

Pacific National Adaptation Plan (NAP) Guidelines

Guidelines for the Adaptation Planning Process
and Content of NAPs in the Pacific



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SPREP's vision. *The Pacific environment, sustaining our livelihoods and natural heritage in harmony with our cultures.*

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ACRONYMS

AF	Adaptation Fund
AR5	Fifth Assessment Report
CCDRM	Climate Change and Disaster Risk Management
CCHSAP	Climate Change and Health Strategic Action Plan
CIF	Climate Investment Funds
CIM	Community Integrated Management
CLiDE	Climate Data for the Environment
COP	Conference of the Parties
CROP	Council of Regional Organisations of the Pacific
CSO	Civil Society Organisations
FRDP	Framework for Resilient Development in the Pacific
GCF	Green Climate Fund
GEF	Global Environment Facility
ICTs	Information and Communication Technologies
IPCC	Intergovernmental Panel on Climate Change
JNAP	Joint National Action Plan
LDC	Least Developed Countries
M&E	Monitoring and Evaluation
MCA	Multi-Criteria Analysis
MEL	Monitoring, Evaluation and Learning
NAB	National Advisory Board
NAP	National Adaptation Plans
NGOs	Non-Governmental Organisations
OECD	Organisation for Economic Co-operation and Development
PCRAFI	Pacific Catastrophe Risk Assessment and Financing Initiative
PDaLo	Pacific Damage and Loss
PICs	Pacific Island Countries
SRS	Satellite Remote Sensing
UNFCCC	United Nations Framework Convention on Climate Change
WHO	World Health Organization

GLOSSARY

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.
Adaptation cost	Costs of planning, preparing for, facilitating and implementing adaptation measures.
Adaptive capacity	The ability of a system to adjust to climate change (including climate variability and extremes) in order to moderate potential damages, to take advantage of opportunities or to cope with the consequences. ²
Climate	Climate in a narrow sense is usually defined as the average weather, or more rigorously, as the statistical description in terms of the mean and variability of relevant quantities over a period of time ranging from months to thousands or millions of years. The classical period for averaging these variables is 30 years, as defined by the World Meteorological Organization. The relevant quantities are most often surface variables such as temperature, precipitation and wind. Climate in a wider sense is the state, including a statistical description, of the climate system.
Climate change	Climate change refers to a change in the state of the climate that can be identified (e.g., by using statistical tests) by changes in the mean and/or the variability of its properties and that persists for an extended period, typically decades or longer. Climate change may be due to natural internal processes or external forcings such as modulations of the solar cycles, volcanic eruptions and persistent anthropogenic changes in the composition of the atmosphere or in land use. ³
Climate finance	The term climate finance is applied both to the financial resources devoted to addressing climate change globally and to financial flows to developing countries to assist them in addressing climate change. ³
Early warning systems	The set of capacities needed to generate and disseminate timely and meaningful warning information to enable individuals, communities and organisations threatened by a hazard to prepare to act promptly and appropriately to reduce the possibility of harm or loss.
Exposure	Exposure refers to the presence of people, livelihoods, species or ecosystems, environmental functions, services, and resources, infrastructure, or economic, social, or cultural assets in places and settings that could be adversely affected by a climate hazard. ¹
Hazard	The potential occurrence of a natural or human-induced physical event or trend that may cause loss of life, injury, or other health impacts, as well as damage and loss to property, infrastructure, livelihoods, service provision, ecosystems and environmental resources. ¹
Incremental adaptation	Adaptation actions where the central aim is to maintain the essence and integrity of a system or process at a given scale. ³
Mainstreaming / integration	The integration of (adaptation) objectives, strategies, policies, measures or operations such that they become part of the national and regional development policies, processes and budgets at all levels and stages.
Maladaptation	Any changes in natural or human systems that inadvertently increase vulnerability to climatic stimuli; an adaptation that does not succeed in reducing vulnerability but increases it instead.

