

## REPORTS

# Mainstreaming disaster risk management: a development issue for the Pacific Small Island Developing States



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*In early 2005 the Cook Islands were struck by 5 cyclones in a single month.*

### Pacific islands at risk

The Small Island Developing States of the Pacific are located in one of the most threatened regions in the world, with the continuing presence of natural, human induced, technological and environmental hazards. Whilst the threats presented by these hazards may be seasonal or differ from country to country in respect to type, frequency or intensity, no country is immune to their devastating impacts.

The continuing increase in the occurrence of hazardous events in the Pacific coupled with population growth, poverty, urbanisation and inappropriate development activities are only compounding the situation and demanding new solutions. These solutions must effectively address the cause and effects of uncontrolled disasters. The mainstreaming of disaster risk management by island governments in support of an integrated hazard and risk management approach is considered essential to the development of appropriate national mitigation strategies.

The severity of natural hazards in the Pacific is increasing due to some extent to the effects of climate variability and extreme climatic events caused by global warming. Environmental degradation which is also a problem in the region often exacerbates the effects of natural hazards and can be the factor that transforms a climate extreme, such as a heavy downpour, into a disaster. Predicted sea level rise in the region and increased extreme climatic events will lead to a greater occurrence of coastal erosion, storm surges and damage to human settlements.

Levels of island vulnerability are related to the degree to which their socio-economic systems or environmental assets are either susceptible or resilient to the impact of these hazards. It is determined by a combination of factors including awareness of the hazards, condition of infrastructure, national policy and the quality of the disaster risk management arrangements and practices. The levels of vulnerability combined with the likelihood and potential consequences of an event that may arise determine their levels of risk.

## The need for change

Recognising such vulnerabilities, the countries of the region have acknowledged the importance of taking an integrated, whole of government and whole of country approach to disaster risk management. This will necessitate the mainstreaming of disaster risk management into the national development process and include:

- Reducing disaster risks through improved adaptation and mitigation measures.
- Developing well-coordinated preparedness and response arrangements in the event of a hazardous event.
- Facilitating effective and timely disaster recovery and rehabilitation.

This broader commitment to mainstreaming disaster risk management is reflected in the recent endorsement by the Pacific Forum Leaders of the Pacific Regional Disaster Risk Reduction and Disaster Management Framework for Action, 2005-2015 and their support to the Pacific Islands Framework of Action on Climate Change, 2005-2015.

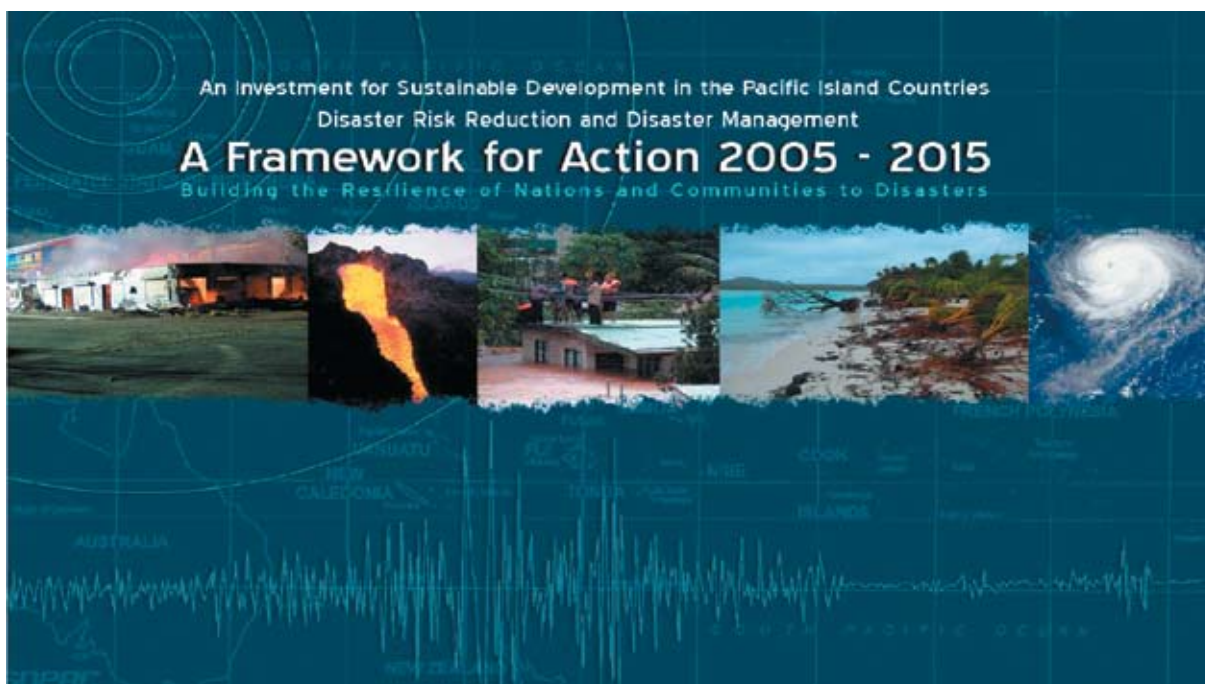
Both these regional frameworks outline key principles and strategies for disaster risk reduction and disaster management (including adaptation to climate change), emphasizing the importance of:

- Incorporating natural hazard risk management and adaptation to climate change into economic and social planning and budgetary processes (i.e. into the national sustainable development strategies or equivalent).

- Strengthening interdepartmental cooperation and public-private sector and public-community partnerships in disaster risk management.
- Strengthening risk management instruments such as regulations on climate proofing infrastructure, and financial insurance policies, and land use planning policies about where to establish growth centres, roads and other infrastructure.
- Adopting adaptation measures such as promoting the use of drought/salinity tolerant agricultural crops; encouraging the use of traditional methods of coping with natural disasters.

The Disaster Risk Reduction and Disaster Management Framework is essentially a Pacific version of the Global Hyogo Framework for Action which was agreed at the Second World Conference on Disaster Reduction held in Kobe, Japan in January 2006 and organises these principles and strategies under six thematic areas:

- Governance – Organisational, Institutional, Policy and Decision Making Frameworks.
- Knowledge, Information, Public Awareness and Education.
- Analysis and Evaluation of Hazards, Vulnerabilities and Elements at Risk.
- Planning for Effective Preparedness, Response and Recovery.
- Effective, Integrated and People-Focussed Early Warning Systems.
- Reduction of Underlying Risk Factors.



Regional frameworks such as these contain suggested activities to guide national governments and regional organisations in achieving expected outcomes by 2015.

Suggested national and regional activities are included in this document as a guide for national governments and regional organisations to achieve the expected outcomes by 2015.

In support of the mainstreaming of disaster risk management in Pacific Island countries the Pacific Forum Leaders, at their annual meeting held in Papua New Guinea in October 2005, called for the implementation of these regional frameworks at the country level, noting that resilience to natural disaster is a national issue and therefore disaster risk management must be strengthened at the national level.

### Pacific Plan supporting disaster risk management

The Pacific Plan, which was also endorsed by the Forum Leaders in 2005, identified under its sustainable development and security core areas the implementation of Disaster Risk Reduction and Disaster Management (Pacific Plan Initiative 5.5).

Under Pacific Plan Initiative 5.1, the Pacific Island Nations are also tasked with the strengthening of national sustainable development strategies, which also include links between national planning and budgetary process and sectoral strategies, including disaster risk management.

The Heads meeting of the Council of Regional Organisations of the Pacific (CROP) in August 2005 agreed to coordinate their own efforts in assisting member countries and decided to adopt a joint programming approach where possible.

The challenge is in bringing these three strands together at the national level in relation to mainstreaming disaster risk management and in providing a coordinated and harmonised regional program of support to island

countries under the Pacific Plan in areas where they have limited technical capacity and where regional services add value to their national efforts.

### World Bank encourages a greater effort in the region

The World Bank has recently called on the Pacific Leaders to focus on disaster risk management as a development issue rather than simply looking at it as an environmental or response issue. It is a cross cutting process that demands leadership and coordination at the highest levels of government with the key coordinating agency needing to be mandated to influence key sectoral ministries.

In its policy note, 'Not if but When', released in April 2006, the World Bank supports the Pacific regional frameworks and highlights three major constraints that have limited disaster risk reduction. These are:

- 'Perverse incentives', e.g., those which encourage national governments to do little to reduce risks because donors respond generously when disasters occur.
- 'Poor institutional arrangements', e.g., weak processes that inhibit the mainstreaming of disaster risk reduction into economic planning.
- 'Inadequate Instruments', e.g., lack of sufficient support for the development of key tools such as vulnerability mapping.

In essence, good governance at the national government level must therefore include the embracing of, and commitment to, an integrated approach to disaster risk reduction and disaster management practices and more importantly placing a high priority on regarding adaptation to climate change and disaster risk management as a development issue.



A major structure fire in the Marshall Islands in 2005 had a severe impact on the national economy.



## Meeting the challenge

Disasters impose a huge burden on the small economies of island states already struggling to meet their basic needs and aspirations. It has been estimated that, for example, in the 1990s alone, the cost of natural disasters in the Pacific region was about \$US2.8 billion dollars (in 2004 dollars). These costs include direct loss of public infrastructure, including roads, schools, airports, etc, as well as private assets in terms of loss in homes, appliances, etc. There are other costs such as the cost of reduced economic activity and associated flow on effects.

