Leaders from the region in Madang, in 2005.

To put effect to this commitment, we need a firm political and financial commitment to see that disaster risk reduction and disaster management is mainstreamed into our national policies, plans, budgetary provisions and decision making across all sectors and all levels of government, and communities and that disaster risk management is the responsibility of the whole country and is everyone's business.

We can no longer just sit and wait for disasters to happen. We must take actions to minimise our risks. At the same time we can also better prepare for and more effectively respond because we will never be able to eliminate all disasters.

We realise that in this effort to build a safe, secure and resilient Vanuatu, our national resources are limited and thus we need the support of our friends and support from the whole international community. We also need long-term commitment and support from our regional organisations and development partners.

My Government is pleased to acknowledge the assistance provided by the Pacific Disaster Risk Management Partnership (SOPAC/PIFS/World Bank/UNDP), and coordinated by SOPAC, to develop the National Action Plan for Vanuatu. This task was carried out in collaboration with our National Task Force, coordinated by the National Disaster Management Office. I would like to commend the dedication of the National Task Force and the high level of support provided by the Pacific Disaster Risk Management Partnership Network for this process in Vanuatu.

This National Action Plan, which is linked to a new supplementary Priorities and Action Agenda, provides a prioritised programme of action that the Vanuatu Government will implement over the next decade. The National Action Plan provides a range of actions requiring commitment and a coordinated joint effort within government, and with the private sector and civil society.

I am proud to note that Vanuatu is the first country to systematically operationalise the global Hyogo Framework [for] Building the Resilience of Nations and Communities to Disasters and the Disaster Risk Reduction and Disaster Management Regional Framework for Action, 2005-2015. Our National Action Plan on Disaster Risk Reduction & Disaster Management 2006-2016, reflecting the core principles reflected in these frameworks becomes an example for others.

I personally pledge my support and that of my Government to ensure we maintain the momentum that has already been generated over these few short weeks. We must therefore act quickly to lay down the policy framework and organisational foundation for mainstreaming DRR and DM.

The ownership of the process and the responsibility for the success of our endeavors must remain with us. However, there is too much at stake for us to even entertain any thought of failure. With all your continued support and assistance together we will create a safe, secure and resilient Vanuatu.

Hon. Ham LINI VANUAROROA

Prime Minister

Republic of Vanuatu

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LIST OF ACRONYMS

CBO	Community-Based Organisations
COM	Council of Ministers
CROP	Council of Regional Organisations in the Pacific
CRP	Comprehensive Reform Programme
DCO	Departmental Committee of Officials
DESD	Department of Economic and Social Development
DESP	Department of Economic and Sector Planning
DRM	Disaster Risk Management comprising DRR and DM
DRR	Disaster Risk Reduction
DM	Disaster Management
EWS	Early Warning System
GoV	Government of Vanuatu/Government of the Republic of Vanuatu
HRU	Human Resource Unit (Prime Minister's Office)
ICAO	International Civil Aviation Organization
ISDR	International Strategy for Disaster Reduction
MEA	Multilateral Environment Agreement
MLNR	Ministry of Lands and Natural Resources
MOIA	Ministry of Internal Affairs
MTEF	Medium Term Strategic Framework
MTSF	Medium-Term Strategic Framework
NAP	National Action Plan for Disaster Risk Reduction and Disaster Management
NAPA	National Adaptation Plan of Action
NEOC	National Emergency Operation Centre
NCSA	National Capacity Self-Assessment
NGOs	Non Government Organisations (also known as Non State Actors or Civil Society)
NDMO	National Disaster Management Office
NSA	Non State Actors
NTF	National Task Force for DRM (Vanuatu)
PAA	Priorities Action Agenda
PIFAC	Pacific Islands Framework for Action on Climate Change
PIFS	Pacific Islands Forum Secretariat
PMO	Prime Minister's Office
PTWC	Pacific Tsunami Warning Center
REDI	Rural Economic Development Initiative
SOPAC	Pacific Islands Applied Geoscience Commission
SPREP	Secretariat of the Pacific Regional Environment Programme
UNDP	United Nations Development Programme
UNISDR	United Nations International Strategy for Disaster Reduction
VANRIS	Vanuatu Resource Information System
WB	World Bank
WMO	World Meteorological Organization
WMW	World Media Watch
WSSD	World Summit on Sustainable Development

ACKNOWLEDGEMENTS

The development of the Vanuatu National Action Plan on Disaster Risk Reduction and Disaster Management was made possible through the assistance of many people and organisations in Vanuatu and our development partners from the region.

We acknowledge the political support provided by our Prime Minister of Vanuatu, Honorable Ham Lini Vanuaroroa for his initiative during the discussions with the Regional High-Level Advocacy Team by Dr Langi Kavaliku and Mr Alan Mearns of SOPAC and Mr Alf Simpson of the World Bank. This support from the highest office made it possible to obtain necessary cross-sectoral support and promote disasters as a development issue to all levels of government and the wider community.

We also acknowledge the newly formed Government cross-sectoral National Task Force, supported by the Reference Group comprising Director Generals and Senior Level Ministerial Officials of the Development Committee of Officials who were largely responsible for coordinating the development of the National Action Plan.

The National Task Force Team members are:

Mr Job Esau	National Disaster Management Office (Chairperson)
Mr Jotham Napat	Ministry of Public Utilities (Vice Chair)
Mr Johnson Wapaiat	Ministry of Internal Affairs
Mr Jean .F.Metmetsan	Department of Strategic Management
Mrs Cherol Ala	Department of Provincial Affairs
Mr Ruben Bakeo	Ministry of Agriculture, Forestry and Fisheries
Mr William B Worwor	Department of Meteorology
Mr Morris Amos	Ministry of Health
Mr John Knox	Ministry of Education
Mrs Esline Garaebiti	Department of Geo-hazard
Mr Ernest Bani	Environment Unit
Mr Jerry Lapi	Ministry of Finance and Economic Management
Mr Albert Williams	Local Consultant

Disaster management needs support from different disciplines, experts of varying backgrounds as well as commitment from different regional and international organisations. We therefore acknowledge the formation of the Pacific DRM Partnership and the support provided by SOPAC, Pacific Islands Forum Secretariat, SPREP, UNDP, World Bank, and UNISDR and coordinated by SOPAC. We also acknowledge the leadership and commitment shown by particularly SOPAC and PIFS in assisting us in finalising this National Action Plan.

Members of the Pacific DRM Partnership Network who were Supporting Vanuatu in this process were:

Mr Alan Mearns	SOPAC
Dr Padma Lal	Pacific Islands Forum Secretariat
Dr Netatua Pelesikoti	SOPAC
Mr Peter Muller	UNDP
Ms Stephanie Hodges	UNDP Consultant
Mr Alf Simpson	World Bank Consultant
Dr Peter King	World Bank Consultant
Mr John Norton	SOPAC Consultant
Mr Joseph Chung	UNISDR

Many people in Vanuatu, from national and provincial government agencies, development partners, NGOs and other institutions, community and village leaders and individuals freely shared their knowledge and experiences. We wish to express our sincere appreciation for their willingness to attend, often at short notice, and share with us their experiences and knowledge during our various national, provincial and community-level consultations. Their inputs have ensured that the National Action Plan remains a practical and action-oriented plan.

1. THE VANUATU CONTEXT

The Republic of Vanuatu is one of the most vulnerable nations in the world. Its geographical location in the 'ring of fire' and the 'cyclone belt' area of the Pacific, and its archipelagic geological characteristics and wide distribution of a number of small islands in a large EEZ, together with limited financial and technical capacity make Vanuatu particularly vulnerable to many different hazards.

Vanuatu regularly suffers from volcanic eruptions, cyclones, earthquakes, droughts and floods, some of which are increasing in frequency and variability, as well as extreme events due to climatic variability and sea-level rise associated with human-induced climate changes (Figure 1). Increasing population, uncontrolled growth of urban centres and spontaneous peri-urban settlements are contributing to increased levels of vulnerability. The potential for devastating cyclones and earthquakes in fast growing urban areas, such as Port Vila, highlights the need for a more coordinated approach to urban planning as natural hazards can trigger other hazards in a domino effect.

The impacts of disasters on lives and livelihoods of people, as well as damage to physical infrastructure, are large, affecting both the social and economic fabric of communities. For example, Cyclone Uma in 1987 cost the private sector about US\$25 m in damages, together with infrastructure damages of another US\$25 m. The Government in its effort to rebuild the community incurred a national budget deficit increase of about US\$8.5 m – US\$10.6 m. The 2002 Port Vila earthquake damage and loss was estimated to be over US\$2.5 m, whereas Cyclone Ivy in 2004 incurred a loss of around US\$6 m, that affected about 50,000 people and the loss of one person's life (McKenzie et al. 2005)¹.

These impacts affect Vanuatu's ability to meet the needs and aspirations of its people and to address the sustainable development goals at national, provincial and community levels which are articulated in the Comprehensive Reform Programme (CRP) and Priorities and Action Agenda (PAA), and also reflected in the Regional Economic Development Initiative (REDI).

Historically, Vanuatu has demonstrated resilience to natural hazards and an ability to rebuild its subsistence economy and societies, using traditional knowledge and external disaster relief and other development assistance. However, the capacity of Vanuatu to effectively deal with the impacts of major disasters remains fragile, particularly as parts of the country become urbanised and where traditional knowledge has been lost. The challenge of achieving sustainable development goals, including the reduction of poverty, increasing economic growth and protection of the environment, will be undermined unless the potential impact of hazards on vulnerable communities and economies is addressed.

The risks posed by such hazards can only be effectively reduced and managed as part of a sustainable development process that adopts a broader and more integrated approach to disaster risk reduction and disaster management (DRR&DM). This will involve the proactive management of disaster risks and reduction of vulnerability,

¹ McKenzie, E. et al., (2005), Guidelines for Estimating the Economic Impact of Natural Disasters on Development in the Pacific. SOPAC Joint Contribution Report 179b. SOPAC, Suva, Fiji.

expanding beyond the traditional approach to disaster preparedness, response and recovery, and adopting a strategic approach to improve and strengthen development effectiveness and efficiency by emphasising DRR&DM.

The Government has recognised that Vanuatu has limited financial and technical capacity to adequately deal with disaster risk management and, as a member of Pacific Islands Forum, has acknowledged the importance and relevance of continued assistance by regional organisations as well as by regional and international development partners. Vanuatu is also a party to several international and regional instruments on sustainable development, including commitments on DRR&DM.

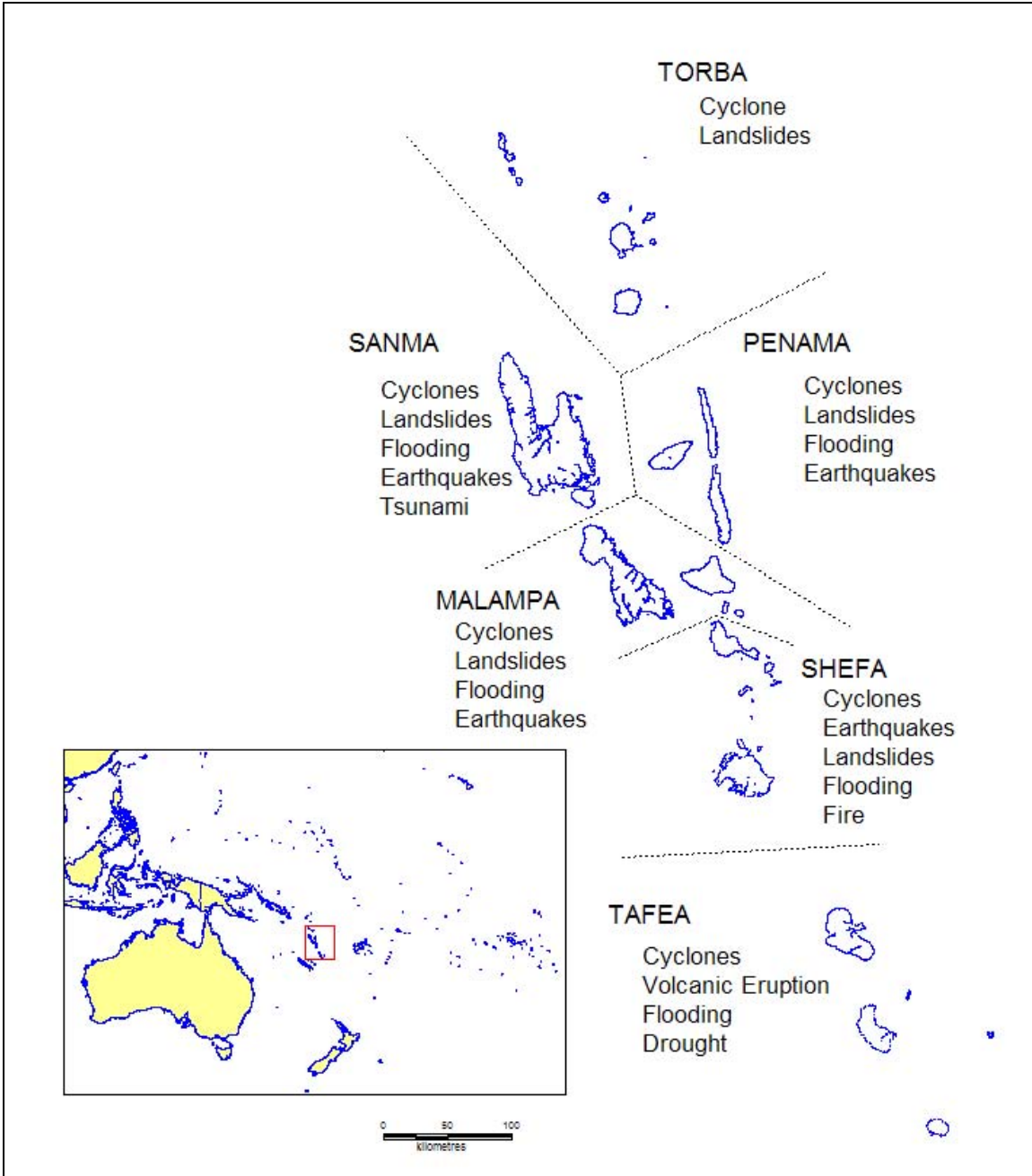


Figure 1: Vanuatu – one of the highest vulnerability index countries in the world, regularly exposed to a wide range of hazards.

2. THE REGIONAL AND INTERNATIONAL CONTEXT

The vulnerability of Vanuatu to disasters, and the need for a shift towards treating disasters as a development issue by adopting an ‘all hazards’ and integrated approach to disaster risk management was acknowledged by the Vanuatu Prime Minister, and other Pacific Leaders, in 2005, when they endorsed the regional Disaster Risk Reduction and Disaster Management (DRR&DM) Framework for Action, 2005-2015; and to some extent in the Pacific Islands Framework for Action on Climate Change (PIFAC), 2006-2015. The regional disaster risk management framework mirrors the *Hyogo Framework for Action 2005-2015: Building the Resilience of Nations and Communities to Disasters*, and which draws on the guidance set by the Yokohama Strategy for a Safer World (1994) and the International Strategy for Disaster Reduction (ISDR)². The Pacific Islands Framework for Action on Climate Change (PIFAC), 2006-2015 reflects international commitments made by Vanuatu, and other Forum Leaders, when they signed the UN Framework on Climate Change (UNFCCC). The Forum Economic Ministers and the Forum Leaders have also acknowledged disaster as a development issue in 2003.

These regional frameworks, together with other international instruments endorsed by Pacific Leaders, such as the Johannesburg Plan of Implementation, which gave effect to the Declaration made at the World Summit on Sustainable Development, and the Mauritius Strategy for Further Implementation of the Barbados Plan of Action, outline key principles and strategies for DRR&DM.

The Kalibobo Road Map produced by the Forum Leaders Meeting in 2005, also called for the operationalisation of these regional frameworks at the national level to assist member countries to develop national capacity for an integrated DRR&DM approach that focuses on preventative measures to minimise risks, on preparedness in the event of a hazardous event, and on effective and timely post-disaster response and rehabilitation. Recognising the presence of limited financial and technical capacity, the Leaders also endorsed the Pacific Plan, requesting CROP agencies and development partners to provide country-focused assistance to complement national efforts, including in DRR & DM under Initiatives 5.5, 13.4 and 5.1. Development partners, too, have agreed to coordinate and harmonise their development support under the Pacific Plan reflecting their commitments made in the Paris Declaration of Aid Effectiveness and the Pacific Principles of Aid Effectiveness. There is also a high level of support for the policy suggestions contained in the World Bank’s Policy Note (*Not If, But When*), dealing with adaptation to climate change.

