

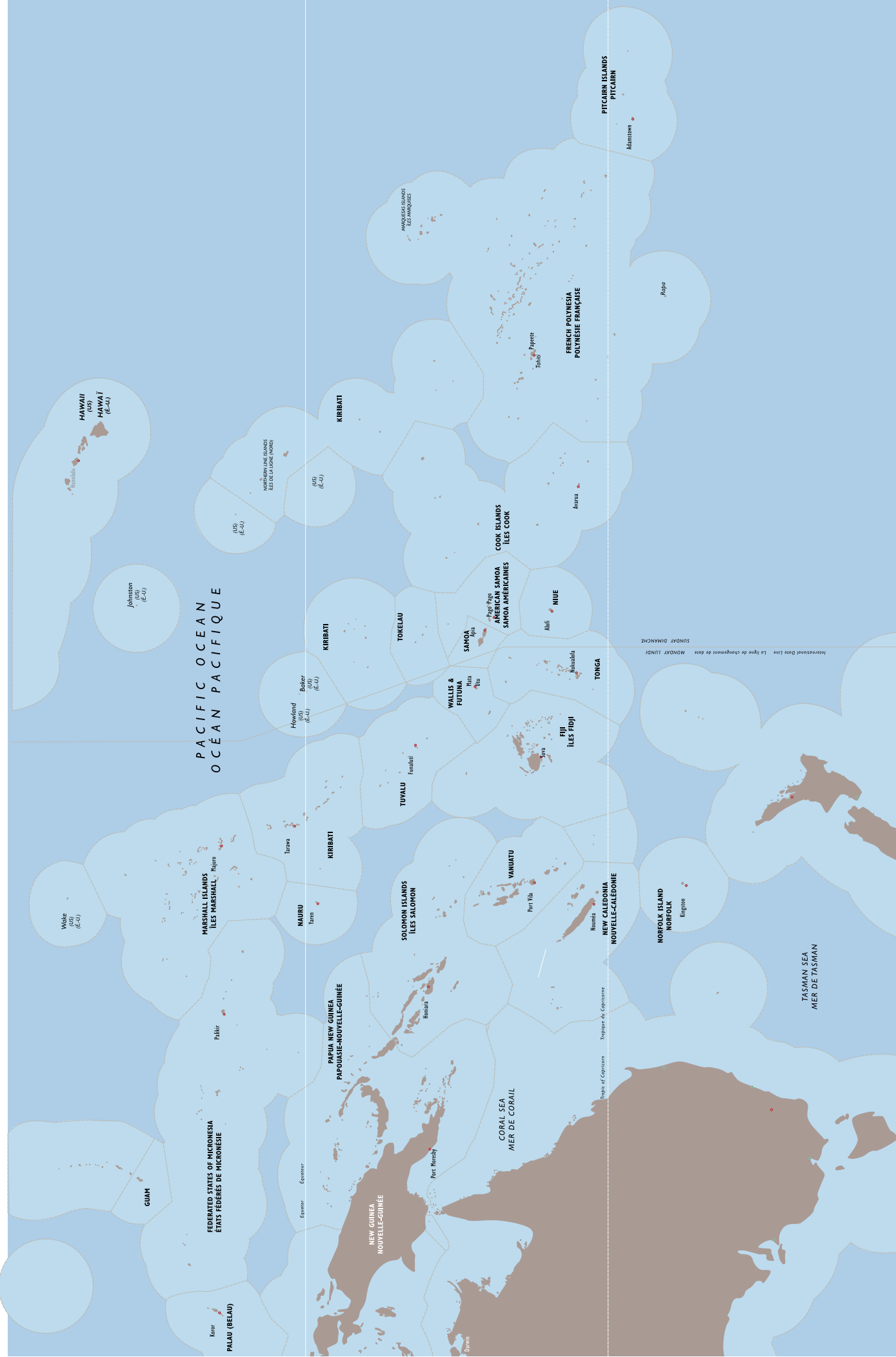
# Framework for Resilient Development in the Pacific

An Integrated Approach to Address Climate Change and Disaster Risk Management (FRDP)

2017 – 2030

Voluntary Guidelines  
for the Pacific Islands Region





# **Framework for Resilient Development in the Pacific**

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# Acronyms and Abbreviations

IOM	International Organisation for Migration
IPCC	Intergovernmental Panel on Climate Change
IPCC AR5	Intergovernmental Panel on Climate Change - Fifth Assessment Report
OECD	Organisation for Economic Cooperation and Development
PICs	Pacific Island countries
PICTs	Pacific Island countries and territories
PIFS	Pacific Islands Forum Secretariat
PRP	Pacific Resilience Partnership
REDD+	United Nations collaborative initiative on Reducing Emissions for Deforestation and Forest Degradation
FRDP	Framework for Resilient Development in the Pacific: An Integrated Approach to Address Climate Change and Disaster Risk Management 2017–2030 (referred to as ‘the Framework’ or ‘FRDP’ in this document)
SPC	Pacific Community
SPREP	Secretariat of the Pacific Regional Environment Programme
UNDP	United Nations Development Programme
UNFCCC	United Nations Framework Convention on Climate Change
UNISDR	United Nations Office for Disaster Risk Reduction
UNOCHA	United Nations Office for the Coordination of Humanitarian Affairs
USP	The University of the South Pacific

# Foreword

We welcome the Framework for Resilient Development in the Pacific: An Integrated Approach to Address Climate Change and Disaster Risk Management (FRDP), which provides guidance and support for building resilience to climate change and disasters in the Pacific Island region and a framework for the Pacific Resilience Partnership.

Pacific Island countries and territories are extremely vulnerable to climate change and natural hazards, which are major challenges for the development aspirations of the people of the Pacific and their environment. The region's experiences of Tropical Cyclone Winston in 2016, Tropical Cyclone Pam in 2015 and numerous other events reinforce the need for action on climate change and disaster risk management to be better understood, planned for, funded and coordinated at local, national, regional and international levels.

The Framework seeks to place sustainable development, which is resilient, front and centre. It recognises the importance and critical role of political leadership and commitment, and the role of central government agencies as key actors. It also embraces the role of the private sector and civil society in building resilience.

The discourse should continue to shift from stating the business case to implementing opportunities to build resilience. Small Island Developing States (SIDS) in the Pacific are leading this work, but more support is needed.

All stakeholders are commended on their efforts to build resilience in the communities, businesses, infrastructure, culture, environment and services of the region.

We are committed to supporting the implementation of this Framework, working with our member countries and territories, partners and other local, regional and international agencies to ensure a more resilient Pacific.



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# Process for the Development of the Framework

In 2012, at the Pacific Island Forum Leaders meeting, it was decided to support the development of a single integrated regional framework on climate change and disaster risk management, to succeed the two separate regional frameworks on climate change and disaster risk management (respectively, the Pacific Islands Framework for Action on Climate Change (PIFACC) and the Pacific Disaster Risk Reduction and Disaster Management Framework for Action (RFA)) after their expiry in 2015. This decision was operationalized by a roadmap document outlining the process for the development of this new framework. The substantive work on the formulation of the new framework was initiated after the first Joint Meeting of the Pacific Climate Change Roundtable and Pacific Platform for Disaster Risk Management in 2013.

The development of the Framework for Resilient Development in the Pacific: An Integrated Approach to Address Climate Change and Disaster Risk Management (FRDP) was led by a Steering Committee whose members were representatives from the Secretariat of the Pacific Regional Environment Programme (SPREP) Meeting, the Pacific Community (SPC) Committee of Representatives of Governments and Administrations (CRGA), the Regional Disaster Managers' Meeting, the Pacific Climate Change Roundtable, the Pacific Meteorological Council, the Forum Economic Ministers Meeting, the French Territories, the Pacific Islands Alliance of NGOs and the Pacific Islands Private Sector Organisation (PIPSO). The Steering Committee provided strategic guidance and leadership on the development of the FRDP. A Technical Working Group provided technical advice to the Steering Committee and supported Pacific Island countries and territories (PICTs) in the development of the FRDP. The Technical Working Group consisted of representatives from SPC, SPREP, the United Nations Office for Disaster Risk Reduction (UNISDR), the United Nations Development Programme (UNDP), the Pacific Islands Forum Secretariat (PIFS) and the University of the South Pacific (USP). These organisations initially worked in partnership with regional advisors on the engagement process and drafting of the FRDP, then continued engagement and drafting in consultation with PICTs to finalise the text.

The FRDP was developed, firstly, on the basis of reviews of the two previous regional frameworks, so that it incorporates lessons learned from their implementation<sup>1</sup>. Secondly, the document was developed through an extensive and inclusive engagement process with stakeholders, from national and communities to regional and international levels.

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<sup>1</sup> Hay J.E. and Pratt C. (2013) *Strategy for Climate and Disaster Resilient Development in the Pacific (SRDP). Background Information and Guidance on Rationale and Possible Approaches. Secretariat of the Pacific Community (SPC), Suva, Fiji.*



# Executive Summary

Climate change exacerbates the magnitude and impacts of climate variability and some natural hazards. The existence of some Pacific Island countries (PICs) is threatened by climate change. Pacific Island countries and territories (PICTs) are highly exposed to a range of natural hazards of hydro-meteorological origin (such as cyclones, droughts, landslides and floods) and geological origin (including volcanic eruptions, earthquakes and tsunamis). These hazards often lead to disasters, which affect thousands of people and exacerbate existing development challenges in the region. Climate change predictions identify changes for the Pacific including an increase in extreme hot days and warm nights, extreme rainfall events, intensity of tropical cyclones in the South Pacific, sea level rise and ocean acidification. Climate change is increasing the risks from weather related disasters and posing new impacts to the region. Climate change impacts also cause progressive long-term degradation to the natural environment, to critical ecosystems (e.g. coral reefs), and to social and economic systems, resulting in loss and damage to the system upon which Pacific Island communities depend for their subsistence and livelihoods.

Climate change and disaster risks increase the vulnerability of Pacific Island people, and significantly undermine the sustainable development of the Pacific region. Although the level of exposure is similar for PICTs, their vulnerability differs as countries have specific environmental, social and economic challenges that result in limited capacity to reduce vulnerability.

National and subnational governments and administrations, the private sector, civil society organisations, communities, regional organisations and development partners all have unique and key roles to play in addressing these challenges, individually and in partnership, to build a more resilient future for the Pacific region.

The Framework for Resilient Development in the Pacific: An Integrated Approach to Address Climate Change and Disaster Risk Management (FRDP) provides high level strategic guidance to different stakeholder groups on how to enhance resilience to climate change and disasters, in ways that contribute to and are embedded in sustainable development.

Part of the high-level strategic guidance provided through the FRDP is expressed in the form of the non-exhaustive set of 'priority actions', for consideration by the different stakeholder groups. These actions provide guidance only and are to be implemented as relevant to the individual priorities and needs of stakeholders. Some actions may be better implemented at the regional level and some would need to be further articulated at the national level to suit the specific context, priorities and needs of each individual PICT.

The FRDP advocates for the adoption of integrated approaches, whenever possible, for coping with and managing climate change and disaster risks, in order to make more efficient use of resources, to rationalise multiple sources of funding which address similar needs, and for more effective mainstreaming of risks into development planning and budgets.

Climate change and disaster risks are cross-cutting and action must therefore take place at the sectoral level. Development sectors (such as health, education, water and sanitation, social assistance, energy, agriculture, fisheries, forestry, tourism, mining, culture, environment, transport and infrastructure) are recognised as having a particularly important role to play in owning and implementing resilient development measures.