Mitigation	In the context of climate change, a human intervention to reduce the sources or enhance the sinks of greenhouse gases. Examples include using fossil fuels more efficiently for industrial processes or electricity generation, switching to solar energy or wind power, improving the insulation of buildings, and expanding forests and other “sinks” to remove greater amounts of carbon dioxide from the atmosphere.
Resilience	The capacity of interconnected social, economic and ecological systems to cope with a hazardous event, trend or disturbance, responding or reorganising in ways that maintain their essential function, identity and structure. Resilience is a positive attribute when it maintains capacity for adaptation learning and/or transformation. ¹
Risk	The potential for adverse consequences for human or ecological systems, recognising the diversity of values and objectives associated with such systems. In the context of climate change, risks can arise from potential impacts of climate change as well as human responses to climate change. Relevant adverse consequences include those on lives, livelihoods, health and well-being, economic, social and cultural assets and investments, infrastructure, services (including ecosystem services), ecosystems and species.
Risk Assessment	The qualitative and/or quantitative scientific estimation of risk. ¹
Risk Management	Plans, actions, strategies or policies to reduce the likelihood and/or magnitude of adverse potential consequences, based on assessed or perceived risk.
Sustainable development	Development that meets the needs of the present without compromising the ability of future generations to meet their own needs. ¹
Transformational adaptation	Adaptation that changes the fundamental attributes of a system in response to climate and its effects.
Uncertainty	A state of incomplete knowledge that can result from a lack of information or from disagreement about what is known or even knowable. ³
Vulnerability	Vulnerability refers to the propensity or predisposition to be adversely affected by a climate hazard. Vulnerability encompasses a variety of concepts, including sensitivity to harm, and lack of capacity to adapt (or adaptive capacity). ³



1. Introduction

The Pacific region is at the frontline of climate change, and risks are projected to increase this century. Climate change adaptation is, therefore, a critical component of the planning process. Adaptation to climate change is defined as human-driven adjustments in ecological, social, or economic systems or policy processes, in response to actual or expected climate stimuli and their effects or impacts.¹ Methods for achieving adaptation include implementing new activities that are exclusively in response to climate change and modifying existing activities to make them more resilient to current and future climate change risks (e.g., climate-proofing infrastructure).

The Paris Agreement (2015) to the United Nations Framework Convention on Climate Change (UNFCCC) accentuated the need for the development of National Adaptation Plans (NAPs) for the Pacific.² Moreover, the Global Goal on Adaptation, which is a part of the Paris Agreement, was established to increase the status of – and financial flows to – countries' adaptation activities. At COP26 in Glasgow, it was agreed that parties would move the Global Goal on Adaptation forward to come up with a concrete plan for its operationalisation – a key part of this is national adaptation planning.

Established under the Cancun Adaptation Framework (endorsed as part of the Cancun Agreement in 2010), the purpose of the NAP process is to reduce climate change vulnerability by enhancing adaptive capacity.³ It also enables countries to identify medium- and long-term adaptation needs, develop and implement strategies and programmes

to address those needs, and provide a continuous, progressive, and iterative process that follows a country-driven, gender-sensitive, participatory and fully transparent approach.

The existing NAP guidance, which is largely aimed at a global audience, is not always fit-for-purpose for the Pacific region, with its specific characteristics (e.g., economic geography, low private sector contribution to GDP, small population sizes). The limited communication and transportation facilities and inadequate capacity in terms of people, skillsets, knowledge, systems, and tools restrict the Pacific region to utilise the existing NAP guidance⁴.

This document has been developed to provide guidance, including case studies from across the region, to meet the specific adaptation needs of Pacific countries. This guidance for Pacific Island Countries (PICs) have been formulated based on consultation with government partners and key stakeholders and a review of existing NAP guidance.

This document provides tools, case studies and best practices on several relevant topics, including: (i) undertaking a climate risk/vulnerability assessment, (ii) identifying adaptation options, (iii) prioritisation methods, (iv) stakeholder engagement, and (v) the integration of gender equality and social inclusion in the NAP planning process. The provision of tailored NAP guidelines for PICs will help officials with developing adaptation planning processes that contribute to building long-term resilience and achieving transformative adaptation outcomes.