To implement the Regional Framework of Disaster Risk Reduction and Disaster Management at the national level, and giving effect to various commitments made by regional organisations and development partners at the regional and international level; SOPAC under the Pacific Plan coordinated the formation of a *Pacific Disaster Risk Management Partnership Network*, which comprises over thirty regional and international organisations. At the request of the Vanuatu Government, a subset of the *Partners Network* – PIFS, SPREP, UNDP, WB, UNISDR and SOPAC – agreed to jointly assist Vanuatu by assessing current capacities and needs for disaster risk reduction, helping to build DRR&DM into the Priorities and Action Agenda (PAA); and assisting to develop and implement an associated National Action Plan (NAP).

² ISDR, when mentioned alone, refers to the Strategy. References to the system, the Secretariat and platforms are specifically indicated.

3. THE VANUATU PROCESS

The Vanuatu process for developing and mainstreaming disaster risk management comprises five key phases, in addition to the initial workshop held by SOPAC in November 2005. One of the outcomes of the first workshop was the need to develop a NAP for DRR&DM.

A chronological order the processes is listed in Annex 1, along with events and people consulted and involved in developing this NAP.

3.1 Political Support

Noting that disaster risk management is a cross-cutting issue and needs commitment at the highest level, a regional high-level advocacy team visited Vanuatu in June 2006. This High-Level Advocacy Team, led by Dr Langi Kavaliku, and comprising key members of the Pacific Disaster Risk Management Partnership Network, met with the Prime Minister, key Ministers and Directors General (DG) of Ministries, to highlight disaster as a development issue and the need to focus on both disaster risk reduction and disaster management. At this meeting, strong political support from the Vanuatu Government was obtained.

3.2 National Workshop 2006 and National Task Force

After receiving the political support from the Prime Minister's Office, the Pacific Disaster Risk Management Partnership held a second workshop in July 2006. The objective of the workshop was to identify a framework and provide strategic guidance and direction to mainstream DRR&DM in national development efforts. The Partners were also asked to provide suggestions about strengthening the PAA with regards to disaster risk management. This also provided the opportunity to make suggestions about how the NAP for disaster risk management should be linked to the PAA, CRP and national resource allocation.

The Government established a National Task Force on DRR&DM at this workshop to assist in this process. The Task Force members were senior officers from ministries and departments from the national and provincial governments of Vanuatu.

3.3 Review of Key National Frameworks and Stakeholder Consultations

Members of the Task Force and Development Partners reviewed key policy documents, key past country assessment reports, as well as holding broader consultation in Phase 2. Key policy documents considered included:

- Priorities and Action Agenda (PAA);
- Comprehensive Review Programme (CRP) matrix;
- Medium-Term Expenditure Framework (MTEF);
- Medium-Term Strategic Framework (MTSF); and
- Rural Economic Development Initiative (REDI).

Key past assessments and reports reviewed included:

- National Adaptation Plan of Action (NAPA);
- National Capacity Self Assessment (NCSA) for Capacity to Implement Multilateral Environment Agreements (MEAs);
- November 2005 workshop on DRM comprising DRR&DM;
- Island and Provincial situation reports on disaster risk management; and
- National assessments for the international meetings, including WSSD in 2002 and the Mauritius Internal Meeting in 2005.

Key people consulted included representatives from each ministry and sector, Port Vila and Luganville Municipalities, and Malampa, Sanma, Penama, Shefa and Tafea (Tana Is) Provincial Governments, national NGO and community representatives, women's and youth groups, and selected local communities. The main purpose of the consultation was to identify key issues related to disaster risk management at all levels which need to be considered when designing the NAP. Development partners resident in Vanuatu were also consulted to inform them of this initiative and to help identify their current and potential DRR&DM activities.

3.4 Disaster Risk Reduction and Disaster Management Issues

Amongst the key issues identified during various consultations, and in past assessment reports on disaster risk management are that:

- disaster risk management has been generally regarded as either an environmental or humanitarian issue;
- disaster management has been largely considered in terms of response and recovery from disasters without consideration of risk reduction opportunities in a holistic manner and as an integral element of development planning;
- there's a lack of government policy, organisational structures and legislative framework to underpin DRR&DM in a holistic, coordinated and programmatic manner;
- there's currently inadequate allocation of national financial resources for DRR&DM;

- decision-making processes at the national, sectoral, provincial and community levels do not reflect explicit considerations of assessment of hazards and vulnerabilities to disasters;
- engagement with communities at risk, private sector, women's groups and other stakeholders, in developing DRR &DM actions and projects is minimal;
- there's a lack of, or inadequate, quality information about hazards and vulnerability available to all levels of decision-makers;
- there's an absence of, or weak, information systems available for each key hazard that provides 24-7 monitoring and early warnings to communities at risk; and
- communities at risk lack adequate disaster risk reduction efforts to minimise their exposure to risks, or disaster management arrangements, which can be invoked in times of disaster.

3.5 Key Guiding Principles for Disaster Risk Management

Issues identified during national consultations and various needs assessment mentioned above, together with key guiding principles in relation to sustainable development, good governance and best practices of DRR&DM defined the development of the NAP.

Key guiding principles committed to by the Vanuatu Government are listed below.

1. Disaster risk management is a sustainable development issue, which requires a balanced approach addressing social, economic and environmental goals.
2. Disaster risk management fundamentally involves supporting communities in understanding and managing their hazards and disasters.
3. Disaster risk management is everyone's business and requires a whole-of-Government commitment to addressing issues across all sectors and levels of Government; to forming public/private partnerships for the promotion of good practice; and to involving communities and other stakeholders in decision-making.
4. Effective disaster risk management requires a strong governance framework with clear policies and legislation, accountable institutional and organisational arrangements and connections across, and within, levels of government, sectors and communities.
5. Disaster risk management addresses all hazards and comprises disaster risk reduction, which includes prevention, mitigation and adaptation, and disaster management, which includes setting arrangements for self help in preparedness, response and recovery and for receiving relief support into the community level.
6. Mainstreaming disaster risk management and capacity development into national planning and budgetary processes, sectoral and provincial plans and community development plans.

7. Developing time-series hazard information and undertaking robust vulnerability assessments supported by traditional knowledge as a basis for underpinning key decisions by national, sectoral and provincial government agencies, NGOs, communities and individuals.
8. Encouraging the relevance and value of traditional knowledge and its integration with scientific information in the design of risk reduction and risk management strategies and activities at all levels.
9. Adoption of regulatory and incentive-based disaster risk management instruments in DRR&DM.
10. Promoting public-private and community partnerships for reducing risk and for disaster management.
11. Empowering communities to address their risks through the development of capacity and knowledge (traditional and scientific) and through the provision of support for local involvement in developing and implementing risk reduction and disaster management strategies.

The links between national development planning and budgeting processes and the mainstreaming of the disaster risk management guiding principles above are summarised in Figures 2 and 3.

Mainstreaming Disaster Risk Management

Disaster Risk Reduction Arrangements – a development issue

- Supporting communities understanding and managing their hazards to reduce and mitigate their risks
- Whole of Government action to reduce risks in communities across all sectors
- Public/private partnerships to discourage risk contributing activities

Disaster Management Arrangements – creating capacity for self help

- Supporting communities managing their disasters through preparedness for response and recovery
- Setting arrangements for coordinating response, assessing impacts and for receiving relief support into the community level

This is everybody's business – Whole of country, government, agencies, NGO's, communities and individuals

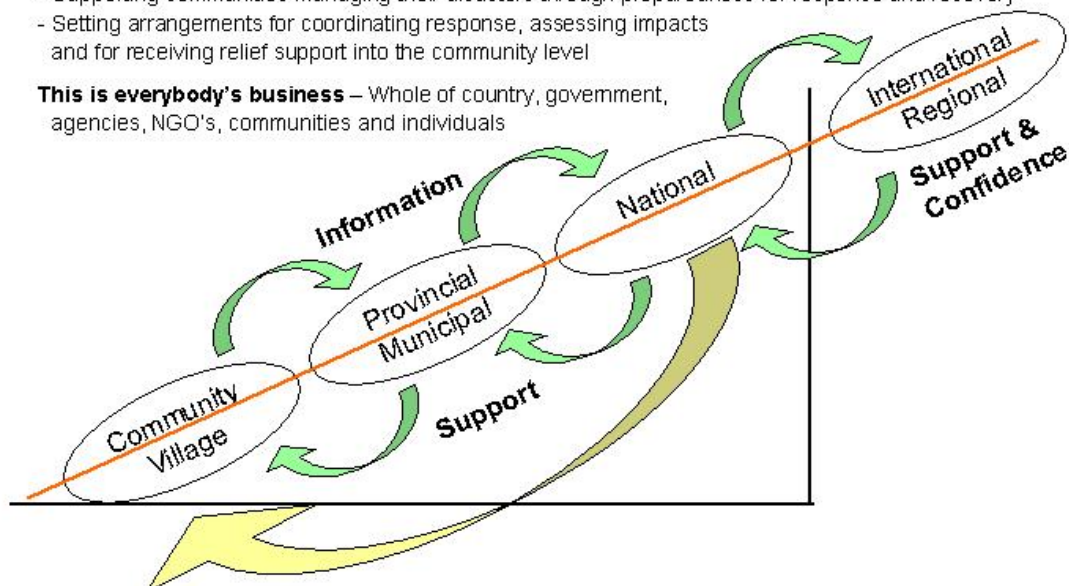


Figure 2: The link between the national development processes and DRM guiding principles³.

³ Source: Adapted from Norton J. (2006), Norton Consulting Limited, and New Zealand with inputs from SOPAC, PIFS and NTF.

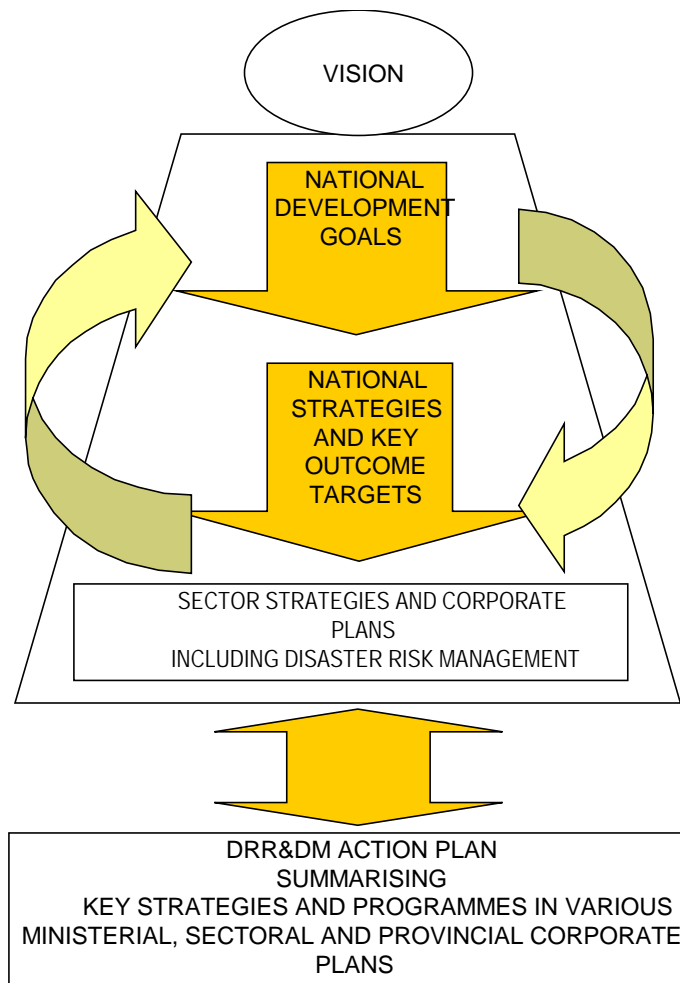


Figure 3: Link between National Development Planning and Budgetary Process (PAA) and mainstreaming Disaster Risk Management.

3.6 Outputs

As requested by the Government of Vanuatu, two key outputs have been produced for consideration by the Council of Ministers.

1. A Supplementary Document to the PAA on disaster risk reduction and disaster management.
2. The National Action Plan (this document) for disaster risk reduction and disaster management, including an implementation strategy.

4. NATIONAL ACTION PLAN ON DRR&DM

The overall goal of the National Action Plan for Disaster Risk Reduction and Disaster Management is to promote and ensure a safe, secure and resilient Vanuatu through the reduction of social, economic and environmental impacts of disasters on the people of Vanuatu and its economy, thereby facilitating the achievement of national development goals.

4.1 Objectives

Specific objectives of the National Action Plan on DRR & DM are to:

- recognise disaster risk management as a sustainable development issue;
- mainstream all-hazards risk management into all sectors and decision-making processes at all levels of government, including national planning and budgetary processes;
- establish a strong governance framework for DRR & DM, with clear policies and legislation, accountable institutional and organisational arrangements and connections across and within levels of government, sectors and communities;
- empower communities through targeted capacity enhancement to reduce their risks to hazards and prepare for, respond to, and recover from disasters;
- promote knowledge-based decision-making, including traditional knowledge and know-how on disaster risk reduction and coping mechanisms in times of disasters; and
- provide for a sustained, coordinated and harmonised support form regional, international organisations and development partners.

Table 1 summarises in a matrix 8 themes, 10 strategies and their respective key actions under each of the eight broad themes for DRR&DM. Figure 4 summarises those ten strategies under the eight broad themes of the NAP.

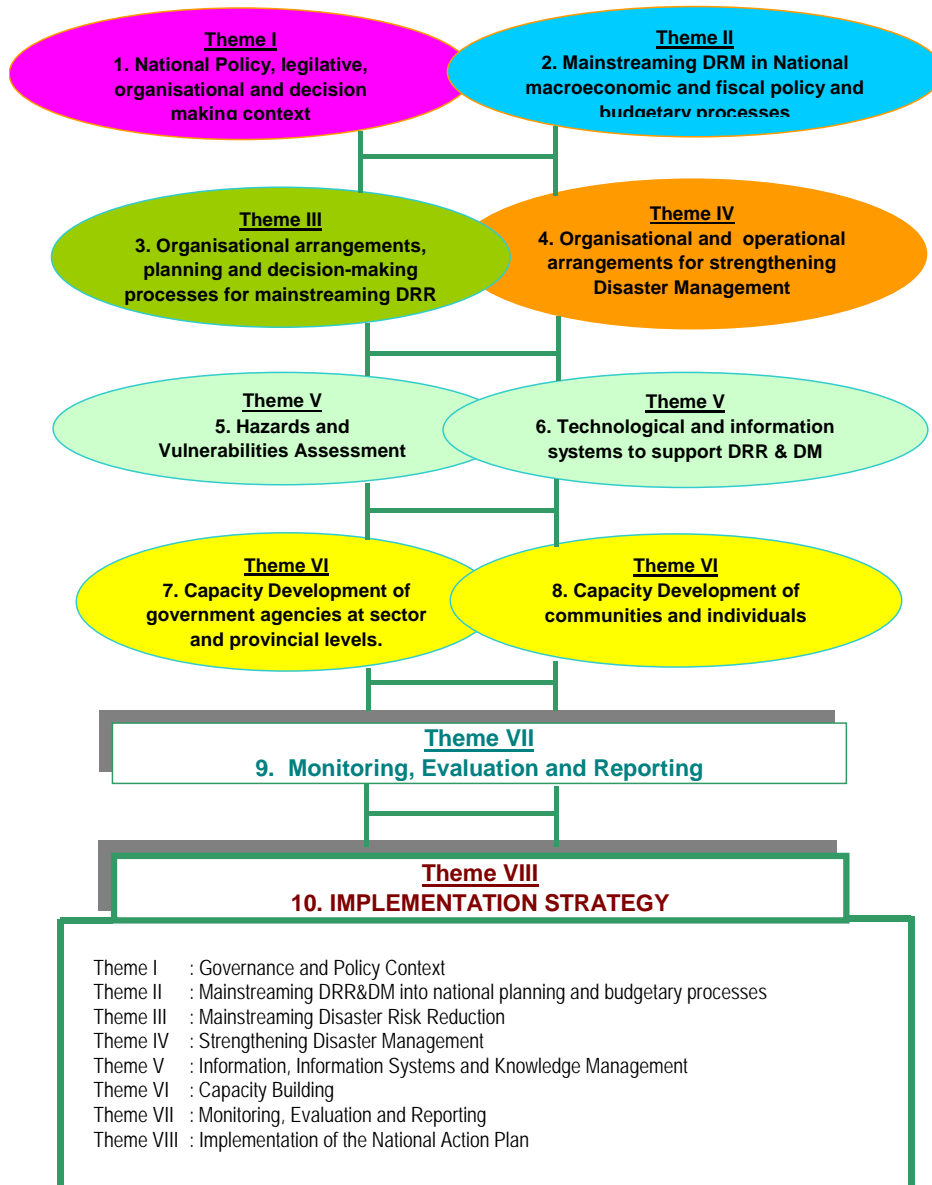


Figure 4. National Action Plan Structure, Key Strategies and Themes.