The FRDP advocates for the systematic adoption of inclusive and participatory processes, which gather contributions across different stakeholder groups, women and men, and in particular the most vulnerable members of society, which are all recognised as unique and powerful agents of change, to ensure that measures are not only effective but also equitable in meeting the needs of all members of the community. Climate change and disasters selectively impact lives and livelihoods, and often disproportionately affect those least able to cope. Human rights-based approaches have also been incorporated to ensure equitable access to critical services, and humanitarian and development assistance, according to their specific needs.

The FRDP also recognises the critical role of integrating gender considerations, and advocates for equitable participation of men and women in planning and implementation of resilience building activities.

## Our Goals

The FRDP identifies three inter-related goals that need to be actively pursued by all stakeholders, working in partnership, in order to enhance resilience to disasters and climate change in the context of sustainable development and efforts to eradicate poverty.

### 1. Strengthened integrated adaptation and risk reduction to enhance resilience to climate change and disasters

Pursuing this goal entails successfully managing risks caused by climate change and disasters in an integrated manner where possible, within social and economic development planning processes and practices, in order to reduce the accumulation of such risks, and prevent the creation of new risks or loss and damage. This goal will contribute to strengthening resilient development and achieving efficiencies in resource management.

### 2. Low-carbon development

Pursuing this goal revolves mainly around reducing the carbon intensity of development processes, increasing the efficiency of end-use energy consumption, increasing the conservation of terrestrial and marine ecosystems, and enhancing the resilience of energy infrastructure. This goal will contribute to having more resilient energy infrastructure in place, and to increase energy security, while decreasing net emissions of greenhouse gases.

### 3. Strengthened disaster preparedness, response and recovery

Pursuing this goal includes improving the capacity of PICTs to prepare for emergencies and disasters, thereby ensuring timely and effective response and recovery in relation to both rapid and slow onset disasters, which may be exacerbated or caused by climate change. Disaster preparedness, response and recovery initiatives will reduce undue human losses and suffering, and minimise adverse consequences for national, provincial, local and community economic, social and environmental systems.

## Implementation

The achievement of these goals will critically depend on the existence of a sound enabling environment, including the availability of resources, the establishment of good governance arrangements, and effective dialogue, communication and partnerships.

The basis for the institutional elements will be the Pacific Resilience Partnership (PRP). The PRP will bring together different stakeholder groups and communities of practice working on climate change, disaster risk management and sustainable development, to share experiences and lessons learned, harmonise approaches and collaborate more closely in working towards the collective goal of building climate and disaster resilience in the Pacific. The PRP will translate the FRDP from paper to action. Forum foreign ministers at their inaugural meeting in Sydney in July 2015 agreed to the establishment of the PRP.

Implementation of the FRDP will only be successful through comprehensive cooperation and collaboration between development partners in support of PICTs. For the Pacific Island countries (PICs), the implementation of the FRDP contributes to the implementation of global frameworks including the Agenda for Sustainable Development 2015- 2030, UNFCCC Paris Agreement on Climate Change 2015, the Sendai Framework for Disaster Risk Reduction 2015-2030, and the Small Islands Developing States Accelerated Modalities of Action (S.A.M.O.A.) Pathway. More importantly it specifically recognises the need to enhance the implementation capacity of developing countries, in particular Small Island Developing States (SIDS).

The FRDP focuses on complementary efforts to build a more resilient Pacific for future generations, becoming a pioneer for other regions of the world.

# Introduction

In 2012, at the Pacific Island Forum Leaders meeting, it was decided to support the development of a single integrated regional framework on climate change and disaster risk management, to succeed the two separate regional frameworks on disaster risk management and climate change. The terms of the Pacific Disaster Risk Reduction and Disaster Management Framework for Action (commonly referred to as the Regional Framework for Action or RFA) and the Pacific Islands Framework for Action on Climate Change (PIFACC) ended in 2015, and were then extended for another year by the Pacific Island Forum Leaders meeting in 2015.

The Framework for Resilient Development in the Pacific: An Integrated Approach to Address Climate Change and Disaster Risk Management (FRDP) provides high level strategic guidance to different stakeholder groups on how to enhance resilience to climate change and disasters, in ways that contribute to and are embedded in sustainable development. Many actions contribute to eradicate poverty through building more resilient communities. These actions have been identified from relevant regional, national and subnational policies and plans, as well as from national and regional experiences and lessons learned.

The actions represent a non-exhaustive list of initiatives that enable various stakeholders to contribute to the wider goal of building resilience in Pacific Island countries and territories (PICTs). These actions provide guidance only and are to be implemented as relevant to the individual priorities and needs of stakeholders. Some actions may be better implemented at the regional level and some would need to be further articulated at the national level to suit the specific context, priorities and needs of each individual PICT. The relevance of the suggested priority actions will evolve over the lifetime of the Framework.

From national to community-level actions through to regional-level interventions, many initiatives have already been undertaken to strengthen local response capacity and reduce disaster risks, covering policies, plans, implementation and institutional strengthening, among others. Nevertheless, significant continued and additional efforts and support are needed in order to address climate change and disaster risks. There will also be new and unforeseen challenges to achieving and maintaining the resilience of PICT development outcomes.

Small Island Developing States (SIDS) have been recognised as a special case both for environment and development. Their small size, limited resources, geographic dispersion and isolation from markets, place them at a disadvantage economically and prevent economies of scale<sup>2</sup>. Although the level of exposure is similar for PICTs, their vulnerability differs as Pacific Island countries (PICs) have specific environmental, social and economic challenges that result in limited capacity to reduce vulnerability. The impact of natural hazards and climate change threaten their integrity, food security, water, health, infrastructure, livelihoods and economies and, more broadly, their populations and ecosystems<sup>3</sup>.

Specific targeted technical and financial support for PICs is required for actions under the Framework. Support for Pacific territories may also be needed for action under the Framework, when support is made available by partners and donors.

What is the FRDP? The FRDP:

- Is a guideline for voluntary actions for all stakeholders
- Is an non-political policy document
- Is not prescriptive regarding the position that countries might take in international negotiations
- Acknowledges the unique situation of Small Island Developing States (SIDS) and their need to be supported in building resilience to natural hazards and the effects of climate change
- Is about ensuring that climate change and disaster risk management are understood as a development challenge for the Pacific
- Supports the implementation of national strategies and plans but does not replace them
- Is a living document that will be regularly revised to incorporate the needs of PICTs
- Applies to natural hazards and climate change.

<sup>2</sup> United Nations Conference on Environment and Development (UNCED) (1992) Agenda 21, 17.123.

<sup>3</sup> Language adapted from the Declaration of the Fourth France - Oceania Summit, Paris, 26 November 2015.

# Our Vision

We aspire for our Pacific people, our societies, economies, cultures and natural environments to be resilient to changing conditions and extreme events resulting from climate change, climate variability and geological processes, to enhance the well-being of our people and to promote their sustainable development.

# Purpose

The purpose of the FRDP is to guide all stakeholders' actions to strengthen resilience in the region by providing:

- guidance on coordinated and integrated priorities to be implemented at the regional, national and community levels that would contribute to resilient development outcomes
- a coordinated regional approach to address national priorities
- awareness of vulnerability, root causes and resilience issues and priority for actions in the Pacific
- a coordinated framework for adequate, sustainable and timely provision of support, including through finance, technology transfer and capacity-building from developed countries and partners tailored to PICTs needs and priorities as identified by them
- a framework for partnership and collaboration, including sharing of lessons learnt
- a framework to enable monitoring of regional and national progress of integrated actions
- guidance relevant to all stakeholders including all levels of governance and administration within PICTs; the private sector; civil society organisations and Pacific communities, including their leaders; and regional organisations and development partners.

The FRDP also contributes to the implementation of commitments PICs have made under the Sustainable Development Agenda 2015–2030, the Sendai Framework for Disaster Risk Reduction 2015–2030, the Small Islands Developing States Accelerated Modalities of Action (S.A.M.O.A) Pathway 2014, the Framework for Pacific Regionalism, the World Humanitarian Summit and obligations under the United Nations Framework Convention on Climate Change (UNFCCC), the Paris Agreement on Climate Change 2015 and other relevant protocols.

It provides guidance of relevance to:

- all levels of governance and administration within PICTs
- the private sector
- civil society organisations and Pacific communities, including their leaders
- regional organisations and development partners, including donors.

# Guiding Principles

The following are key principles that are central to the implementation of the FRDP:

- Integrate climate change and disaster risk management (where possible) and mainstream into development planning including policy making, planning, financing, programming and implementation, to build resilience.
- Strengthen and develop partnerships across countries and territories, including sharing of lessons learned and best practices, but without compromising sovereignty and related considerations.
- Protect human rights, such as the right to life, safety, dignity, non-discrimination, and access to basic necessities, to ensure that every person has equitable access to humanitarian and development assistance, according to his or her specific needs.
- Prioritise the needs and respect the rights of the most vulnerable, including but not limited to women, persons with disabilities, children, youth and older persons, and facilitate their effective participation in planning and implementation of all activities.
- Integrate gender considerations, advocate and support equitable participation of men and women in the planning and implementation of all activities.
- Ensure that resilient development is sustainable and aims to alleviate poverty and hardship.
- Incorporate ecosystem-based services and functions in resilience building.
- Advocate open and ready access to reliable sources of traditional and contemporary information.
- Build on and help reinforce cultural and traditional resilience and knowledge of communities, who should be engaged as key actors in designing plans, activities and solutions that are of relevance to them.
- Acknowledge and factor in a traditional holistic worldview, where spirituality plays an integral role in constructing a meaningful life and pro-active existence.



Photo: SPC

# Rationale for integrated approaches

There are clear overlaps between climate change adaptation and disaster risk management with similar tools and resources required to monitor, analyse and address climate and disaster risks. Many PICTs have started taking concrete steps to manage these risks in a more integrated manner. For example, many have developed Joint National Action Plans for disaster risk management and climate change (JNAPs), have joined up their national institutional arrangements for climate change and disaster risk management and/or have adopted integrated measures at programmatic level.

Benefits of a more systematic and integrated approach to reducing the consequences of climate change and natural hazards include rationalising, where appropriate, multiple funding sources and multiple projects that are addressing similar needs. An integrated approach can reduce duplication and optimise use of limited resources and sharing of technical expertise. However, the degree of integration will vary based on the needs and priorities of each PICT.

Figure 1 illustrates the overlap of common concerns for the basis of integration of climate change adaptation and disaster risk reduction.

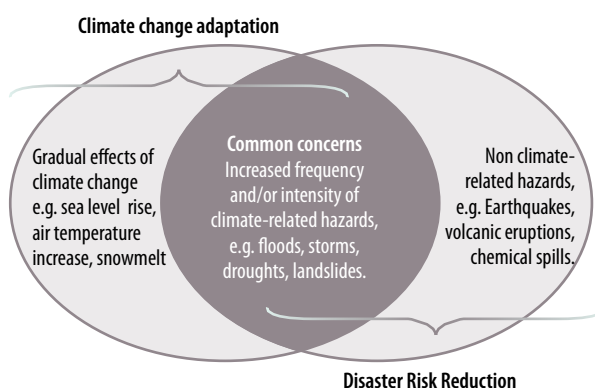


Figure 1. Overlap of common concerns of climate change adaptation and disaster risk reduction<sup>4</sup>.