¹ Source: IPCC AR5: <https://www.ipcc.ch/report/ar5/syr/>

² Source: https://unfccc.int/files/adaptation/cancun_adaptation_framework/application/pdf/naptechguidelines_eng_high__res.pdf

³ Source: https://unfccc.int/files/adaptation/application/pdf/nap_overview.pdf

⁴ Source: Regional briefing on NAPs – Asia-Pacific in focus

1.1. Context

PICs are highly vulnerable to climate change, with PICs among the most climate-vulnerable nations globally.⁵ Climate change will exacerbate the region's existing vulnerabilities and development challenges, resulting in a direct challenge to livelihoods. Climate change presents the single greatest threat to Pacific countries, resulting in sovereign and existential risk for some countries.

The increasing severity and frequency of climate change-related events will result in a range of development challenges over the coming decades. With the small size, isolation, and existing hazard profile of Pacific countries', the direct impact of climate hazards, and indirect cascading impacts, will act as a risk multiplier.⁶ In the absence of strong adaptation planning, climate change is likely to result in high risks to health systems and the wellbeing of Pacific people, which are already challenged by the growing epidemic of non-communicable diseases (NCDs).⁷

Climate hazards and vulnerabilities that affect the way of life in the Pacific include sea level rise, erosion, heavy rainfall, inland and coastal flooding, extreme weather events, water shortages, increase in droughts, direct and indirect health impacts.

Adaptation planning is, therefore, a priority for PICs, and the region's long history of resilience must be recognised. Across generations, Pacific communities have adapted to challenging environmental conditions, and these traditional social and economic coping mechanisms should be a core part of the NAP process.

Table 1.1 highlights the current status of adaptation plans, policies, and frameworks in PICs. At present, the governments of Kiribati, Fiji, and Tonga have published their NAPs in the UNFCCC NAP database.⁸ NAPs are being developed in many countries at present, with differing approaches across the region – including the development of revised a Joint National Action Plan (JNAP) for Disaster Risk Management and Climate Change as a NAP, the reformulation of existing adaptation plans, and the development of standalone NAPs. There are also several plans, policies and frameworks in place to implement climate change adaptation actions. Moreover, all PICs have submitted their NDCs, many of which include high-level adaptation measures.

The Framework for Resilient Development in the Pacific (FDRP) is a voluntary non-political framework that supports coordination and action on several key issues related to climate change and disaster risk management in the region. The FDRP was developed by various development organisations and academic institutions in the region and outlines several priority actions for national and sub-national governments and administrations, civil society and communities, the private sector, and regional organisations and other development partners to undertake to strengthen adaptation planning. It would be beneficial for countries to align their NAP processes with the FDRP, and the FDRP can also be used as a guiding document when developing the NAP Roadmap document for your country (see Section 3.1).⁹

⁵ Source: <https://www.e-ir.info/2020/01/09/climate-change-and-the-sinking-island-states-in-the-pacific/>

⁶ Source: World Bank, 2016. <https://reliefweb.int/report/world/pacific-possible-climate-and-disaster-resilience>

⁷ Source: World Health Organization, 2015. <https://reliefweb.int/report/world/human-health-and-climate-change-pacific-island-countries>

⁸ Source: <https://www4.unfccc.int/sites/NAPC/Pages/national-adaptation-plans.aspx>

⁹ Source: <https://gem.spc.int/projects/frdp>

TABLE 1.1: Key climate change adaptation plans, policies, and frameworks in PICs

Country	Climate Change Adaptation plans, policies, and frameworks	Period Covered/ Year Published	UNFCCC NAP Submission Status	Data of NAP Submission
Cook Islands	2nd Joint National Action Plan: A Sectoral Approach to Climate Change and Disaster Risk Management	2016–2020	Not Submitted	N/A
Fiji	Republic of Fiji -National Adaptation Plan – A pathway towards climate resilience	2018–2023	Submitted	December 12, 2018
Kiribati	Kiribati - Joint Implementation Plan for Climate Change and Disaster Risk Management (KJIP) 2019-2028	2019–2028	Submitted	January 21, 2020
Marshall Islands	National Climate Change Policy Framework	2011	Not Submitted	N/A
Nauru	Republic of Nauru Framework for Climate Change Adaptation and Disaster Risk Reduction	2015	Not Submitted	N/A
Niue	Niue’s Joint National Action Plan for Disaster Risk Management and Climate Change	2012–2015	Not Submitted	N/A
Palau	Palau Climate Change Policy – For Climate and Disaster Resilient Low Emissions Development	2015–2020	Not Submitted	N/A
Papua New Guinea	National Climate Change Compatible Development Management Policy	2014	Not Submitted	N/A
Samoa	National Climate Change Policy Community Integrated Management Plans	2020–2030 2018–2028	Not Submitted	N/A
Solomon Islands	National Climate Change Policy	2012–2017	Not Submitted	N/A
Tonga	Joint National Action Plan 2 on Climate Change and Disaster Risk Management	2018–2028	Submitted	October 27, 2021
Tuvalu	Te Kaniva: Tuvalu National Climate Change Policy	2012–2021	Not Submitted	N/A
Vanuatu	Vanuatu’s Climate Change Policy and Disaster Risk Reduction	2016–2030	Not Submitted	N/A