The effectiveness of the NAP for DRR&DM will be in its implementation and the commitment of all relevant agencies. The allocation of roles, functions and accountabilities to individual agencies and partners are fundamental to achieving the outcomes. Thus, against each action a responsible existing government agency is listed, or an alternative organisational suggestion is made, to lead the implementation of the action. For monitoring, evaluation and reporting against the NAP, specific indicators are also identified against each action.

5. IMPLEMENTATION STRATEGY

Vanuatu is particularly vulnerable to hazards, which regularly undermine national development efforts.

The NAP for DRR&DM has identified key strategies for mainstreaming DRR&DM across sectors and through all levels of national, provincial and community decisions and actions in order to reduce vulnerability to hazards and provide for effective management of disasters when they occur.

The implementation of the NAP would require a whole-of-Government commitment and adequate resources across all sectors and at national, provincial and community levels. Active involvement of communities and private sector stakeholders in the process and in taking action to reduce their vulnerabilities is also essential to the successful implementation of the Plan. The Vanuatu Government also acknowledges that in the light of limited national resources and competing demands on their budget, sustained technical and financial support for DRR&DM from international and regional organisations and development partners is critical. Furthermore, the presence of a wide group of regional and international agencies with interest in DRR&DM operating in Vanuatu, the Government recognises the need for coordination of support from international and regional organisations and development partners to complement their own national efforts. This will ensure not only an increase in aid effectiveness but more importantly for Vanuatu to cost effectively achieve a threshold of capacity and systems for ongoing DRR&DM hence minimising ongoing hazard threat to its national development goals.

Before a detailed implementation programme can be developed for the NAP, it is critical to lay the foundation for an integrated DRR&DM for Vanuatu. As a priority, a number of key initial steps need to be taken to establish that foundation, both at the national and regional levels. Specific in-country activities would then follow.

5.1 National: Government Commitment, Governance and Policy Context

- Identification of high-level champions and establishment of an in-country DRR&DM team to overview, coordinate and direct the implementation of the National Action Plan.
- Adoption of the NAP and development of a clear Government policy position on mainstreaming DRR&DM and setting the institutional and legal frameworks articulated in Strategy 1 as a pre-requisite to give effect to this programme.
- Provision of an introductory programme on the principles of DRR&DM to build awareness and commitment at all levels of the Vanuatu Government.

5.2 Regional: Regional and International Organisation and Development Partner Commitment and Coordination

- Under the Pacific Plan, the establishment of a formal mechanism for:
 - securing long-term commitment from regional and international organisations and development partners to assist Vanuatu to adopt a programmatic and whole-of-country approach to the implementation of the NAP;
 - coordinating technical and financial support from regional and international organisations and development partners for the implementation of Vanuatu's NAP; and
 - joint programming and implementation where appropriate.
- Regional and international organisations and development partners and NGOs to engage in round table discussions with Vanuatu to ensure long term and coordinated technical and financial support for the implementation of NAP.

5.3 Coordinated In-country Implementation, Monitoring and Evaluation Programme

- Development of detailed and practical three-year and ongoing ten-year programme of activities for each of the Key Actions of the NAP identifying the accountable agency, and time, resource and budget requirements.
- Development and implementation of each ministerial and sectoral corporate plan identifying time, resource and budget requirements.
- Identifying early capacity development activities at the community, provincial and national levels for the facilitation of the NAP programmes.
- Undertaking of an annual review of progress against the Plan and its effectiveness and adjust as necessary involving in-country participants and Partners.

Table 1: National Disaster Risk Reduction and Disaster Management Action Plan and Implementation Strategies, 2006-2016

- *** immediate priority for implementation (2006-2009)
 ** high priority but government may be constrained by limited resources (2006 -2012)
 * a priority for a long-term commitment (2006-2016)

Theme I: Governance and Policy Context

STRATEGY	KEY ACTIONS	EXPECTED RESULTS	RESPONSIBLE AGENCY	INDICATORS	COMPLETION DATE
1. Strengthen national policy, legislative, organisational and decision making arrangements for coordinated and effective DRR&DM.	*** 1.1 Submit the PAA supplementary document on DRR&DM to the Council of Ministers for approval.	1.1 Council of Ministers approval of the PAA supplementary.	1.1 Prime Minister's Office and line Ministries.	1.1 DRR&DM stated as priorities in PAA .	<i>1.1 December 2006</i>
	***1.2 Present the National DRR&DM Action Plan to the 2006 CRP Summit.	1.2 Incorporation of DRR&DM issues into the CRP Matrix.	1.2 Ministry of Prime Minister and line Ministries, with the assistance of the DRR&DM Task Force.	1.2 Action Plan distributed and widely used.	<i>1.2 October 2006</i>
	*** 1.3 Submit the DRR&DM National Action Plan to the COM for approval.	1.3 DRR&DM National Action Plan approved by COM.	1.3 Ministry of Prime Minister and line Ministries, with the assistance of the DRR&DM Task Force.		<i>1.3 December 2006</i>
	***1.4 Prepare a national policy paper on organisational, decision making, legislative and traditional arrangements for DRR&DM at national, provincial and community levels.	1.4 National DRR&DM Policy and Strategy adopted by COM.	1.4 Ministry of Internal Affairs and the Prime Minister's Office with the assistance of the DRR&DM Task Force.	1.4 National policy and strategy for DRR&DM in place and widely used.	<i>1.4 December 2006 – March 07</i>
	***1.5 Define and adopt organisational, decision-making, monitoring, reporting and accountability arrangements for DRR&DM.	1.5 Transparent and accountable organisational arrangements established by COM.	1.5 State Law Office at the advice of Ministry of Internal Affairs.	1.5 DRR&DM policy and strategy with appropriate legislative backing.	<i>1.5 December 2007</i>

STRATEGY	KEY ACTIONS	EXPECTED RESULTS	RESPONSIBLE AGENCY	INDICATORS	COMPLETION DATE
	<p>** 1.6 Review the Disaster Management Act of 2000 to give effect to DRR&DM principles and strategies contained in this NAP.</p> <p>*** 1.7 Formulate and implement national legislation and policies for rationalising monitoring and reporting of all natural hazards (geohazard, hydrological and meteorological).</p>	<p>1.6 Strengthened legislative framework for DRR&DM.</p> <p>1.7 Organisational arrangements for scientific monitoring of natural hazards rationalised and agencies are mandated to monitor and provide information on different hazards.</p>	<p>1.6 Ministry of Internal Affairs and Prime Minister's Office, in collaboration with other Ministries and with the assistance of the DRR&DM Task Force.</p> <p>1.7 Prime Minister's Office in collaboration with line Ministries, and with assistance of the DRR&DM Task Force.</p>	<p>1.6 Strong organisational arrangements for DRR&DM.</p> <p>1.7 National hazard monitoring arrangements mandated by appropriate legislation.</p>	<p><i>1.6 December 2007</i></p> <p><i>1.7 December 2007</i></p>

Theme II: Mainstreaming Disaster Risk Reduction and Disaster Management in National Planning and Budgetary Processes

STRATEGY	KEY ACTIONS	EXPECTED RESULTS	RESPONSIBLE AGENCY	INDICATORS	COMPLETION DATE
2. Mainstream DRM&DM into national macroeconomic policy and fiscal management, and national budgetary processes.	*** 2.1 Integrate disaster risk considerations into macro-economic policy and fiscal management, and forward projections and monitoring about economic growth.	2.1 Government's forward economic growth projections reflect possible disaster occurrences.	2.1 Ministry of Finance and Economic Management.	2.1 Percentage of annual national budget allocated for DRM programmes.	2.1 June 2007
	*** 2.2 Ministerial Budget Committee to allocate budget for DRR&DM to different ministries and departments, reflecting prioritised strategies for DRR&DM.	2.2 DRR&DM is a specific budget line item in each Ministerial budget allocation.	2.2 Ministry of Finance and Economic Management.	2.2 Percentage of ministerial budget allocated to disaster risk reduction and disaster management.	2.2 June 2007
	* 2.3 Develop a sustainable national financing mechanism for supporting response and recovery activities into communities at times of disasters.	2.3 Sustainable financial mechanism established to support communities at times of disasters.	2.3 Ministry of Finance and Economic Management.	2.3 Sustainable financing mechanism established.	2.3 Options paper prepared by December 2007. Ongoing effort

Theme III: Mainstreaming Disaster Risk Reduction					
STRATEGY	KEY ACTIONS	EXPECTED RESULT	RESPONSIBLE AGENCY	INDICATORS	MILESTONE
3. Strengthen organisational arrangements, planning and decision-making processes at national, provincial and community levels and NGOs at all levels for mainstreaming DRR (including prevention, mitigation and adaptation), recognising its cross-sectoral dimensions.	*** 3.1 Identify and establish most appropriate and accountable organisational arrangement(s), decision-making processes and budgetary allocation for mainstreaming DRR at national, provincial and community levels.	3.1 Accountable set of organisational arrangement and decision-making processes and budgetary allocation are established for DRR.	3.1 Departmental Committee of Officials (DCO) on the advice of DG of Ministry of Internal Affairs.		3.1 December 07.
	**3.2 Develop a guideline on the practice of DRR for the preparation of disaster risk reduction programmes and activities within sectors, including a review of functions, capabilities in the delivery of services and outputs and relation to specific hazard critical to the sector.	3.2 DRR guideline developed and adopted by all sectors.	3.2 Vanuatu Government in collaboration with Task Force and Regional Disaster Risk Management Partners under the Pacific Plan.		3.2 December 2007
	*** 3.3 Review and develop sector regulatory and planning processes for DRR (eg. development licence approval, land use planning, resource development and management, building codes, as appropriate).	3.3 DRR explicitly reflected in development planning and approval processes and regulatory and incentive-based management instruments developed and implemented.	3.3 DG of each Ministry and Department Heads, Provincial Planners/Area Councils.		3.3 December 2007
	*** 3.4 At each sector level develop prioritised DRR programmes and activities, including identifying priority hazards requiring attention and measures to deal with them, and incorporate into Corporate and Business Plans and Budgets.	3.4 All sectoral Corporate, Business and Budgets Plans provide for DRR activities.	3.4 DG of each Ministry and Department Heads.		3.4 June 2007 for priority sectors

STRATEGY	KEY ACTIONS	EXPECTED RESULT	RESPONSIBLE AGENCY	INDICATORS	MILESTONE
	<p>*** 3.5 At the provincial and community levels, develop DRR programmes and activities, including identifying priority hazards requiring attention and measures to deal with them and incorporate into the respective Plans and Budgets.</p> <p>** 3.6 Encourage communities and business sector to comply with regulations such as building code and Land Use regulations and develop their own mechanisms to reduce disaster risks.</p> <p>** 3.7 Encourage public-private sector partnership to develop financing schemes for risk management, particularly insurance, reinsurance and other financial modalities against disasters.</p> <p>*** 3.8 Include traditional knowledge and practices in national, sector, provincial, and community plans for disaster risk reduction.</p> <p>3.9 At the community level, develop DRR programmes and activities and incorporate them into their area development programme that addresses community development and coping mechanisms in times of disaster.</p>	<p>3.5 Provincial and community plans provide for DRR.</p> <p>3.6 Communities and business sectors' risks are reduced and recovery enhanced.</p> <p>3.7 Financial mechanisms are available for risk reduction and recovery from disasters.</p> <p>3.8 Appropriate traditional knowledge and practices integrated into national, sector, provincial, and community plans for disaster risk reduction.</p> <p>3.9 Community-level development programmes reflect disaster risk management considerations.</p>	<p>3.5 SG of Provincial Governments and Area Councils.</p> <p>3.6 Communities, business sectors, Chamber of Commerce in collaboration with Ministry of Finance and Economics Management and NGOs.</p> <p>3.7 Private and business sector, Chamber of Commerce in collaboration with Ministry of Finance and Economics Management.</p> <p>3.8 Heads of Ministries/ Departments, SG of Provincial Governments, Area Councils and traditional leaders and NGOs.</p> <p>3.9 SG of Provincial Governments, Area Councils and traditional leaders.</p>	<p>3.5 Number of DRR programmes developed and resourced for the provincial and community levels.</p> <p>3.6 Reduction in the number of cases reported for non-compliance.</p> <p>3.7 Level of use of financial schemes for DRR&DM.</p> <p>3.8 Number of Plans with appropriate level of integration of traditional knowledge and practices.</p> <p>3.9 Number of development programmes that explicitly include DRR considerations.</p>	<p>3.5 December 2008 (at least 2-3 plans)</p> <p>3.6 December 2007 (businesses); December 2009 (communities)</p> <p>3.7 December 2009</p> <p>3.8 December 2008 (few areas)</p>

Theme IV: Strengthening Disaster Management					
STRATEGY	KEY ACTIONS	EXPECTED RESULTS	RESPONSIBLE AGENCY	INDICATORS	COMPLETION DATE
4. Strengthen national organisational, decision-making processes and operational arrangements for Disaster Management (DM), (preparedness, response and recovery).	*** 4.1 Review institutional and organisational arrangements, resources, and operating budget, including the current location of the NDMO, to ensure effective and accountable DM operations.	4.1 An effective and appropriately resourced NDMO located within a government organisational structure that will allow it to provide support to all areas of government and community DM planning and coordination.	4.1 DCO at the advice of DG of MOIA.	4.1 Effective whole-of-country coordination being provided for preparedness, response and recovery arrangement.	4.1 Start immediately and complete by March 2007.
	*** 4.2 Develop an effective mechanism for ministerial and senior official overview, coordination and accountability for DM.	4.2 Clear and accountable organisational arrangements at senior official and ministerial levels for DM.	4.2 DCO at the advice of DG MOIA.	4.2 Ministerial and senior officials accountability being exercised.	4.2 December 2007
	*** 4.3. Review, revise and develop the National Disaster Plan, clarifying roles, responsibilities and operational arrangements for disaster management at national, provincial and sector levels, including links to infrastructure utilities, welfare support groups and arrangements for accessing international support.	4.3 A clear and effective National Disaster Management Plan exists and Communities are better able to respond to and recover from disasters.	4.3 DG of MOIA in collaboration with response ministerial/ department heads and NGO/CBO agencies.	4.3 Number of Plans completed.	4.3 December 2007
	* 4.4. Develop sector (including infrastructure), provincial and community plans and operational arrangements and budgets for disaster management, including response arrangements to early warnings and public education.	4.4 Clear and effective disaster management plans and operational arrangements in place at the sector, provincial and local levels including specific hazard response plans where appropriate.	4.4 Heads of ministries/ departments, SG of provincial governments, and area councils and NGO/CBO agencies.	4.4 Number of Plans completed.	4.4 December 2008 (for at least a few provinces and communities).