Resilience is the ability of a system, community or society exposed to hazards, and/or climate change, to resist, absorb, accommodate, recover and transfer the consequences of a hazard event or of climate change in a timely and efficient manner. This includes through the preservation and restoration of its essential basic structures and functions. To effectively build resilience, responses to climate change and disasters must include consideration of a range of factors, such as those illustrated in Figure 2.

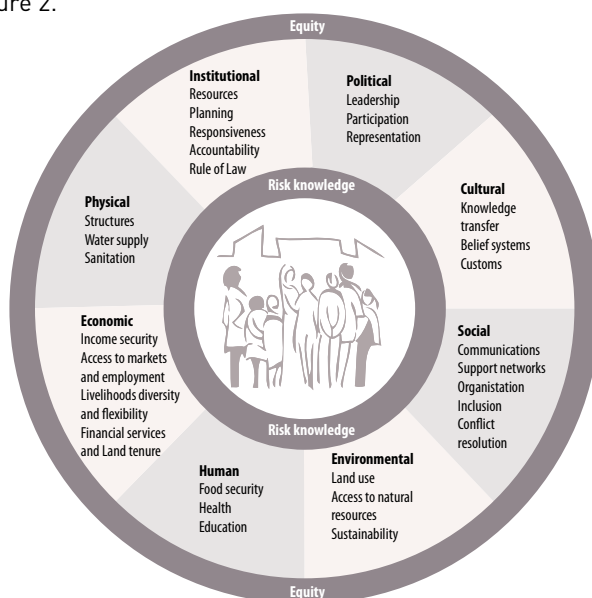


Figure 2. Factors influencing resilience<sup>5</sup>.

<sup>4</sup> Turnbull M. et al. (2013) *Toward resilience: A guide to disaster risk reduction and climate change adaptation*, Practical Action. Publishing Ltd, UK, p.7.

<sup>5</sup> *Ibid.* p.9.

# All-stakeholder Approach

Building resilience should involve all stakeholders from different sectors, organisation types and governance levels. As climate change and disaster risks are cross-cutting, actions must take place at sectoral level, for example through targeted sectoral or multi-sectoral programs which deliver concrete results for the peoples of the Pacific. The interlinking roles of sectors (including health, education, water and sanitation, social assistance, energy, agriculture, fisheries, forestry, culture, tourism, mining, environment, transport and infrastructure) are recognised as particularly important.

National and regional resilience to disasters starts with empowering all persons within communities to respond to disasters and climate change, rather than only those traditionally or culturally charged with leadership responsibilities. Therefore active engagement of diverse groups is a key priority to build resilience.

Individual impacts of disaster and climate change are influenced by pre-existing cultural and social beliefs about the roles, functions, responsibilities and social standing of different groups within societies, and resulting practices. Some people may be more vulnerable, including for example, women, children, older persons and persons with physical and mental disabilities, experience disparate impacts in situations of disaster and emergency, have different priorities and needs, and face different challenges in both responding to disasters and coping with the impacts of climate change.

All vulnerable groups are at risk of having their particular needs overlooked or ignored in decision making, programming, and in disaster preparedness, response and recovery efforts, if organisational policies and mandates are not in place to ensure that they are consulted and that their needs are mainstreamed. Vulnerable groups are to be considered as key stakeholders to participate in all actions as actors for building resilience.

As a group, civil society is a key player in managing climate change and disaster risks, and often in representing the needs and rights of the most vulnerable.

The private sector should play a central role in the building of economic resilience in the Pacific. Partnering with, and guiding the private sector, for example through incentive schemes, will be critical. Whilst some progress has been made by businesses voluntarily reducing disaster risk, further and comprehensive investment in disaster risk management and business resiliency measures is of paramount importance.



Image created by: SPC, SPREP, UNISDR, UNDP, PIFS, and USP, with support and funding from the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) on behalf of the German Federal Ministry for Economic Cooperation and Development (BMZ).

# Climate Change and Disaster Risks in the Pacific

Recent climate change projections identify (with 95% confidence) that the projected changes to the climate are predominantly human induced<sup>6</sup>. For the Pacific Islands region there is likely to be substantial increase in the occurrence of extremely hot days and warm nights by 2030, and an increase in the number of heavy rain days (20–50 mm) by mid-century<sup>7</sup>. Extreme rainfall events that occurred once every 20 years on average during 1986–2005 are projected to occur once every seven to ten years by 2090 under a very low emissions scenario, and every four to six years by 2090 under a very high emissions scenario<sup>8</sup>.

In the South Pacific sub-basin, rainfall intensity associated with tropical cyclones is projected to significantly increase. On the other hand, the North Pacific sub-basin could experience a decrease in the frequency of tropical cyclones and an increase in both intensity and associated rainfall<sup>9</sup>.

Sea-level rise in the Pacific by 2100 is likely to be similar to or slightly above the projected global rise of 0.26 to 0.55 metres for low emissions (RCP2.6) and 0.52 to 0.98 metres for high emissions (RCP8.5), relative to 1986–2005<sup>10</sup>. Increases in mean sea levels are also very likely to increase the frequency of extreme sea-level events by the end of the 21st century. Variations in sea-level rise are projected to occur regionally and sub-regionally<sup>11</sup>.

Sea-level rise, droughts, flooding and tropical cyclones will continue to be strongly influenced by the El Niño southern oscillation (ENSO), with higher sea levels in the central and eastern Pacific and more tropical cyclones occurring with a strong El Niño event<sup>12</sup>.

The rates of acidification will continue to increase proportional to the emissions scenario. Some studies show that the impacts of ocean acidification will be felt more strongly in the eastern equatorial Pacific, for example the easternmost islands of Kiribati, at the end of the 21st century under the RCP8.5 scenario<sup>13</sup>. Ocean acidification, in association with increasing sea surface temperatures, is also projected to result in an increase in the frequency and severity of coral bleaching events. Enhanced systematic observation is required to fully understand spatial and temporal variations in ocean acidification within national waters and across the Pacific.

Climate change is increasing the risk of weather-related disasters in the Pacific, especially in combination with sea-level rise and associated flood, wave, tide, storm surge, wind intensity, coastal erosion, saltwater intrusion into coastal aquifers and the potential worsening of water scarcity and drought. Overall, projected changes to the region's climate over the course of this century are expected to increase the likelihood of hydro-meteorological disasters, which already account for over 75% of all reported 'natural' disaster events in the Pacific. Both rapid- and slow-onset events can result in displacement of affected people and communities, as a result of land degradation and loss, and of serious declines in water and food security, health and educational opportunities.

Although the level of exposure (due to their specific geographical location in hazard-prone areas and their exposure to hydro-meteorological and geological hazards and climate change) is similar for PICTs, their vulnerability differs as PICs have specific environmental, social, and economic challenges that result in limited capacity to reduce vulnerability. Other factors are to be considered together with climate change and disaster risk when response on the ground is being considered. For example: population growth; urbanisation; and migration (internal and external); poorly planned

<sup>6</sup> IPCC (2013) Working Group I Contribution to the IPCC Fifth Assessment Report, *Climate Change 2013. The Physical Science Basis*. Intergovernmental Panel on Climate Change (IPCC). Geneva, Switzerland, p.17.

<sup>7</sup> Australian Bureau of Meteorology and CSIRO 2014. *Climate Change in the Pacific: Scientific Assessment and New Research*. Volume 1: Regional Overview, p. 56.

<sup>8</sup> *Ibid* p. 5.

<sup>9</sup> IPCC (2013) Working Group I Contribution to the IPCC Fifth Assessment Report. *Climate Change 2013: The Physical Science Basis. Final Draft Underlying Scientific-Technical Assessment*. IPCC, Geneva, Switzerland.

<sup>10</sup> IPCC (2013) Working Group I Contribution to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change 2013: *Summary for Policymakers*. IPCC, Geneva, Switzerland.

<sup>11</sup> IPCC (2013) *Summary for policymakers*. In: Stocker, T.F., D. Qin, G.-K. Plattner, M. Tignor, S.K. Allen, J. Boschung, A. Nauels, Y. Xia, V. Bex and P.M. Midgley (eds), *Climate Change 2013: The Physical Science Basis. Contribution of Working Group I to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change*. Cambridge University Press, Cambridge, UK.

<sup>12</sup> *Ibid*.

<sup>13</sup> Ciais et al. (2013) *Carbon and other biogeochemical cycles*. In: Stocker, T.F., D. Qin, G.-K. Plattner, M. Tignor, S.K. Allen, J. Boschung, A. Nauels, Y. Xia, V. Bex and P.M. Midgley (eds), *Climate Change 2013: The Physical Science Basis. Contribution of Working Group I to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change*, p. 465–570. Cambridge University Press, Cambridge, UK.



coastal development; unplanned urban growth and land use; inadequate maintenance of infrastructure; and inherent environmental characteristics and environmental and ecosystem degradation, including contamination of sub-surface and coastal waters. Disasters in the Pacific expose the cumulative consequences of many earlier and poorly informed and supported decisions and actions, some taken individually, others collectively, and a few by default.

## Global Frameworks

In 2015, world leaders adopted the Agenda for Sustainable Development 2015–2030 with goals over the next 15 years to mobilise efforts to end all forms of poverty, fight inequalities and tackle climate change, while ensuring that no one is left behind.

The UNFCCC Paris Agreement on Climate Change, adopted in 2015 under the UNFCCC, aims to strengthen the global response to the threat of climate change, in the context of sustainable development and efforts to eradicate poverty. Significant national and regional level work will be required to address the commitments and actions outlined in the Agreement and associated decisions. PICs will need technical support from regional and international agencies to contribute and interact effectively.

Loss and damage was included in Article 8, which recognises the importance of averting, minimising and addressing loss and damage associated with the adverse effects of climate change, including extreme weather events and slow onset events, and the role of sustainable development in reducing the risk of loss and damage. The Article states that 'Parties should enhance understanding, action and supporting, including through the Warsaw International Mechanism as appropriate, on a cooperative and facilitative basis with respect to loss and damage associated with the adverse effects of climate change. Accordingly, areas of cooperation and facilitation to enhance understanding, action and support may include:

- (a) Early warning systems
- (b) Emergency preparedness
- (c) Slow onset events
- (d) Events that may involve irreversible and permanent loss and damage
- (e) Comprehensive risk assessment and management
- (f) Risk insurance facilities, climate risk pooling and other insurance solutions
- (g) Non-economic losses
- (h) Resilience of communities, livelihoods and ecosystems'<sup>14</sup>.

Support will also be required for interactions with the Warsaw International Mechanism<sup>15</sup>.

Under the UNFCCC Paris Agreement on Climate Change, PICs are obliged to prepare and implement Nationally Determined Contributions (NDCs), through strategies and actions for emissions reductions, and long-term low carbon development strategies.

The Sendai Framework for Disaster Risk Reduction 2015–2030 was endorsed by all PICs through the United Nations General Assembly in 2015. The new framework builds upon the previous Hyogo Framework for Action 2005–2015, and aims to achieve 'substantial reduction of disaster risk and losses in lives, livelihoods and health and in economic, physical, social, cultural, and environmental assets of persons, businesses, communities and countries'. It specifically recognises the need to enhance the implementation capacity of developing countries, in particular Small Island Developing States (SIDS). Priority Four of the Sendai Framework for Disaster Risk Reduction 2015–2030 focuses on enhancing disaster preparedness for effective response and to 'build back better' in recovery, rehabilitation and reconstruction. The Framework outlines a number of key priority actions at the local, national, regional and global levels that complement the FRDP. In particular, given the increased number of hazards and increased level of exposure to hazards from development, it is imperative that the concept of build back better and resilient infrastructure and systems be incorporated into recovery actions to reduce damage and loss from future hazards and disasters.

