Strategy for Resilient Development in the Pacific: An Integrated Approach to Climate Change and Disaster Risk Management (SRDP) 2017- 2030

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Foreword

[To be inserted at later date]

Process for the Development and Endorsement of the Strategy

In 2012, at the Pacific Island Leaders Forum, it was decided to support the development of a single integrated regional strategy on climate change and disaster risk management, to succeed the two separate regional frameworks on climate change and disaster risk management (respectively, the *Pacific Disaster Risk Reduction and Disaster Management Framework for Action (RFA)*, and the *Pacific Framework for Action on Climate Change (PIFACC)*) after their expiry in 2015. This decision was operationalized by a roadmap document outlining the process for the development of this new strategy. The substantive work on the formulation of the new strategy 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 *Strategy for Resilient Development in the Pacific : An Integrated Approach to Climate Change and Disaster Risk Management* (SRDP), referred to in this document as 'the Strategy or SRDP', was led by a Steering Committee, whose members were PICT representatives from the SPREP Meeting, the SPC Committee of Representatives of Governments and Administrations, 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. The Steering Committee provided strategic guidance and leadership on the development of the SRDP. A Technical Working Group was also formed to provide technical advice to the Steering Committee and support Pacific Island countries and territories (PICTs) in the development of the SRDP. The Technical Working Group consisted of representatives from the Secretariat of the Pacific Community (SPC), the Secretariat for the Pacific Regional Environment Programme (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 worked in partnership with regional advisors on the engagement process and drafting of the SRDP.

The development of the SRDP included firstly an in depth review of the two previous regional frameworks which provided valuable guidance and lessons learnt, and then an extensive engagement and consultation process with all key stakeholder groups. This included the dedicated consultations held at national and regional level, workshops with specific group such as civil society organisations and the private sector, and information sessions at regional and global fora. Additionally, face to face interviews were conducted for selected stakeholders, and an open online consultation tool was created to make the SRDP draft available to all, including the wider public, for their comments and feedback. The SRDP Technical Working Group also supported information and communication efforts in accordance with an agreed Information and Communication Plan.

A draft SRDP was then endorsed in principle at the SPREP Meeting in September 2014 and at the SPC Committee of Representatives of Governments and Administrations in November 2014. Further work was carried out by the Technical Working Group in support of PICTs in 2016, in particular in light of the adoption of the *Paris Agreement 2015* under the United Nations Framework Convention on Climate Change (UNFCCC), the *Sendai Framework on Disaster Risk Reduction 2015-2030*, the *Sustainable Development Agenda 2015-2030* and World Humanitarian Summit regional consultation for the Pacific.

Executive Summary

Pacific Island countries and territories (PICTs) are highly exposed to a range of natural hazards of hydro-meteorological origin (such as cyclones, droughts and floods) and geological origin (including volcanic eruptions, earthquakes and tsunamis) and man – made hazards such as climate change. These hazards often lead to disasters, which affect thousands of people and exacerbate existing development challenges in the region. The World Risk Report in 2015 has identified the Pacific as having four of the top ten most at risk nations in the world, including the top two most at risk globally.

Climate change and disaster risks increase the vulnerability of Pacific Island people, and significantly undermine the sustainable development of the Pacific region. The effects of climate change magnify disaster risks for example by increasing the frequency and/or intensity of extreme weather events. Climate change impacts also cause progressive long term degradation to the natural environment, to critical ecosystems (eg, coral reefs) and social and economic systems including loss and damage to the system, upon which Pacific Island communities depend for their subsistence and livelihoods.

National and sub-national governments and administrations, the private sector, civil society organisations and communities, and regional organisations and other development partners, all have a unique and key role to play in addressing these challenges, individually and in partnership, to build a more resilient future for the Pacific region. The *Strategy for Resilient Development in the Pacific): An Integrated Approach to Climate Change and Disaster Risk Management (SRDP)* provides targeted strategic guidance to different stakeholder groups on how to enhance resilience, in ways that also contribute to the more fundamental goal of sustainable development.

Part of the high level strategic guidance provided through the SRDP is expressed in the form of non-exhaustive sets of 'priority actions', supplemented in Annex II by 'additional actions', for consideration by the different stakeholder groups. These actions provide guidance and would need to be further articulated at the national level to suit the specific context, priorities and needs of each individual Pacific Island countries and territories (PICTs).

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

In the SRDP, resilient development means nesting actions to reduce causes of climate change and minimise impacts and disaster risks caused by natural hazards, within social and development processes, such as budgeting, sector planning and policy development, and national sustainable development strategies.

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

The SRDP also 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 recognized 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 most often those least able to cope. Human rights based approaches are most effective in ensuring that each person has equitable access to critical services, and humanitarian and development assistance, according to his or her specific needs. The SRDP also recognizes the critical role of integrating gender considerations, and advocates for equitable participation of men and women in planning and implementation of resilience building activities.

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

1) Strengthened Integrated Risk Management to Enhance Climate Change and Disaster Resilience

Pursuing this goal entails successfully managing risks caused by climate change and disasters in an integrated manner, 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 should contribute to strengthening resilient development and achieving efficiencies in resources 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 should contribute to having more resilient energy infrastructure in place, but also to increasing energy security, while decreasing the 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, exacerbated or caused by climate change. Disaster preparedness, response and recovery initiatives should prevent undue human losses and suffering, and minimize adverse consequences for national, provincial, local and community economic, social and environmental systems.

Implementation

The achievement of these goals will also critically depend on the existence of a sound enabling environment, including the availability of resources, the establishment of sound governance arrangements, 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 different communities of practice, working on climate change, disaster risk management, and sustainable development, to share experiences and lessons learned, harmonize 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 SRDP 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 SRDP will only be successful through comprehensive cooperation and collaboration between development partners in support of PICTs.

For the Pacific Island Countries (PICs), the Paris Agreement opens up many new opportunities that can be capitalised on, not just for implementing the Paris Agreement but for creating synergies with the implementation of the SRDP. Furthermore, the *Sendai Framework for Disaster Risk Reduction 2015 - 2030* (UN GA resolution 69/283), in alignment with the *SAMOA Pathway* (UN GA resolution 69/15) also represents opportunities as taking into account the previous experience gained through the *Hyogo Framework for Action*, there is a need for focused action within and across all sectors and levels of government and development partners. More importantly it specifically recognizes the need to enhance the implementation capacity of developing countries in particular Small Island Developing States (SIDS).

With new key global and regional strategies and agreements endorsed by the Pacific, the SRDP will support their implementation, and seek coherence between strategic indicators and targets. The SRDP also aims to reduce reporting by PICs and focus complementary efforts to build a more resilient Pacific for future generations and become a pioneer for other regions of the world.

List of Acronyms

IOM	International Organization for Migration
IPCC	Intergovernmental Panel on Climate Change
IPCC AR5	Intergovernmental Panel on Climate Change - Fourth Assessment Report
OECD	Organisation for Economic Cooperation and Development
PICs	Pacific Island countries
PICTs	Pacific Island countries and territories
PIFACC	Pacific Islands Framework for Action on Climate Change 2006 - 2015
PIFS	Pacific Islands Forum Secretariat
PRP	Pacific Resilience Partnership
REDD+	United Nations collaborative initiative on Reducing Emissions for Deforestation and Forest Degradation
RFA	Pacific Disaster Risk Reduction and Disaster Management Framework for Action or Regional Framework for Action 2005 - 2015
SRDP	Strategy for Resilient Development in the Pacific: An Integrated Approach to Climate Change and Disaster Risk Management (referred to as 'the Strategy' or 'SRDP' in this document
SPC	Secretariat of the 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	University of the South Pacific

1. Setting the Scene

1.1 Introduction

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 in 2015.

The *Resilient Development in the Pacific: An Integrated Approach to Climate Change and Disaster Risk Management* (SRDP) has been developed, first, on the basis of reviews of the two previous regional frameworks. Thus, it incorporates the lessons learned from the implementation of the RFA and PIFACC[1]. Secondly, the document has also been developed through an extensive and inclusive engagement process with stakeholders, from community to international levels.

The SRDP identifies actions for enhanced resilience to climate change and disasters, while aiming to eradicate poverty and, thereby, ensuring more sustainable development. The SRDP is for Pacific Island countries and territories (PICTs), but is cognizant of their different needs and vulnerabilities as well as status in the context of United Nations processes, including the United Nations Framework Convention on Climate Change (UNFCCC).

These actions have been identified from relevant regional, national and sub-national 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 the PICTs. The relevance of the suggested priority actions will evolve over the lifetime of this Strategy.

Both disaster risk management and responses to climate change in the Pacific should be consistent with national and regional goals, as well as with regional and international commitments such as the *Small Islands Developing States Accelerated Modalities of Action [S.A.M.O.A.] Pathway 2014*; UNFCCC including the *Paris Agreement 2015*; the *Sendai Framework for Disaster Risk Reduction 2015-2030*; the *Sustainable Development Agenda 2015-2013*; the *Framework for Pacific Regionalism*; the World Humanitarian Summit and any other mechanisms.

Key technical terms are defined in **Annex 1**.

1.2. Climate Change and Disaster Risks in the Pacific

The Pacific Islands region is one of the most at risk regions in the world from natural hazards. The World Risk Report in 2015 has identified the Pacific as having four of the top ten most at risk nations in the world, including the top two most at risk globally[2] . Recent climate change projections for the Pacific Islands region suggest that, among other changes, there are likely to be substantial increases in the occurrence of extremely hot days and warm nights by 2030, and an increase in the number of

[1] 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.

[2] United Nations University (2015) *World Risk Report, 2015, Focus: Food Security*, Bündnis Entwicklung Hilft (Alliance Development Works), and United Nations University – Institute for Environment and Human Security (UNU-EHS).

heavy rain days (20–50 mm) by mid-century[3]. Extreme rainfall events that occur 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[4].

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[5].

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[6]. 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[7]. Sea level rise, droughts, flooding and tropical cyclones will continue to be strongly influenced by the El Nino southern Oscillation (ENSO) with higher sea levels in the Central and Eastern Pacific and more tropical cyclones occurring with a strong El Nino event[8].

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[9]. 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 countries and across the Pacific.

Climate change is likely to increase 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.

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[3] Australian Bureau of Meteorology and CSIRO (2014) *Climate Change in the Pacific: Scientific Assessment and New Research. Volume 1: Regional Overview. Volume 2: Country Reports*, pg 56.