STRATEGY	KEY ACTIONS	EXPECTED RESULTS	RESPONSIBLE AGENCY	INDICATORS	COMPLETION DATE
	<p>*** 4.5 Individual businesses and business sectors (eg. oil sector, tourism sector, etc) to develop their disaster contingency plans and provide a coordinated support to national disaster management.</p>	4.5 Disaster management plans developed by businesses and business sectors.	4.5 Private and business sector and Chamber of Commerce.	4.5 Number of Plans completed and effectively implemented.	4.5 June 2007 (for high-risk businesses).
	<p>** 4.6. Incorporate appropriate traditional knowledge and practices in national, sectoral, provincial, and community plans and operational arrangements for disaster management.</p>	4.6 Disaster management plans and operational arrangements strengthened with appropriate traditional knowledge and practices.	4.6 Heads of ministries/ departments, SG of provincial governments, area councils and traditional leaders	4.6 Number of Plans with traditional knowledge and practices appropriately incorporated	4.6 December 2009
	<p>*** 4.7 Establish and maintain an effective National Emergency Operation Centre including adequate resources.</p>	4.7 Establishment of NEOC	4.7 Ministry of Internal Affairs	4.7 A dedicated NEOC and improved coordination and control through professions and adequate resources.	4.7 December 2008
	<p>** 4.8 Establish a national and Provincial contingency stockpile of emergency relief items.</p>	4.8 Rapid response mechanism in place.	4.8 Ministry of Internal Affairs in collaboration with other ministries, provinces and municipalities.	4.8 Government will response and control urgent needs at the first instance.	4.8 December 2009
	<p>** 4.9 Conduct disaster exercises and drills periodically involving all relevant agencies and communities.</p>	4.9 All agencies and communities understand their roles in disasters and are competent, and disaster response and management systems work effectively	4.9 Agency responsible for the coordination of national disaster management in partnership with the respective sector and provincial government and local area council	4.9 Number of exercises and drills conducted and reported on.	4.9 Regular programme in place by December 2007; Ongoing

V. Theme: Information, Information System and Knowledge Management

STRATEGY	KEY ACTIONS	EXPECTED RESULTS	RESPONSIBLE AGENCY	INDICATORS	COMPLETION DATE
5. Understand hazards, vulnerabilities, and communities at risk (hazardscape) as a basis for disaster risk reduction and disaster management	<p>*** 5.1 Compile and monitor historical and time-series data on geological, hydrological and meteorological hazards for vulnerability assessment and early warning.</p> <p>*** 5.2. Undertake mapping of social, infrastructure and economic activities to provide an information base to conduct hazard risk and vulnerability assessment.</p> <p>*** 5.3 Conduct hazard and vulnerability assessments, including assessment of potential impacts of particular scale of disaster event on 'at risk' communities, for input to sector planning for disaster risk reduction and disaster management.</p> <p>*** 5.4 Develop a linked, coordinated, harmonised and user-friendly GIS⁴ based national information management system for DRR&DM, while ensuring that each agency maintains its own robust information system.</p>	<p>5.1 Quality of hazard information and data improved for DRR&DM.</p> <p>5.2 Quality information on people, communities and their activities and infrastructure improved for DRR&DM.</p> <p>5.3 Understanding the extent and scale of community vulnerability to hazards, to inform decisions related to DRR&DM.</p> <p>5.4 GIS Information System for DRR & DM strengthened and used for decision-making.</p>	<p>5.1. Agencies responsible for monitoring hazards (such as Meteorological Services and Geohazard Unit).</p> <p>5.2 Vanuatu's Statistics Office, in collaboration with respective sector department heads.</p> <p>5.3 Agencies responsible for monitoring hazards (such as Meteorological Services and Geohazard Unit) in collaboration with relevant agency responsible for DRR&DM.</p> <p>5.4 Ministry of Lands and Natural Resources in collaboration with the Responsible agency(ies) for DRR&DM.</p>	<p>5.1 Quality and timely information available for decision-making.</p> <p>5.2 Number of area maps of hazard risks and vulnerability completed and available to users.</p> <p>5.3 Adaptation and risk reduction measures implemented.</p> <p>5.4 User satisfaction in accessing data and information for decision-making.</p>	<p>5.1 Immediate start and completion by December 2008 (New system). December 2009 (updates)</p> <p>5.2 Start immediately and ongoing activity.</p> <p>5.3 Start immediately and ongoing activity (dependent on capacity development).</p> <p>5.4 Immediate start and completion by December 2009 (high-risk islands).</p>

⁴ GIS is geographical information system which is a digital georeferenced data based containing different layers of data, such as population, cadastral maps, hazard maps, etc. Vanuatu has several different information system, eg. VANRIS (Vanuatu Resource Information System), POPGIS, PEIN (Pacific Environment Information Network)

STRATEGY	KEY ACTIONS	EXPECTED RESULTS	RESPONSIBLE AGENCY	INDICATORS	COMPLETION DATE
	<p>** 5.5 Access and incorporate appropriate traditional knowledge and practices into information systems for DRR&DM.</p> <p>*** 5.6 Effectively communicate integrated scientific and traditional knowledge about hazard and vulnerability to communities at risk, using appropriate means, medium and language.</p>	<p>5.5 Traditional knowledge and practices accessed and incorporated into the DRR&DM information system.</p> <p>5.6 Communities have access to high-quality and user-friendly information, and are well informed about hazard vulnerabilities in their communities.</p>	<p>5.5 Ministry responsible for national culture, in collaboration with provincial governments, Council of Chiefs, women groups, and with agencies responsible for monitoring hazards.</p> <p>5. 6 Responsible agency(ies) for DRR&DM in collaboration with the Ministry of Lands and Natural Resources, agencies responsible for monitoring hazards, and local area councils and village leaders.</p>	<p>5.5 Number of times and situations where traditional knowledge has been used and integrated into DRR&DM.</p> <p>5.6 User satisfaction in accessing data and information for decision-making.</p>	<p>5.5 Ongoing – cover at least a few communities by December 2008.</p> <p>5.6 Ongoing – cover at least a few communities by December 2007.</p>
<p>6. Improve, strengthen and integrate technological and information systems to support DRR&DM at the national, provincial and community levels.</p>	<p>*** 6.1 Review and provide for information and communication systems for DRR&DM at the national, provincial and community level as appropriate, including information management, modeling and other analytical tools.</p> <p>*** 6.2 Identify, implement and maintain people-focused and integrated early warning and dissemination systems, and communication networks from national to provincial and community levels, using appropriate means, medium and language.</p> <p>*** 6.3 Establish and strengthen real-time links between national early warning systems and global and regional information providers of early warnings of hazards (e.g. WMO, PTWC, NZ GEONET, regional monitoring networks, etc.)</p>	<p>6.1 Integrated information system for DRR&DM designed and progressively implemented and information effectively communicated.</p> <p>6.2 Communities at risk receiving and responding to timely and accurate warnings on disaster events, including in rural areas and on outer islands.</p> <p>6.3 24 hours-seven days early warning and communication systems established and resourced for all hazards.</p>	<p>6.1 Agencies responsible for monitoring hazards (such as Meteorological Services and Geohazard Unit) in collaboration with relevant agency responsible for DRR&DM.</p> <p>6.2. Ministry of Infrastructure and Public Utilities with agencies responsible for DM in collaboration with agencies monitoring hazards (such as Meteorological Services and Geohazard Unit).</p> <p>6.3 Agencies responsible for monitoring hazards (such as Meteorological Services and Geohazard Unit) and respective global and regional hazard monitoring partners.</p>	<p>6.1 Number of key sectors with information systems strengthened.</p> <p>6.2 Reduction in loss of property and life of people affected by natural disasters.</p> <p>6.3 Reduction in loss of property and life of people affected by natural disasters.</p>	<p>6.1 Immediate start; key component of the system in place by June 2008.</p> <p>6.2 Immediate start date for assessment, and key components of a linked EWS in place by December 2007.</p> <p>6.3 Immediate start, completion by December 2006 (for geohazards) – ongoing.</p>

STRATEGY	KEY ACTIONS	EXPECTED RESULTS	RESPONSIBLE AGENCY	INDICATORS	COMPLETION DATE
	<p>** 6.4 Encourage and promote traditional practices, and support community innovations, in DRR&DM.</p> <p>*** 6.5 Establish appropriate networks and agreed data exchange protocols between providers of scientific information and provincial and sectoral agencies implementing DRR&DM at all levels.</p>	<p>6.4 Increased traditional practice and active engagement of communities in developing innovative community solutions.</p> <p>6.5 Effective exchange and understanding of, and access to, quality information.</p>	<p>6.4 Ministry of Internal Affairs in collaboration with provincial governments, Council of Chiefs and women groups, with agencies responsible for monitoring hazards.</p> <p>6.5 Agencies responsible for DM in collaboration with agencies monitoring hazards (such as Meteorological Services and Geohazard Unit) with input from sectoral agencies implementing DRR&DM.</p>	<p>6.4 Number of traditional practices adopted and community innovations supported.</p> <p>6.5 Level of functional networks.</p>	<p>6.4 Ongoing</p> <p>6.5 Immediate start – ongoing.</p>

Theme VI: Capacity Building					
STRATEGY	KEY ACTIONS	EXPECTED RESULTS	RESPONSIBLE AGENCY	INDICATORS	COMPLETION DATE
<p><i>Government</i></p> <p>7. Improve and strengthen capacity for disaster risk reduction and disaster management at the ministerial, national, sectoral and provincial levels</p>	<p>*** 7.1 Assess and identify capacity needs of government officials focusing on:</p> <ul style="list-style-type: none"> – analytical skills; – tools for hazard modeling; – technical, economic and social assessment of hazards and vulnerability of community at risk; – designing risk reduction strategies at national, provincial and community levels; and – impact assessment for guiding preparedness, response and recovery planning. 	<p>7.1 National, provincial and sectoral government and NGO officials' capacity needs in analytical skills and tools and integrated decision-making for DRR&DM identified.</p>	<p>7.1 Each ministerial DG in collaboration with the agency responsible for DRR&DM.</p>	<p>7.1 Key capacity gaps and needs identified.</p>	<p>7.1 Immediate, completion by June 2007.</p>
	<p>*** 7.2 Develop and conduct targeted training programmes at the national, provincial and sectoral level to address the needs identified in 7.1.</p>	<p>7.2 Targeted capacity of government officials at national, provincial and sectoral levels for DRR&DM strengthened.</p>	<p>7.2 Each ministerial DG in collaboration with the Agency responsible for DRR&DM.</p>	<p>7.2 Number of targeted training programmes offered and the number of government and NGO officials, capacity enhanced.</p>	<p>7.2 Immediate start within 6 months and ongoing</p>
	<p>*** 7.3 Develop and appropriately resource training programs to improve national, sector and provincial capacity in recognising disaster as a development issue and to include DRR&DM in their departmental programmes and budgets.</p>	<p>7.3 People in all sectors gain an understanding of the development context of DRR&DM and the understanding reflected in their ministerial/departmental corporate plans and budgets.</p>	<p>7.3 Agency responsible for DRR&DM in collaboration with each Ministerial DGs.</p>	<p>7.3 Number of capacity development completed and level of participation raised/sustained.</p>	<p>7.3 Immediate start – ongoing.</p>

STRATEGY	KEY ACTIONS	EXPECTED RESULTS	RESPONSIBLE AGENCY	INDICATORS	COMPLETION DATE
	<p>*7.4 Develop guidelines for economic and social vulnerability and impact assessment of hazards.</p> <p>** 7.5 Integrate DRR&DM principles and concepts into school curriculum and courses offered by other training institutions.</p>	<p>7.4 Practical guideline documents and tools in economic and social vulnerability and impact assessment of disasters are available to all sectors.</p> <p>7.5 Elements of DRR&DM included in curricula in schools and training institutions.</p>	<p>7.4 Agency responsible for DRR&DM in collaboration with Regional Disaster Risk Management Partners under the Pacific Plan.</p> <p>7.5 Ministry of Prime Minister (HRU), Ministry of Education and Rural Training Centres in collaboration with other training institutions.</p>	<p>7.4 Guideline widely used.</p> <p>7.5 Number of disciplinary subjects where DRR&DM principles and concepts are covered.</p>	<p>7.4 Long term</p> <p>7.5 Immediately and ongoing permanent programme.</p>
<p><i>Community</i> 8. Strengthen individual and community capacity in DRR&DM.</p>	<p>*** 8.1 Assess needs and develop programmes for strengthening capacity at the community level in addressing vulnerability to hazards and disasters in their community.</p> <p>*** 8.2 Develop programmes to strengthen village and community leadership and networks in DRR & DM, including integrating traditional knowledge and practices with scientific information.</p> <p>*** 8.3 Strengthen provincial government and area council arrangements for interactions and engagement with traditional community leaders for planning and response to disasters.</p>	<p>8.1 Local capacity enhanced to do their vulnerability assessment, prepare for risk reduction and response to their priority disasters.</p> <p>8.2 Effective leadership, well-functioning networks and increased use of traditional knowledge and practices, together with scientific information in DRR&DM.</p> <p>8.3 Networks between national, provincial and community groups and leaders strengthened.</p>	<p>8.1 Agency responsible for DRR&DM in collaboration with provincial and community leaders.</p> <p>8.2 Provincial government and community leaders in collaboration with agency responsible for DRR&DM and sector agencies.</p> <p>8.3 Provincial government and community leaders in collaboration with agency responsible for DRR&DM and sectoral agencies strengthened.</p>	<p>8.1 Number of communities that take actions to reduce risks and prepare for disasters.</p> <p>8.2 Number of capacity development completed and level of participation raised or sustained.</p> <p>8.3 Effective and well functioning networks.</p>	<p>8.1 Commence engagement as resources become available.</p> <p>8.2 Ongoing and building as resources become available.</p> <p>8.3 Ongoing and building as resources become available.</p>

Theme VII: Monitoring, Evaluation and Reporting

STRATEGY	KEY ACTIONS	EXPECTED RESULTS	RESPONSIBLE AGENCY	INDICATORS	COMPLETION DATE
9. Strengthen monitoring and evaluation of Vanuatu's efforts to ensure progress and improvements in risk reduction, preparedness, response and recovery against disasters.	*** 9.1 Establish M&E and reporting mechanisms with feedback for improvements in DRR&DM programmes, consistent with organisational structures adopted under the NAP.	9.1 National M&E mechanism for DRR&DM established and functioning.	9.1 Agency responsible for DRR&DM in collaboration with provincial and sectoral agencies and community leaders.	9.1 M & E mechanisms established and effectively functioning.	9.1 Commence June 2007.
	*** 9.2 Develop a set of relevant national, sectoral, provincial, community indicators for monitoring and reporting progress of DRR&DM programmes.	9.2 Indicators relevant to national, sectoral, provincial, community-level monitoring and reporting on progress on DRR&DM developed and adopted.	9.2 Agency responsible for DRR&DM in collaboration with provincial and sectoral agencies and community leaders.	9.2 Agreed set of indicators for monitoring progress identified and in use.	9.2 Commence June 2007 – ongoing.
	*** 9.3 Develop a set of relevant national, sectoral, provincial, and community indicators for monitoring and reporting on the effectiveness of DRR&DM programmes.	9.3 Indicators relevant to national, sectoral, provincial, community-level monitoring and reporting on the effectiveness of DRR&DM programmes developed and adopted.	9.3 Agency responsible for DRR&DM in collaboration with Ministry of Finance and Economic Development, provincial and sectoral agencies and community leaders	9.3 Agreed set of indicators for monitoring and reporting on the effectiveness of DRR&DM identified and in use.	9.3 Define indicators by June 2007. Commence reporting by June 2008.
	***9.4 Ensure national indicators, where appropriate, are consistent with regional and internationally used indicators of DRR&DM.	9.4. National indicators are consistent with regional and internationally used DRR&DM indicators.	9.4 Agency responsible for DRR&DM	9.4 Internationally and regionally consistent set of indicators in use in Vanuatu.	9.4 June 2007
	***9.5 Prepare and disseminate M&E reports on DRR&DM (under the supplementary PAA), aggregating information from communities, provinces and sectors, and review DRR&DM programmes as appropriate.	9.5. Quality and informative DRR&DM reports prepared, disseminated and informed review and revisions of DRR&DM programmes.	9.5 Agency responsible for DRR&DM in collaboration with provincial and sectoral agencies and community leaders.	9.5 M & E reports completed and acted upon.	9.5 June 2008 – ongoing.
	** 9.6 Ensure national M&E information and reports on DRR&DM are used for regional and international reporting.	9.6 National reports used to underpin regional and international reports, reducing Vanuatu's reporting burden with respect to DRR &DM.	9.6 Government agency responsible for reporting on regional and international commitments in collaboration with the agency responsible for DRR&DM.	9.6 Regional and international reports on DRR&DM are based on national M&E reports on DRR&DM.	9.6 Commence 2008, and ongoing.o

Theme VIII: Implementation of the National Action Plan	
Strategy	
10. Implement the DRR&DM National Action Plan	<p>Once the Government has endorsed the draft NAP linked to the PAA, and have implemented the key steps identified in Section 1.5 of the NAP establishing a DRR&DM governance and policy context outlined under Theme I and Strategy 1, a detailed implementation programme would need to be developed using a log frame, including:</p> <ul style="list-style-type: none"> • key result areas under each of the strategies and themes; • a prioritised set of activities under each of the expected result areas and target beneficiary groups, together with potential lead agencies at the national, regional and/ or international levels in their implementation; • technical and financial resource requirements, expected outputs/outcomes; • expected national resource commitments; • expected regional and international organisation commitments and resource allocations; and • constraints and assumptions. <p>As part of the implementation programme, an annual review of progress against the NAP and its effectiveness is important. Based on the review reports, regular adjustments as necessary would be made to the implementation programmes, involving in-country participants and partners.</p>

ANNEX 1

Chronological Order of Events, Consultations and People met and involved in the development of the NAP

(1) 1st National Workshop November 2005 – List of Participants

Mr Joe Carlo Bomal, First Political Advisor, Ministry of Internal Affairs officially opened the Workshop.