No country is immune to natural disasters, although the frequency and types of natural disasters may vary considerably. Generally, Melanesian countries such as Papua New Guinea, Vanuatu and the Solomon Islands suffer the largest number of disaster events. Vanuatu, for example, reports economic losses on average during disasters of 30% of annual GDP, while in 2004 Cyclone Ivy resulted in an economic loss of at least '6 million vatu, affected some 25% 'of its ni-Vanuatu population – it also affected 90% of community water sources, 70% of road infrastructure and 60% of health infrastructure. This one event would have significantly put back the country's national development.

Polynesian countries such as Samoa and Tonga also experience high economic and social shocks during disaster years. According to World Bank statistics, on average, during disaster years, Samoa reports economic costs of 46% of annual GDP, while in Tonga such costs are reported at 14%.

Since the effects of disasters normally extend beyond the year of the event, a disaster also causes chronic shocks to national economies. The World Bank has estimated that on average, the countries incur an annual cost of 2-7 percent of GDP in both disaster and non-disaster years. Computer modelling of extreme weather

events for example, in the capital cities of Fiji, Solomon Islands, Vanuatu, Samoa and Tonga, predicts potential economic losses of up to 60 percent of GDP in the event of a 1 in 100 year cyclone.

## The benefits of a mainstreaming approach

The Pacific island countries have historically demonstrated some resilience to natural hazards and an ability to rebuild their economies and societies with the use of traditional knowledge and external disaster relief and other development assistance. However, despite the best efforts of countries, regional organisations and international donors, during the past decade, the capacity of many island communities to effectively deal with the impacts of major disasters remains fragile. In some cases, particularly given the loss of traditional knowledge, it is almost non-existent while in others, despite whatever progress has been made; it remains tenuous in terms of its sustainability.

The risks posed by such hazards can only be effectively reduced and managed as an integral part of the national development process. This will involve the proactive management of disaster risks and reduction of vulnerability, expanding beyond the traditional approach to disaster preparedness, response and recovery.

Experiences from countries elsewhere in the world exposed to similar natural hazard risks suggest, amongst other things that:

- Efforts to prevent or minimize damage from natural hazards pay off in the long run
- Risk management efforts are more cost effective than waiting for the impact and then repairing the damage.



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The formation of the Pacific Disaster Risk Management Partnership Network. Founding members of the partnership meeting in Suva, Fiji 2006.

- Risk management efforts are most cost effective when introduced during the planning of investment
- Adopting a 'no regrets' policy, such as climate proofing investments can reduce vulnerability

### Advocating for commitment by national governments

Since accepting the mandate from the Pacific Leaders to coordinate regional efforts in building safer and more resilient nations and communities to disasters the Pacific Applied Geoscience Commission (SOPAC) has embarked on an extensive high level advocacy programme to encourage national governments to adopt a more proactive approach to disaster risk management. The High Level Advocacy Team has been led by Dr Langi Kavaliku a former Deputy Prime Minister in Tonga and a highly respected eminent person in the region and has included Roger Jones, a former Director of the AEMI Mount Macedon. The team has held consultations with the heads of government and senior ministerial staff in Fiji, Cook Islands, Samoa, Tonga, Marshall Islands and Vanuatu. All of these countries have now indicated a commitment to embracing a disaster risk management approach to reducing underlying risks to national development.

Recognising that there are many international and regional development partners supporting member countries in their national development effort, including disaster risk management, SOPAC has also coordinated the formation of a *Pacific Disaster Risk Management Partnership Network*. The Network comprises over thirty regional and international organizations that have agreed the following key principles:

- Acknowledged that disaster risk reduction and disaster management are development issues within the broader context of sustainable human development and National Sustainable Development Strategies (NSDS).
- Recognised the critical role and efforts of national governments and that disaster risk reduction and disaster management programmes must be developed by and reflect the needs of all stakeholders in a whole-of-country approach.
- Recognised that a regional effort must be responsive to and support and complement national programmes and plans to strengthen resilience to disasters.
- Committed to coordinate their activities, work cooperatively and collaboratively under the framework of the Pacific Plan.

The main objectives of the partnership network are to:

- Provide regional support for the development and implementation of national action plans.

- Establish and sustain a network of regional assistance and development partners that work in the different fields of disaster risk reduction and disaster management to improve regional cooperation, coordination and collaboration.
- Strengthen the key thematic areas identified in the Pacific Framework for Action 2005 – 2015, as endorsed by the Pacific Leaders and in other associated frameworks and strategies.
- Monitor and evaluate national progress against the targets of these national action plans.
- Reduce duplication of effort and ensure that assistance is built on the efforts and experiences of each other.