[4] Ibid pg 5.

[5] Intergovernmental Panel on Climate Change (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*, Intergovernmental Panel on Climate Change (IPCC), Geneva, Switzerland.

[6] IPCC (2013) *Working Group I Contribution to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change 2013: Summary for Policymakers*, Intergovernmental Panel on Climate Change (IPCC), Geneva, Switzerland.

[7] IPCC, 2013: Summary for Policymakers. In: Climate Change 2013: The Physical Science Basis. Contribution of Working Group I to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change [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)]. Cambridge University Press, Cambridge, United Kingdom, New York USA.

[8] Ibid

[9] Ciais et al (2013) *Carbon and Other Biogeochemical Cycles. In: Climate Change, 2013. The Physical Science Basis. Contribution of Working Group I to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change* [Stocker,et al.] Cambridge University Press, Cambridge, United Kingdom and New York, NY, USA, pg 465-570.

Even without climate change, the vulnerability of PICTs is increasing. This is due to factors such as population growth and migration (internal and external), poorly planned coastal development, unplanned urban growth and land use, inadequate maintenance of infrastructure, inherent environmental characteristics and environmental and ecosystem degradation, including contamination of sub-surface and coastal waters.

In addition to being intrinsically vulnerable due to their specific geographical location and characteristics, PICTs are located in disaster-prone areas, such as the 'low latitude cyclone belt' and the 'ring of fire', as well as being in a vast ocean. The exposure of most PICTs to meteorological and geological hazards is extremely high. 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[10]. In the last decade, some PICTs have experienced natural disaster losses that, in any single year, have approached and, in some cases even, exceeded their GDP. Examples include the 2007 earthquake and tsunami in the Solomon Islands, which caused losses of around 90 % of the 2006 recurrent government budget, and 2004 Cyclone Heta in Niue, where immediate losses amounted to over five times the 2003 GDP[11]. Large scale losses have continued with recent Category Five Tropical Cyclones in 2015 and 2016. Tropical Cyclone Pam caused an estimated 449.4 million in economic value of the effects equivalent to 64.1% of the gross domestic product (GDP) in Vanuatu[12].

A comparison of current and future tropical cyclone risk for the 14 PICs indicates increasing losses for the region, largely as a result of the projected increase in Category Five cyclones, and associated increase in intense rainfall. While, for the region as a whole, the projected increase in average annual losses is relatively small, increases by the end-of-century for many individual countries are large – for example, increases by as much as 25% for Samoa, 14% for Niue and 7% for Vanuatu[13] could be expected.

Eight[14] of the 20 countries with the highest average annual disaster losses scaled by gross domestic product are from the Pacific Islands region[15]. Of the 284 recorded disasters that occurred in the Pacific Islands region between 1950 and 2013, the vast majority were caused by weather-related events, especially severe storms. Both individually and collectively, these disasters had enormous social, economic and environmental consequences[16].

However, in many PICTs the accumulated impacts of small and medium-sized events, such as local flooding, high waves and localized 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. Damages are more likely to involve housing, land, and local infrastructure, rather than major mortality or destruction of nationally-critical economic assets. This

[10] 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,D.C, pg 7.
[11] Ibid.
[12] *Vanuatu, Post-Disaster Needs Assessment, Tropical Cyclone Pam, March 2015*, Government of Vanuatu, pg ix.
[13] Australian Government (2014) *Current and Future Tropical Cyclone Risk in the South Pacific also Pacific Catastrophe Risk Assessment and Financing Initiative (PCRAFI)*. World Bank, Washington DC, pg 12.
[14] The eight PICs, in descending order of disaster losses, are Vanuatu, Niue, Tonga, the Federated States of Micronesia, the Solomon Islands, Fiji, the Marshall Islands, and the Cook Islands.
[15] World Bank (2012*)* pg 5.
[16] SPREP (2015) *Winds of support propel Pacific Meteorological Service*, https://www.sprep.org/staff-articles/winds-of-support-propel-pacific-meteorological-services, August.

warrants close engagement with the international work on loss and damage, and utilising disaster damage and loss data to inform policy and planning decisions.

Importantly, the consequences of these small- and medium-sized events are far more amenable to being reduced through investments in disaster risk management and climate change adaptation, including prevention, preparedness and building back better after a disaster. The Paris Agreement also noted that 'Parties recognize the importance adverting, minimizing 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'.

From community-level action 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. One outcome of these efforts has been a significant reduction in the number of human fatalities when a disaster occurs. This almost certainly reflects the investments made in disaster preparedness and response in the Pacific in recent decades, including improved national and regional response mechanisms and early warning systems. Nevertheless, significant additional efforts in risk management are needed in order to address the increased risk exposure.

1.3 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 wellbeing of our people and to promote their sustainable development.

1.4. Our Mission

We will work collectively to strengthen our resilience to climate change and disasters through improved and integrated climate change adaptation and risk management, low carbon development and more effective preparedness, response to and recovery from emergencies and disaster events, and seeking the requisite support through the relevant international processes including loss and damage.

1.5. Target Audience

The Strategy aims to provide guidance on enhancing resilient development in sectors, such as health, education, water and sanitation, social assistance, culture, energy, agriculture, fisheries, forestry, tourism, mining, environment and infrastructure and resilience of ecosystem and biodiversity.

It provides guidance of relevance to:

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

This Strategy acknowledges that PICTs have sovereign mandate over their development plans and processes, and over their national positions on multilateral agreements, and that there is a different status for countries and territories under these agreements.

1.6. Strategic Approach and Rationale

Adaptation to climate change and disaster risk management are powerful tools to build resilience in the face of hazards and other pressures. The aim is to reduce the vulnerability of individuals, societies, economies, the environment and natural resources to the consequences of a full range of current and anticipated hazards and other adverse stresses, whether rapid or slow onset. This involves focusing on improving the ability to anticipate, prepare for, respond to and recover from their consequences. Resilience building requires understanding that responses to climate change and disasters include the consideration of a range of factors, such as those illustrated in Figure 1.

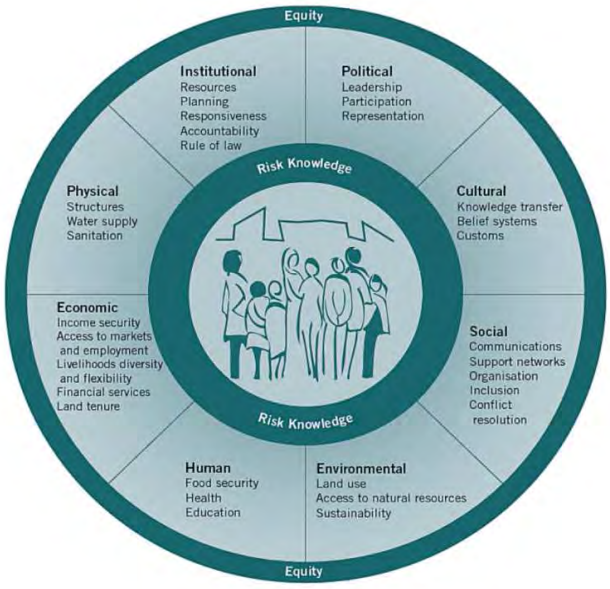


Figure 1. Factors influencing resilience[17].

The PICTs recognize the inter-linkages between managing the risks caused by natural hazards that can lead to disasters, and the risks or disaster impacts exacerbated by climate change. The advantages of a more integrated approach, exemplified by the fact that in many cases, managing these risks on the ground amounts to implementing the same or similar actions are also acknowledged. Examples include the establishment and enforcement of building codes, construction of coastal protection measures, rainwater harvesting systems and moving vulnerable structures out of high risk zones. Benefits of a more systematic and integrated approach to reducing the consequences of climate change and other hazards include rationalising multiple funding sources and multiple projects addressing similar needs. Importantly, similar reforms in the public and private sectors and by civil society are required if management of these hazards is to be more effective. Other benefits include more efficient use of human, financial and other resources available to PICTs, improved donor alignment with national priorities and regional good practices and avoidance of mal-adaptation and unsustainable development.

The intention of the SRDP is to guide actions to reduce the causes of climate change and minimise its impacts and disaster risks within social and economic development processes, such as budgeting, sector planning and policy development, and national sustainable development strategies. This

[17] Turnbull, M at el (2013) *Toward Resilience: A Guide to Disaster Risk Reduction and Climate Change Adaptation,* Practical Action Publishing Ltd, United Kingdom, pg 9.

builds on the mainstreaming of climate change and disaster risk management and the implement joint national action plans on climate change and disaster risk management in many countries. This will facilitate more rapid progress along the path of sustainable development. The SRDP refers to this as climate and disaster resilient development (Figure 2). However, it must be noted that development itself can also generate risks that need to be identified and managed.

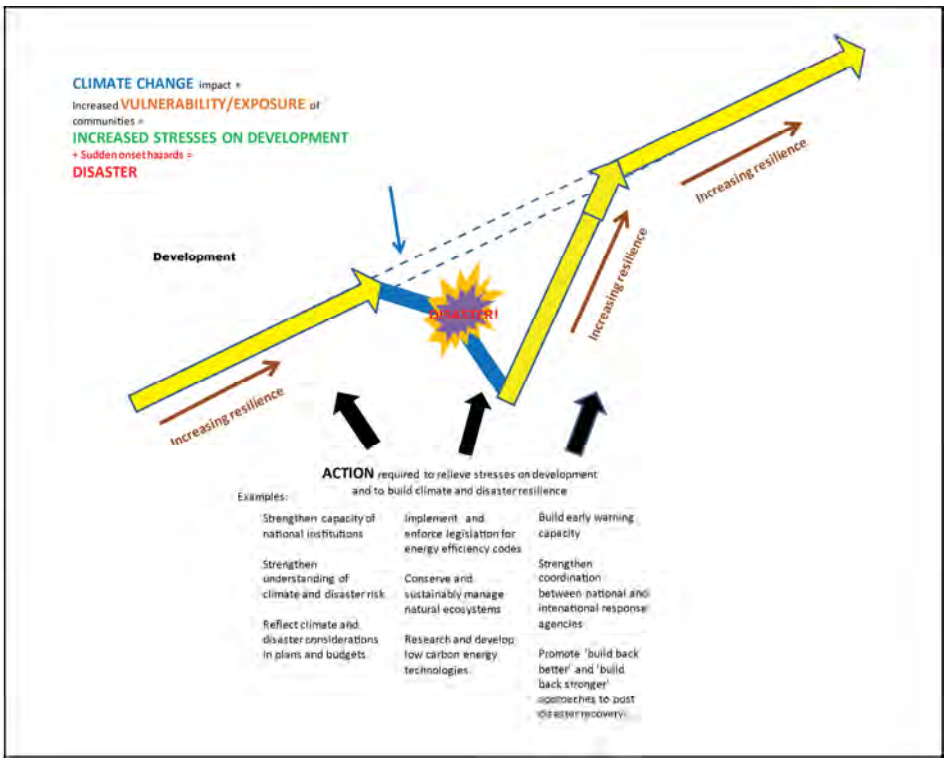


Figure 2. Climate Change and Disaster Resilient Development.