Participants:

Name	Agency	Name	Agency
Armstrong Masanga	Red Cross	Jack Pedro	FSP
Balan Ata	Malampa	Jerryson Lapi	DESP
Boma Avia	VMF Fire Brigade	Jotham Napat	Meteo
Collin Tavi	DESP	Kalep Wilkins	FSP
Denis Alvos	Public Utility	Michel Kalorie	Shefa
Donald Manses	NDMO	Michael Taun	Shefa
Edgell Tari	Penama	Noel Peardes	Torba
Emil Mael	Shefa	Rex Thomas	NGO
Ernest Bani	Environment Unit	Rex Willie	DESP
Esline Garaebetu	Geology and Mines	Selwin Tagabu	Tafea
George Iapson	Education	Simon Boe	World Vision
George Pakoasongi	Provincial Affairs	Stanley John	Port Vila Municipal
Harry Tete	Municipal Luganville	Thomas Banga	DESP
Zachariah Daniel	Sanma	Wycliff Bakeo	Provincial Affairs

(2) High-Level Advocacy Team visits Vanuatu, May-June 2006 – Dr Langi Kavaliku, Mr Alan Mearns, SOPAC and Mr Alf Simpson, World Bank and met with the Hon. Prime Minister, Mr Ham Lini and senior Government officials.

(3) The Five Phases of Developing the NAP

Phase One – Initial stakeholder consultations (17-20 July 2006)

- A two-day participatory stakeholder workshop;
- Task Force established;
- PAA supplementary and draft NAP developed;
- Presentation and discussions with National Reference Group (DCO); and
- Preparation of broad consultation programme.

Phase Two – Broader stakeholder consultations to consolidate the PAA issues and the draft National Action Plan (21 July to 25 August 2006).

- National Task Force conducting broader consultations to ensure that all relevant stakeholders have the opportunity to participate in the further development and consolidation of the inputs to the PAA and the draft national action plan.

- The Partnership Network will provide appropriate technical and resource support to the National Task Force.
- Completion of the Supplementary PAA and NAP

Phase Three – Consideration and decision by the Council of Ministers on the PAA and National Action Plan (September 2006)

- The National Reference Group to submit the PAA and draft NAP.

Phase Four – National workshop on managing the implementation process (October 2006)

- The Partnership Network to provide assistance in the facilitation of a national planning workshop of key stakeholders who will have the primary responsibility for implementing and monitoring the approved national action plan.

Phase Five – implementation of national action priorities (November 2006)

A meeting with Pacific Partnership Network members to consider national priority actions, identify potential financial and technical resources to assist Vanuatu in their implementation and agree on a timetable for implementation.

- Pacific Partnership Network members to consider national priority actions, identify potential financial and technical resources to assist Vanuatu in their implementation and agree on a timetable for implementation.

(4) 2nd National Workshop, 17-20 July 2006

Mr Joe Carlo Bomal, First Political Advisor, Ministry of Internal Affairs officially opened the Workshop.

List of Participants:

Name	Designation	Ministry/Department
Mr Jerryson Lapi	Sector Analyst – Infrastructure and Internal Affairs	DESP
Mr Russell Nari	Director General	Ministry of Lands and Natural Resources
Mr Ernest Bani	Director, Vanuatu Environment Unit	Ministry of Lands and Natural Resources
Mrs Jenny Ligo	CEO, Vanuatu National Council of Women	Vanuatu National Council of Women
Mr Ralph Regenvanu	Director of Cultural Affairs	Vanuatu Cultural Centre
Mr Willie Vira		Internal Affairs
Ms Esline Garae	Manager of GeoHazards	MLNS (Geology and Mines Departments)
Mr Morris Amos	Legislation Officer	Ministry of Health (Public Health)
Mr Brian Philips	Coordinator of Climate Change, Metrological Service	Ministry of Public Utilities
Mr Silas Robson Dikona	Scientific Officer, Met Service	Ministry of Public Utilities
Mr Alvos Dennis	Senior Engineer	Ministry of Public Utilities
Mr Bae Williams Worwor	Senior Forecaster, Met Service	Ministry of Public Utilities
Mr Esrom Molisa	Information and Awareness Officer, NDMO	Ministry of Internal Affairs
Mr Job Esau	Director, NDMO	Ministry of Internal Affairs
Ms Janet Samuel	Project Officer, REDI Unit	Ministry of Internal Affairs
Mrs Cherol Ala	Deputy Director, Department of Provincial Affairs	Ministry of Internal Affairs
Mr Gregoire Nimbick	Director, Department of Strategic Management	Prime Ministers Office
Mr Pierre Gambetta	Principal Education Officer	Ministry of Education
Mr Malcolm Dalesa	Environmental Health Officer	Port Villa Municipal Council

Mr Jean Francois Metsan	Policy Officer	Prime Ministers Officer
Mrs Leah Nimetto	IWP Coordinator Environment Unit	MLNR
Mr Albert Williams	Private Environment Consultants	EHS Consultants
Mr Jean Sese	Director General	Prime Minister's Office
Mr Johnson Wabaiat	Director General	Ministry Internal Affairs
Mrs Myriam Abel	Director General	Ministry of Health
Mr Jeffery Wilfred	Director General	Ministry of Agriculture
Mr Joseph Dick	Fist Political Adviser,	Ministry of Agriculture
Mr Jotham Napat	Acting Director General	Ministry of Infrastructure and Public Utilities
Dr Padma N. Lal	Sustainable Development Adviser	PIFS
Mr Bruce Chapman	Programme Manager – Pacific Futures	SPREP
Mr Peter Muller	Natural Disaster Reduction and Transition Specialist	UNDP
Ms Stephanie Hodge	Consultant	UNDP
Mr Alf Simpson	Consultant	World Bank
Dr Peter King	Consultant	World Bank
Dr Langi Kavaliku	DRR and DM High Level Advocacy Team	SOPAC
Mr Alan Mearns	Programme Manager Community Risk Programme	SOPAC
Mr Noud Leenders	Community Risk Adviser	SOPAC
Mrs Paula Holland	Senior Governance and Resources Adviser	SOPAC
Dr Netatua Pelesikoti	Sustainable Development Adviser	SOPAC

(5) National Task Force established by the 2nd Workshop

Members:

Name	Designation	Ministry/Department
Mr Job Esau	Director, NDMO	National Disaster Management Office (Chairperson)
Mr Jotham Napat	Acting Director General	Ministry of Public Utilities (Vice Chair)
Mr Johnson Wapaiat	Director General	Ministry of Internal Affairs
Mr Jean .F.Metmetsan	Policy Officer,	Department of Strategic Management
Mrs Cherol Ala	Deputy Director	Department of Provincial Affairs
Mr Ruben Bakeo	Chief Executive Officer	Ministry of Agriculture, Forestry and Fisheries
Mr William B Worwor	Senior Forecaster, Met Service	Department of Meteorology
Mr Morris Amos	Legislation Officer	Ministry of Health
Mr John Knox	Education Officer	Ministry of Education
Mrs Eslie Garaebiti	Manager of GeoHazards	Department of Geo-hazard
Mr Ernest Bani	Director	Environment Unit
Mr Jerry Lapi	Sector Analyst – Infrastructure and Internal Affairs	Ministry of Finance and Economic Management
Mr Albert Williams		Local Consultant

(6) Santo Consultation – Luganville: 15-16 August 2006

Participants:

Names	Designation	Municipality/Province/Agency
Denis Savuir	Town Clerk	Luganville Municipality
Harry Tete	Town Planner	Luganville Municipality
Andrew Ala	Environmental Health Officer	Luganville Municipality
Jacques Masingnaleng	Chief Warden	Luganville Municipality
Buleban Pierre Chanell	Councilor	Luganville Municipality
John Boe	Deputy Clerk	Luganville Municipality
Terry Wilson	Deputy Mayor	Luganville Municipality
Kenneth Hivivd	Councilor (Chairman of Beautification)	Luganville Municipality
Ronald Liathlamal	Councilor	Luganville Municipality
Ruben Jonah	Councilor	Luganville Municipality
Rex Thomas	VECA coordinator	Luganville, Santo

Jack Kalo Niel	Member of Civil Society	
Fred Siba	PWD	Malampa Province
Graham Rovea	Rural water supplies officer	Malampa Province
Simeon Standley	PWD	SANMA province
Lesines Hilaire	Principal	Saint Michel school, Luganville, Santo
Benuel Tari	Lands Department	Luganville, Santo
Buletare Prosper	Physical Planning Unit	Sanma Province
Calinto Cevuard	Assistant Secretary General	Sanma Province
Kalindas Timothy	Meteo Officer	Luganville, Santo
Job Esau	Task Force Chairman (Chairman)	NDMO
Cherol Ala	Task force member	Department Of Provincial Affairs
Williams Worwor	Task Force member (Secretary)	Department of Meteorology
Stephanie Hodge	Consultant	UNDP
Federico Motka		UNDP Pacific Sub-Regional Center, Suva, Fiji
Netatua Pelesikoti	Sustainable Development Adviser	SOPAC

(7) TANNA Consultation: 19-21 August 2006

Participating Schools and Communities:

- Lenekal Secondary School
- Yanamakel Community
- Ienpakil Village
- Nemakel Village
- John Frum Community
- Tafea Provincial Council Of Women President – Mrs Yellow Ruth
- Tafea Provincial Office

(8) Workshop with National Development Partners on the Draft NAP, 23rd August 2006

Facilitator: Mr Alan Mearns, Manager, Community Risk Programme, SOPAC

Chair: Mr Johnson Wabaiat, Director, General, Ministry of Internal Affairs

List of Participants:

Name	Designation	Agency
Mr Bernard Faro Premier	Counselor	French Embassy, Port Vila
Mr Patrick Haines	Sector Analyst	AusAID Office, Port Vila
Mr Adrien Mourgues	Programme Manager	European Union, Port Vila
Mr Johnson Vora	Sector Analyst	NZAID
Mr Peng Douyi	Deputy Chief	Chinese Embassy, Port Vila
Ms Sally Connell	Assistant Project Officer	Child Rights, UNICEF, Port Vila
Major Philip Chapman	AFP Advisor	to VanSec House, Port Vila
Dr Corinne Capuano	Country Liaison Officer	World Health Organization, Port Vila
Mr Simon Boe	Director	World Vision
Mr Yves Nyuen	JICA Representative	JICA
Ms Anthea Toka	Country Programme Officer	Oxfam, Port Vila
Ms Mary Chapman	Deputy Commissioner	New Zealand High Commission, Port Vila
Mrs Cathy Solomon	Director	VARTDCA
Aaron Willie	Representative	Vanuatu Cultural Centre
Ms Jenny Ligo	CEO	Vanuatu Council of Women
Mr Augustine Garae	Representative	Vanuatu Red Cross Society
National Task Force and Partners		
Mr Job Esau	NDMO (Chair)	NDMO

Mr Jotham Napat	Director	Vanuatu Meteorological Services (Vice Chair)
Mr William Worwor	Forecaster	Vanuatu Meteorological Service
Mr Johnson Wabaia	Director General	Ministry of Internal Affairs
Mr Jean Metmetsan	Representative	Department of Strategic Management, PM's Office
Mr Moris Amos	Environmental Health Officer	Ministry of Health
Ms Cherol Ala	Deputy Director	Department of Provincial Affairs
Mrs Esline Garaebiti	Volcanologist	Geo-Hazard Section, Ministry of Lands and Natural Resources
Mr Albert William	Local Facilitator	EHS Consultants
Mr John Norton	Consultant	SOPAC
Dr Netatua Pelesikoti	Sustainable Development Advisor	SOPAC
Dr Padma Lal	Sustainable Development Advisor	SOPAC
Ms Stephanie Hodge	Consultant	UNDP
Mr Joseph Chung	Manager	UN ISDR
Mr Alan Mearns	Manager	Community Risk Programme, SOPAC

(9) Workshop with Reference Group on the 24th August 2006

Facilitator: Mr Alan Mearns, Manager, Community Risk Programme, SOPAC

Chair: Mr Johnson Wabaiat, Director General, Ministry of Internal Affairs

List of Participants:

Name	Designation	Sector/Ministry
Mr Johnson Binaru	Acting Director General	Ministry of Infrastructure and Public Utilities
Mr George Maniuri	Director General	Ministry of Foreign Affairs
Mr Gregory Nimitik	Director – DSM Acting Director General	PM's Office
Mr Johnson Wabaiat	Director General	Ministry of Internal Affairs
Mr Tony Edwell	Representative	Director General Ministry of Trade
Mr Jim Knox	Representative	Director General Ministry of Education
Mr Reuben Bakeo	Representative	Ministry of Agriculture, Livestock, Quarantine, Forestry and Fisheries
Guy Bernard	Advisor	Vanuatu Maritime Authority
Mr Kembro	Inspector	Vanuatu Maritime Authority
Leo Moli	Head	Energy Unit, Ministry of Lands and Natural Resources
Mr Charlie Douglas	Representative	Vulcanology, Geo-hazard Section, DGMWR
Mr John Henry	Representative	Vanuatu Mobile Force
Mr Lucas Bong	Peace Corps Volunteer	NDMO
Mr Jean Metmetsan	Representative	Department of Strategic Management, PM's Office
Mr Morris Amos	Representative	Ministry of Health
Mrs Cherol Ala	Deputy Director	Department of Provincial Affairs
Mrs Esline Garaebiti	Volcanologist	Geo-Hazard Section, Ministry of Lands and Natural Resources
Mr Albert Williams	Local Facilitator	Vanuatu
Mr John Norton	Consultant	SOPAC
Dr Netatua Pelesokoti	Sustainable Development Advisor	SOPAC
Dr Padma Lal	Sustainable Development Advisor	PIFS
Ms Stephanie Hodge	Consultant	UNDP
Mr Joseph Chung	Manager	UN ISDR
Mr Alan Mearns	Manager	Community Risk Programme, SOPAC

10) Broader Stakeholder Consultation, 24 July – 25 August 2006

Sector Situation Analysis Conducted:

- Education
- Agriculture and Forestry
- Lands
- Water, Minerals and GeoHazard
- Meteorology
- Trade
- Foreign Affairs
- Finance
- Health
- PM's Office
- NDMO Committee
- Fisheriest
- Public Utilities
- Tourism
- Ports and Harbour

List of People at the Broader Consultation:

Name	Designation	Ministry/Department
Mr Jean Sese	Director General	Prime Ministers' Office
Mr Russel Nari	Director General (SOPAC National Rep)	Ministry of Lands and Natural Resources
Mr Johnson Binaru	Acting Director Genera	Ministry of Public Utilities and Infrastructure
Mr Kafau Kaloris	Director	Foreign Affairs Department
Mr George Borugu	Director-General	Ministry of Trade
Mrs Myriam Abel	Director General	Ministry of Health
Mr Wilfred Jeffrey	Director General	Ministry of Agriculture, Livestock, Quarantine, Forestry and Fisheries
Mr Johnson Wabaiat	Director General	Ministry of Internal Affairs
Mrs Hilda Taleo		Department of Women's Affairs
Mr Frederick Hosea	Acting Director	DESP – Ministry of Finance
Mrs Flora Bani	Sector Analyst	DESP – Ministry of Finance
Mr Wycliffe Bakeo	Manager REDI Programme	Department of Provincial Affairs
Mr Lui Patu	Acting Deputy Police Commissioner	Department of Police
Mr Jo Dorras	Script Writer	Wan Smol Bag Theatre
Mr Brian Robert Actor	Actor	Wan Smol Bag Theatre
Mr James Wasi		Department of Agriculture and Rural Development, MALQFF
LTC. Aru Maralau	Commander Crime	Police Headquarters, Port Vila
Mr Martin Tete	Director	Electoral Office, Ministry of Internal Affairs
Chief Inspector James Narwayeng	Acting Principal Immigration Officer	Immigration Department
Mr Jacob Issac	Principal Civil Registration Officer	Ministry of Internal Affairs
		Civil Status Department
		Ministry of Internal Affairs
Mr Joe Iati	Principal HR Officer	Corporate Services Unit, Ministry of Internal Affairs
Mr Dickinson Tevi	Accounting Consultant	Vanuatu Council of Chiefs
Chief Murmur Kalkot & Mr Kalsev	Peace Corps Volunteer	Proposed World Heritage Site Mangaliliu, Efate
Mrs Jacqueline Tari	Officer-in-Charge	Vanuatu Tourism Office, Port Vila
Mr Alan Churchill	Manager	Safety and Compliance, Airports Vanuatu Limited