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<sup>14</sup> Article 8, UNFCCC Paris Agreement on Climate Change, United Nations Framework Convention on Climate Change, 12 December 2015, FCCC/CP/2015/L.9/Rev.1

<sup>15</sup> The Warsaw International Mechanism for Loss and Damage associated with Climate Change Impacts (Loss and Damage Mechanism), was created at the COP19 (November 2013) in Warsaw, Poland, to address loss and damage associated with impacts of climate change, including extreme events and slow onset events, in developing countries that are particularly vulnerable to the adverse effects of climate change.

The SIDS Accelerated Modalities of Action (SAMOA) Pathway is the outcome of the Third International Conference on Small Island Developing States, held in 2014 in Samoa. The SAMOA Pathway sets out new modalities of action on a range of issues for SIDS, including sustainable, inclusive and equitable economic growth, climate change, sustainable energy, disaster risk reduction and sustainable use of marine resources. The Pathway calls for support for SIDS to strengthen their resilience to the impacts of climate change and to improve their adaptive capacity through the design and implementation of measures appropriate to their respective vulnerabilities and economic, environmental and social situations. In particular, developed countries are urged to increase technology, finance and capacity-building support to enable increased mitigation and adaptation actions by developing countries.

The World Humanitarian Summit, Regional Consultation for the Pacific 2015, identified that affected people should be placed at the centre of humanitarian action. Strengthened capacity for key players at the local level is crucial given that they are usually the first to respond in a disaster, and the last to remain as part of recovery efforts. For this reason, all responders need to work with affected communities, involving them in leadership and decision-making, particularly women, youth, the elderly and people living with disabilities. All initiatives should be consistent with relevant international agreements, including the United Nations Convention on the Rights of Persons with Disabilities, and especially Article 11, 'Situations of Risk and Humanitarian Emergencies'<sup>16</sup>.

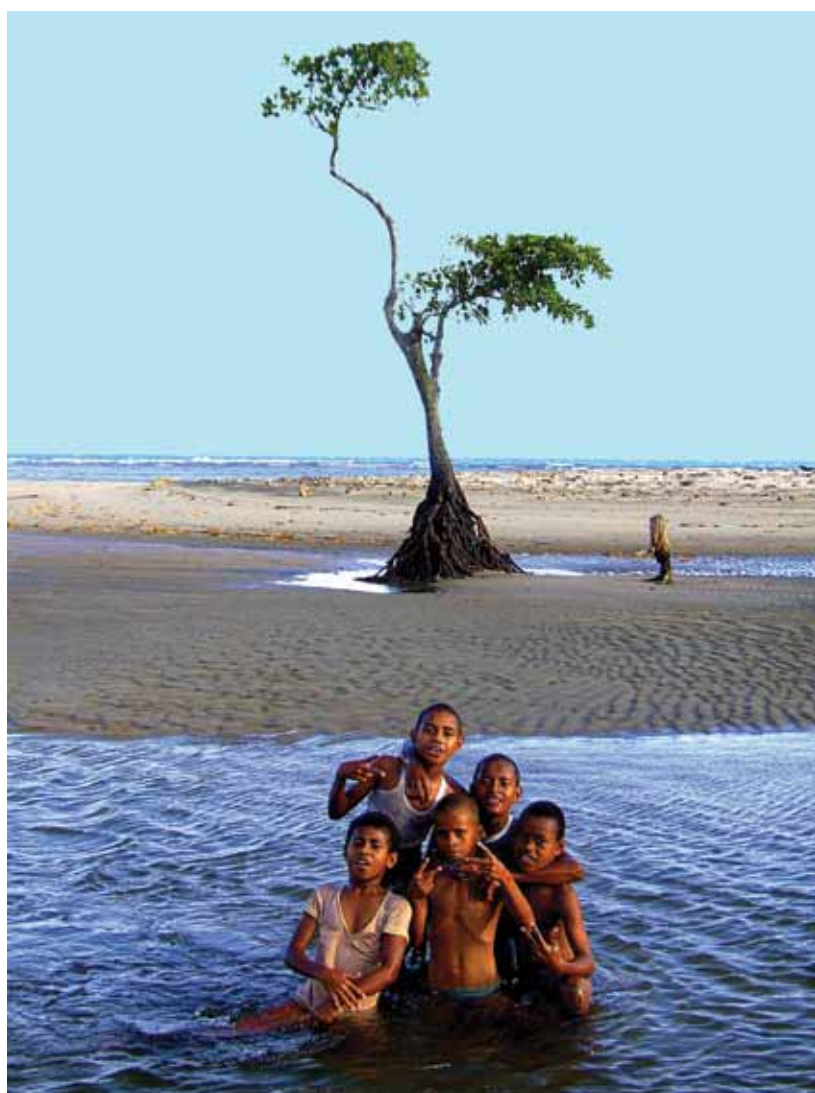


Photo: S. Lyons, SPREP.

<sup>16</sup> Consistency should also be ensured with other relevant United Nations Conventions including, for example, the Convention on the Rights of Indigenous Peoples and the Convention on the Rights of the Child.

# Our Goals

## Goal 1

Strengthened integrated adaptation and risk reduction to enhance resilience to climate change and disasters

## Goal 2

Low carbon development

## Goal 3

Strengthened disaster preparedness, response and recovery

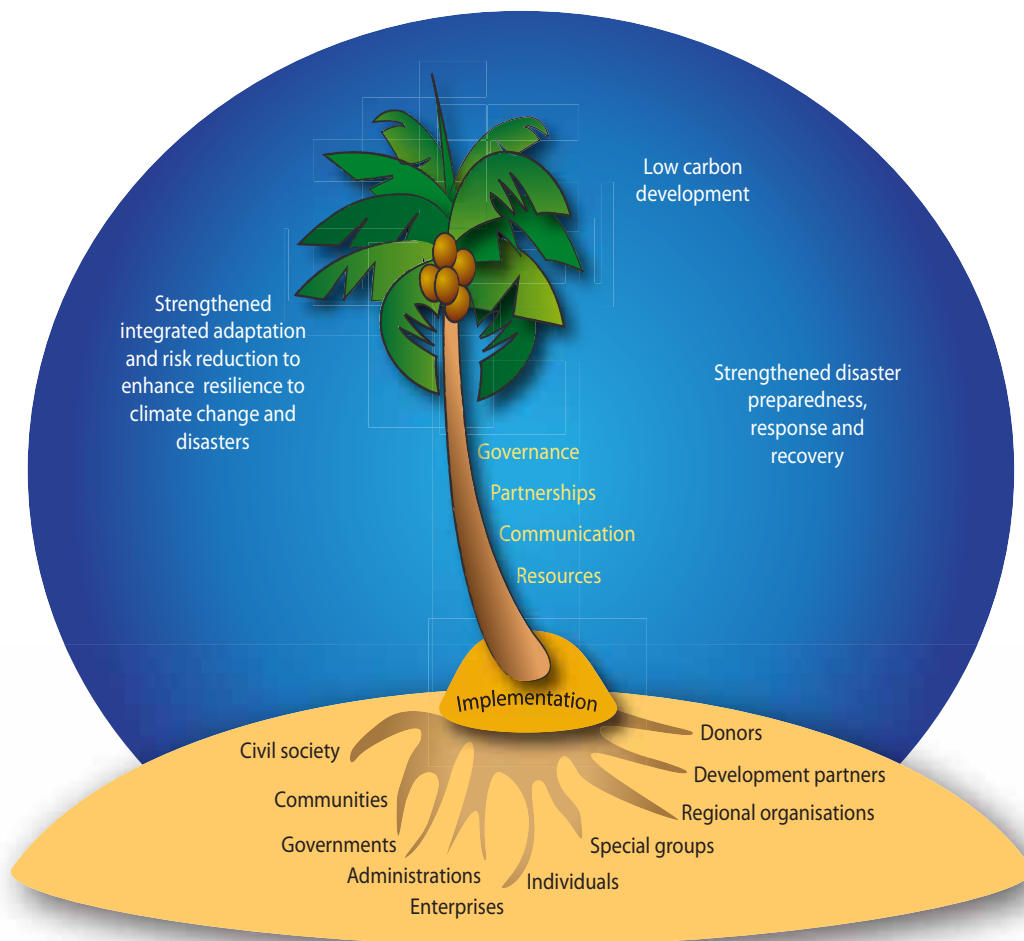


Figure 3. The three strategic goals, with the importance of a sound enabling environment for implementation and multi-stakeholder engagement.

The success of actions related to each goal depends on the active and sustained participation of individuals, communities, governments and administrations, private sector, civil society, development partners and regional organisations.

# Goal 1

## Strengthened Integrated Adaptation and Risk Reduction to Enhance Resilience to Climate Change and Disasters

### Context and Challenges

PICs are amongst the most vulnerable in the world and Pacific territories are also highly vulnerable<sup>17</sup>. Although the level of exposure is similar for PICTs, their vulnerability differs as PICs have specific environmental, social and economic challenges that result in limited capacity to reduce vulnerability. Resilient development must extend beyond anticipated worsening of extreme events and climate change impacts, including slow onset events, to also consider the underlying causes of vulnerability.

This vulnerability results in high economic and non-economic costs. It has been estimated that since 1950, extreme events have affected approximately 9.2 million people in the Pacific, with 9,811 reported deaths and damages of USD 3.2 billion<sup>18</sup>. In the last decade, some PICs have experienced natural disaster losses that, in any single year, have approached and in some cases even exceeded their Gross Domestic Product (GDP) as illustrated by several examples<sup>19</sup>.

However, in many PICTs the accumulated impacts of small and medium-sized events, such as local flooding, high waves and localised droughts, generate losses that are equivalent to or exceed those of single large disasters. Low-intensity events are typically more widespread, affecting a comparatively larger number of people. Consequences are more likely to involve housing, land and local infrastructure, rather than major mortality or destruction of nationally-critical economic assets. This warrants close engagement with the international work on loss and damage, and utilising disaster damage and loss data to inform policy and planning decisions.

The UNFCCC Paris Agreement on Climate Change recognises the importance of averting, minimising and addressing loss and damage associated with the adverse effects of climate change, including extreme weather events and slow onset events, and the role of sustainable development in reducing the risk of loss and damage (Article 8). PICs should be supported to engage in the Warsaw International Mechanism for Loss and Damage.

### Strategic Objective

Present and future disaster risk and climate change are successfully managed, in an integrated manner where possible, within social and economic development planning processes and practices, to build resilience.

### Outcome

Stronger and more resilient communities where efficiencies are achieved by pursuing a more integrated approach to climate change adaptation and disaster risk reduction.

<sup>17</sup> Declaration of the Fourth France - Ocean Summit, Paris, 26 November 2015.

<sup>18</sup> World Bank (2012) *Acting today, for tomorrow: a policy and practice note for climate and disaster resilient development in the Pacific Islands Region*. World Bank, Washington, DC, p. 7.

<sup>19</sup> Examples include the 2007 earthquake and tsunami in the Solomon Islands, which caused losses of around 90 % of the 2006 recurrent government budget; and Tropical Cyclone Heta in Niue in 2004, where immediate losses amounted to over five times the 2003 GDP (World Bank 2012. *Acting today, for tomorrow: a policy and practice note for climate and disaster resilient development in the Pacific Islands Region*. World Bank, Washington, DC. p. 7). The effects of Tropical Cyclone Pam were estimated to cost 449.4 million USD in economic value of the effects, equivalent to 64.1% of the GDP in Vanuatu (Vanuatu, *Post-Disaster Needs Assessment, Tropical Cyclone Pam*, March 2015, Government of Vanuatu, p. ix).