The roles of sectors (such as health, education, water and sanitation, social assistance, energy, agriculture, fisheries, forestry, culture, tourism, mining, environment and infrastructure) are also recognized as particularly important, as climate change and disaster risks are cross-cutting and actions must, therefore, take place at sectoral level. One such example would be through targeted sectoral or multi-sectoral programs which deliver concrete results for the peoples of the Pacific. It is important to have a common understanding of the challenges posed by climate change and disasters, as well as how best to address them at relevant levels, from community to global. We must build on lessons learned but also mobilize new and additional capacity at all levels, in terms of financial resources, information, traditional and science-based knowledge, skills and expertise, and the reshaping of governance and institutional arrangements. There is a need to enhance social and technical innovation, in both the public and private sectors. Management systems must better align research and analysis, and science and technology, with policy making, planning and implementation.

There is a need to recognise even further the value of integrating western and indigenous forms of scientific knowledge, and utilizing traditional knowledge and technologies, while respecting the rights of the custodians of this knowledge. All community members, including women, children, youth, persons with disabilities, older persons and the infirm, are powerful agents of change. As such, they should be encouraged to contribute knowledge and learning in meaningful and equitable ways. More generally, sources of information related to managing disaster and climate change risks, should be better rationalised and coordinated, especially at national and regional levels to provide

early warning and to address multiple hazards. This includes sharing data and other information amongst PICTs, regional partners, donors and international organisations.

The SRDP advocates a human rights-based approach to ensure that each person has equitable access to humanitarian and development assistance, according to his or her specific needs. Importantly, climate change and disasters selectively impact lives and livelihoods, and most often those least able to cope. 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. The SRDP recognizes the critical importance of gender considerations, and supports equitable participation of men and women in the planning and implementation of all activities designed to reduce the consequences of climate change and to prevent disasters.

New and possibly unforeseen challenges to achieving and maintaining the resilience of PICT development outcomes are likely to arise through the lifetime of the SRDP. Some will manifest relatively slowly, and may represent issues that are already apparent but not yet of major and widespread concern, including the possible use of geo-engineering to combat climate change. Others will occur as relatively rapid onset events, such as the ongoing process of ocean acidification, which may have dire consequences for PICTs. Despite the inherent shortcomings in information and understanding, and the resulting uncertainties, it is important that PICTs, and their development partners, have in place procedures that facilitate early identification of these issues, as well as appropriate responses. This will also require support for data and information collection and storage systems at the national level, to enable simpler procedures for reporting on mitigation and adaptation needs, and to develop baselines for loss and damage.

The SRDP also advocates for the pursuit of a low carbon development pathway that will benefit PICTs through increased energy security and self-sufficiency, long-term economic gains, and more resilient economic and environmental systems. This is consistent with the Paris Agreement and the call for low greenhouse gas emissions development, but will require support to PICs in accessing the technical and financial support required from the financial mechanism of the UNFCCC. It also provides for opportunities to promote synergies between adaptation and mitigation.

Improving the way PICTs manage climate change and disaster risks depends, in part, on them being more successful in the way it they advocate, negotiate and mobilize resources at global and bi-lateral levels. PICTs require international financial support to build resilience, not only to natural hazards, but also to changes in the climate, given that it is extremely likely (95% confidence) that these are predominantly human induced[18]. However, the SRDP is not prescriptive regarding the position that countries might take in international negotiations related to climate change or disaster risk management. The SRDP is an apolitical policy document, focussed on promoting positive change and federating the various stakeholders around the common goal of building resilience of PICTs. Hence, it is important to note that implementation of responses to climate change will be guided by the UNFCCC and associated decisions and agreements.

The SRDP aims at providing guidance that can be applied to all climate- and disaster-related hazards. Nevertheless, it is recognized that particular types of hazards, such as biological hazards (disease epidemics), violence and civil unrest and other hazards require additional and more specific

[18] 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, pg 17.

approaches that cannot all be covered in this document. Moreover, there is an acknowledgement that there are regional and national strategies that specifically address these other types of hazards.

Linkages to Global Frameworks

In 2015, world leaders adopted 17 Sustainable Development Goals (SDGs) of the *Agenda for Sustainable Development 2015 - 2030*. These new Goals will direct efforts over the next 15 years to mobilize efforts to end all forms of poverty, fight inequalities and tackle climate change, while ensuring that no one is left behind.

The Paris Agreement 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. The agreement and associated decisions have also laid out areas where PICs will need to contribute and interact, and require technical support from regional and international agencies. Significant national and regional level work will be required to address the commitments and actions outlined in the Agreement and associated decisions.

Loss and damage was included as a separate article (Article 8), which outlines 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.'[19]

Support will also be required for interactions with the Warsaw International Mechanism[20].

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).

The *SIDS Accelerated Modalities of Action [S.A.M.O.A.] Pathway* is the outcome of the Third International Conference on Small Island Developing States (SIDS Conference), 1-4 September 2014,

[19] Article 8, Paris Agreement, United Nations Framework Convention on Climate Change, 12 December 2015, FCCC/CP/2015/L.9/Rev.1

[20] 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.

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, sustainable use of marine resources, and means of implementing those objectives. The Pathway calls for supporting efforts by SIDS to strengthen 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 were urged to increase technology, finance and capacity-building support to enable increased mitigation ambition and adaptation actions on the part of developing countries.

The World Humanitarian Summit identifies 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 and the last to remain as part of recovery efforts. For this reason, all responders need to work jointly with affected communities by involving them in leadership and decision-making, particularly women, youth, the elderly and people living with disabilities.

Diversified Approaches for Vulnerable Groups

The individual impacts of disaster and climate change are influenced by pre-existing cultural and social beliefs and practices about the roles, functions, responsibilities and social standing of different groups within societies. Vulnerable groups, including women, children, older persons, and persons with 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.

Women are often excluded from participation in formal decision making processes, and can also be excluded from having their voice heard, where their access needs are not expressly taken into account. Women have particular health, water, sanitation and housing needs, and are also frequently required to take on additional caring responsibilities when community resources are overstretched. Additionally, they are subject to further safety and security risks in post-disaster periods, including heightened risks of sexual and gender-based violence.

Persons with disabilities are a heterogeneous group, and cannot be treated as a single category. However, broadly, they can be at risk of having particular health considerations overlooked. They may have mobility restriction and lack access to appropriate shelter. They may also have safety and security risks overlooked in times of emergency. These considerations also apply to older persons: while they often enjoy increased social standing and access to community decision-making forums, their particular mobility, health and social inclusion needs are often left unrecognized.

Children face increased risks of violence and abuse following disasters, including increased risk of labour exploitation, and are often excluded from consultation measures designed to support the implementation of inclusive programs. Children also have unique coping and resilience strategies, and post-disaster programming must take these into account.

Youth are another key sector to engage. Young people should be involved in both decision-making and implementation. This includes encouraging young people to partake actively in the collective resilience building efforts.

It is important to acknowledge the capabilities of women, children, youth, older persons, and people with disabilities. Strategies to engage all members of society in shared decision-making and implementation should be employed, recognizing the barriers to participation that can exist.

Encouraging the active engagement of diverse groups can help to ensure that different needs are addressed and help to successfully build resilience to climate change and disasters.

All vulnerable groups are at risk of having their particular needs overlooked or ignored in programming, if organizational policies and mandates are not in place to ensure that they are consulted and that their needs are mainstreamed. Additionally, 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.

The SRDP advocates that civil society organizations and other stakeholders, such as governments, the private sector, regional organizations and other development partners prioritize working with vulnerable groups. Civil society needs additional capacity building to fulfil this purpose. Civil society should also be supported to participate in and shape relevant decision-making processes related to climate change and disaster resilient development, and to help ensure the accountability of governments, administrations and regional organisations.

As a group, civil society is a key player in managing climate change and disaster risks, often representing the needs and rights of the most vulnerable. Civil society organisations are acknowledged to be development partners in their own right. Their perspectives are particularly important for they play a vital role in enabling people to claim their rights in promoting rights-based approaches, in shaping development policies and partnerships and overseeing their implementation. They are also vital in identifying and addressing the social, cultural and economic barriers influencing women and men in risk management planning and implementation and in providing services in areas that are complementary to those provided by the public sector.

1.7 Guiding Principles

The following are key principles guiding efforts to achieve sustainable climate change and disaster resilient development:

- All hazards and their impacts should be managed, but with emphasis on those which pose the greatest threat to the resilience of development outcomes in the Pacific.
- Addressing climate change and managing disaster risks should be based on the local and national situation, priorities and needs. In particular for climate change the principles of the UNFCCC and the Paris Agreement will be applied in relation to financing and support and the *Sendai Framework for Disaster Risk Reduction 2015 - 2030* should be used as guide.
- Where possible and appropriate, we should adopt integrated multi- hazard approaches to addressing climate change and managing disaster risks, including for policy making, planning, financing, programming and implementation, to create cost-effective synergies and avoid mal-adaptation.
- The strengthening and development of partnerships across countries and territories should be encouraged without compromising sovereignty and related considerations (this includes sharing of lessons learned and best practices).
- Priority must be given to addressing the needs, and respecting the rights, of the most vulnerable, including but not limited to persons with disabilities, children, youth and older persons.
- Sound risk governance requires whole-of-region, whole-of-country and whole-of-government adoption of the core values of inclusiveness, equity, transparency, shared responsibility and accountability by the public and private sectors, by civil society and other stakeholders.
- Climate change and disaster resilience processes must be multi-sectoral, multi-stakeholder, participatory and inclusive, including being gender balanced, drawing on gender segregated

information on the impacts of climate change and disasters, providing equal opportunities for women and men in key roles and decision-making processes, and actively and consistently engaging national women's mechanisms; such as national women's councils.