1.2. Purpose of the guidelines and intended audience

This document aims to support PIC governments with adaptation planning, providing guidance on the following topics:

- Establishing institutional arrangements for NAP formulation and implementation.
- Developing a gender-sensitive and inclusive NAP.
- Defining transformational adaptation in the Pacific context.
- Supporting the inclusion of loss and damage considerations in the NAP process.
- Strengthening partnerships/stakeholder engagement.
- Strengthening capacity for adaptation planning and implementation.
- Integrating climate change adaptation into national development planning processes.

- Accessing climate finance for adaptation planning and implementation.
- Identifying information and data gaps and providing recommendations for improving climate information services.
- Development of M&E frameworks for adaptation planning.

This guideline was developed based on desktop reviews as well as stakeholder consultation. The desktop review included reviewing existing guidelines for the development of NAPs, assessing relevant guidelines and documents relating to adaptation planning processes, and collecting good practices and lessons from countries across the region and Caribbean SIDS.

1.3. How to use this guidance

The NAP Pacific Guideline, which has been developed for the Pacific region in a consultative manner, is the primary guidance document PICs should use for their national adaptation planning activities.

This guidance highlights the most strategic points that should be considered (as outlined below in Figure 1.1). Specific considerations and case studies relevant to Pacific countries are highlighted throughout the document.

This guidance is aligned to the UNFCCC (2012) Technical Guidelines for the NAP Process.¹⁰ The UNFCCC Technical Guidelines, and its supplementary guidance documents, are referenced throughout the document. These guidance documents also provide useful information on different aspects of the NAP process.¹¹

The supplementary materials and other relevant guidance and readings are referenced in the “further reading” boxes provided throughout this guidance. This guidance document can be used as a library of existing documents, and the reader can refer to these for more detailed guidance on particular elements of the NAP process.

Developing a well-designed NAP is both a process and an opportunity for achieving climate-resilient development outcomes. The value is therefore also in the process, and the strengthening of the enabling environments in countries, not only in the development of the NAP document. The NAP process provides a framework for making better adaptation decisions that are informed by an improved understanding of exposure and vulnerability, stakeholder perspectives and values, and options for systemically addressing climate impacts.

¹⁰ Source: <https://www4.unfccc.int/sites/NAPC/Guidelines/Pages/Technical-guidelines.aspx>

¹¹ Source: <https://www4.unfccc.int/sites/NAPC/Guidelines/Pages/Supplements.aspx>

