4. DISASTER RISK MANAGEMENT (DRM) & CLIMATE CHANGE ADAPTATION (CCA): INTEGRATING EFFORTS TO REDUCE VULNERABILITY AND RISK AND INCREASE SAFETY AND RESILIENCE IN THE PACIFIC

Drafted by SOPAC, Secretariat of the Pacific Community

SUMMARY

The Pacific region is highly exposed to natural hazards both geophysical (including volcanic eruptions, earthquakes and tsunamis) and climate-related (such as cyclones, flooding, landslides and droughts). Of the top 20 countries with the highest average annual losses to GDP from disasters, 8 are Pacific island countries. This exacerbates existing development challenges of the region. The effects of climate change intensify extreme weather events and cause long term degradation to ecosystems on which people's livelihoods depend.

Disaster risk management (DRM) and climate change adaptation (CCA) share the aim of reducing communities' vulnerability to natural hazards (whether geophysical or climate related, of sudden or slow onset) and increasing risk resilience.

In recognition of the limited country resources and of the significant overlaps in the methods and tools used to monitor, analyse and address disaster and climate change risks, the region has shown support for a process of integration of DRM and CCA activities at both national and regional level. At national level, through the development of Joint National Action Plans for CC and DRM, as well as other integrated approaches, and at regional level, by supporting the development of an integrated regional strategy for CC & DRM, to succeed the current two separate frameworks.

Key issues to be addressed include the improved coordination and resourcing of DRM and CC activities, the support for integrated mainstreaming of disaster and climate risks into development planning, the support for community level actions and for inclusive approaches that take into account the needs and contributions of vulnerable groups (women, youth, the elderly and the disabled), the strengthening of institutional arrangements and the provision of training and capacity building for key actors and stakeholders in CC and DRM.

The knowledge base on CC and DRM needs to be expanded, through improved data collection, information sharing, research and regular technical assessments. Improving disaster preparedness and response, including the strengthening of end-to-end Early Warning Systems are also key priorities. The conduct of Cost-Benefit Analysis is crucial to support investments in appropriate disaster reduction measures and CCA strategies, which will drastically reduce the economic and social costs of disasters.

The support of Pacific Leaders, decision makers, experts, and communities is required to ensure a strategic and systematic approach in the integrated mainstreaming of disaster and climate risks into development planning processes at all levels.

1) KEY ISSUES *Political commitment, resourcing of DRM/CCA and coordination*

Continued high-level political advocacy and leadership are needed to seek genuine commitment and adequate resourcing for DRM and CCA as key sustainable development imperatives that cut across all social and economic sectors. National administrations need to be aware of the economic, social and environmental value of investing in appropriate risk reduction strategies. Improved coordination on CCA and DRM activities, actors and processes is also essential for effective delivery.

2) Integrated mainstreaming of disaster and climate risks into development planning

To minimise duplication of efforts, reduce potential conflicts in policy development and make efficient use of countries' limited resources, the overlaps between DRM and CCA need to be recognised and clearly understood. On this basis, disaster and climate risks need to be jointly integrated into development planning at regional, national, sectoral and sub-national levels with an 'all hazards all risks' approach. This process needs to be informed by community needs, perspectives and realities and inclusive of the special requirements and contributions of vulnerable society groups.

3) *Institutional strengthening, training and capacity building of key actors*

The DRM and CCA capacities and governance structures of key national and regional agencies need to be strengthened to improve evidence-based decision making and effective implementation of DRM and CCA programs.

Capacity development remains an important concern for national disaster agencies, key national departments (such as lands, environment, meteorological and hydrological services, agriculture, health, education, tourism, planning etc.), and for other stakeholders including NGOs and community groups. Capacity building needs to be tailor made to address the needs of communities and vulnerable groups.

4) Baseline Data and Information, Research and Technical Assessments

Further efforts are required at national and regional level to strengthen data and information collection and management and related capacities and resources, and ensuring that data can be accessed to inform decision-making on DRM and CCA.

The knowledge base regarding DRM and CCA in the Pacific needs to be expanded through vulnerability and risk assessments and post-disaster assessments across all sectors. Cost-Benefit Analyses are needed to identify the most effective risk reduction measures and make the economic case for disaster risk reduction/climate change adaptation. Indeed, the cost of investing in disaster risk reduction is often much lower than the costs of repairing the damage resulting from inaction. Strengthening monitoring and evaluation processes is crucial for assessing progress. Lessons learned from traditional DRM and CCA practices must be incorporated in the above mentioned processes.

5) Strengthened preparedness and response – Focus on Early Warning Systems

National and international disaster response needs to be strengthened through more effective institutional arrangements, laws and policies, and improved coordination between countries and humanitarian partners. Preparedness and response efforts within national contexts need to encourage interoperability between key response agencies and a greater level of participation by communities and vulnerable groups. Continued support is needed for technical agencies such as national meteorological and hydrological services, and for the development of appropriate people centered end-to-end multi-hazard early warning systems.

BACKGROUND

The Pacific region is highly exposed to numerous natural hazards both geological (including volcanic eruptions, earthquakes and tsunamis) and climate related (such as cyclones, flooding, landslides, and droughts). This exacerbates existing development challenges due to the small land areas of the islands coupled with their geographical isolation. In addition, the economies of small island states are often narrowly based on subsistence agriculture and tourism, and both sectors are highly interconnected with environmental factors and consequently fragile. In the past decade also social, such as health and pollution hazards, and civil unrest have increased as a result of growing population, urban drift, uneven wealth distribution and political pressure. Without significant action or effort, the region could remain disaster prone in the years to come and continue to suffer severe constraints from the social

and economic impact of disasters. Since 1950, extreme events have affected approximately 9.2 million people in the Pacific with 9,811 reported deaths and damage of US$3.2 billion (World Bank 2012).