## Priority Actions

The following is a non-exhaustive list of voluntary actions that should be implemented as relevant to the individual needs and priorities of stakeholders. Stakeholders may also undertake actions not listed in this document. Some actions may be better implemented at the regional level.

### i) By National and Subnational Governments and Administrations:

- a) PICs to build capacity to develop fundable projects appropriate for the access criteria of the Green Climate Fund, Adaptation Fund, and Global Environment Facility.
- b) Embed climate change and disaster resilience-building initiatives, using integrated approaches where possible, within national and subnational sustainable development strategies, social development plans, sector plans, practices and resource mobilisation.
- c) PICs to strengthen their capacity, through accessing the technical and financial support available under the UNFCCC Paris Agreement on Climate Change to develop National Adaptation Plans and Adaptation Communications.
- d) Ensure that finance and planning institutions play a central role in strategic, whole-of-country approaches for climate change and disaster resilient development, and that all opportunities for financial and technical support, climate change financing and insurance are pursued, with support from regional agencies.
- e) Ensure that annual and medium-term budgets include climate change and disaster resilient policy and investments and capacity to track sources of revenue and expenditures.
- f) Strengthen capacities at all levels of government, administration and community through inclusive gender analysis, responsive decision-making systems and human rights-based approaches to ensure effective delivery of development initiatives.
- g) Develop and implement, through inclusive multi-sectoral and multi-stakeholder mechanisms, concrete actions on the ground to ensure climate change and disaster resilience in all development sectors.
- h) Encourage inclusive and decentralised planning, where appropriate, and decision-making systems to strengthen capacity for climate change and disaster risk management at the local and community levels.
- i) Draw on existing capacity and assist in developing further the capacity of civil society organisations to represent and involve vulnerable groups as participants in climate change and disaster risk management fora and in implementation of programmes on the ground, with effective risk management communication and partnership with communities.
- j) Strengthen the capacity of national institutions, such as meteorological, hydrological and seismological services, to develop and provide access to hazard and risk information including multi-hazard early warning systems, and to monitor and provide timely and effective warning services to the public.
- k) Provide incentives and technical support to the private sector to reduce their climate and disaster risk and to work collaboratively with governments, communities and partners including through public-private partnerships.
- l) Collect, use, share and manage accurate data and information in user-friendly formats to inform sound risk reduction decision-making in relation to 'disaster damage and loss' as well as 'loss and damage' under the UNFCCC Paris Agreement on Climate Change.
- m) Conduct regular monitoring and evaluation at national and subnational levels, with results transparent and open to the public to the extent possible.
- n) Strengthen and promote the enforcement of appropriate national building codes and infrastructure design on critical facilities and public assets.
- o) Provide an enabling environment for effective partnership with the private sector, civil society and other stakeholders to build resilience.
- p) Integrate human mobility aspects, where appropriate, including strengthening the capacity of governments and administrations to protect individuals and communities that are vulnerable to climate change and disaster displacement and migration, through targeted national policies and actions, including relocation and labour migration policies.
- q) Strengthen knowledge on the causes, local impacts and responses to climate change, hazards and disasters, and build capacity for local adaptation and other risk management measures, through formal and non-formal education systems, including for loss and damage.

- r) Improve understanding and applications of successful strategies to increase resilience by documenting traditional, contemporary and scientific knowledge, and lessons learned, to develop and utilise appropriate awareness, communication, education and information materials for communities, media, schools, training providers and universities.
- s) Develop and strengthen national/territory disaster risk management platforms, and national climate forums (or equivalent mechanisms).

## ii) By Civil Society and Communities:

- a) Strengthen the capacity and raise awareness of civil society organisations to work effectively with communities, building on their comparative advantages, in line with government-led approaches to strengthening resilience.
- b) Strengthen community-led development initiatives by using relevant information and tools to select and inform appropriate cost-effective resilient development interventions that are gender responsive and inclusive.
- c) Ensure that programmes and capacity building at local level are aligned to national development planning and financing, including through the establishment of effective coordinating mechanisms.
- d) Encourage civil society organisations and communities to utilise a human rights perspective and to use appropriate methods that ensure inclusive participation of vulnerable groups to address their specific needs.
- e) Empower vulnerable groups to participate in climate change and disaster risk management fora, and in the implementation of programmes on the ground, with effective risk management communication and action in partnership with communities.
- f) Strengthen linkages with the private and public sectors, including creating space for collaboration with these sectors.
- g) Encourage a spiritual, theological and cultural inclusive approach that underpins personal and community participation in strengthening risk management.
- h) Capitalise on the comparative advantage of media organisations in advocacy and awareness campaigns, in light of the need for more evidence-based advocacy campaigns on risk management and related measures, and on climate change financing, noting that these are central issues for discussions and negotiations in relation to international agreements and frameworks.
- i) Build capacity of women and men to effectively participate in development of national and regional policies and agreements to such new and emerging issues as geo-engineering and forced migration.

## iii) By the Private Sector:

- a) Encourage the use of risk information from governments, administrations and other stakeholders as a basis for investment decisions.
- b) Incorporate integrated risk management into corporate social responsibilities.
- c) Develop and implement risk management strategies that include business continuity plans, including insurance, to support quick recovery of small producers, businesses and merchants in the local markets.
- d) Develop innovative products and services to reduce disaster and climate change risks, costs and impacts, and build resilience at all levels of the economy and society including infrastructure and housing.
- e) Engage in private-public partnerships to advance integrated approaches to investment decisions and practices, using innovative products and services.
- f) Encourage regional organisations to strengthen private sector engagement with government and other stakeholders to develop and communicate targeted tips for building resilience and other relevant guidance and information.
- g) Contribute to national and regional initiatives aimed at developing capabilities to identify and manage new and emerging issues and initiatives, such as geo-engineering, carbon taxes, and forced migration.

#### iv) By Regional Organisations and Other Development Partners:

- a) Undertake joint planning (where appropriate), programming and design of initiatives ensuring they are responsive to specific PICT needs, priorities and capacities, focusing on resilience-building.
- b) Incorporate considerations for building resilience to climate change and disasters in all relevant strategies, frameworks and related plans.
- c) Facilitate and support technical and financial capacity development for building resilience.
- d) Assist in the tracking of international financial commitments and allocation, to assess compliance with international obligations for climate change and disaster risk management.
- e) Build the capacity of PICs to comply with their obligations as agreed to under the UNFCCC Paris Agreement on Climate Change.
- f) Facilitate and support training for development of gender-responsive and inclusive disaster risk management and climate change adaptation strategies at regional and national levels.
- g) Apply an integrated risk management approach to development assistance.
- h) Support and sustain existing regional mechanisms such as the Rapid Response Funds - Regional Technical Support Mechanism (RFF - RTSM) to rapidly deploy technical assistance to PICs to address priority needs in climate change and disaster risk management.
- i) Establish a regional facility to assist governments in disaster and climate change risk financing, including insurance, in national sustainable development strategies and processes, and support their access to international financing and support. For example, the PCRAFI Disaster Risk Financing and Insurance Initiative, acknowledging that additional mechanisms or expanded facility is needed for climate change.
- j) Provide ongoing support to improve the linkage between planning, public financial management and expenditure systems to improve the capacity of national and local governments to directly access and manage climate change and disaster funds.
- k) Develop a clear strategy on how to assist PICs to access climate change and disaster risk management financing mechanisms.
- l) Support PICs to build capacity to develop fundable projects appropriate for the access criteria of the Green Climate Fund, Adaptation Fund, and Global Environment Facility.
- m) Investigate and develop regional insurance facilities for climate change where feasible.
- n) Work in close collaboration with member countries and other stakeholders to develop and deliver relevant capacity-building programmes, including emerging priorities such as loss and damage as a result of climate change.
- o) Support appropriate national programmes and develop guidelines for PICs, relating to access to loss and damage as well as establishment of baseline indicators and capabilities needed for monitoring.
- p) Collaborate to ensure that the relevant monitoring frameworks, including those for the Sendai Framework, the Sustainable Development Agenda and the UNFCCC Paris Agreement on Climate Change, are streamlined to reduce national reporting burden.
- q) Strengthen effective use of science, technology and knowledge management (including analysis tools required to assess risk) to understand underlying drivers and to inform disaster risk reduction, climate change adaptation, loss and damage, and support the application of new technologies and innovative solutions.
- r) Support and facilitate advocacy for building resilience to climate change and disasters, as well as collective negotiation positions, where appropriate, at the Conferences of the Parties to the UNFCCC, and other relevant global negotiations; in particular, help ensure that the Pacific region maintains a strong voice in international fora.
- s) Assist the development and resourcing of national and regional capability for identifying and prioritising emerging issues related to climate change, and to natural and other hazards, covering current and expected ecological, social and economic consequences.
- t) Support the protection of individuals and communities most vulnerable to climate change displacement and migration through targeted national and regional policies and regional labour migration schemes where appropriate.
- u) Conduct studies and support the development of appropriate national strategies on relocation due to climate change and disaster impacts.
- v) Provide support to the private sector to reduce risks of disasters and climate change through activities such as risk assessment, resilience planning and business continuity management.



# Goal 2

## Low Carbon Development

### Context and Challenges

The Pacific Islands region as a whole contributes 0.03 per cent of the world's total greenhouse gas emissions<sup>20</sup>, yet are amongst the most vulnerable to its effects. There are important synergies between low carbon development and building resilience. Comprehensive approaches to slowing the rate of climate change involve both reducing greenhouse gases and increasing carbon stored in natural ecosystems.

PICTs are endeavouring to further minimise their emissions, through actions commonly known as 'mitigation' in the climate change community of practice. These efforts towards low carbon development are reflected in the 2013 Majuro Declaration for Climate Leadership, in the Framework for Action on Energy Security in the Pacific, and in Intended Nationally Determined Contributions (INDC) and Nationally Determined Contributions (NDC).

In 2010, the energy, transport and industrial sectors together accounted for over three-quarters of the total energy demand of PICTs. Oil is the main energy source, meeting over two-thirds of the primary and final energy demand. The increase in the price of petroleum from 2002 to early 2008 cost most PICTs about 10% of their gross national incomes, with impacts falling disproportionately on those with low incomes. For the period 1990–2010, total energy supply in PICTs (fossil fuels and local sources, such as hydropower and biomass) grew at a rate of 4.6% per year. Total carbon dioxide emissions grew by 3.9%. The annual average growth rate in carbon dioxide intensity (tonnes of carbon dioxide per constant 2000 million dollars) was 0.5% between 1990 and 2010<sup>21</sup>.

The greatest opportunities for reducing greenhouse gas emissions are in electricity generation and the transport and industrial sectors. Increasing energy efficiency is more cost-effective, including investing in end-use energy efficiency and conservation improvements, such as demand side management. For example, more energy-efficient modes of transport, and reducing energy consumption and other sources of greenhouse gas emissions in the agriculture, tourism and fisheries sectors, considering the growing emissions from these sectors. Investing in clean and affordable energy can diversify the sources of energy, and thereby strengthen resilience to economic shocks. Green economies hold opportunities for stimulating economic growth and creating new jobs. Conservation of marine and terrestrial ecosystems, sustainable management of forests and the enhancement of forest carbon stocks are also essential components of low carbon development, leading to a more resilient natural environment. Since the required shifts will be difficult to achieve, the changes need to be strategised and resources allocated. It should also be noted that energy access continues to be an issue in PICTs. Increasing access to clean and affordable energy is an important aspect of sustainable development and should be pursued within the context of low carbon development.