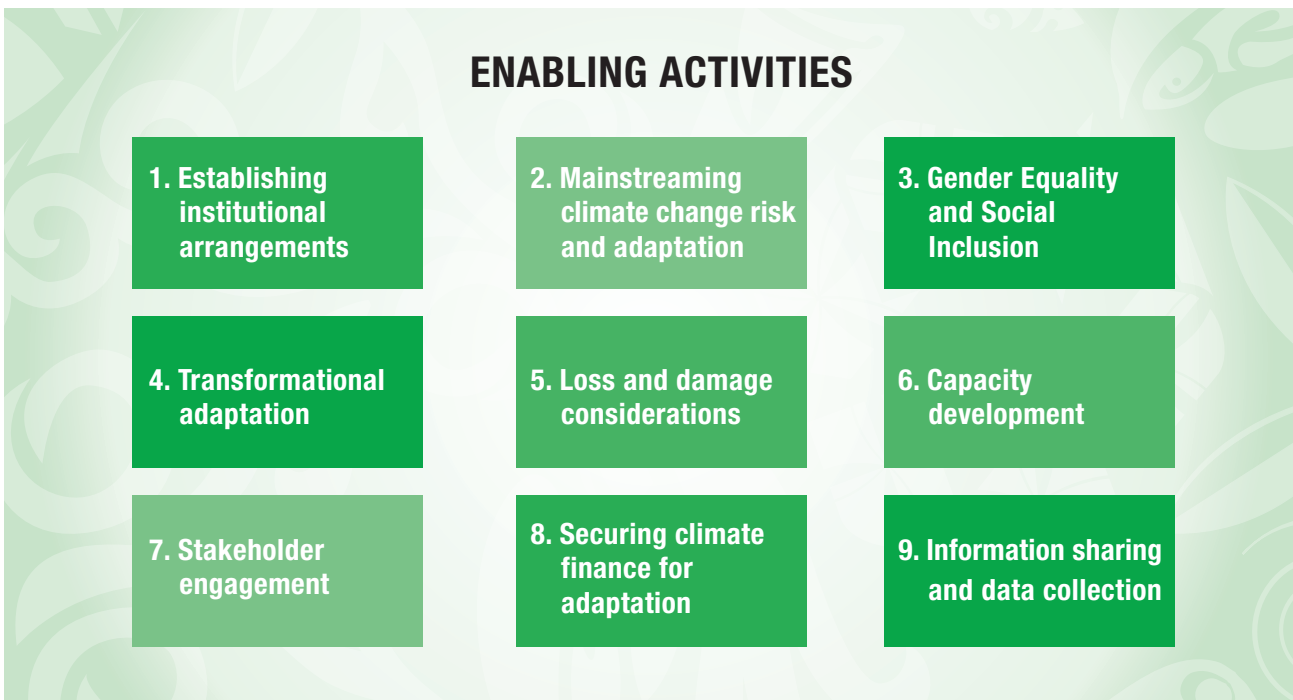