- Climate change and disaster resilience processes should build on and help reinforce cultural resilience and knowledge of communities, who should be engaged as full actors in designing plans, activities and solutions that are of relevance to them.
- Where appropriate, disaster risk reduction and climate change adaptation should consider nature-based interventions, such as ecosystem-based adaptation.
- Open and ready access to reliable sources of traditional and contemporary information should be encouraged to manage disaster and climate change risks in an effective and efficient manner.
- The traditional holistic worldview, where spirituality plays an integral role in constructing meaningful life and pro-active existence, should be acknowledged and factored in, as appropriate.

2. Our Goals

Three strategic goals are at the core of the SRDP (Figure 3). The success of actions related to each goal depends on the active and sustained participation of individuals, communities, governments and administrations, private sector and civil society. The goals are:

1. Strengthened Integrated Risk Management to Enhance Climate Change and Disaster Resilience
2. Low Carbon Development
3. Strengthened Disaster Preparedness, Response and Recovery

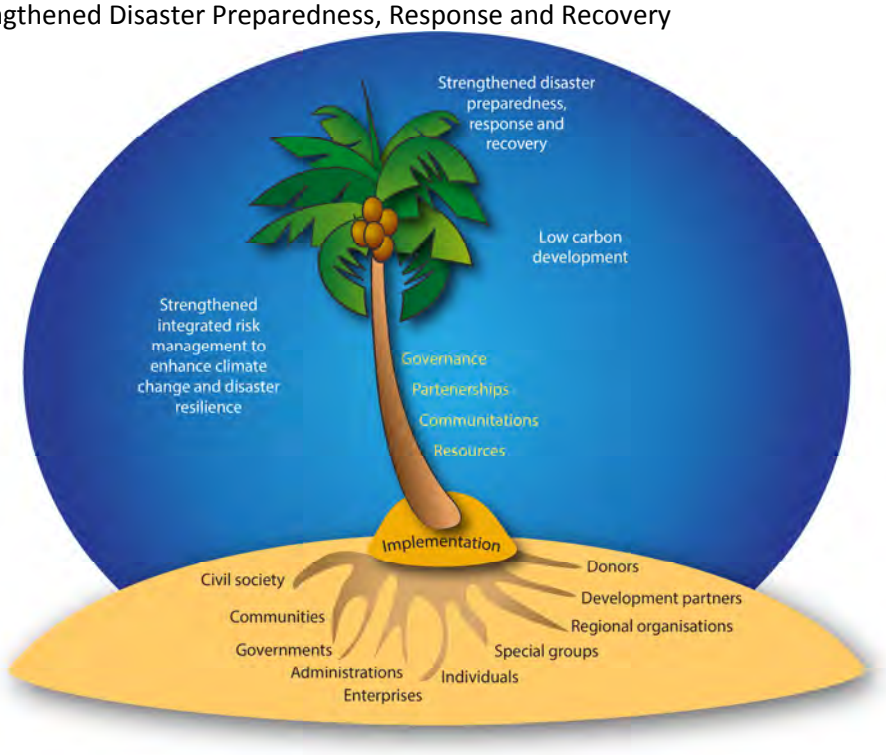


Figure 3. The three strategic goals, with the importance of a sound enabling environment for implementation and multi-stakeholder engagement.

Goal 1: Strengthened Integrated Risk Management to Enhance Climate Change and Disaster Resilience

Context, Challenges and Change

The PICTs are highly vulnerable to climate change and disaster risks and their exposure is likely to increase in the future (please refer to section 1.2 for more detail). Increased development and changes in the climate due to anthropogenic action are already affecting, and will continue to affect, food, water, biodiversity and human health, cultural sustainability, wellbeing and security, the overall state of the economy and the environment in PICTs. Sea-level rise poses a serious threat to the integrity and survival of PICTs.

Adaptation to climate change must extend beyond concerns related to the anticipated increases in weather- and climate-related hazards, to also consider the underlying causes of vulnerability to these hazards, including poverty, hardship and isolation.

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. Despite already being high, the vulnerability of PICTs is increasing even further, for reasons such as urbanization, increased population and development in hazard prone areas, poorly informed planning, or no planning at all, and unsustainable resource management.

There is a need to 'institutionalise' the processes that reduce vulnerabilities and risks, making them integral parts of social and economic development planning. This means successfully mainstreaming climate change and risk reduction into policies, plans, training, advocacy, community-based approaches etc. from local to regional levels, and across sectors, to make development outcomes more sustainable and risk resilient, and reduce vulnerabilities. Key sectors, such as infrastructure, tourism, health, water and sanitation, agriculture, forestry and fisheries have a central role to play in owning and implementing risk reduction strategies. There should be a focus on improving livelihoods, human health and wellbeing, ecosystem health and services, including biocultural diversity and the economy, across multiple sectors. Being inclusive of all stakeholders and involving communities in decision-making processes will help ensure that economic development and social development are resilient to climate change and to disasters.

The private sector should play a central role to the building of economic resilience in the Pacific. How and where the private sector invests in the Pacific will play a large part in determining risk levels. Partnering with, and guiding the private sector, for example, through incentive schemes will be critical. Whilst businesses of all sizes are increasingly confronted with disaster impacts adversely affecting their productivity, growth, assets, and sustainability, the accumulating and increasing cost of disasters goes beyond direct economic losses. The PICTs rely heavily on economic activity established in high risk areas. Disasters are resulting in lost social and economic opportunities, increasing indebtedness and the diversion of development funding. This will be exacerbated by climate change. Given that Pacific economies are generally focused on relatively few sectors, notably tourism, mining, fisheries, forestry and agriculture, the direct and indirect economic, social and environmental benefits from investing in disaster resilience can provide tangible and multiple benefits to communities. 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.

There is a need to build on and strengthen successful initiatives, and develop new instruments for climate change adaptation and disaster risk reduction, such as cost benefit analysis, ecosystem-

based approaches and coastal zone management, and support these with the best available knowledge and development of down-scaled hazard and risk information. Relevant information needs to be openly available and accessible to all stakeholders, with stakeholders contributing to information and knowledge generation in ways that are consistent with their comparative advantages. Information developed and managed by governments should be made more accessible to the private sector and other partners, to encourage and enhance the quality of public-private collaboration.

The Paris Agreement calls for PICs to develop and implement National Adaptation Plans, and financial and technical support will be provided in this regard. PICs are obliged to submit Adaptation Communications that provide information on actions taken as well as priority adaptation needs, for consideration in the global stocktake process under the Paris Agreement. Regional and international organisations should provide the requisite support so that PICs can avail themselves of this opportunity. The implementation of the SRDP and the Paris Agreement should be complementary.

Taking into account the previous experience gained through the Hyogo Framework for Action, the *Sendai Framework for Disaster Risk Reduction 2015-2030* develops the need for focussed action within and across all sectors and levels of government in 1) understanding risk; 2) strengthening disaster risk governance and manage disaster risk; and 3) investing in disaster risk reduction for resilience. The Sendai Framework outlines a number of key priority actions at the local, national, regional and global levels that complement and guide this SRDP goal.

Strategic Objective

Disaster and climate change risks are successfully managed, in an integrated manner, within social and economic development planning processes and practices, to reduce accumulation of such risks and loss and damage, and to prevent the creation of additional risks.

Outcome

Resilient development is strengthened, and efficiencies are achieved by pursuing a more integrated approach to climate change adaptation and disaster risk reduction through policies, plans, resource allocations, capacity building, and actions at community, provincial, national and regional levels.

Priority Actions [additional actions are listed in **Annex 3**]

i) By National and Sub-National Governments and Administrations:

a) Embed climate change and disaster resilience building initiatives, using integrated approaches, within national and sub-national sustainable development strategies, social development plans, sector plans, practices and resource mobilization.
b) 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 climate change financing are pursued, supported by regional agencies. PICs should also avail themselves of opportunities for technical and financial support for National Adaptation Plans and Adaptation Communications available under the Paris Agreement.
c) Ensure that annual- and medium-term budgets include climate change and disaster resilient policy and investments.
d) Strengthen capacities at the local government-level and communities through inclusive gender-responsive decision-making systems and human rights-based approaches to ensure effective delivery of development initiatives.

e) Develop and implement, through inclusive multi-sectoral and multi-stakeholder mechanisms, concrete actions on the ground to ensure the climate change and disaster resilience of key public infrastructures, including communications, roads, water and sanitation, hospitals and schools.
f) Encourage inclusive and decentralized planning and decision-making systems to strengthen capacity for disaster and climate change risk management at the local and community levels.
g) Draw on existing capacity and assist in developing further the capacity of civil society organizations 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 action in partnership with communities.
h) Strengthen the capacity of institutions, such as national 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.
i) Provide incentives to the private sector to reduce their risk and to work collaboratively with governments, communities and partners including through Public-Private Partnerships.
j) 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, and loss and damage under the Paris Agreement.
k) Conduct monitoring and evaluation at national and sub-national levels regularly, with results to be open and transparent to the public to the extent possible.

ii) By Civil Society and Communities:

a) Strengthen the capacity of civil society organizations 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.
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 the engagement of civil society organisations and communities to be human rights-based and to use appropriate methods that ensure inclusive participation of vulnerable groups to address their specific needs.
e) Strengthen linkages with the private and public sectors, including creating space for collaboration with these sectors.
f) Encourage a spiritual, theological and cultural inclusive approach that underpins personal and community participation in strengthening risk management.

iii) By the Private Sector:

a) Encourage the use of risk information from governments 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 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.

e) Strengthen private–public partnerships to advance integrated approaches into 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 'risk resilience tips' and other relevant guidance and information.

iv) By Regional Organisations and Other Development Partners:

a) Incorporate climate change and disaster resilient development considerations in all relevant strategies, frameworks and related plans.
b) Facilitate technical and financial support to PICs to comply with their obligations under the Paris Agreement.
c) Apply an integrated risk management approach to development assistance.
d) Integrate human rights-based approaches in all initiatives, with allocated budgets and technical support.
e) Support governments to include disaster and climate change risk financing in national sustainable development strategies and processes, and support their access to international financing and support.
f) 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.
g) Work in close collaboration with other stakeholders to deliver relevant capacity-building programmes, including on loss and damage.
h) Collaborate to ensure that the relevant monitoring frameworks including the Sendai Framework monitor, Sustainable Development Agenda, Paris Agreement, and other relevant frameworks, are aligned so as to present as little burden as possible.
i) Strengthen effective use of science, technology, and knowledge management to inform disaster risk reduction and climate change adaptation.