Figure 4 illustrates how low carbon development contributes to building resilient development in the context of the FRDP.



Photo: SPC

<sup>20</sup> IPCC (2001) Working Group II: Impacts, Adaptation and Vulnerability. Intergovernmental Panel on Climate Change (IPCC), Geneva, Switzerland.

<sup>21</sup> Asian Development Bank (2013) Energy Outlook for Asia and the Pacific, ADB, Mandaluyong City, Philippines, p. 401.

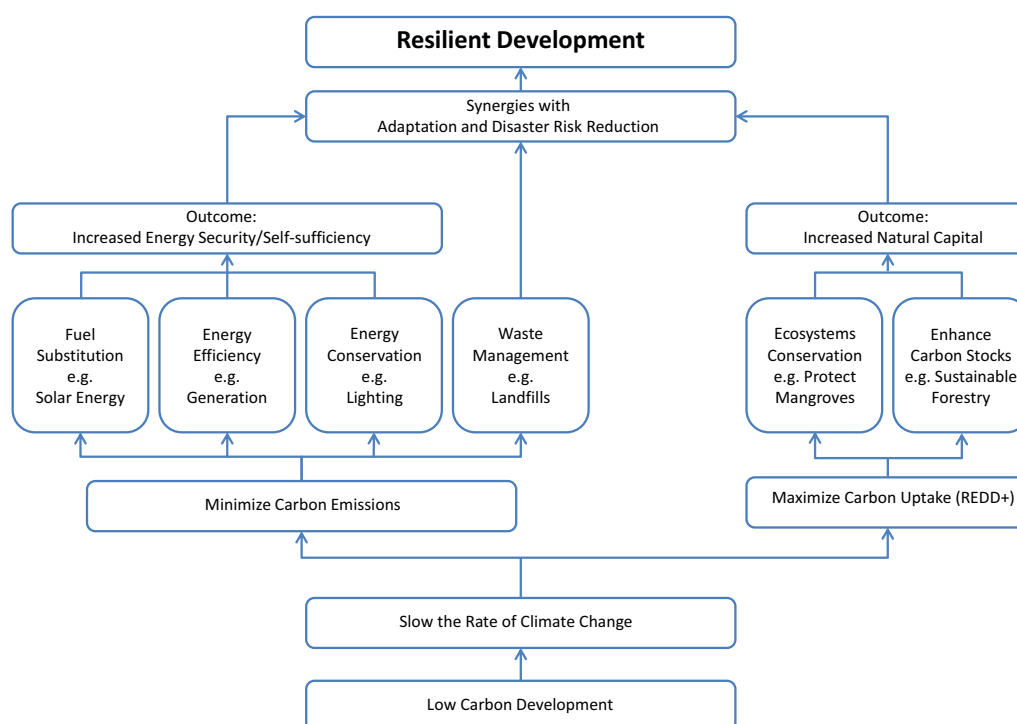


Figure 4. The multiple aspects of, and contexts for, low carbon development with illustrative examples.

## Strategic Objective

More efficient end-use energy consumption, reduced carbon intensity of development processes, increased conservation of terrestrial and marine ecosystems and increased resilience of energy infrastructure in PICTs.

## Outcome

Improved energy security, decreased net emissions of greenhouse gases, and enhanced resilience of energy infrastructure.

## Priority Actions

The following is a non-exhaustive list of voluntary actions that should be implemented as relevant to the individual needs and priorities of stakeholders. Stakeholders may also undertake actions not listed in this document. Some actions may be better implemented at the regional level.

### i) By National and Subnational Governments and Administrations:

- Energy infrastructure to be designed, located, operated and maintained in ways that minimise hazard risks as well as weather extremes and climate change, including principle of building back better.
- Utilise the opportunities under the UNFCCC, for example by officially registering Nationally Appropriate Mitigation Actions, and Reducing Emissions from Deforestation and Forest Degradation (REDD+) initiatives, in order to gain international recognition and opportunities for securing financial, technical and capacity-building support.
- Seek technical and financial support to develop and implement NDC targets and long-term low carbon development strategies.
- Develop and enforce efficient and effective legislation and regulations covering forests, coastal management, ecosystem services, energy efficiency codes for public buildings, energy efficiency standards for imported electrical goods and metering of energy use in households.

- e) Introduce and strengthen environmentally friendly national, territory and sector policies that promote and achieve efficient and cost-effective production and end-use of all forms of energy, both modern and traditional, with an increasing focus on using energy from local sources.
- f) Increase transparent and effective public expenditure on measures to improve coastal and forest management, including mangroves.
- g) Establish programmes to support private investment in low carbon development.
- h) Increase transparency of subsidies on fossil fuels with the proposed ultimate aim of phasing out of inefficient subsidies, and actively promote, through communication and awareness campaigns, incentives and mechanisms for low carbon development.
- i) Conserve and sustainably manage forests, coasts, oceans and other natural ecosystems in ways that maintain and enhance carbon uptake and stocks in terrestrial and marine ecosystems and, for relevant PICTs, identify and manage the drivers of deforestation and both coastal and forest degradation; ensure that the results of these and related actions are measured, reported and verified, and incentivised.
- j) Foster a supportive policy and institutional environment for the development of public-private partnerships to support the development of independent power providers and community-based projects.
- k) Encourage, incentivise and assist all stakeholders to improve waste management programmes and procedures in order to reduce greenhouse gas emissions from landfills and dumps, including through reduction, recycling, reuse and environmentally sound disposal methods.
- l) Ensure, through lobbying and negotiations at regional and international levels, the dedication of all countries to reduce their net emissions of greenhouse gases.

## ii) By Civil Society and Communities:

- a) Work with partners to ensure that civil society organisations and community groups have the capacity, including knowledge and skills, to provide leadership in achieving low carbon development, including through the increased use of renewable energy.
- b) Lead and contribute to awareness campaigns and capacity building in schools and communities, to promote and facilitate energy and ecosystem conservation and the increased use of renewable energy, through changes in attitudes and behaviour.
- c) Work with stakeholders to ensure that low carbon development is achieved, taking into account the needs of all people including vulnerable groups.
- d) Work with local engineering associations to promote better training and support for efficient use of equipment and commitment to maintaining mechanical equipment.



Photo: SPC

- e) Encourage a spiritually, theologically and culturally inclusive approach for promoting and undertaking low carbon development.
- f) Empower civil society and communities to participate in regional and international advocacy campaigns to reduce greenhouse gas emissions globally.

### iii) By the Private Sector:

- a) Support and promote the efforts of governments to ensure that energy infrastructure is designed, located, operated and maintained in ways that minimise hazard risks, as well as the adverse consequences of weather extremes and climate change.
- b) Work with other stakeholders to lead progress on low carbon development, including research and development for innovative solutions for low carbon development.
- c) Work with relevant partners to ensure that the design of proposed investments in the energy sector (whether grant, loan or internally financed) include assessments of economic and financial viability, and social and environmental implications.
- d) Support the development of local and regional enterprises providing energy technologies and services.
- e) Develop, update and apply technical standards for energy technologies to promote energy efficiency, while ensuring that the needs of small-scale businesses are addressed, including those active in the informal sector.
- f) Ensure cooperation with relevant national agencies to promote the development and review of appropriate energy policies and plans.
- g) Work with relevant government departments and agencies and with other stakeholders to improve the availability of timely and accurate data and information for effective low carbon investments.

### iv) By Regional Organisations and Other Development Partners:

- a) Implement policies and practices within regional organisations to reduce carbon footprints.
- b) Facilitate adequate and timely financial and other support to achieve low carbon and resilient development goals including appropriate policy-making and economic modelling.
- c) Facilitate technical and financial support to PICs to carry out their obligations under the UNFCCC Paris Agreement on Climate Change.
- d) Ensure that all initiatives related to low carbon development respond to country and community priority needs and opportunities in an equitable manner, including being gender responsive.
- e) Assist civil society, community and other non-governmental organisations to participate meaningfully in regional and international advocacy for low carbon development.
- f) Support and build capacity in research, development and training in specific skill requirements of low carbon energy technologies and practices in the region.
- g) Support PICTs to identify and utilize opportunities for the transport and industry sectors to reduce their greenhouse gas emissions, including assessing how PICTs might move to more energy-efficient modes of transport, and the associated costs and benefit.
- h) Strengthen regional coordination and cooperation that supports national efforts to reduce energy demand through initiatives such as appliance standards and labelling.
- i) Support development of REDD+ and ocean initiatives, including sustainable forest and coast management and conservation to ensure long-term benefits to the environment and for natural resource-dependent communities.
- j) Assist relevant PICTs to establish, implement and maintain monitoring systems that use an appropriate combination of remote sensing and ground-based carbon inventory approaches, in support of strengthening sustainable forest management efforts at national and subnational levels.
- k) Work with PICTs to assess and implement ways to enhance and maintain natural carbon reservoirs in both marine and terrestrial ecosystems.

# Goal 3

## Strengthened Disaster Preparedness, Response and Recovery

### Context and Challenges

Coordinated and collaborative humanitarian action is vital, to avoid duplication and enhance collective efforts to support PICTs in disaster preparedness, response and recovery. Disaster preparedness and response must be situated within an enabling environment with the political will and commitment to build the capacity of all relevant government agencies, development partners and humanitarian actors to respond to slow and sudden onset hazard events in a coordinated and integrated manner.

Support for national capacity-building is needed to ensure that PICTs can anticipate and respond to emergencies at national and subnational levels with a focus on: line ministries so that they may take on leadership and coordination of sector-level actions; the national disaster management offices to be able to lead and coordinate the overall disaster response efforts; and the interoperability of key response agencies and strengthening of legal preparedness for swift international disaster response. Strengthened capacity for key players at a local level is also crucial given they are usually the first responders.

Partners also have a key role to play in adopting more coordinated approaches in support of national and local preparedness capacity. A common framework for preparedness will significantly enhance response capacities, and maximise the use of capacity, resources and expertise available through the United Nations Office for the Coordination of Humanitarian Affairs (UNOCHA)-led Pacific Humanitarian Team and other partners.

Information is critical to ensuring effective prevention and management of disasters. Knowledge brokering, communication and access to meteorological, climate, geological and other relevant information and tools are essential to effectively address key risks across the humanitarian–development continuum.

Well-coordinated, fast and effective disaster preparedness, response and recovery, combined with long-term initiatives on disaster risk reduction and risk prevention, help reduce losses, and strengthen the resilience in the Pacific. Most PICs have restricted options for securing immediate liquidity for swift post-disaster emergency response, without compromising their long-term fiscal balance. Despite recognition that investing in preparedness and risk reduction pays dividends, funding is often skewed towards disaster response. There is a need to build awareness and capacity within the disaster management community at regional, national and local level, to broaden its practices, and to pay special attention to the resilience of urban spaces.

### Strategic Objective

Improved capacity of PICTs to prepare for emergencies and disasters, thereby ensuring timely and effective response and recovery, and to ensure future risk is reduced, in relation to both rapid and slow onset disasters.

### Outcome

Disaster preparedness, response and recovery initiatives prevent undue human losses and suffering, and minimise adverse consequences for national, provincial, local and community economic, social and environmental systems.