Captain Guy Bernard	Advisor	Vanuatu Maritime Authority, Port Vila
Mr Barry		Aneityum Tourism Project
Pastor Pakoa Maraki	Representative	Vanuatu Council of Churches
Mr Robert Avio	Acting Director	National Tourism Development Office
Mrs Alice Kalontas	Team Leader	FSP Management Team
Mr Augustine Garae	Disaster Officer	Vanuatu Red Cross Society
Mr Kalpeau Vatoko	Chairman	Vanuatu Red Cross Society, Port Vila
Development Partners and Donors		
Mr Bernard Faro	Premier Counselor	French Embassy – Port Vila
Mr Christian Curran	Security Advisor	EU, based in Canberra, Australia
Mr Adrien Mourgues	Programme Manager	European Union – Port Vila
Mr Patrick Haines	Sector Analyst	AusAID Office – Port Vila
Mr Peng Douyi	Deputy Chief	Chinese Embassy – Port Vila, Vanuatu
Ms Sally Connell	Assistant Project Officer	Child Rights, UNICEF – Port Vila
Major Philip Chapman	AFP Advisor	VanSec House – Port Vila
Dr Corinne Capuano	Country Liaison Officer	World Health Organization – Port Vila
Dr Ketsamay Rajphangthong	Project Officer	UNICEF – Port Vila
Mr John Bailie, Mr Lennox Vuti,	Parsons	Millennium Challenge Account Project
Mr Allen Faerua		
Ms Anthea Toka	Country Programme Officer	Oxfam – Port Vila
Ms Mary Oliver	Deputy Commissioner	New Zealand High Commission – Port Vila
Mr Johnson Vora	NZAID DPA 1	New Zealand High Commission
National Disaster Committee		
Cherol Ala	DPA	DPA
Job Esau		NDMO
George Pakoa Songi	DPA	DPA
Joe Bormal Carlo	1 st PA	MOIA
Esline Garaebiti		DGMWR
Joel Path	Member	National Disaster Committee
Johnson Wapaiat	Chair	National Disaster Committee
Mr Len Tarivonda	Director Public Health	Ministry of Health – Port Vila

11) Face-to-Face Sectoral Consultation:

- Central Agencies
- Meeting with the Director General of the Prime Ministers' Office, Mr Jean Sese
- Consultation with the Department of Economic and Social Development (DESD), Ministry of Finance
- Consultation with Mr Wycliffe Bakeo – Manager REDI Programme, Department of Provincial Affairs
- Meeting with Department of Provincial Affairs
- Sector Consultation – Risk proofing the REDI programme
- Ministry of Internal Affairs
- Police Department
- National Disaster Committee
- Consultation with Mr Russell Nari, Director General, Ministry of Lands and Natural Resources (MLNR)
- Vanuatu Meteorology Services
- Civil Aviation Authority of Vanuatu, MIPU
- Department of Ports & Harbors, MIPU
- PWD
- Meeting with Mrs Jo Dorras, Script Writer, Wan Smol Bag Theatre
- Meeting with Mr Alan Churchill, Manager, Safety and Compliance, Airports Vanuatu Limited (AVL)
- Vanuatu Tourism Office
- Vanuatu Maritime Authority (VMA)
- Meeting with Mr Barry Iata – Manager, Aneityum Tourism Project, Aneityum
- Peace Corps – Vanuatu
- Ministry of Health

- Meeting with Chief Murmur Kalkot & Mr Kalsev, Peace Corps Volunteer
- Meeting with Dickinson Tevi, Accounting Consultant, Vanuatu Malvatumauri Council of Chiefs (MCC)
- VANGO
- Wan Smol Bag
- Red Cross Society
- FSP
- Vanuatu Council of Churches (VCC)

12) Development Partners in Vanuatu:

- AusAID, Port Vila
- NZODA
- European Union in Vanuatu
- Mr Christian Curran, Security Advisor to EU, based in Canberra
- France and China Embassy's
- Millennium Challenge Account (MCA)
- JICA
- UNICEF and World Health Organization (WHO)

SUPPLEMENTARY PRIORITIES



ACTION AGENDA



**GOVERNMENT OF THE REPUBLIC
OF VANUATU**



**PRIORITIES AND ACTION AGENDA
2006-2015**

**SUPPLEMENTARY FOR
MAINSTREAMING
DISASTER RISK REDUCTION AND DISASTER
MANAGEMENT**

*“An Educated, **Safe**, Healthy and Wealthy Vanuatu”*



The Vanuatu DRM&DM process was supported by the Pacific Disaster Risk Management Partnership Network, particularly the following partnership members:



The World Bank



Pacific Islands Forum Secretariat



Pacific Regional Environment Programme



United Nations Development Programme



International Strategy for Disaster Reduction



Pacific Islands Applied Geoscience Commission

1. BACKGROUND

Vanuatu is under constant risk of hazardous events such as volcanic eruptions, earthquakes, cyclones, tsunamis, floods, storm surges, and fires; the associated economic and social costs of disasters are always large. Communities, economic and social development in Vanuatu will continue to be affected by such disasters unless disaster risk reduction and disaster management (DRR&DM) are addressed by the whole country at all levels and incorporated into Vanuatu's Priorities and Action Agenda.

Vulnerability of local communities to disastrous events is increasing not only due to increases in disaster events but also because of population growth and changing lifestyle from largely subsistence to a more market-based living with increased accumulation of material goods, and infrastructure development.

In the light of recent regular disastrous events and increasing concerns over growing vulnerabilities to disasters, the Government has made commitments under the Pacific Plan to mainstream DRR&DM into all development decision-making in an effort to reduce risk and strengthen the resilience of communities.

This is a huge challenge, particularly since this is taking Vanuatu into uncharted waters of operationalising the Hyogo and Regional Frameworks of Action for Disaster Risk Reduction and Disaster Management, endorsed by the Vanuatu Government and other regional leaders. Vanuatu is one of the first countries in the world to systematically implement the Hyogo Framework for Action and the Regional Frameworks of Action for Disaster Risk Reduction and Disaster Management and to develop its National Action Plan for DRR&DM.

Disaster risk management comprises two main elements: (1) disaster risk reduction – prevention, adaptation and mitigation; and (2) disaster management – preparedness, response and recovery. An integral element of disaster risk reduction is the considerations of risk to disasters across all sectors and in the national planning and budgetary processes. Mainstreaming DRR&DM considerations into the national planning and budgetary process is identified as one of the key strategies under the Hyogo Framework for Action and the Regional Framework for Action for DRR&DM, together with mainstreaming DRR&DM into decision-making processes across all sectors and all levels of government and communities.

Vanuatu's national planning and budgetary process is linked to its Priorities and Action Agenda (PAA), which is an integration and prioritisation of action agendas contained in Comprehensive Reform Program (CRP), Business Forum Outcomes and the Rural Economic Development Initiatives (REDI) Plans. Vanuatu first produced a PAA in 2003 and its most recent revision, covering 2005-2007, provides a link between policy and planning with the limited resources the government controls. The 2005-2007 PAA has been endorsed by the Council of Ministers and outlines the most urgent and important outcomes of these programmes that will be targeted in the medium term.

The PAA 2003 summarised the refined national development policies, which was endorsed by the Council of Ministers (COM) and the Development Committee of Officials (DCO). The Prime Minister during the CRP summit of November 2002 announced Government's commitments to the priorities listed below.¹

1. Improving governance and public service delivery by providing policy stability and fiscal sustainability via a strengthened law-enforcement and macroeconomic management capacity and a small, efficient, and accountable government.
2. Improving the lives of the people in rural areas by improving service delivery, expanding market access to rural produce, lowering costs of credit and transportation, and ensuring sustainable use of natural resources.
3. Raising private investment by lowering obstacles to growth of private enterprise including lowering costs of doing business, facilitating long-term secure access to land, and providing better support services to business.
4. Enabling greater stakeholder participation in policy formulation by institutionalising the role of chiefs, non-governmental organisations, and civil society in decision-making at all levels of government.
5. Increasing equity in access to income and economic opportunity by all members of the community. Specific areas of focus include: enabling universal access to primary education by school-age children, universal access to basic health services, and inducing increased employment opportunity for those seeking work.

In 2005, the Government, recognising that the current PAA does not fully address disaster risk reduction and disaster management issues and challenges, requested the SOPAC/PIFS/UNDP/World Bank Partnership to help develop a supplementary PAA on DRR&DM, to complement the current PAA, 2005-2007. This draft supplementary PAA focuses on an additional strategic priority of '**Safety, Security and Resilience**' of Vanuatu. It is, however, emphasised that disaster risk management is a cross-cutting issue that affects all walks of life, as well as all development priorities and programmes. As such, DRR&DM considerations need to be reflected in the national Vision, Medium Term Strategic Framework and the Strategic Priorities². These changes are included in this supplementary PAA, together with a detailed strategic priority on 'safety, security and resilience'.

¹ There was no reference to natural hazards or disasters in a country that is especially prone to such hazards, nor any mention of the need to protect the people from harm, either from natural hazards or criminal activities.

² In addition changes need to also be made throughout all the chapters of the PAA to fully reflect that disaster risk management is a development issue and as such needs to be fully considered in all areas of development; the current PAA and the supplementary PAA (this document) is expected to be combined when the PAA is next reviewed.

The current Chapter 9 on Infrastructure, with changes to reflect DRR&DM considerations, is attached as Annex 1 to illustrate the suggested changes that may need to be made to all the chapters in the current PAA when next revised. When the current PAA is revised, the supplementary PAA on 'Disaster Risk Reduction and Disaster Management for A Safe, Secure and Resilient Vanuatu' is expected to be incorporated into the next PAA together with changes to other chapters³.

The supplementary PAA also identifies key policies and high-priority strategies required to increase community safety, security and resilience to disasters using general principles articulated in the Disaster Risk Reduction and Disaster Management Regional Framework for Action 2005-2015, the World Bank Policy Note (*Not If, But When....*) and the Pacific Plan, adapting them to meet the specific conditions in Vanuatu.

This supplementary PAA was prepared in tandem with Vanuatu's National Action Plan for DRR&DM, which provides a detailed programme of action for addressing the national priorities on DRR&DM. Thus, these two documents must be considered as a package when considering DRR&DM actions for the country.

2. INTRODUCTION

The national Vision for Vanuatu is based on the recognition of the need for economic growth – that this growth must be led by the private sector and that Government's role is to create an enabling environment for both domestic and foreign investors whilst ensuring that development is sustainable.

The Vision reflects the people's expressed wishes for more employment and economic opportunities through which to earn income, for better health and education, and the provision of basic infrastructure for themselves and especially for their children, and a wish for social stability **and community safety and resilience**.

To accomplish the broad goals, or development outcomes, outlined in the National Vision, the PAA identified seven Strategic Priorities to provide medium-term milestones against which progress can be measured. The Strategic Priorities provide policy direction at the overall national (macroeconomic) level. Strategic Priorities focus on key results or changes that must be achieved in the society and economy in order to take us towards the Vision.

NATIONAL VISION

*"An Educated, **Safe, Healthy and Wealthy Vanuatu**"*

By 2015 Vanuatu will have achieved a significant increase in real per capita incomes, along with steady growth in levels of employment. Within the region, Vanuatu will be among the leading countries in achieving the Millennium Development Goals in education, health, environmental management, security and other key social indicators. Public sector reforms will have raised standards of governance, levels of productivity in the civil service, and will have resulted in higher standards of services and managerial accountability. Through continuing structural reform, Vanuatu will have established an effective enabling environment to sustain the significant private sector growth, which it aims to achieve in output and employment.

³ This may also be a good opportunity to rationalise the different national development policy documents, including PAA, CRP and the Medium Term Economic Framework.

Strategic Priority: Safe, Secure and Resilient Vanuatu

Vanuatu is regularly subjected to volcanic eruptions, cyclones, earthquakes, droughts and floods. Some of these events are increasing in frequency and variability; as are extreme events due to climatic variability and sea level rise associated with human induced climate changes (see Figure 1 for location map).

STRATEGIC PRIORITIES

- Private Sector Development and Employment Creation
- Macroeconomic Stability and Equitable Growth
- Good Governance and Public Sector Reform
- *Safe, Secure, and Resilient Vanuatu*
- Primary Sector Development (natural resources and the environment)
- Provision of Better Basic Services – especially in rural areas
- Education and Human Resource Development
- Economic Infrastructure and Support Services

Increasing population, uncontrolled growth of urban centres and spontaneous peri-urban settlements are contributing to increased levels of vulnerability. The potential for devastating cyclones and earthquakes in fast-growing urban areas, such as Port Vila, highlights the need for a more coordinated approach to urban planning as natural hazards can trigger other hazards in a domino effect.

The impacts of disasters on lives and livelihoods of people, as well as damage to physical infrastructure, are large, affecting both the social and economic fabric of communities. For example, Cyclone Uma in 1987 cost the private sector about US\$25 m in damages, together with infrastructure damages of another US\$25 m. The Government in its effort to rebuild the community incurred a national budget deficit increase of about US\$8.5 m – US\$10.6 m. The 2002 Port Vila earthquake damage and loss was estimated to be over US\$2.5 m, whereas Cyclone Ivy in 2004 incurred a loss of around US\$6 m, affected about 50,000 people and the loss of one person's life (McKenzie *et al.* 2005)⁴.

These impacts affect Vanuatu's ability to meet the needs and aspirations of its people and to address the sustainable development goals at national, provincial and community levels which are articulated in the Comprehensive Reform Programme (CRP) and Priorities and Action Agenda (PAA), and also reflected in the Rural Economic Development Initiative (REDI).

Historically, Vanuatu has demonstrated resilience to natural hazards and an ability to rebuild its subsistence economy and societies, using traditional knowledge and external disaster relief and other development assistance. However, the capacity of Vanuatu to effectively deal with the impacts of major disasters remains fragile, particularly as more parts of the country become urbanised and traditional knowledge has been lost. The challenge of achieving sustainable development goals, including the reduction of poverty, increasing economic growth and protection of the environment, will be undermined unless the potential impact of hazards on vulnerable communities and economies is addressed.

⁴ McKenzie, E., B. Prasad and A. Kaloumaira (2005). *Economic Impact of Natural Disasters on Development in the Pacific*. Suva, Fiji, SOPAC and USP.

The risks posed by such hazards can only be effectively reduced and managed as part of a sustainable development process that adopts a broader and more integrated approach to disaster risk reduction and disaster management (DRR&DM). This will involve the proactive management of disaster risks and reduction of vulnerability, expanding beyond the traditional approach to disaster preparedness, response and recovery, and adopting a strategic approach to improve and strengthen development effectiveness and efficiency by emphasising DRR&DM.