Goal 2: Low Carbon Development

Context, Challenges and Change

Most PICTs contribute less than 0.01% to the global total of carbon dioxide emissions[21], yet PICTs stand to suffer most from the negative impacts. Nevertheless, all PICTs are endeavouring to minimize their emissions, through actions commonly known as "mitigation" in the climate change community of practice. These initiatives are a testimony to the seriousness with which PICTs view the issue of global climate change and their commitment to global environmental agreements. Despite their globally insignificant emissions, leadership in this regard is already being shown by PICTs, as reflected in the 2013 Majuro Declaration for Climate Leadership, in the *Framework for Action on Energy Security in the Pacific*, and National Determined Contribution (NDCs) will contribute to low carbon development.

Under the Paris Agreement, PICs are obliged to prepare and implement NDCs (strategies and actions for emissions reductions) and long term low carbon development strategies. As the agreement commits technical and financial resources to develop and implement these, there is a clear opportunity for PICs to advance all the issues raised above. Regional and international organisations have a key role in supporting these efforts in the context of implementing the Paris Agreement.

There are important synergies between low carbon development and building resilience. Energy infrastructure should be designed, located, operated and maintained in ways that minimize hazard risks, as well as the adverse consequences of weather extremes and climate change. There should also be an effort to diversify energy infrastructure. This would result in the increased resilience of power generation plants, petroleum storage and distribution facilities, of electricity distribution lines and of renewable energy installations. Improvements in waste management, including through reduction, recycling, reuse and environmentally sound disposal methods, will also contribute to reducing the carbon intensity of development while, at the same time, enhancing the resilience of natural and human ecosystems.

Comprehensive approaches to slowing the rate of climate change involve both reducing greenhouse gases and increasing carbon stored in natural ecosystems. When, as advocated in the SRDP, such activities are also linked to development processes, they are usually described as “low carbon development” initiatives (Figure 4).

[21] SPREP, 2012. Pacific Environment and Climate Change Outlook. Secretariat of the Pacific Regional Environment Programme (SPREP), Apia, Samoa, pg 232.

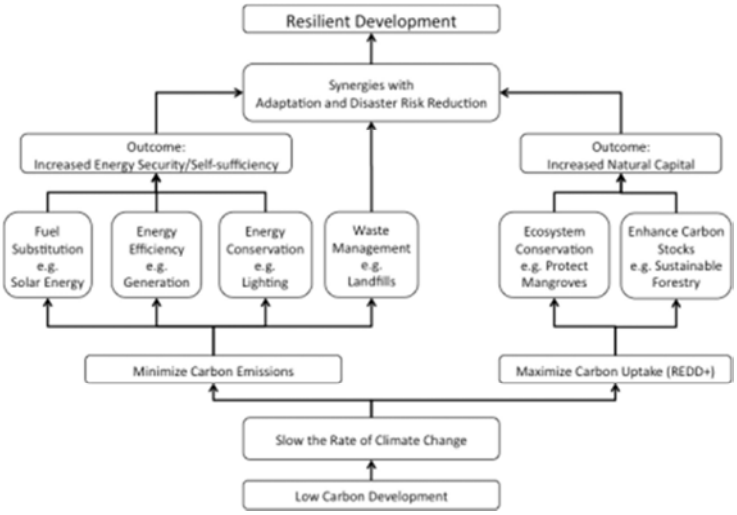


Figure 4.The multiple aspects of, and contexts for, low carbon development with illustrative examples.

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 hydro power and biomass – grew at a rate of 4.6% per year. Total CO_2 emissions grew by 3.9%. The annual average growth rate in carbon dioxide intensity (tonnes of carbon dioxide per constant 2000 $ million) was 0.5% between 1990 and 2010[22].

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, rather than satisfying demand through increases in the energy supply. The investments could involve changing to 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. For example, climate-smart agriculture practices can ensure a sustainable and resilient agriculture system, consistent with low carbon development, as would more efficient use of energy within the fisheries sector. Investment in clean and affordable energy can diversify the sources of energy and, thereby, strengthen resilience to economic shocks. Investing in green economies also holds 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.

Even with access to the best technology, low carbon development will not succeed if people do not change their energy consumption patterns, as well as how they manage their natural resources. National action needs to be complemented by action at provincial and community level. Achieving low carbon development at the local level will require major changes in people's behaviour and

[22] Asian Development Bank (2013) *The economics of climate change in the Pacific*. Mandaluyong City, Philippines: Asian Development Bank, pg 103.

attitudes, with the incentives being a more reliable and cheaper energy supply. Since the required shifts will be difficult to achieve, the changes need to be strategized 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.

Strategic Objective

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

Outcome

Energy security is improved, net emissions of greenhouse gases are decreased, and the resilience of energy infrastructure is enhanced.

Priority Actions [additional actions are listed in **Annex 3**]

i) By National and Sub-National Governments and Administrations:

a) Require energy infrastructure to be designed, located, operated and maintained in ways that minimize hazard risks, as well as the adverse consequences of weather extremes and climate change.
b) PICs to utilize 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.
c) PICs to seek technical and financial support to develop and implement NDCs and long term low carbon development strategies.
d) 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 mangroves, coastal, and forest management.
g) Establish programmes to support private investment in low carbon development.
h) Increase transparency of subsidies on fossil fuels, 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 incentivized.
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.

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 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.
e) Collaborate with governments to ensure that policy initiatives related to low carbon development are discussed publically prior to being considered for adoption.
f) Encourage a spiritual, theological and cultural inclusive approach for promoting and undertaking low carbon development.

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 minimize hazard risks, as well as the adverse consequences of weather extremes and climate change.
b) 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, social and environmental implications.
c) Support the development of local and regional enterprises, providing energy technologies and services.
d) Develop, update and apply technical standards for energy technologies to promote energy efficiency, while ensuring that the needs of small-scale businesses are addressed and, notably, those active in the informal sector.
e) Ensure cooperation with relevant national agencies to promote the development and reviewal of appropriate energy policies and plans.
f) 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 forest-dependent communities.

iv) By Regional Organisations and Other Development Partners:

a) Facilitate adequate and timely financial and other support to PICTs so they can achieve their low carbon and resilient development goals.
b) Facilitate technical and financial support to PICs to carry out their obligations under the Paris Agreement.
c) 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.
d) Assist civil society, community and other non-governmental organisations to participate meaningfully in regional and international advocacy for low carbon development.
e) Research and develop low carbon energy technologies and practices that are appropriate and practical for the region.

f) 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 benefits.

Goal 3: Strengthened Disaster Preparedness, Response and Recovery

Context, Challenges and Change

Situated in what is recognized to be the most disaster-prone region in the world, PICTs are highly vulnerable to sudden and slow-onset hazards and disasters,[23] (please refer to section 1.2 for additional detail). These have caused and continue to cause substantial loss of life, injury, physical and psychological trauma, decreased access to goods, services, assets and livelihood, as well as sizeable financial and economic costs that undermine sustainable development. Well-coordinated, fast and effective disaster preparedness, response and recovery, combined with long-term initiatives on disaster risk reduction and risk prevention, help reduce these losses, and strengthen the resilience of PICTs.

PICT governments also face critical challenges in financing initiatives to enhance resilience to disasters. Most 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. In addition, PICTs are constrained by their size, limited borrowing capacity and access to international insurance markets. In the absence of easy access to loans and well-functioning insurance markets, a large portion of the economic losses stemming from adverse extreme events are borne by governments and households, often supported by development partners.

The steady growth of disaster risk, including the increase of people and asset exposure, combined with the lessons learned from the past disasters, indicates the need to further strengthen disaster preparedness for response, anticipate future events, integrate disaster risk reduction in response preparedness and ensure the capacities are in place for effective response and recovery at all levels.

Climate change will bring new kinds of risks, which the disaster management community has not traditionally worked with, including potential social conflict arising from migration, new kinds of epidemics, large-scale crop failures and food shortages. Furthermore, increasing population pressure in urban areas is also likely to increase vulnerability of urban populations. Therefore, there is an urgent 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. This will also require close coordination with national climate change expertise and relevant climate change institutional arrangements. Countries may also need to undertake specific, practical actions to integrate human mobility issues within disaster preparedness, response and recovery activities. 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'[24].

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

[23] World Bank (2012); Asian Development Bank (2013).

[24] Consistency should also be ensured with other relevant United Nations Conventions including, for example the Convention on the Rights of Indigenous Peoples, the Convention on the Rights of the Child.

and reconstruction. The Framework outlines a number of key priority actions at the local, national, regional and global levels that complement and guide this SRDP goal. In particularly, 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.

In the Pacific context, a whole-of-country and whole-of-government approach is required. Capacity needs to be enhanced within line ministries so that they may take on leadership and coordination of sector-level actions, whereas the National Disaster Management Offices need to be equally capacitated to lead and coordinate the overall disaster response efforts. 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, develop partners and humanitarian actors to respond to slow and sudden onset hazard events in a coordinated and integrated manner.

Coordinated and collaborative humanitarian action is also vital, to avoid duplication and enhance collective efforts to support PICTs in disaster preparedness, response and recovery. Support for national capacity-building, including strengthening the interoperability of key response agencies and strengthening of legal preparedness for swift international disaster response, needs to be improved and better coordinated. This is to ensure that PICTs can anticipate and respond to emergencies at national and sub-national levels. All these responses are reliant on strong government leadership. However, 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 PICTs' response capacities, and maximize the use of capacity, resources and expertise available through the UNOCHA-led Pacific Humanitarian Team and other partners. Strengthened capacity for key players at local level is crucial given that they are usually the first responders.

Disaster recovery and reconstruction provide an opportunity to reduce existing accumulated disaster risks through, for example, cyclone resilient housing, rebuilding in safer areas, incorporating low carbon development and climate change resilience options in the spirit of building back better. This may not be possible in some of the short-term recovery solutions that need to be implemented very swiftly after a disaster, in order for the population to revert back to their normal lives and for economic activity to be restored. However, these good practices must be part of the long-term solutions in the recovery process, as they contribute to creating and strengthening resilient development.

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.