## Priority Actions

The following is a non-exhaustive list of voluntary actions that should be implemented as relevant to the individual needs and priorities of stakeholders. Stakeholders may also undertake actions not listed in this document. Some actions may be better implemented at the regional level.

### i) By National and Subnational Governments and Administrations:

- a) Review and strengthen disaster risk management planning arrangements and legislation, ensuring clearly defined roles and responsibilities and an inclusive approach, involving all stakeholders including international and multi-stakeholder support to response and recovery.
- b) Conduct post-disaster needs assessments, using standardised methodologies updated to the extent possible and baseline data to inform recovery planning.
- c) Ensure the acquisition, use and sharing of accurate data and other information, including sex-and-age disaggregated data and data for vulnerable groups, to assess risk and facilitate more focused preparedness, response and recovery activities, as well as for loss and damage assessment.
- d) Strengthen capacities at the national government, local government and community level to develop integrated preparedness and response plans through inclusive gender-responsive decision-making systems, human rights-based approaches, and sound financial management to plan for, and ensure fast and effective humanitarian action, disaster response and recovery.
- e) Include the private sector, especially the logistics, telecommunications and tourism sectors, in national planning for all phases of disaster risk management.
- f) Support existing and additional capacity-building and awareness raising for governments and communities (including churches and schools), to improve their disaster preparedness, response and recovery capabilities, acknowledging they are often the first responders in the event of a disaster.
- g) Improve country-level humanitarian coordination mechanisms by adequately resourcing the national disaster management office and emergency operations centres and ensuring appropriate coordination with all relevant partners and regional disaster management mechanisms.
- h) Strengthen effective multi-hazard early warning systems including for sudden and slow onset hazards and the use of science and technology to inform risk management and hazard/disaster preparedness and policy development.
- i) Ensure early warning language and messages are accessible to managers and decision makers, civil society and communities ensuring that messaging and the availability of humanitarian services reaches vulnerable groups.
- j) Ensure communication infrastructure and two-way communication channels are available to affected people in disasters through channels that are used within the country and communities.
- k) Anticipate and prepare for future displacement by integrating human mobility issues within disaster preparedness, response and recovery programmes and actions.
- l) Support increasing the protection of individuals and communities most vulnerable to climate change and post-disaster displacement and migration through targeted national and regional policies and regional labour migration schemes.
- m) Ensure that finance and planning institutions play a central role in strategic, whole-of-country approaches for preparedness, response, and recovery, and that all opportunities for climate change and risk financing including insurance are pursued, with support from regional agencies.
- n) Provide an enabling environment for effective partnership with the private sector, civil society and other stakeholders for improved preparedness, response and recovery. Develop public-private partnership agreements with businesses and members of the private sector so that systems are ready for times of emergency.
- o) Collect post-disaster time series information that separates elements of the cause (hazard, vulnerability and exposure) and the effect (impact or consequence) to inform estimates of future impacts (risk assessments) and to monitor progress toward risk reduction targets.
- p) Maintain and update knowledge management systems, and ensure that lessons learned, during and in the aftermath of emergencies and disasters, are included.

- q) Strengthen the inter-operability of systems used by key national response agencies to plan for improved coordination of response efforts and the optimisation of available resources.
- r) Establish a contingency stockpile of emergency relief items.

## ii) By Civil Society and Communities:

- a) Work with partners to strengthen capacity to effectively serve as first responders in emergencies and disasters.
- b) Strengthen capacity in all aspects of disaster management, including gender-sensitive disaster preparedness and response arrangements and plans for communities, while addressing the specific needs of vulnerable groups aligned with plans, mechanisms and arrangements of national governments.
- c) Encourage a spiritually, theologically and culturally inclusive approach that underpins personal involvement in strengthening disaster preparedness, response and recovery.
- d) Encourage protection of human rights in the context of climate change and disasters and to use appropriate methods that ensure inclusive participation of vulnerable groups to address their specific needs.

## iii) By the Private Sector:

- a) Work with other partners to strengthen disaster management capacity, including leading and participating in joint disaster scenario planning, response, and recovery.
- b) Support community preparedness and emergency response, such as using mobile and radio technologies as tools/platforms for raising awareness and education, and for early warning and alerts, to ensure messaging and the availability of humanitarian services reaches communities including vulnerable groups.
- c) Build and strengthen private–public sector partnerships to facilitate agreements in place prior to an emergency, and to stimulate knowledge sharing and innovative solutions for improving disaster preparedness, response and recovery.
- d) Develop and implement business continuity plans according to best practice, and incorporate risk financing options such as liability and insurance regimes into these plans including for small-scale businesses and producers.
- e) Strengthen investments in post-disaster recovery using low carbon development, climate change resilience solutions, build back better and build back safer approaches to reduce future disaster risks and impacts from climate change.
- f) Facilitate sector needs and capacity mapping including an inventory of private sector resources and services that can be made available before and after a disaster event in ways that assist response and recovery efforts.

## iv) By Regional Organisations and Other Development Partners:

- a) Support the strengthening of capacities (including humanitarian coordination mechanisms) and planning arrangements at regional, national and subnational level (including through community-based approaches) to better prepare for, respond to and recover from disasters.
- b) Strengthen end-to-end early warning systems through effective processes and interoperability.
- c) Ensure optimum use of resources and capacities for emergency/disaster response by supporting PICTs in their efforts to strengthen interoperability of key response agencies and systems.
- d) Provide technical advice and support to develop disaster management strategies and plans that are gender-responsive and include human rights-based approaches.
- e) Assist in strengthening the telecommunications, observational data and data processing infrastructure that supports provision of reliable early warnings and hazard/risk information.
- f) Encourage the public finance management and disaster risk management communities to work together to improve technical assistance training.
- g) Support the ongoing development of national and regional financing modalities that will promote improved access to relevant funding mechanisms for disaster response and climate change.

- h) Work with other development partners, governments and administrations to support building resilience of the private sector and their contributions to disaster risk management including: facilitate capacity mapping including an inventory of private sector resources and services that can be made available before and after a disaster event; align supply chain practices to achieve cost efficiencies; and timely delivery of emergency supplies and services.
- i) Develop guidelines, including best practice models, for effective disaster risk management at national and subnational level.
- j) Support the protection of individuals and communities most vulnerable to climate change and post-disaster displacement and migration through targeted national and regional policies and regional labour migration schemes, where appropriate.



Photos: (top) C. Lacovino, SPREP

(bottom) SPC



Photo: UNISDR



# Implementation

Successful implementation of the FRDP is dependent on the ownership and combined efforts of governments and all other stakeholders, working in partnership. Achievement of the identified outcomes requires adequate and predictable resources and clearly defined responsibilities.

Activities identified in the FRDP contribute to implementation of national and sectoral policies and plans, and support community and private sector initiatives designed to build resilience to climate change and disasters. National governments play an important role in bringing stakeholders around the table and creating the right incentives for their involvement. Regional and international organisations and other development partners, through appropriate multilateral, regional and bilateral coordination and resource mobilisation mechanisms, are urged to provide resources to support national implementation. This support would incorporate principles of aid effectiveness, such as those in the Cairns Compact on Strengthening Development Coordination in the Pacific, the Paris Declaration on Aid Effectiveness, and the Busan Partnership for Effective Development Cooperation.

Each PICT will drive its own national policies and priorities as each country or territory has primary responsibility for its own development. The FRDP will require further elaboration at national, provincial, community, organisational and enterprise levels, to suit specific circumstances.

Implementation of the FRDP should be consistent with, and supported by, other regional and international policies and plans, including the Framework for Pacific Regionalism; thematic-focused regional frameworks and statements, such as the Framework for Action on Energy Security in the Pacific, the Pacific Islands Meteorological Strategy, the Western Pacific Regional Framework for Action for Disaster Risk Management for Health, and the Pacific Leaders' Gender Equality Declaration; and global frameworks, such as the UNFCCC and the UNFCCC Paris Agreement on Climate Change, the Sendai Framework for Disaster Risk Reduction 2015–2030, the Small Islands Developing States Accelerated Modalities of Action (SAMOA Pathway), the World Humanitarian Summit and the Sustainable Development Agenda 2015–2030.

## Partnerships and Coordination

Successful implementation of the FRDP depends on the development of strong partnerships and on fostering cooperation between countries, territories, businesses, civil society, development partners, communities and citizens, at global, regional, national, subnational and community levels. This will involve both existing and new networks and alliances, including those guided and supported by the UNFCCC, the UNISDR and by other institutions.

Partnerships will be coordinated and facilitated by the Pacific Resilience Partnership.

### Pacific Resilience Partnership

The Pacific Resilience Partnership (PRP) will bring together the climate change and disaster risk management communities of practice, along with other partners (for example, government representatives from ministries of finance and planning, relevant sectors and private sector and civil society stakeholders). The PRP will, therefore, include a broad range of all stakeholders with common interests but also some distinct concerns (for example, geological hazards on one side or climate change negotiation processes on the other). The PRP will assist with measuring progress and facilitation of monitoring and reporting and the development of a communication strategy for the FRDP.

The PRP will strengthen the linkages between the climate change and disaster risk management communities of practice by bringing together the Pacific Climate Change Roundtable and the Pacific Platform for Disaster Risk Management with related sectoral, scientific, technical and policy mechanisms at the national, regional and global levels, which will ensure that implementation of the FRDP is anchored within sectors and other areas of strategic importance. The PRP will promote the exchange of experience and learning with the Pacific Energy Advisory Group, the Pacific Water Partnership and other sector-specific mechanisms to ensure that the FRDP is being implemented in sectors at a regional and national level; as well as with other mechanisms such as the Pacific Meteorological Council, the Pacific Humanitarian Team, the Pacific Islands Emergency Management Alliance and others.

The PRP is expected to meet biennially, or at a different frequency as decided by the PRP.

## Resourcing

Both human and financial resources are required to support the efforts of PICTs and their partners to integrate resilience measures into policies and plans, and implement actions on the ground, which increase the resilience of development outcomes. It is also important to build and enhance the knowledge and evidence basis for disaster risk management and for addressing climate change concerns. This includes ongoing investment in research and its application.

Pacific Island leaders have stressed the critical and urgent need for financial support to enable them to respond to climate change and reduce disaster risk. The FRDP urges regional organisations and development partners to provide financial and technical support for the implementation of the FRDP actions. It is expected that the integrated approaches advocated in the FRDP will result in resource efficiencies and may, thereby, facilitate improved access to financing.

Importantly, under the UNFCCC and the UNFCCC Paris Agreement on Climate Change, there is an obligation for developed country Parties to take responsibility for providing funding to developing countries Parties to address climate change.

Financing must reach the most vulnerable to be effective, and will often involve dealing with people from informal settlements, for example. Given that many small-scale disasters can be addressed at local scale, emphasis will often be on low/no-cost solutions and supporting mobilisation within a community.

Training, education, community planning workshops involving multi-sector participation, and other forms of human resources development are critical to building resilient communities, who can more effectively participate in risk-reducing initiatives and protect the interests of their most vulnerable people. Training is essential for national disaster and climate change agencies and for other key national departments (such as lands, meteorological and hydrological services, health, education, tourism and planning). Such needs-based capacity building can provide a significant return on investment.

The private sector can make specific contributions to enhancing resilience on a local scale, for example in raising awareness around disaster risk reduction, climate change adaptation and emissions reduction as the first step towards increased resilience at community level.

## Monitoring, Evaluation and Reporting

A monitoring, evaluation and reporting framework will be developed in consultation with PICTs to be endorsed by PICTs, with support from regional organisations and development partners.