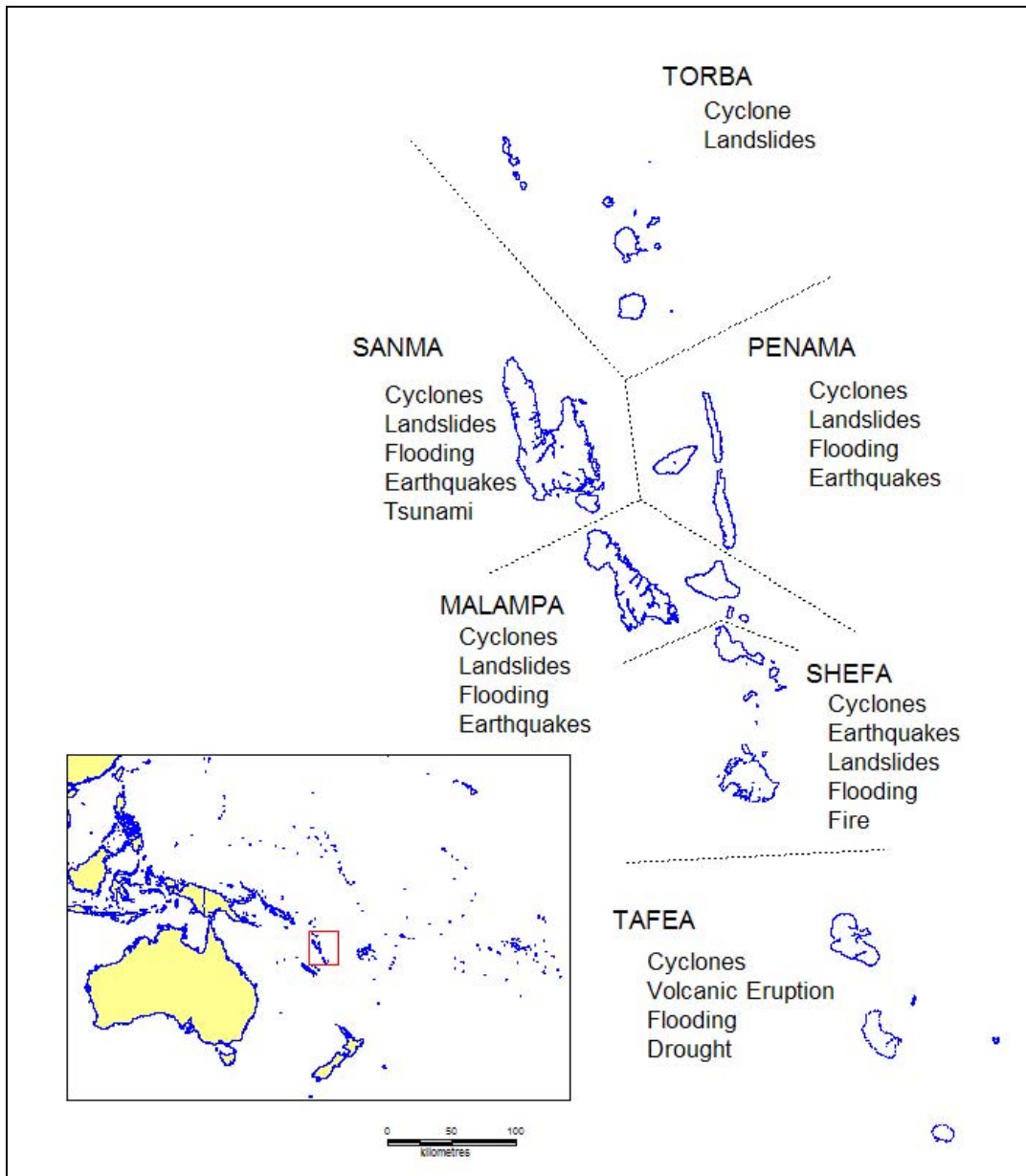


Figure 1: Vanuatu – one of the highest vulnerability index countries in the world, regularly exposed to a wide range of hazards.

3. KEY ISSUES AND CHALLENGES FOR DRR & DM

There are a number of issues and challenges with regard to DRR & DM that face Vanuatu, including those related to governance, policy and decision-making; institutional, regulatory and incentives for disaster risk management; traditional and technical knowledge management; and capacity development. These issues and challenges are explicitly addressed in the National Action Plan, linked to this supplementary PAA under six thematic areas and eight strategies⁵. The National Action Plan for the DRR&DM is equivalent to a Ministerial/Sectoral and/or Corporate Plan linked to the PAA as illustrated in Figure 2.

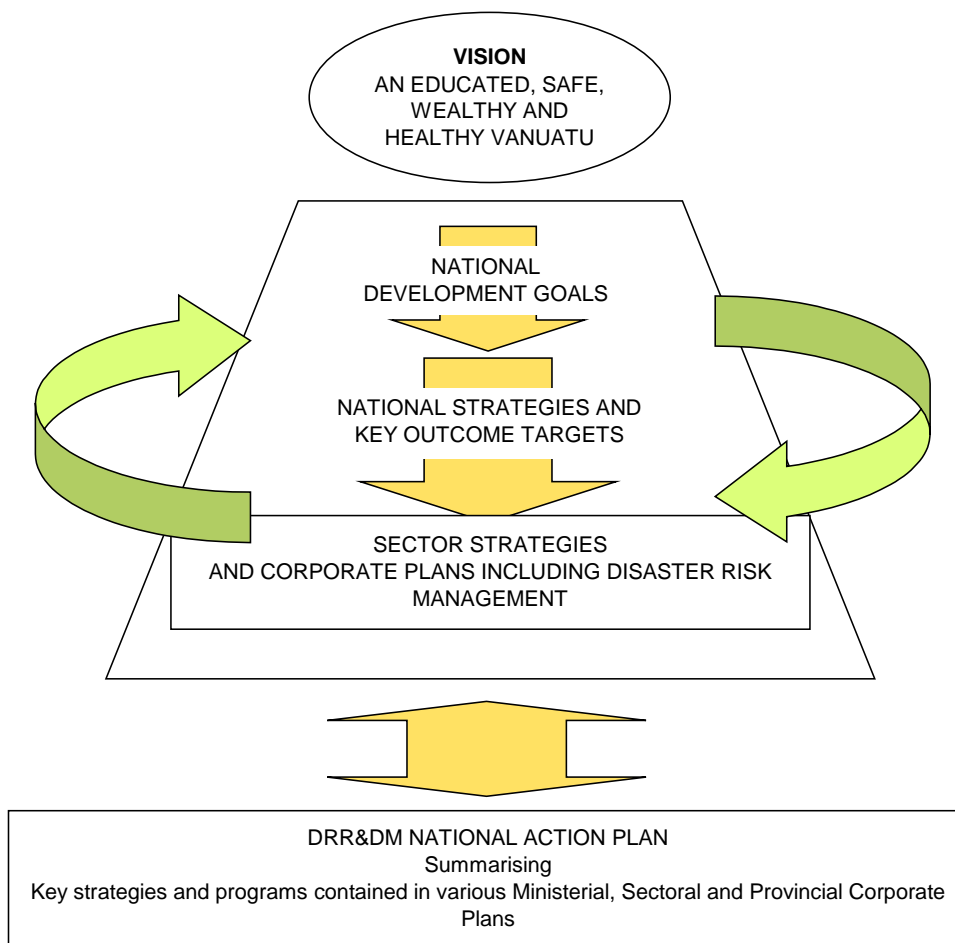


Figure 2: Linking the DRR&DM NAP to the PAA.

⁵ The National Action Plan also includes two additional themes on monitoring, evaluation and reporting and implementation.

Governance, Policy and Decision-Making Context

The key issue for disaster risk management in Vanuatu has been the tendency to assign responsibility to a small under-funded National Disaster Management Office, rather than mainstreaming disaster risk reduction into all sectors. A key challenge is for the political leadership to assign coordinating responsibility at the highest level possible.

Given high-level coordination and oversight, the next major institutional challenge is to ensure that all sectoral agencies mainstream disaster risk reduction and disaster management into their sector strategies, allocate adequate resources, train their staff, and maintain effective contingency plans. The national Government too, must mainstream DRR&DM into their macroeconomic policy and fiscal management and national budgetary processes such that disaster risk management is highlighted as a budget line item, against which progress and outcomes must be reported.

Responsibilities for disaster risk reduction must be clearly distinguished from those for disaster management. However, disasters are everybody's business and risk management should not be left up to the Government alone. The private sector and communities must be fully involved and held accountable wherever appropriate.

An important aspect of disaster risk management in Vanuatu is to take an "all-hazards" approach. While it is the collective risk of volcanic eruptions, earthquakes, tsunamis, cyclones that make Vanuatu such a disaster-prone country, other man-made risks such as aircraft crashes, oil spills, shipping accidents and epidemic outbreaks also need to be considered.

Vanuatu has a National Disaster Act 2000 and a National Disaster Plan 2004. However, even where plans and regulations are in place, lack of enforcement remains a major challenge in Vanuatu. Moreover, these legislation and associated regulation needs to be reviewed and revised in the light of the integrated and whole-of-country approach to disaster risk reduction and disaster management now adopted by Vanuatu.

(DRR&DM National Action Plan: Themes I & II)

Institutional, Regulatory and Incentives Mechanisms for DRR&DM

For DRR&DM, a combination of traditional and scientific knowledge-based strategies should be given priority. Traditional knowledge about disaster reduction and coping systems in times of disaster need to be documented and built on, through community-based disaster risk management programmes and awareness raising. Such traditional knowledge and methods needs to be integrated with the disaster risk management methods based on more technical knowledge based on scientific, economic and social science understanding.

Regulatory – A wide range of practical disaster risk reduction instruments needs to be given adequate resources, including "disaster-proofed" building codes, amended engineering design standards, coastal land-use planning. Institutional designs, including response procedures and measures in response to early warnings, preparedness drills and pre-positioning disaster relief packages (such as water, medical kits, and emergency food rations), keeping evacuation routes open, and improving communication systems for the outer islands are also priority needs.

Incentives – In the past, the Government has largely adopted a “wait and mitigate” approach to disaster risk management, confident that the donor community would respond to any humanitarian crisis caused by a disaster in Vanuatu. Donors have perpetuated this approach by not insisting that disaster risk reduction be built into all externally-funded development projects. Disasters are by definition uncertain events, so in some cases it is rational not to waste precious resources on avoiding or mitigating an event that may never happen. A key challenge, therefore, is to get the incentives right to invest in disaster risk management, and to prioritise “no-regrets” actions that are worthwhile doing, even if the anticipated risk never eventuates. Instruments such as private insurances, reinsurances against disaster events should be promoted at least for the commercial sector.

(DRR&DM National Action Plan: Themes III & IV)

Traditional and Technical Knowledge Management

For effective DRR&DM, the availability, communication and understanding of context-specific robust information about hazards and vulnerabilities by communities at risk is critical. Vanuatu regularly monitors and communicates some hazards, such as meteorological hazards, and such temporal and geographic information are located with different departments. Vanuatu also has a wealth of traditional knowledge about disaster risk reduction and coping mechanisms in times of disasters, which needs to be combined with technical knowledge, and appropriately managed to support communities at risk in their DRR&DM efforts.

Wide-ranging tools and methods are available for knowledge management, including hazard mapping and vulnerability assessments, and economic benefit cost assessments. These together with geographic information systems, more effective communication strategies using all forms of medium, and appropriate language and mode of communication, could help underpin disaster risk reduction strategies and community based planning and response programs.

(DRR&DM National Action Plan: Theme V)

Capacity Development

To build safe, secure and resilient communities against disasters, appropriate capacity of individuals, communities, government agencies and non-government organisations is necessary. At the government official level, focus of capacity development would vary depending on the role the officials play. On the one extreme will be skills in highly sophisticated tasks such as hazard modelling and monitoring, social, technical and economic vulnerability assessments, impact assessments, etc. – on the other, capacity development could focus on designing risk reduction strategies and preparing corporate plans and budgets reflecting DRR&DM considerations. Capacity at the community and individual level could include basic understanding of the local hazards; community hazard and vulnerability assessment; and preparing (for example their own) risk reduction and response strategies. In addition, the enabling environment, such as the legislative framework, organisational arrangements and decision-making processes within which individual communities and agencies operate needs to be also improved. Strengthening of systemic capacity could, for example, mean establishment of a single government organisation that monitors and assesses all hazards under the same Ministry.

(DRR&DM National Action Plan: Theme VI)

Implementation and Adaptive Management

For sustained development and maintenance of DRR&DM, a long-term commitment is needed from national government, NGOs, communities and NSAs, as well as regional and international partners. Furthermore, a degree of flexibility is needed in the implementation of strategies and activities, such that there is regular monitoring of performance and evaluation against the desired goals and adaptation over time. Regular monitoring and evaluation of DRR&DM is a challenge, particularly when financial and technical resources are limited. A common monitoring, evaluation and reporting on DRR&DM NAP linked to annual corporate reporting and regional and international commitments could help overcome this burden.

(DRR&DM National Action Plan: Themes VII & VIII)

4. POLICY OBJECTIVES

The objectives of this supplementary PAA are the same as the specific objectives of the National Action Plan, which provides a detailed programme of action for addressing the national priorities on DRR &DM. The policy objectives for DRR&DM under the PAA are to:

- recognise disaster risk management as a development issue and mainstream all-hazards risk management into all sectors and decision-making processes at all levels of government, including national planning and budgetary processes;
- recognise disaster risk management as a whole-of-country responsibility and actively engage communities, NGOs and the private sector in disaster risk reduction and disaster management efforts;
- ensure the establishment of a strong governance framework for DRR & DM, with clear policies and legislation, accountable institutional and organisational arrangements and connections across and within levels of government, sectors and communities;
- ensure adequate resources and appropriate coordination mechanisms are devoted to disaster risk reduction and disaster management;
- integrate disaster risk reduction concerns into policies, plans and programmes of all ministries and departments and all levels of government in order to assist communities reduce their risks and vulnerability to disasters;
- recognise that disaster risk management is about supporting communities to reduce and manage risks, and empower communities by providing appropriate and timely information; building their capacity to use this information to make informed decisions; and promoting community-based disaster risk management through participatory planning and public-private sector partnerships;

- promote knowledge-based decision-making, including traditional knowledge and know-how about disaster risk reduction and coping mechanisms in times of disasters; and
- provide for a sustained, coordinated and harmonised support for regional organisations and development partners.

5. NATIONAL PRIORITIES AND STRATEGIES

National priority strategies for DRR&DM under this supplementary PAA reflect the strategies identified in the National Action Plan. These strategies are consistent with the issues raised in various situation analyses and findings during broad consultations with key stakeholders at national, provincial and community levels. These priority strategies are summarised in Table 1, together with the respective NAP themes.

6. PERFORMANCE INDICATORS

Performance indicators for the Prioritised Strategy on a “Safe, Secure and Resilient’ Vanuatu covered in this supplementary PAA could be divided into indicators for monitoring progress against the key strategies and monitoring performance against the overall goal of the supplementary PAA.

Progress indicators:

- Establishment of an appropriate organisational arrangement, together with supporting legislation, and allocation of financial and human resources for DRR&DM across all sectors.
- Number of ministerial/sectoral/provincial/corporate plans and annual budgets that explicitly reflect DRR&DM considerations.
- Number of communities with their disaster risk reduction and management plans or strategies completed and/or strengthened, together with the number of programmes implemented at the community levels.
- Integrated information systems for DRR&DM established and context-specific information made available to communities to inform their planning and management decisions.
- Number of training courses conducted and their effectiveness in empowering individuals and institutions in DRR&DM.

Performance indicators:

- Reduction in loss of life, property and infrastructure due to disasters.
- Improved resilience of communities and economies to disasters.

Table 1: Issues and Concern under NAP Themes and Strategies.

Issue and Concerns	NAP Themes	NAP Strategies
Governance, Policy and Decision-Making Context	I. Governance and Policy Context	1. Strengthen national policy, legislative, organisational and decision making arrangements for coordinated and effective DRR and DM.
	II. Mainstreaming DRR& DM into national planning and budgetary process	2. Mainstream DRM&DM into national macroeconomic policy and fiscal management, and national budgetary processes.
Institutional, Regulatory and Incentive Mechanisms	III. Mainstreaming Disaster Risk Reduction	3. Strengthen organisational arrangements, planning and decision-making processes at national, provincial and community levels and NGOs at all levels for mainstreaming DRR (including prevention, mitigation and adaptation), recognising its cross-sectoral dimensions.
	IV. Strengthening Disaster Management	4. Strengthen national organisational, decision-making processes and operational arrangements for Disaster Management (DM), (preparedness, response and recovery).
Traditional and Technical Knowledge Management	V. Information, Information Systems and Knowledge Management	5. Understand hazards, vulnerabilities, and communities at risk (hazardscape) as a basis for disaster risk reduction and disaster management . 6. Improve, strengthen and integrate technological and information systems to support DRR&DM at the national, provincial and community levels.
Capacity Development	VI. Capacity Development	7. Improve and strengthen capacity for disaster risk reduction and disaster management at the ministerial, national, sectoral and provincial levels, 8. Strengthen individual and community capacity in DRR&DM.
Implementation and Adaptive Management	VII. Monitoring, Evaluation and Reporting	9. Strengthen monitoring and evaluation of Vanuatu's efforts to ensure progress and improvements in risk reduction, preparedness, response and recovery against disasters.
Sustained Commitments	VIII. Implementation of National Action Plan	10. Implement the DRR&DM National Action Plan.

ANNEX 1

An example of suggested changes to the current PAA to mainstream disaster risk management

PRIORTIES AND ACTION AGENDA, 2005-2012 (PAA)

CHAPTER 9: SUPPORT SERVICES: INFRASTRUCTURE AND UTILITIES

9.1 SECTOR OVERVIEW

Reliable and competitively priced economic infrastructure and utilities are essential services needed to support national development. Without such services new productive investment will be difficult to attract, and the objectives of creating additional employment and other income-earning opportunities for the people will not be achieved. *Infrastructure is essential for maintaining services in times of crisis and is an important government asset that must be protected from damage associated with disasters.*

Poor transport and communication services, their high costs, and poor maintenance of infrastructure assets, particularly (but not only) in the rural areas, have been identified as major constraints to development by communities, especially rural communities, Government and aid donors. Vanuatu has a high incidence of destructive cyclones and periodic droughts. There is also increased climate variability, as part of worldwide trends for climate change. While the weather cannot be controlled, accurate forecasts and forewarning of potential disasters are important for safety as well as economic development such as agriculture and marine activities, including fishing.