It is also important to link the effective preparedness for, response to and recovery from disasters to national action plans for disaster risk reduction and national adaptation plans for climate change, as technical and financial support will be committed under the Paris Agreement. This provides an opportunity to ensure coherence as well as take advantage of technical and financial resources that are climate change related, and is thus a further incentive to ensure that the mainstreaming and integration actions in Goal 1 are achieved as well.

Strategic Objective

Improved 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.

Outcome

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

Priority Actions [additional actions are listed in **Annex 3**]

i) By National and Sub-National Governments and Administrations:

a) Review and strengthen disaster risk management planning arrangements, ensuring clearly defined roles and responsibilities and an inclusive approach, involving all stakeholders.
b) Conduct post-disaster needs assessments, using standardized methodologies updated to the extent possible and baseline data to inform recovery planning.
c) Strengthen disaster management legislation to facilitate international and multi-stakeholder support to response and recovery.
d) Ensure the acquisition, use and sharing of accurate data and other information, including vulnerability and gender and age disaggregated data for vulnerable groups, to assess risk and facilitate more focussed preparedness, response and recovery activities, as well as for loss and damage.
e) Strengthen capacities at the national, local government level and communities 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.
f)
g) Include private sector, especially the logistics, telecommunication and tourism sectors, in national planning for all phases of DRM.
h) Support existing and additional capacity-building for local governments and communities, to improve their disaster preparedness, response and recovery capabilities, acknowledging they are the first responders in the event of a disaster.
i) Improve country-level humanitarian coordination mechanisms, and ensure appropriate coordination with all relevant partners, and regional disaster management mechanisms.
j) Anticipate and prepare for future displacement by integrating human mobility issues within disaster preparedness, response and recovery programmes and actions.
k) Strengthen effective multi-hazard early warning systems and use of science and technology to inform risk management and hazard/disaster preparedness and policy development.
l) 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.

By Civil Society and Communities:

a) Work with partners to strengthen capacity to effectively serve as first responders to emergencies and disasters.
b) Strengthen capacity in all aspects of disaster management, while addressing the specific needs of vulnerable groups.

c) Ensure the coordination and effectiveness of disaster planning and implementing activities and services, with special attention to the needs and capacities of disadvantaged and vulnerable groups.
d) Encourage a spiritual, theological and cultural inclusive approach that underpins personal involvement in strengthening disaster preparedness, response and recovery.

By the Private Sector:

a) Work with other partners to strengthen disaster management capacity, including leading and participating in joint disaster scenario planning.
b) Build and strengthen private–public sector partnerships to stimulate knowledge sharing and innovative solutions for improving disaster preparedness, response and recovery.
c) Develop and implement business continuity plans, according to best practice and incorporate risk financing options, such as liability and insurance regimes into these plans.
d) Strengthen investments in post-disaster recovery, using low carbon development, climate change resilience solutions, 'build-back-better' and 'build-back safer' approaches.

By Regional Organisations and Other Development Partners:

a) Support the strengthening of capacities (including humanitarian coordination mechanisms) and planning arrangements at regional, national and sub-national 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) Provide technical advice and support to develop disaster management strategies and plans that are gender-responsive and include human rights-based approaches.
d) Assist in strengthening the telecommunications, observational data, and data processing infrastructure that supports provision of reliable early warnings and hazard/risk information.
e) Encourage the public finance management and disaster risk management communities to work together to improve technical assistance training.
f) 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.

3. Implementation

Successful implementation of the SRDP is dependent on the ownership and combined efforts of governments and all other stakeholders, working in partnership to ensure a multi-disciplinary, multi-sectoral, integrated approach to resilience building at regional, national, subnational and community levels. It also requires adequate levels of human and financial resources, clear divisions of responsibilities, a common understanding of terminology, use of appropriate information technologies and channels, and a regular process of monitoring, evaluation, reporting and learning to measure progress. The SRDP is intended to remain relevant until 2030. As such, it will be subjected to periodic reviews, as articulated in Section 3.5.

Implementation of the SRDP should be consistent with, and supported by, other regional and international policies and plans, including the *Framework for Pacific Regionalism*, thematic-focussed regional frameworks and statements, such as the *Framework for Action on Energy Security in the Pacific,* the *Pacific Islands Meteorological Strategy, Western Pacific Regional Framework for Action for Disaster Risk Management for Health,* the *Pacific Leaders Gender Equality Statement*, and global frameworks, such as the *United Nations Framework Convention on Climate Change and the Paris Agreement*, the *Sendai Framework for Disaster Risk Reduction 2015-2030*, Small Islands Developing

States Accelerated Modalities of Action [S.A.M.O.A.] Pathway, the World Humanitarian Summit and the *Sustainable Development Agenda*.

However, each PICT will drive its national priorities as each country has primary responsibility for its own development. The SRDP will require further elaboration at national, provincial, community, organisational and enterprise levels, to suit specific circumstances. Risk management policies and plans should be developed at national level for issues, such as migration and displacement. Hence, the importance of national policies, development strategies and the allocation of dedicated financial and human resources cannot be overemphasized.

The implementation of the SRDP will also require focus, coordination and support from regional organisations and the international community. Moreover, the SRDP has identified activities that are best undertaken at regional level. These still address national needs, and support associated actions at national level. Identification of such actions is informed by opportunities to achieve economies of scale and by the comparative advantage of regional and international organizations to implement the actions regionally, while also delivering national level outputs and outcomes for countries in an efficient and effective manner.

All activities identified in the SRDP 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 to disasters. Similarly, the implementation of the SRDP contributes to the implementation of global instruments. Achievement of the identified outcomes requires adequate and predictable resources and clearly defined responsibilities, with progress measured, using agreed national and regional indicators and targets[25].

National governments are encouraged to allocate resources to support achievement of the three strategic objectives in the SRDP and to take an active role in bringing other 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 mobilization mechanisms, are urged to provide resources to support 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*.

3.1 Institutional Arrangements

As the management of disaster and climate change risks becomes an integral part of development planning processes and practice, risk governance will become an essential part of development governance arrangements, addressing the related themes of social justice, equity, peace and security. This paradigm shift will require strong regional and national commitment of the communities of practice for disaster risk management, climate change and development to coordinate their efforts for effective and efficient implementation. It will build on existing governance and institutional arrangements, but will also require some changes as new stakeholders are identified and their responsibilities clarified. More emphasis will need to be placed on strengthening the role that cultural and social networks play in maintaining and facilitating resilience in the face of climate change and disasters. Meteorological, hydrological, and geological institutions and services are essential to managing climate change and disaster risks. These need to be strengthened, along with the key research to support and enable the provision of effective multi-

[25] These are to be defined in the Results Based Management Framework.

hazard early warning systems called from by the Sendai Framework, Paris Agreement and the Pacific Meteorological Council.

Implementation arrangements for the implementation of the SRDP will be decided by Pacific Resilience Partnership.

3.2 Partnerships and Coordination

Successful implementation of the SRDP 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. In addition, the SAMOA Pathway called for harmonizing national and regional reporting systems, where applicable, to increase synergies and coherence; and establishing and strengthening risk insurance facilities at the national and regional levels.

Development partners (including donors, international and regional organisations) will need to coordinate their efforts to promote integrated and inclusive risk resilient development and to harmonize their practices for increased aid effectiveness.

All these relationships will need to help address the need for improved access to financial and technical support, as well as improving information flow.

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, private sector stakeholders, etc.) The PRP will, therefore, include a broad range of 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 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/policy mechanisms at the national, regional and global levels in order to ensure that the implementation of the SRDP 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, Pacific Water Partnership and other sector-specific mechanisms to ensure that the SRDP is being implemented in sectors at a regional and national level; as well as with other mechanisms, such as the Pacific Meteorological Council, Pacific Humanitarian Team, Pacific Islands Emergency Management Alliance and others.

The PRP is expecting to meet biannually or a different frequency as decided by the PRP.

3.3 Communications and Advocacy

Since the SRDP is the leading source of high-level strategic regional guidance related to climate change and disaster resilient development in the Pacific, it is important that all relevant players and stakeholders endorse and advocate for the SRDP. Communications related to this Strategy will encourage a re-focusing of regional and national discussions about climate change and disasters from a process-dominated discourse, to resilient development-focused actions that deliver tangible outcomes.

3.4 Resourcing

It is expected that the integrated approaches advocated for in the SRDP will result in resource efficiencies and may, thereby, facilitate access to financing.

It is important to ensure that the human and financial resources available to PICTs for managing disaster and climate change risks are accessed and utilized efficiently and effectively, with additional resources being made available where there is a clear need for it.

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.

Human and financial resource constraints faced by many government departments at national and sub-national level often render them unable to absorb technical assistance and resources to effectively implement and respond to national policy commitments. Governments and partners should, therefore, step up their efforts to ensure the availability and effective utilization of these resources.

Human Resources

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. Such needs-based capacity building can provide a significant return on the investment.

National and regional resilience to disasters and to climate change starts with local actions. 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. Training and capacity development also continues to be required for NGOs, for national disaster agencies and for other key national departments (such as lands, meteorological and hydrological services, health, education, tourism, planning, etc).

The education sector, in particular, has a key role to play in conducting education, training and awareness-raising in relation to climate change and disaster resilience. Opportunities for their active involvement need to be identified.

National, territorial and local governments need to make more efficient use of their existing human capabilities and also build their capacity to ensure that actions undertaken by other key players (e.g. communities, enterprises) are well-informed and coordinated.

Financial Resources

Pacific leaders have often stressed the critical and urgent need for financial support to enable their countries and territories to respond to climate change adaptation and disaster risk reduction needs and, in particular, to assist those people who are already suffering, are displaced or are being otherwise affected as a result of the consequences of disasters and climate change. In spite of a diverse array of funding mechanisms, many Pacific leaders have continued to stress that their countries are not fully benefitting from funding, such as was agreed at the fifteenth Conference of the Parties to the UNFCCC, held in Copenhagen, Denmark in 2009, and despite subsequent initiatives, such as the Green Climate Fund.

Importantly, under the UNFCCC and the Paris Agreement, the obligation does exist for developed country Parties to take responsibility for providing funding to developing countries Parties to address climate change. Strengthened funding strategies for the Pacific should endeavour to ensure that the separate pools of funding for disaster risk management, and for addressing climate change concerns are, where possible and appropriate, synergized through a larger pool and not allocated to smaller pools. This will require reconfiguring existing funding windows.