The monitoring, evaluation and reporting framework will utilise existing reporting commitments under the Sendai Framework for Disaster Risk Reduction, the Paris Agreement on Climate Change and the Sustainable Development Goals and therefore does not require additional monitoring, evaluation and reporting efforts from PICTs. It is important to not add to existing reporting burdens.

The FRDP is a living document, subject to a mid-term review no later than 2024, and requests for update by Pacific Island Leaders.

# Glossary of Key Terms

## Adaptation

Adjustment in natural or human systems in response to actual or expected climatic stimuli or their effects, which moderates harm or exploits beneficial opportunities. [Source: IPCC AR4, WGII]

## Build back better

The guiding principle to utilise the reconstruction process to improve living and environmental conditions including through integrating disaster risk reduction into development measures, making nations and communities more resilient to disasters. [Adapted from UNISDR 2015]

## Carbon intensity

CO<sub>2</sub> equivalent emissions per unit of gross domestic product.

## Capacity

The ability of individuals, institutions and societies to perform functions, solve problems, and set and achieve objectives in a sustainable manner. [Source: UNDP 2014]

## Capacity development

The process by which people, organisations and society systematically stimulate and develop their capacities over time to achieve social and economic goals, including through improvement of knowledge, skills, systems and institutions. [Source: UNISDR 2009]

## Civil society

Definitions of civil society vary considerably based on differing conceptual paradigms, historic origins and country context. For the purposes of the FRDP, the term civil society is taken to mean the public space between the state, the market and the ordinary household in which people can debate and tackle action. Thus, it includes the wide array of non-governmental and not-for-profit organisations that have a presence in public life, expressing the interests and values of their members or others, based on ethical, cultural, political, scientific, religious or philanthropic considerations; it does not include political parties, even though civil society has a political dimension.

## Climate change and disaster resilient development

Economic and social development and environmental management that accounts for the actual and potential consequences of natural hazards and of the adverse conditions caused by climate change, through disaster risk management, climate change adaptation and low carbon development. Disaster risk management, which includes both disaster risk reduction and disaster management, has many synergies with adaptation to climate change – see Figure 7.

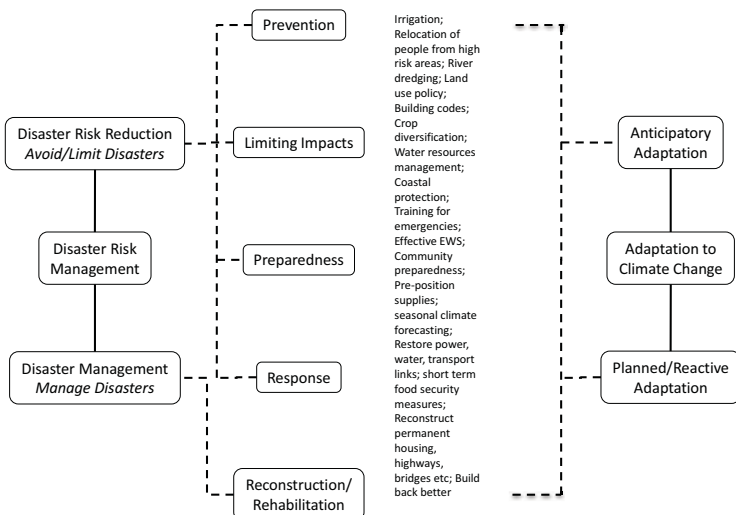


Figure 7. Components of disaster risk management and climate change adaptation, with illustrative examples showing the linkages between them.

## Climate change

Any change in climate over time, including in climate variability and extremes, whether due to natural variability or as a result of human activity. This also includes changes in climate variability and extremes. [Source: adapted from IPCC AR4, WGII]. This definition aligns with that used by the Intergovernmental Panel on Climate Change (IPCC).

A change of climate which is attributed directly or indirectly to human activity that alters the composition of the global atmosphere and which is in addition to natural climate variability observed over comparable time periods [UNFCCC 1992].

## Climate change displacement

While no formal definition exists, the terms displacement and displaced person relate to 'forced migration' (see definition).

## Climate risk

A risk to the ongoing integrity and/or functionality of natural and/or human systems as a result of climate change.

## Disaster

A serious disruption of the functioning of a community or a society, involving widespread human, material, economic or environmental losses and impacts, and exceeding the ability of the affected community or society to cope, using its own resources. Disasters may be slow or rapid onset, and widespread (e.g. where dispersed populations are exposed to repeated or persistent hazard conditions of low or moderate intensity) or concentrated (e.g. where large concentrations of people and economic activities are exposed to intense hazard events, such as strong earthquakes, active volcanoes, heavy floods, tsunamis or major storms, which can lead to potentially catastrophic disaster impacts involving high mortality and asset loss). [Source: based on UNISDR 2009]

## Disaster management

The organisation and management of resources and responsibilities for dealing with all aspects of emergencies, in particular preparedness, response and recovery in order to lessen the impact of disasters. [Source: adapted from IFRC]

## Disaster risk

The potential disaster losses, in lives, health status, livelihoods, assets and services, which could occur to a particular community or a society over some specified future time period. Comment: The definition of disaster risk reflects the concept of disasters as the outcome of continuously present conditions of risk. Disaster risk comprises different types of potential losses which are often difficult to quantify. Nevertheless, with knowledge of the prevailing hazards and the patterns of population and socio-economic development, disaster risks can be assessed and mapped, in broad terms at least [Source: UNISDR 2009]

## Disaster risk management

The systematic process of using policies, plans, organisations, and operational skills, capacities and actions to lessen the adverse impacts of hazards, as well as the possibility of a disaster. [Source: adapted from UNISDR 2009]

## Disaster risk governance

The system of institutions, mechanisms, policy and legal frameworks and other arrangements to guide, coordinate and oversee disaster risk reduction and related areas of policy. [Adapted from UNISDR 2015]

## Disaster risk reduction

A systematic approach to identifying, assessing and reducing the risk of a disaster. [Source: adapted from UNISDR 2009]

## Enabling environment

Policies, plans, knowledge, skills, financial resources and related capacities that stimulate, guide and support effective and efficient functioning of institutions and individuals.

## Energy infrastructure

Energy infrastructure includes the utilities associated with energy transport and management (including storage, pipelines, electric transmission lines, etc.). This infrastructure also includes facilities that turn raw natural resources

into energy products and the means of transport to consumers. In addition, the field also covers large-scale energy management technology, such as advanced electricity metering and distribution systems, smart building technologies, and modern power plant control systems.

## Exposure

People, property, natural and human systems, or other elements present in hazard zones that are thereby subject to potential losses. [Source: UNISDR 2009]

## Forced migration

A migratory movement in which an element of coercion exists, including threats to life and livelihood, whether arising from natural or man-made causes (e.g. movements of refugees and internally displaced persons, as well as people displaced by natural or environmental disasters, chemical or nuclear disasters, famine or development projects). [Source: IOM]

## Greenhouse gases

Natural and human-generated gaseous constituents of the atmosphere that absorb and emit radiant heat energy at specific wavelengths within the spectrum of infrared radiation emitted by the Earth's surface, the atmosphere and clouds. These characteristics cause the 'greenhouse effect', whereby absorption of infrared radiation by the atmosphere warms the Earth; water vapour, carbon dioxide, nitrous oxide, methane and ozone are the primary greenhouse gases in the Earth's atmosphere; other greenhouse gases include sulphur hexafluoride, hydrofluorocarbons and perfluorocarbons. [Source: IPCC AR4, WGII]

## Hazard

A phenomenon, substance, human activity or condition that may cause one or more of the following: loss of life, injury or other consequences for humans; property damage; loss of livelihoods and services; social and economic disruption; environmental damage. Hazards may be slow or rapid onset. They may have natural or technological origins, with many being exacerbated by human activity. [Source: adapted from UNISDR, 2009]

## Human rights

Rights inherent to all human beings, whatever our nationality, place of residence, sex, national or ethnic origin, colour, religion, language or any other status. We are all equally entitled to our human rights without discrimination. These rights are all interrelated, interdependent and indivisible. [Office of the UN High Commissioner for Human Rights 2014]

## Human security

Human security means, first, safety from such chronic threats as hunger, disease and repression. And second, it means protection from sudden and hurtful disruptions in the patterns of daily life – whether in homes, in jobs or in communities. [Source: UNDP 1994]

## Humanitarian action

Assistance, protection and advocacy actions undertaken on an impartial basis in response to human needs resulting from impact of slow and sudden onset hazards. [Adopted from Relief Web Glossary of Humanitarian Term 2008]

## Low carbon development

Improving economic and social performance at national, subnational, community, enterprise or other levels while, at the same time, reducing both the net emissions of greenhouse gases and vulnerability, and increasing resilience.

## Maladaptation

Actions that may lead to increased risk of adverse climate-related outcomes, increased vulnerability to climate change, or diminished welfare, now or in the future. [Source: IPCC AR5]

## Migrant

At the international level, no universally accepted definition for "migrant" exists. The term migrant was usually understood to cover all cases where the decision to migrate was taken freely by the individual concerned for reasons of "personal convenience" and without intervention of an external compelling factor; it, therefore, applied to persons, and family

members, moving to another country or region to better their material or social conditions and improve the prospect for themselves or their family. The United Nations defines migrant as an individual who has resided in a foreign country for more than one year irrespective of the causes, voluntary or involuntary, and the means, regular or irregular, used to migrate. [Source: IOM]

### Private sector

Enterprises within the economies of Pacific Island countries and territories and across the Pacific region, at all levels such as household, community, micro, small and medium business, company and corporations, that are run for profit and are not government owned.

### Reduced emissions

Often referred to as mitigation – reduction in greenhouse gas emissions.

### Resilience

The ability of a system, community or society exposed to hazards, and/or climate change, to resist, absorb, accommodate and recover from the consequences of a hazard event or of climate change in a timely and efficient manner. This includes through the preservation and restoration of its essential basic structures and functions. [Source: UNISDR 2009]

### Resilient Development

Development processes and actions that address the risks and impacts of disasters and climate change while progressing to stronger and resilient communities.

### Risk

The combination of the probability of an event and its negative consequences. [Source: UNISDR 2009]

### Risk assessment

A methodology to determine the nature and extent of risk by analysing potential hazards and evaluating existing conditions of vulnerability that, together, could potentially harm exposed people, property, services, livelihoods and the environment on which they depend. [Source: UNISDR, 2009]

### Risk management

The systematic approach and practice of managing risks in order to minimise potential harm and loss. [Source: UNISDR 2009]

### Risk financing

Adoption of an explicit financing strategy to ensure that adequate funds are available to meet financial needs, should a disaster occur. Such financing can be established internally through the accumulation of funds set aside for future use or obtained externally through pre-arranged credit facilities. The banking sector, capital markets and international lending institutions are sources of risk financing. [Source: OECD 2012]

### Vulnerability

An internal characteristic of an affected element, describing its propensity or predisposition to be adversely affected. The characteristics of a person, or grouping, such as a household, community, country, and their situation, that influences their capacity to anticipate, cope with, resist, and recover from an adverse pressure. Vulnerability is a result of diverse historical, social, economic, political, cultural, institutional, natural resource, and environmental conditions and processes. [Source: Lavell et al. 2012]

### Vulnerable group

Any collective or group of people that has the propensity or predisposition to be adversely affected, such as a household, community or country, and their situation, that influences their capacity to anticipate, cope with, resist, and recover from an adverse pressure. [Source: Adapted from Lavell et al. 2012]





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