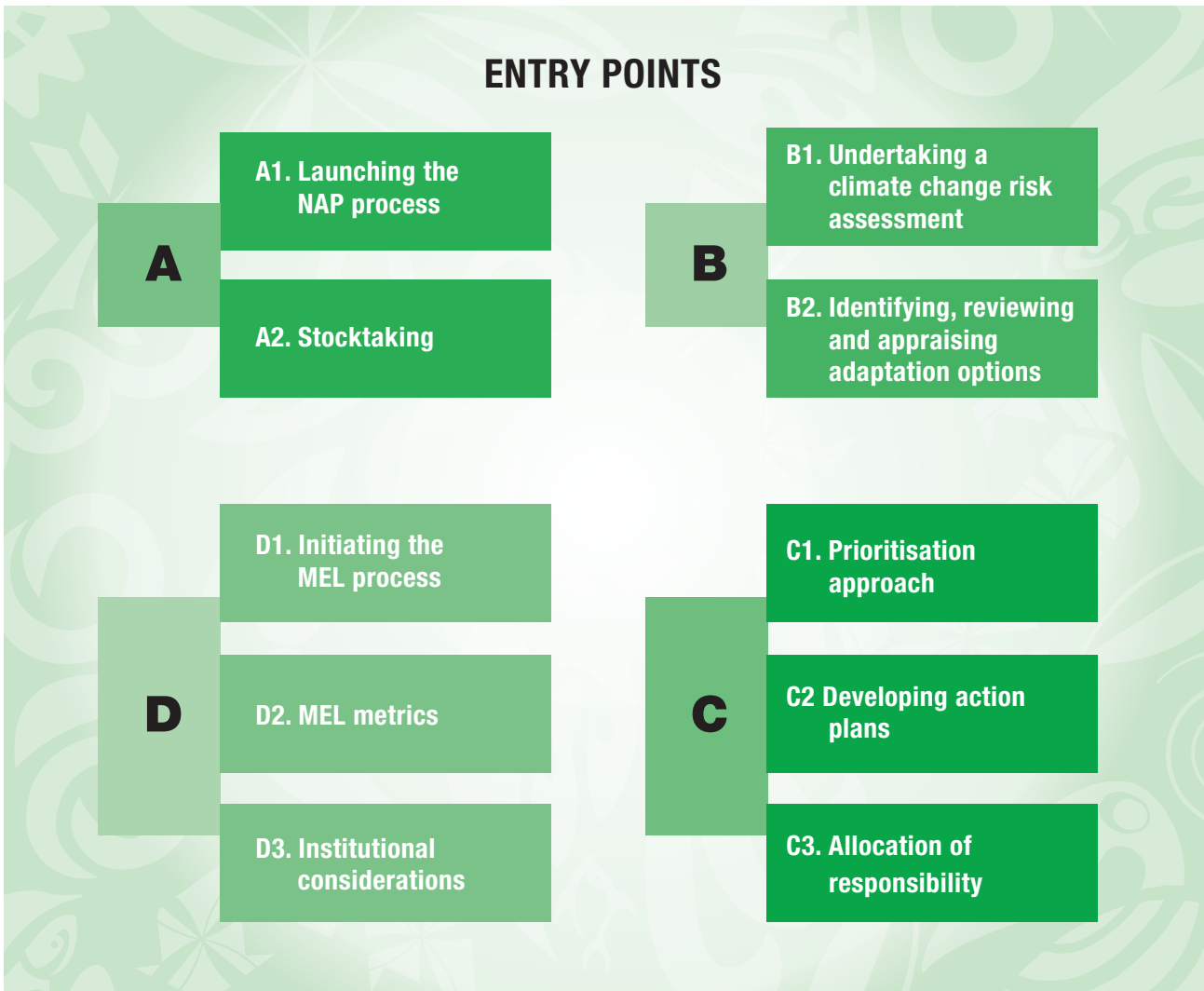