Even with the strengthened financial inclusions in the Paris Agreement, it is unlikely that the amounts raised immediately over the next few years will be sufficient to meet all climate change and disaster risk management financing needs. This raises the question of how to prioritize the spending of the limited but growing financial resources available to PICTs. In this regard, frameworks, such as the *Pacific Climate Change Finance Assessment Framework* assesses a country's ability to access and manage climate change resources in an effective and efficient manner. The regional and international work on loss and damage will have to evolve as more information is gathered to include considerations for financing.

Analyses undertaken to date show that governments need to strengthen existing budgetary systems if they are to satisfactorily address climate change issues. There is a range of options for risk financing as compared with risk reduction. Risk reduction is highly effective for managing more frequent extreme events. For less frequent, yet more catastrophic events with the potential to strongly affect government finance and the economy, a risk acceptance threshold may be passed. Beyond this threshold, options such as contingent credit, sovereign insurance, catastrophe bonds and intergovernmental risk pooling become effective. National, regional, and (potentially) global pools for covering public and private sector risks can greatly reduce the cost of risk bearing. But not all risk exposure can be reduced or financed. Donor assistance will continue to be needed for the most extreme events. Accurate estimates of extreme risk are necessary for various stakeholders to determine appropriate risk thresholds beyond which risk transfer mechanisms rather than direct risk reduction efforts are most appropriate.

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.

It is also vital that dedicated resources are made available in order to assist PICTs to respond to the protection needs of vulnerable groups following a disaster, and in reducing the consequences of

climate change. Protection is a cross-cutting responsibility for all agencies and organisations working with affected populations. This must be actively reflected in all financial resource allocation efforts. In particular, resource mobilisation and allocation must take into account the need to supplement existing safety, security and support measures for women and children, in light of the increased risk of community and family violence in situations of disaster and emergency. Failure to dedicate appropriate funding to this task will result in shortfalls in protection, affecting the most vulnerable, and impacting upon overall community resilience, as well as short- and long-term coping capacity. Opportunities exist for national governments and other entities to attract funding from sources such as the Green Climate Fund, Adaptation Fund and Global Environment Facility.

3.5 Monitoring, Evaluation, Reporting and Learning

Establishment of a robust, yet simple and practical monitoring, evaluation, reporting and learning process is essential to measure progress of implementing the SRDP. The impacts of the SRDP for all components of society must be measured, in terms of protecting them, expanding their capacity to adapt and building their resilience. Gender and age disaggregated indicators must be used in all components of the SRDP, and not just for community level.

The monitoring, evaluation, reporting and learning cycle will involve regular assessments of existing risks, as well as the identification of any new and emerging risks. Any new hazard or other threat should be assessed by the relevant stakeholder, a decision made and communicated as to how it might best be managed.

Applying the principles of continual learning and improvement will be essential to the successful implementation of the SRDP. Performance indicators and targets may have to be revised as a result of the learning that will occur throughout its implementation.

In order to reduce the burden of reporting on PICTs, efforts will be made to harmonize with other disaster risk management, climate change, and development reporting mechanisms, such as in relation to the Sendai Framework for Disaster Risk Reduction and the 2015 Paris Agreement. In the latter there is recognition that any reporting should build on existing commitments such as National Communications and Biennial Update Reports, for which funding is available through the Global Environment Facility.

A results-based management framework will be finalised as an annex to the SRDP.

This framework will provide clarity on the specific results anticipated as a consequence of the implementation of the priority actions in the Strategy. It will be developed consistent with emerging national, regional and international policy instruments, which will also limit the burden of reporting for the countries.

Annex 1: Glossary of Key Terms [26]

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 utilize 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_2 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, organizations 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 SRDP, 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 organizations 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. [Source: various]

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. [Source: various]

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[26] Additional terms, and definitions, are available at the following sites, among others:
http://www.pacificdisaster.net:8080/Plone/summary
http://www.pacificclimatechange.net/index.php/glossary
http://www.sprep.org/attachments/Publications/PacificIslandsMeteorologicalStrategy.pdf

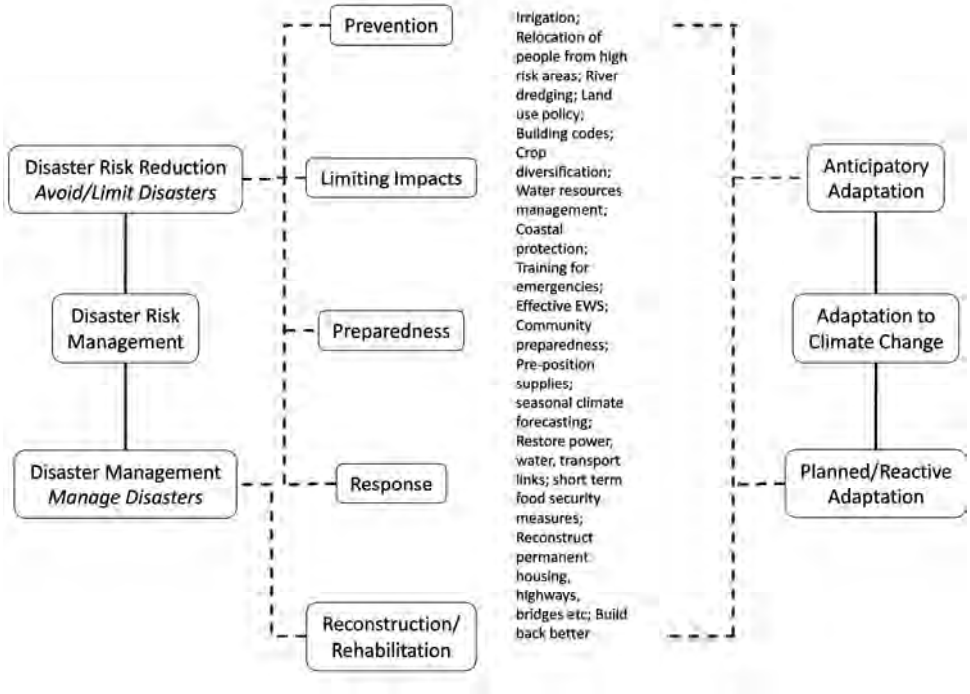


Figure 7. Components of disaster risk management and climate change adaptation, with illustrative examples showing the linkages between them.

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 Inter-governmental Panel on Climate Change (IPCC). Note that this usage differs from that in the United Nations Framework Convention on Climate Change, which refers only to changes that can be attributed directly or indirectly to human activity.

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 [Source: various]

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 organization 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 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. [Source: various]

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; and 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]

Low Carbon Development:

Improving economic and social performance at national, sub-national, community, enterprise or other levels while, at the same time, reducing both the net emissions of greenhouse gases and vulnerability, while increasing resilience. [Source: various]

Mal-adaptation:

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]

Reduced Emissions:

Often referred to as mitigation - the 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]

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 minimize 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]

Sensitivity:

The degree to which a system is affected, either adversely or beneficially, by a pressure. The effect may be direct (e.g. a change in crop yield in response to a change in the mean, range or variability of temperature) or indirect (e.g. damages caused by an increase in the frequency of coastal flooding due to sea-level rise). [Source: adapted from IPCC AR4, WGII]

Vulnerability:

An internal characteristic of an affected element, describing its propensity or predisposition to be adversely affected. The characteristics of a person, or groupings, 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 Groups:

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

Annex 2: Additional Actions

Goal 1: Strengthened Integrated Risk Management to Enhance Climate Change and Disaster Resilience

Additional Actions for Consideration by:

i) National and Sub-national Governments and Administrations:

a) Request funding support from donors in order to achieve adequate mainstreaming of climate change and disaster risk considerations in relevant sector policies and plans, including those related to water, sanitation, health, education, culture, tourism, agriculture and fisheries.
b) Track public expenditure related to disaster and climate change resilience within national and local government financial management systems, noting that recurrent budget allocations facilitate the inclusion of disaster and climate change risk considerations in development sector investments.
c) Assist in the tracking of international expenditure on climate change, to assess compliance with international obligations.
d) Strengthen gender analysis and gender mainstreaming through enhanced cooperation and collaboration between the ministries and other agencies responsible for disaster risk reduction, climate change adaptation, poverty reduction and gender issues.
e) Strengthen the use, at national and local government levels, of disaster and climate change risk information in existing and new instruments, tools and services to ensure sound decision-making on climate change and disaster issues.
f) Agree on a common language and understanding of information and data management terminologies.
g) 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.
h) Improve understanding and applications of successful strategies to increase resilience by documenting lessons learned, traditional, contemporary and scientific knowledge to develop and utilise appropriate awareness, communication, education and information materials to communities, media, schools, training providers and universities.
i) Create incentives for the private sector to adopt more risk resilient approaches in their planning and business procedures, including developing and applying measures to support the protection and a quick recovery of small-scale enterprises and income-generating activities in the informal sector.
j) Develop and strengthen national/territory platforms (or equivalent mechanisms) for climate change and disaster resilience.
k) Acknowledge and utilize the specific humanitarian functions of the Red Cross, as auxiliary to governments.
l) Development sectors, such as water, health, agriculture, fisheries, education, culture, tourism, infrastructure, environment and energy, to include hazard risk management and climate change considerations in their respective social and economic development plans and capacity building initiatives.
m) Invest in increasing the availability of disaster and climate change risk management related skills within governments and administrations, especially at sector level.
n) Integrate human mobility aspects into climate change adaptation and disaster risk management plans and strategies, including strengthening the capacity of governments and administrations to protect individuals and communities that are vulnerable to climate change displacement and

migration, through targeted national policies and actions, including labour migration policies. Ensure that regional and national legal frameworks facilitate cross-border relocation to avoid future disasters.

o) Actively participate in regional and international discussions and negotiations related to to climate change and disaster risk management, and to related issues and opportunities, including those under the UNFCCC and the *Sendai Framework for Disaster Risk Reduction 2015- 2030*.
p) Strengthen and promote the enforcement of national building codes and appropriate infrastructure design on critical facilities and public assets.
q) Take disaster and climate change risks into account when preparing national and sector plans, investments and budgets, especially for ministries with responsibilities for public works and infrastructure.
r) Dedicate funding to address the specific needs of vulnerable groups.