There is deep concern over the current and future adverse impacts of climate change, which exacerbate existing levels of disaster risk. Tropical cyclones and floods are the most frequent cause of disasters in the region and these are expected to intensify due to climate change. Other hazards, such as seismic activity and subsequent tsunamis may have the potential to cause greater losses as demonstrated by the experience of Papua New Guinea in 1998, the Solomon Islands in 2007 and 2013 and Samoa in 2009. Disaster and climate risks severely hamper the economic and social development of the region.

To assist Pacific island countries increase their resilience to natural disasters, Pacific Leaders approved the Pacific Disaster Risk Reduction and Disaster Management Framework for Action 2005–2015 (the 'Regional Framework for Action' or 'RFA') in 2005. This policy instrument, based on the global Hyogo Framework for Action 2005–2015, identifies a range of regional and national activities to increase security and resilience.

Pacific Leaders acknowledge the inextricable link between disasters and development, in particular that the challenges of ensuring food and water security, housing, health and education can be adversely affected by a disaster. Leaders also understand that poor development practices can increase countries' vulnerability to disasters. Accordingly, implementation of the RFA is embedded under the 'Sustainable Development' strategic objective of the Pacific Plan.

Research shows that the most cost effective way for a country to reduce climate and disaster risks in the medium to long term is by factoring risk reduction into development planning, land use and environmental management. The enormous response and recovery costs that follow a disaster can be significantly reduced by investing in appropriate disaster risk reduction and climate change adaptation strategies. For example, overall losses arising from the 2004 floods in Navua (Fiji) were estimated to be around a minimum of FJ$ 13 million. It was also estimated that a successfully implemented warning system would have saved Fiji and the international community a combined total of at least FJ$ 2.1–4.2 million over 20 years[1]. Every dollar spent on the warning system would save FJ$3.7–Fiji$7.3 in return

The RFA is also complementary to the Pacific Islands Framework for Action on Climate Change 2006–2015 (PIFACC). Both of these regional policy instruments provide guidance to Pacific island countries and territories on actions to be implemented at regional, sub regional, national and sub national levels to reduce vulnerability and risk and to increase the safety and resilience of island communities.

In recognition of the similarity in focus between DRM and CCA, the majority of Pacific island countries (Cook Islands, Federated States of Micronesia, Fiji, Kiribati, Marshall Islands, Nauru, Niue, Palau, Samoa, Solomon Islands, Tonga, Tuvalu and Vanuatu) have decided to either implement an integrated DRM and CCA strategic planning approach, or programme implementation or even institutional governance arrangements as in the case of Vanuatu which established the Vanuatu National Advisory Board for Climate Change and DRM in 2012. Papua New Guinea has decided to pursue a 'DRM Mainstreaming Programme' in 2010 and retains a separate identity for CCA activities, although it has developed an integrated approach to DRM and CCA at a provincial level in Morobe in 2011 to serve as a pilot for other provinces.

Responding to the Pacific island countries' call for CC and DRM integration, the region agreed to support the development of an integrated regional strategy for DRM and CC by 2015[2]. The integrated regional strategy is to succeed the RFA and PIFACC. It will also inform Pacific contributions to ongoing global consultations on the post-2015 framework for Disaster Risk Reduction.

The high level of climate-related risks in the Pacific make DRM and CCA key policy goals. A recent policy and institutional analysis on Disaster Risk Reduction and Climate Change in the Pacific[3] strongly endorses the rationale for integration and highlights the concept that, especially at community level, there is little practical difference between disaster reduction and climate change adaptation actions.

The development of an integrated strategy on CC and DRM is likely to enhance the visibility of the Pacific region at the global level, as the first region in the world to address disaster risk management and climate change in the context of a single overarching integrated regional policy.

KEY DOCUMENTS & HYPERLINKS

Where appropriate the authors should provide a list of key policies, plans, strategies and frameworks that may not be directly referenced within the brief but may be of high relevance to readers. Where possible this list should provide hyperlinks to online documents.

1. Pacific Disaster Risk Reduction and Disaster Management Framework for Action 2005–2015. http://www.pacificdisaster.net/pdnadmin/data/original/mr0613.pdf
2. Pacific Islands Framework for Action on Climate Change 2006–2015 http://www.pacificdisaster.net/pdnadmin/data/original/SPREP_2011_PIFACC_2ndEdtn.pdf
3. Acting Today for Tomorrow: A Policy and Practice Note for Climate and Disaster Resilient Development, World Bank, 2012 http://www.pacificdisaster.net/pdnadmin/data/original/PPDRM2012_WBank_ActingToday_CPratt.pdf
4. Disaster Risk Reduction and Climate Change Adaptation in the Pacific: An Institutional and Policy Analysis. Suva, Fiji: UNISDR, UNDP 2012
5. Fiji Technical Report: An economic analysis of flood warning in Navua, Fiji, SOPAC, 2007

http://ict.sopac.org/VirLib/ER0122.pdf

[1]Fiji Technical Report: An economic analysis of flood warning in Navua, Fiji, SOPAC, 2007.

[2] The 2011 meetings were: Pacific Platform for DRM (Aug 2011), Regional Meteorological Service Directors Meeting (Aug 2011), SPREP Governing Council (Sep 2011), SOPAC Division Meeting (Oct 2011) and SPC Committee of Representatives of Governments and Administrations (Nov 2011)

[3] UNISDR, UNDP, 2012: *Disaster Risk Reduction and Climate Change Adaptation in the Pacific: An Institutional and Policy Analysis.* UNISDR, UNDP, Suva, Fiji: p. 76.