At the first meeting of the partnership network held in Suva, Fiji in February 2006 it was agreed that the following priority areas of support would be the focus of the initial collaborative support by the partners.

1. To assist national governments to assess current capacities and needs for disaster risk reduction and develop and implement national action plans that could be supported by the partners through joint programming and implementation where possible. Vanuatu and Marshall Islands were chosen for the initial support in 2006 on the basis of, amongst other things, the demonstrated level of political commitment and their preparedness to adopt a whole of country and programmatic approach to mainstreaming disaster risk management at all levels of decision-making.
2. To support member countries in making evidence based decisions through the development of a regional information database. This is expected to provide a comprehensive overview, information and data on relevant legislation, regulations, policy, past experiences, risks, hazards and economic costs, maps, best practices and actors in Pacific Island countries for planning and decision-making in all aspects of natural disaster management (encompassing disaster risk reduction (prevention and mitigation) and disaster management (preparedness, response and recovery). It furthermore is expected to provide baseline information for national action plans and mainstreaming of the regional framework.

### Vanuatu produces the first National Action Plan (NAP)

The regional partnership team recently facilitated a workshop in Vanuatu in partnership with the government agencies with responsibility for some aspect of disaster risk management and the National Women's Council to assess local risk management capacity and identify a way forward.

Following the workshop a Vanuatu taskforce was formed and with the assistance of the regional partners a draft national action plan on disaster risk management for Vanuatu, was developed and then endorsed by the Vanuatu Reference Group on Disaster Risk Management for public consultation; the Vanuatu Reference group on Disaster Risk Management comprises of the Director Generals of each Ministry.

At the request of the Prime Minister and as part of the consultation process the country's national development 'planning document, the Priorities and Action Agenda (PAA) 2005 - 2016, was also strengthened to mainstream disaster risk management into national development agenda.

A similar activity is planned for the Marshall Islands and it is anticipated that this process will be repeated for other member countries during 2007 and 2008 in order to help mainstream disaster risk management into their national development process.

### The contribution of Australia and New Zealand partner agencies

The Australasian Fire Authorities Council (AFAC), Emergency Management Australia (EMA) and the New Zealand Ministry of Civil Defence and Emergency Management (NZMCDDEM) have been working closely with SOPAC for a number of years and have made a significant contribution to strengthening community safety through a range of institutional and technical support to fire protection and emergency management arrangements and capacity building. Through this partnership arrangement a number of Australian and New Zealand professionals have had the opportunity to work in the Pacific islands bringing with them their expertise and experience to assist those less fortunate than themselves.

### Conclusions

Despite the best efforts of countries, regional organisations and international donors during the past decade the capacity of many Pacific island countries to effectively deal with the impacts of major disasters remains fragile. In some cases it is almost non-existent whilst in others, despite whatever progress has been made, it remains tenuous in terms of its sustainability. Clearly the reduction of community vulnerability can only be achieved through a more consolidated and integrated approach. This approach must target the improvement of current disaster management practices whilst at the same time addressing the underlying problem of understanding the cause and effects of the hazards themselves.

Whilst not all risks to development result from the impact of disasters, community resilience and risk reduction need to be central to any programmes designed to achieve and maintain sustainable development. By working together as strategic partners we really can make a difference to the lives and well-being of our Pacific neighbours.

Further information on the work of the SOPAC Community Risk Programme and on the progress of mainstreaming disaster risk management in Pacific island countries can be found on the SOPAC web site [www.sopac.org](http://www.sopac.org)

The SOPAC approach to the management of community risks is based on the fact that risk itself involves two elements – 'sources of risk' (hazards) and 'elements at risk' (vulnerable communities, economies infrastructure and environment). Our competitive advantage lies in the key areas of scientific research and analysis of hazards (sources of risk), understanding of community and environmental vulnerability (elements at risk) and through existing expertise in regional coordination, disaster management and capacity building.

In determining the priorities for the programme SOPAC has taken into account the current needs of member countries, the obvious lack of available resources and the need to address the broader global and regional priorities as articulated by the United Nations International Strategy for Disaster Reduction and the recent World Summit on Sustainable Development.

### About the Author

**Alan Mearns** spent 33 years with the Metropolitan Fire brigade in Melbourne before taking up a position with the Pacific Applied Geoscience Commission (SOPAC) in May 2000.

During his initial 3 years at SOPAC he managed an Australian and New Zealand funded disaster management project, which was designed to institutionalise disaster management regional arrangements within SOPAC. In 2003 the project became an ongoing community risk programme, which is now providing a range of disaster risk management capacity building support to 15 countries in the Pacific region.

In December 2006 Alan returned to live in Melbourne where he now operates as a part time disaster risk management technical advisor and consultant to SOPAC.

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