ii) Civil Society and Communities:

a) Contribute to further raising of awareness, including providing risk, vulnerability and resilience-related guidance to national members.
b) Increase multi-stakeholder involvement in local development planning and decision making, and especially the engagement of risk-prone communities and other vulnerable groups.
c) Further support preparation and implementation of community-based climate and disaster resilient social and economic development plans, including ensuring they are gender responsive and inclusive.
d) Capitalize on the comparative advantage of media organizations 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.
e) Contribute women's and men's knowledge and expertise, ideas and solutions to inform national and regional policies and agreements related to such new and emerging issues as geoengineering and forced migration.

iii) The Private Sector:

a) Support increasing the protection of individuals and communities that are vulnerable to climate change displacement and migration through targeted national and regional private sector policies, and regional labour migration schemes.
b) By applying relevant knowledge and skills that currently exist in the private sector, contribute to national and regional initiatives aimed at developing capabilities to identify and manage new and emerging issues and initiatives, such as geoengineering, carbon taxes, and forced migration.

iv) Regional Organisations and Other Development Partners:

a) Continue to provide through funding and technical expertise to national governments and administrations and civil society organisations, for building climate change and disaster resilience.
b) Assist in strengthening the capacity of civil society organizations to represent and involve disadvantaged people and other vulnerable groups as participants in climate change and disaster risk management fora, and in implementing effective activities.
c) Support training for development of gender responsive and inclusive disaster risk management and climate change adaptation strategies at regional and national levels.

d) Undertake joint planning, programming and design of initiatives by regional organisations and other development partners, ensuring they are responsive to PICT needs, priorities and capacities, focusing on resilience-building investments and on more efficient implementation mechanisms, based on the comparative benefits they can deliver.
e) Develop and/or maintain regional capability to facilitate access to and effective use of climate change and disaster relevant information and tools, such as cost benefit analysis, early warning systems, land use planning, risk assessment and disaster risk financing instruments, institutional strengthening, and operational climate and ocean observing systems.
f) Ensure greater awareness and understanding of risk and vulnerability related to climate change and geological hazards, and support the application of new technologies and innovative solutions.
g) Ensure there is a functional regional capability to support the development and management of hazard, exposure and vulnerability information, as well as for input to analysis tools required to assess risk, including mechanisms for collecting information at the local level.
h) Assist in the tracking of international expenditure on climate change, to assess compliance with international obligations and the allocation of additional climate change finance to the region.
i) Support and facilitate advocacy for climate change and disaster resilient development, as well as collective negotiation positions at the Conferences of the Parties to the United Nations Framework Convention on Climate Change, and other relevant global negotiations; in particular, help ensure that the Pacific region maintains a strong voice in international fora.
j) Support increasing 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.
k) Strengthen research-based understanding of the underlying drivers and determinants of climate change and disaster risk, and of the consequences and risk management options, including climate change induced migration.
l) Assist PICTs by developing and resourcing 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.

Goal 2: Low Carbon Development

Additional Actions for Consideration by:

i) National and Sub-national Governments and Administrations:

a) Ensure that investments in energy and related infrastructure (including public and private sector investments), incorporate measures to enhance their resilience to disasters and to climate change, both at the design stage of new development initiatives and as part of building-back-better approaches in post-disaster reconstruction and rehabilitation.
b) Encourage, incentivize, 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.
c) Provide incentives for low carbon investment and development through the removal or reduction of fossil fuel subsidies and the development of a supportive regulatory environment, including setting appropriate and clear standards for bio-fuels.
d) Ensure, through lobbying and negotiations at regional and international levels, that the dedication of all countries to reduce their net emissions of greenhouse gases is consistent with those of PICTs.

ii) Civil Society and Communities:

a) Support efforts to reduce poverty and sustain livelihoods within and across countries and territories, based on facilitating access to adequate, reliable and affordable energy sources and services at all times by all people.
b) Participate in regional and international advocacy campaigns to reduce greenhouse gas emissions globally.

iii) The Private Sector:

a) Collaborate with relevant government departments or agencies and other stakeholders to facilitate a more strategic approach to characterising components of the energy sector, such as generation, distribution, and consumption by key sectors, to provide greater understanding of how to achieve low carbon development.
b) 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) Regional Organisations and Other Development Partners:

a) Relevant institutions provide participatory and inclusive training that addresses the specific skill requirements for low carbon development in the energy sector, based on a human resource development plan for the energy sector.
b) Scale up and coordinate assistance to PICTs that is designed to enhance their capacity for achieving low carbon and resilient development, consistent with the objectives of the United Nations Framework Convention on Climate Change including the Paris Agreement.
c) Development partners should use improved mechanisms to ensure adequate and timely financial support and other support is provided to PICTs so they can achieve their low carbon and resilient development goals, including by way of initiatives guided by the United Nations Framework Convention on Climate Change.
d) 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 benefits.
e) Strengthen regional coordination and cooperation that supports national efforts to reduce energy demand through initiatives, such as appliance standards and labelling.
f) 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 sub-national levels.
g) Support PICTs to improve practices in sustainable forest management and encourage schemes that create incentives for PICTs to reduce deforestation and forest degradation; support technology transfer and build the capacity to refine and diffuse these new technologies.
h) Support collaboration between PICTs and relevant regional bodies to design and implement pilot actions to showcase specific measures for low carbon policies and technologies through institutional capacity development and technology transfer, in order to demonstrate how PICTs can leapfrog to the use of low carbon technologies.
i) Support institutional capacity building efforts in PICTs, including in relation to low carbon development policymaking, and economic modelling in support of policymaking.
j) Work with PICTs to assess and implement ways to enhance and maintain natural carbon reservoirs in both marine and terrestrial ecosystems.
k) Implement policies and practices within regional organisations to reduce their carbon footprints.
l) Support and facilitate collective negotiation positions by PICs for a global decrease in net emissions of greenhouse gases.

Goal 3: Strengthened Disaster Preparedness, Response and Recovery

Additional Actions for Consideration by:

i) National and Sub-national Governments and Administrations:

a) National authorities and line ministries to develop practical, gender sensitive and cost-efficient sectoral disaster preparedness plans from central to local level, with personnel and key partner stakeholders, as well as communities, trained on application of these plans.
b) Ensure that the disaster management organisational structure includes an adequately resourced national disaster management office and functional Emergency Operations Centres.
c) Collect post-disaster time series information that separates elements of the cause (hazard, vulnerability and exposure) to the effect (impact or consequence) to inform estimates of future impacts (risk assessments) and to monitor progress toward risk reduction targets.
d) Support efforts to bridge the gap between meteorological, hydrological, vulcanological and seismological information and decision making at all levels, for better preparedness, response and impact reduction.
e) Strengthen the level of preparedness by securing more effective partnerships with the private sector, international organizations, civil society and community-based organizations to reduce inequality and increase efforts to address the needs of children, women, older persons, the displaced and people with disabilities in all aspects of disaster risk management.
f) Support gender-sensitive financial risk-sharing mechanisms, including risk insurance and reinsurance.
g) Ensure ongoing training and capacity building support of actors with responsibilities for crisis management, and for those whose responsibilities change or increase following emergencies.
h) Support and provide awareness-raising events on climate variability, extreme events and disaster preparedness in communities, churches, schools, hospitals and government offices.
i) Support the establishment and improvement of national multi-hazard early warning systems, including their capacity to use sound scientific information, and provide credible and real-time warnings that mobilise actions in communities.
j) Maintain and update knowledge management systems, and ensure that lessons learned, during and in the aftermath of emergencies and disasters.
k) Strengthen the inter-operability of systems used by key national response agencies to ensure improved coordination of response efforts and the optimisation of available resources.
l) Establish a contingency stockpile of emergency relief items.
m) Establish a national disaster fund for response and recovery.
n) Adapt regional guidelines and models of best practice for national implementation.
o) Preparing for the reception of people forcibly displaced for sudden- and slow-onset disasters within disaster response contingency plans.
p) Develop appropriate normative and policy frameworks at domestic, bi-lateral and regional levels to address the protection needs of people displaced or relocated across borders, including temporary protection schemes or template agreements.
q) Include within actions related to "build back better" allowance that relocation may be required to achieve durable solutions for the displaced.
r) Determine, establish and maintain effective and sustainable emergency communication systems.

ii) Civil Society and Communities:

a) Provide technical and material support to government and humanitarian actors in early recovery and rehabilitation activities.

b) Develop and implement gender-sensitive disaster preparedness and response arrangements and plans for communities.
c) Ensure actions carried out by civil society are aligned with plans, mechanisms and arrangements of national governments and administrations.

iii) The Private Sector:

a) Regional private sector organisations, their national counterparts and other relevant players implement initiatives that strengthen the capacity of the private sector with respect to disaster preparedness and recovery, including business continuity.
b) Strengthen private sector engagement with the public sector, including leveraging private sector capacity and capabilities to 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 vulnerable groups.
c) Development and implement emergency measures for small-scale businesses and producers.
d) Mobilise resources to support income-earning opportunities created by disasters.
e) Facilitate the inventory and dissemination of information on private sector assets and services that can be made available in the event of a disaster in ways that assist national and local response efforts.

iv) Regional Organisations and Other Development Partners:

a) Strengthen and improve humanitarian coordination mechanisms, such as the Pacific Humanitarian Team, by building stronger collaboration between PICTs and humanitarian actors.
b) 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 to streamline the provision of emergency and disaster response services.
c) Prepare and implement a strategy that strengthens relationships with PICTs, with respect to development partner roles and responsibilities, during small-, medium- and large-scale responses, as well as for provision of support during non-response periods.
d) Work with the private sector, other development partners and PICT governments and administrations to align supply chain practices to achieve cost efficiencies, as well as timely delivery of emergency supplies and services.
e) Assess whether greater predictability of funding of humanitarian action partners would ensure that they are better equipped to respond in a timely and efficient way during critical periods of an emergency.
f) Develop guideline, including best practice models, for effective disaster management at national and subnational level, for the use of PICTs, who may choose de adapt them to their own context.
g) Support and maintain cost-effective regional and/or sub-regional multi hazards early warning centres with appropriate capacities, using sound scientific information and traditional/indigenous risk knowledge and practices.
h) Enhance the use of early warning through visualization and clear language, and messages that are accessible to managers and decision-makers, including the use of graphics, maps, and simple (non-technical) language, and messages that are accessible to managers and decision-makers, including those in civil society and communities.
i) Preparing for exceptional circumstances in which people may need to be temporarily evacuated to another country in the context of a sudden-onset disaster within regional and bi-lateral contingency plans.
j) Assist PICTs in the development of their emergency communication systems.