Private sector monopolies operate most electricity, water supply, domestic gas and telecommunication services while Government and public enterprises play a major role in the transport sector. In comparison to many neighbouring Pacific Island countries the quality of urban power, water and communications utilities in Vanuatu are of a high technical standard. But the costs to the consumer are also very high to the extent that these are generally believed to be hampering growth of enterprises, and constraining the development of tourism. Effective regulation and monitoring of concession agreements in electricity, water and telecommunications are seen as essential to improving services and reducing costs.

Reform of Government activities in the sector has been undertaken with the separation of regulatory and operational functions in the marine and aviation transport sectors and the corporatisation of commercial activities with Airports Vanuatu Limited and Post Vanuatu Limited. There are also plans to establish a Land Transport Authority as a separate regulatory authority for land transport and also a need to establish a Transport Planning Committee within the ministry of Infrastructure and Public Utilities.

Efforts have also been made to improve the operations and efficiency of public enterprises in general with the design of a divestiture program to increase private sector participation in the operation and maintenance of services. However, this has met with limited success and continuing subsidies have been a substantial drain on government's budget. This lack of progress is reflected in the high level of subsidies and transfers to public enterprises, which were equivalent to 6% of GDP in 2004. This reduces the funds available for priority sectors such as health and education. There is therefore still much to be done to improve the performance of both infrastructure and utilities service providers. The government is in the process of setting up a Regulatory Authority.

9.1.1 Meteorological Services

Over the last two decades the Vanuatu Meteorological Service has suffered a steady decline in resources. This is affecting the service's ability to provide accurate forecasts and forewarning. *With the likely increase in extreme weather events associated with global warming, this key agency needs to be strengthened.*

9.1.2 Power

Less than 20% of the total households enumerated in the 1999 National Census reported having access to electricity. The remaining households indicated other sources of light such as gas, kerosene, wood, etc. The information suggested that excluding the two municipality areas, Lakatoro, Lenakel and other privately operated sources of power supply, more than 80% of the population of the country living in rural areas do not have access to electricity and are still using traditional means for their sources of light.

The Port Vila and Luganville municipal electricity networks are operated and maintained by UNELCO through concession contracts that extend to 2031 and 2010, respectively. There are presently just fewer than 5,000 customers on the Port Vila network and nearly 1,000 customers on the Luganville network. *Nevertheless there is reliance by the commercial and public sector on the municipal electricity networks, which consequently suffer during power outages.* The Public Works Department had, until recently, the responsibility for operations of the provincial town electricity supplies at Luganville, Isangel on Tanna and Norsup/Lakatoro on Malekula but these are now operated and maintained by UNELCO. Power to Luganville is largely supplied by the Sarakata hydro-electric scheme funded by the Japanese in 1994. Consumers in Luganville pay similar prices as in Port Vila where electricity is exclusively provided by diesel generators. Savings on fuel costs from the hydro-generation have been used to extend the electricity reticulation on Santo and used to provide solar powered systems in rural villages. There is a need for enhanced oversight of the Sarakata "Fund" to improve the transparency.

Government, through its Energy Unit of the Ministry of Land and National Resources, undertakes the electrification of the smaller village communities. Around 500 solar powered systems are operating for rural health clinics, schools and private homes. These systems were financed through the Sarakata Fund and through donor assistance but are maintained by the Energy Unit. The Energy Unit is also involved in the identification of other means of electricity generation and is promoting a number of mini hydro schemes as well as geothermal power for Efate and other Islands.

9.1.3 Telecommunications

Tele-density (defined as telephone lines per 100 people) is a key indicator of access to telecommunication services. Vanuatu has about 12 connections per 100 people according to the 1999 Population Census. This compares with Fiji and Palau which both have twenty connections (fixed and mobile connections) per 100 people. Tele-density in rural areas of Vanuatu is much lower. The MDG goal for communications is "In conjunction with the private sector, make available the benefits of new technologies, especially information and communications."

Despite the low access, Vanuatu has a modern telecommunications system serving all urban areas and most rural areas. Telecom Vanuatu Limited (TVL), partly owned by Government, has exclusive rights under a concession contract to operate domestic and international services (including Internet) to the year 2012. There are currently 6,944 fixed lines but with the introduction of mobile phones (particularly prepaid mobile phones) there has been a quantum leap in the number of phones – some 15,400 as of January 2006. Although Internet charges are comparatively high, TVL does provide a free service to schools that have computers and electricity supply to operate them.

In times of disasters, isolated communities become more isolated, particularly when communications infrastructure is damaged. It is crucial that emergency lines or other forms of back-up communication systems are already in place and maintained such that communities at risk are easily reached.

9.1.4 Transport

9.1.4.1 Air Transport

Air transport plays an important role in both domestic and international transport, therefore a regime of primary legislation and operating rules conducive to sustainable air transport operations is of paramount importance. Whilst marine transport provides the basis for domestic freight and passenger traffic domestic air services provide vital links

for many people on a more regular basis, for the development of tourism and enterprise activities and for emergency services. Competitively priced international services are critical for the promotion of the nation's tourism industry. Maintaining both international and domestic air-services is therefore of vital importance.

Stability of the operating environment for the national carrier Air Vanuatu and for operation of domestic air services is critical for the long-term financial health of the aviation sector. New international competition from low cost carriers has raised the number of tourists but creates a challenging competitive environment for Air Vanuatu.

Airports Vanuatu Limited operates the three main airports at White Grass - Tanna, Bauefield – Efate and Pekoa – Santo while the remaining 26 outer island airstrips are maintained and managed by the Public Works Department through a contracting arrangement. *It is crucial that airports remain operative in disaster periods.*

As with all infrastructure the maintenance of aviation assets is a critical issue, especially as safety and security concerns are paramount. The location and local climate of many rural airstrips make maintenance very difficult and costly.

9.1.4.2 Land Transport

Public Works Department has a National Road Inventory with a recorded 1,766km that is the responsibility of PWD and 225km that is the responsibility of provincial Government. The condition of the road network is poor due to inadequate funds and machinery for maintenance *and the harsh environment that some roads pass through.*

Limited institutional capacity in terms of staffing, budget and machinery at both national and provincial level has hindered planning and the development and maintenance of the road network. The new program for roads and infrastructure being developed under the Millennium Challenge Account will have a major impact on the nation's road network *and provides an ideal opportunity for examination of design and maintenance standards.* This will add considerably to the importance of developing a sound and adequately resourced road-asset maintenance program.

The proposal to establish a Land Transport Authority within the Ministry of Internal Affairs to regulate licensing and safety is under active consideration by Government. The proposal to establish a transport Planning Committee within the Ministry of Infrastructure and Public utilities is also under active consideration by the Government. *The proposed mandate of the Planning Committee could include infrastructure design and maintenance standards.*

9.1.4.3 Marine Transport

Vanuatu relies heavily on marine transportation for its trade and domestic travel between islands. It is also the main means of bringing export crops and produce from the rural and outer islands to markets. Many have likened it to the backbone of domestic freight transport in Vanuatu, and considerable attention has been given over the years to the importance of improving the efficiency of inter-island shipping to reduce internal transport costs. This has included expenditure on port facilities to consolidate freight handling and reduce shipping costs⁶. In 1999 the Coastal Trading Act was abolished and the VIPA Act amended to allow for foreign ownership of vessels over 80 tonnes. As a result a number of foreign owned vessels now ply Vanuatu's waters and shipping services have significantly improved.

There are a total of 22 public ports and wharves in Vanuatu though the two most important are at Port Vila and Luganville. Five main agencies/ groups are involved in the marine infrastructure sector, their roles are summarised in Figure 9.1.

Safety at sea has been a concern and considerable efforts have been undertaken to ensure that Vanuatu ports and shipping safety standards are compliant with international standards. In 2004 a port security plan and port security regulations were introduced to improve management, safety standards and enforcement in the maritime industry and to conform with the new International Ships and Port Facility Security Code (ISPS).

⁶ For example, the ADB Multi Project in 1989, and prior to that there is evidence of considerable activity in the construction of new wharves and jetties around the time of independence.

9.1.5 Water Supply

The Port Vila water supply system is owned by the state but operated by UNELCO under a concession contract that runs to 2032. Water supply systems in Luganville, Lakatoro and Isangel are government owned and operated by PWD. Government, through the water section of the Department of Geology and Mines, as well as NGOs, assist with the development of village water supply systems *and watershed management*. This assistance includes the provision of training to village dwellers to maintain their own water systems, although this has met with limited success.

Approximately 80% of the population have access to improved water services (reticulated supply and rainwater catchments tanks) and over 80% of the population have access to improved sanitation (reticulated and non-reticulated solutions such as improved pit latrines). The MDG goal for water and sanitation is to “Halve, by 2015, the proportion of people without sustainable access to safe drinking water and basic sanitation.”

FIGURE 9.1: INSTITUTIONAL STRUCTURE FOR MARINE TRANSPORT

- Ports and Harbours Department – responsible for operation and management of the main ports at Port Vila and Luganville.
- Vanuatu Maritime Authority – regulatory authority established in 1999 to ensure safety standards, licensing and administration of shipping and maritime and seafaring acts and search and rescue.
- Vanuatu Maritime Training School – situated in Santo provides training for fishermen and local and international seafarers.
- Shipping Industry – which until 1999 was essentially restricted to Ni-Vanuatu operators and now includes around 120 ships (up from about 67 in 1999) capable of inter-island transport as well as an informal sector of smaller boats. This number has increased as the Government has recently introduced two additional vessels donated by the Government of the Peoples Republic of China.
- Provincial Government – responsible for operation and management of designated ports.

9.1.6 Pricing and Regulation

The high cost of electricity, water and telecommunications, due to high cost of operation, contributes to the high cost of doing business in Vanuatu. In the case of electricity and water supply provided by UNELCO, prices are set according to an agreement with Government, under the Ministry of Lands. The price is indexed to a variety of inputs and there is no scope within the agreement and concession contract to take account of increased economies of scale. In the case of telecommunications there are no limits on the prices that can be charged. In the case where the Public Works Department provides utility services, revenue generated is generally insufficient to maintain the assets. This is in contrast to those utilities owned or operated by the private sector. The complexity of the issues pertaining to utilities has been discussed at length in various reports. Costs are relatively high for electricity and telecommunications for a variety of reasons.

9.2 KEY ISSUES AND CHALLENGES

The constraints and challenges in providing adequate and efficient infrastructure, utilities and supporting services are both physical and structural. The country is widely scattered and the island geography is often rugged. The costs of providing infrastructure, transport, power and communications services in such circumstances are high and the economies of scale are small. Vanuatu is also highly vulnerable to natural disasters arising from its climate and geology, which can lead to serious disruptions to supplies and services.

Land transport is constrained by the poorly maintained road network. In addition road regulations are outdated and there is a need to control road occupation properly and clarify road administrators for respective roads and the roles governing safety, bus and taxi fares and licensing. The amendment of the Public Road Act and establishment of a Land Transport Authority has been proposed to overcome these weaknesses.

Critical issues in marine transport, centre on the lack of access to capital for ni-Vanuatu wishing to start businesses in the shipping industry. Constraints to access to capital arise from the doubtful viability of many inter-island shipping services as a result of the widely scattered geography and the vulnerability of assets, and consequent risks of loss,

from natural disasters including cyclones. Operational efficiency of marine transport in Vanuatu is constrained by outdated design and equipment. This problem is compounded by poor maintenance. Port Vila and Luganville wharves serving coastal and inter-island trade are cramped, lack adequate cargo shades and passenger handling facilities and are poorly maintained.

In summary the improvement of telecommunications services will be largely the responsibility of the private sector with government involvement being in setting up the regulatory environment for the private sector supply and competitive pricing.

The challenge for government is therefore to address the structural weaknesses in the management and operation of infrastructure and utilities, and to seek more cost-effective and efficient alternatives where possible. Potential alternative power and energy sources need to be examined, efficiencies maximised, *design standards revised and enforced*, costs minimised and prices set competitively, commensurate with providing satisfactory standards of service to all islands, and providing support to the achievement of strategies in other sectors.

9.3 POLICY OBJECTIVES

Based on the key issues and challenges, policy objectives are to:

1. ensure the provision of commercial, quality, efficient, and competitively priced infrastructure, utilities and services, either through public enterprises or through private sector partnerships and competition;
2. encourage the development of a competitive private sector involvement in the provision of utilities and services;
3. minimise subsidy requirements for public utilities;
4. ensure economic infrastructure and support services are available to other sectors to enable all stakeholders to achieve their own sector objectives; and
5. *ensure that critical transportation remains viable and operational during disaster events.*

9.4 PRIORITIES AND STRATEGIES

9.4.1 Air transport

Priorities in the **air transport** sector are to:

1. provide safe and secure domestic and international air transport operations, *according to ICAO standards*;
2. provide efficient and cost effective services to passengers and cargo traffic both domestically and internationally.
3. ensure adequate maintenance of existing airports and airstrips, *especially ensuring that they remain operative in natural disasters*; and
4. provide safe and reliable airport services to cater for growth in domestic and international passenger and cargo services.

9.4.2 Land transport

Policies in land transport sector will continue to stress the need to provide and adequately maintain an appropriate land transport system that enhances the social and economic development of the country. Priorities are to:

1. properly maintain the road network through *better design to withstand an acceptable level of risk from a particular hazard*, more effective management and more funding;
2. improve road administration by amending the Public Roads Act and the regulation of land transport services through a review of existing land transport legislation and the establishment of a Land Transport Authority;

3. review Infrastructure Master Plan, prioritise projects and only construct new roads when economic benefits have been demonstrated; and
4. promote the use of bio-fuels and other alternative energy sources where economically feasible.

9.4.3 Marine transport

Government policy for marine transport will concentrate on developing and maintaining Vanuatu's shipping infrastructure so that people, communities and business can effectively participate in national and international trade. Priorities are to:

1. maintain and upgrade existing infrastructure;
2. improve management of the sector through improved consultation with ship owners and other stakeholders;
3. improve operational efficiency in the ports and eliminate subsidies; and
4. improve and maintain safety standards through regulatory measures and seafarers training.

9.4.4 Meteorological services

The service's role is providing timely and accurate meteorological information to meet the needs of all people living in Vanuatu and to incorporate the climate change issues into the national development plans. This requires:

1. restoring and upgrading the basic infrastructure and operations, *especially to provide early warning systems;*
2. putting in place an appropriate local capacity building program to improve scientific/technical staff resource levels and to upgrade skills; and
3. *building climate change and other risk management issues into National Development Plans, sector plans, medium-term framework plans, corporate plans, REDI plans, and urban development plans.*

9.4.5 Power, water and telecommunications

For the power, water and telecommunications sectors the priorities are to:

1. reduce the cost of services, particularly of electricity and communications including internet;
2. improve the regulatory framework to more effectively enforce contract conditions, and encourage additional competition in these sectors where possible;
3. extend the coverage of rural electrification by the most cost efficient means;
4. promote the use of renewable energy, especially where these can be used effectively in remote locations;
5. extend communications services to remote areas by using innovative technology options;
6. extend the coverage of improved water supplies in rural areas;
7. provide training in maintenance of village water supplies in conjunction with Provincial Governments; and
8. *install outer island communication and emergency links.*

9.5 PERFORMANCE INDICATORS

Performance of the sector in meeting its objectives and delivering on the priorities will be measured through:

- **air transport** – Nil air traffic accidents per year causing loss of life; passenger movements; airstrip closures; AVL profitability; Air Vanuatu profitability; *time taken to get airports running again after a disaster;*
- **land transport** – kms of new roads constructed; kms of roads maintained; bio-fuel use;
- **meteorological** – accuracy *and timeliness* of forewarnings;
- **marine transport** – safety record; level of subsidies; port and handling charges;
- **power** – average price measure; power consumption; access of population to electricity; *time taken to get powerlines repaired after a disaster;*
- **telecommunications** – average price measure; traffic volume; internet usage; tele-density (MDG); *outer island links; and*
- **Water** – average price measure; water consumption; access of population to improved water supplies (MDG).