FIGURE 1.1: Structure of the Pacific NAP Guideline¹²

¹² Adapted from: <https://napglobalnetwork.org/resource/toolkit-for-gender-responsive-national-adaptation-plans/>



2. Overview of entry points in the NAP process

Regardless of where a country is in the NAP process, there are opportunities to strengthen adaptation planning. This is also inclusive of countries that have developed their NAP document, as there may be opportunities to strengthen the “monitoring, evaluation and learning” phase and develop the foundations for developing the next NAP document

This section is aligned to the UNFCCC (2012) Technical Guidelines for the NAP Process, with entry points including:

1. Laying the groundwork and addressing gaps,
2. Preparatory elements,
3. implementation strategies, and
4. monitoring, evaluation and learning.

Each element includes a number of steps that may be followed, depending on your national context and the design of your country’s NAP process. See Figure 2.1 for the steps of each entry point.

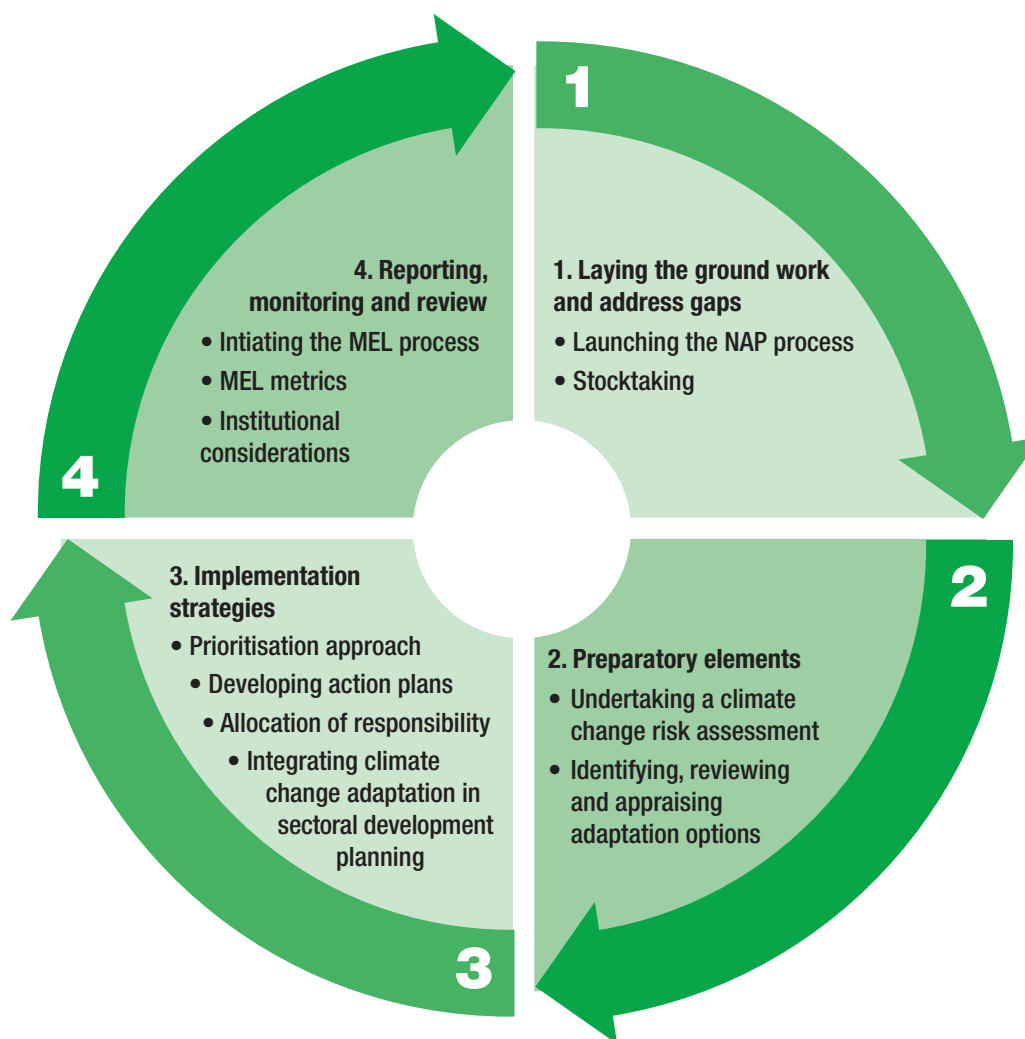


FIGURE 2.1: Entry points in the NAP process¹³

¹³ Adapted from: <https://napglobalnetwork.org/resource/toolkit-for-gender-responsive-13-national-adaptation-plans/>

The time taken to complete each of these steps differs by countries based on the scope of the NAP process. The timing is dependent on factors such as the status of existing adaptation planning processes, risk assessment requirements, stakeholder consultation considerations, and data availability. In general, Pacific countries can take between one to two years to develop a NAP document including the completion of a national climate risk assessment.

In addition to these entry points, there are enabling activities that occur throughout the NAP process, which also provide important opportunities to strengthen the adaptation planning process. Guidance on key enabling activities, and case studies highlighting successes across the region, are provided in Section 3.

For more comprehensive guidance on the NAP process, refer to the lists of further readings provided in this section.

2.1. Laying the groundwork and addressing gaps

This element on laying the groundwork and addressing gaps aims to create a national strategy for the NAP process (referred to as the “NAP Roadmap”), which involves establishing clear responsibilities for government ministries and departments. This strategy should also specify key milestones and expected outputs of the NAP process and the frequency of such outputs over time.

During this stage, the existing climate adaptation processes should be assessed. This includes an assessment of gender-responsive processes, vertical integration (or mainstreaming) activities, private sector engagement in adaptation activities, and existing institutional arrangements, such as coordinating and cooperating mechanisms to determine whether these are fit-for-purpose.

Where appropriate, existing institutions should

be used for the NAP process – if necessary, a NAP committee or working group could be established under the existing institutional arrangements. The use of existing institutions will be more cost-effective and efficient, and will reduce the administrative burden and transaction costs associated with the development of the NAP.

At this phase of the NAP process, the weaknesses and gaps in “enabling environments” should be identified. These enabling environments, which include principles of good governance and regulatory reforms, facilitate climate action through providing and allocating resources, promoting stakeholder action, and fostering inclusive representation of the poor and vulnerable persons. Section 3 of this guidance outlines the enabling activities to strengthen the NAP process.

2.1.1. Launching the NAP process

The launch of the NAP process provides an opportunity to shape the future of adaptation planning in your country. This includes the way the NAP process is envisioned, which institutions are mandated to participate, and how the plan will be structured. The following actions should be completed at this stage:

- Conduct briefings to policymakers about climate change adaptation challenges and opportunities, and the NAP process in particular. A priority should be securing high-level commitment for the NAP process, including developing climate policies, undertaking reforms, and mainstreaming climate adaptation into sectoral and local government planning processes.
- Designate the spearheading or coordinating mechanism. To operationalise the process, governments need to designate the government agency (or agencies) or institutions responsible for spearheading the process. This will entail mobilising dedicated human resources and ensuring that the designated coordinating mechanism has the tools and means to reach the NAP governmental and non-governmental stakeholders.
- Create or enhance a national vision and mandate for the NAP process. The spearheading or coordinating mechanism could present a recommendation on the creation and structure of the NAP process to a national policymaking body (such as the cabinet, senate or parliament). A proposal on the overall vision for the NAP would be included in this recommendation. Some countries have mandated the NAP process through climate change legislation, such as the Fiji Climate Change Act 2021 (see Box 1). The use of legislation to mandate adaptation planning can help to ensure the development of a robust adaptation plan that has strong stakeholder engagement, sufficient resourcing, and a legal requirement for periodic updating of the NAP document.
- Define the NAP Roadmap, including sequencing of various NAPs and a monitoring and evaluation plan for the NAP process. It is useful to develop a NAP Roadmap, which is a strategic framework that elaborates on specific goals and objectives for the national process. For example, the NAP Roadmap used for developing Fiji's NAP (Fiji's National Adaptation Plan Framework) outlines the strategic priorities for the NAP process, and represents good practice in the Pacific

BOX 1: Fiji's Climate Change Act 2021

In 2021, the Government of Fiji passed the Climate Change Act, which covers national adaptation planning, completion of climate risk assessments, and issues of climate-induced human mobility.

The Act establishes the National Adaptation Plan Steering Committee. A number of requirements are mandated, including the promotion of gender balance when appointing members of the NAP Steering Committee and the period of meetings (at least 5 yearly for reviewing the NAP).

The Act also mandates the NAP Steering Committee to prepare successive NAPs and outlines the focal areas that may be addressed (including sectoral adaptation activities and enabling activities).

The use of relevant technical expertise from within the civil service or independent experts to support meetings and form technical working groups is also allowed under the Act. This strengthens access to resources for adaptation planning and promotes collaboration across government.

region. At this stage, it should be decided whether existing adaptation plans can be used as a basis for the adaptation planning process, such as the JNAP or existing community adaptation plans. The NAP Roadmap can also articulate how the government will lead the process, and work with subnational entities to carry out the planning and implementation of adaptation, taking into account the medium- to long-term nature of the NAP process. The NAP Roadmap would also identify strategic actions to ensure the success of the NAP process. It would respond directly to elements of the national mandate, such as alignment with national development plans, including the Nationally Determined Contribution, and sectoral roadmaps.

- Operationalise the NAP process through access to support. The Green Climate Fund (GCF) provides support for the formulation of NAPs and other adaptation planning processes as part of the Readiness Programme. This support enables developing countries to plan and attract

larger scale finance for more resilient futures by strengthening their adaptation planning processes. Box 2 outlines further details on GCF NAP financing available. While the GCF has a dedicated NAP financing window, countries may wish to access support from other multilateral, bilateral and national sources as appropriate. For example, the Government of Fiji accessed support to develop their NAP from the NAP Global Network, which was financed from the Government of Canada. The Government of the Republic of the Marshall Islands received finance to develop their NAP from the World Bank under the Pacific Resilience Project II under the Pacific Resilience Program.

2.1.2. Stocktaking

At the commencement of the NAP process, a stocktaking should be completed to establish the knowledge base for developing a NAP, drawing on available data and information in the country (including socio-economic data). This may be undertaken by the NAP spearheading

Box 2: GCF's support for the formulation of NAPs

Countries can access up to USD 3 million from the GCF for adaptation planning processes. Accessing this finance requires the submission of a proposal, which includes work plan and budget, and adaptation planning proposals can be submitted on a rolling basis.

Countries have the option of accessing the USD 3 million cap through one proposal with one Delivery Partner, or through a set of multiple sequential proposals. A 'phased' approach to accessing the resources can enable countries to 'learn by doing' and thereby benefit from the iterative nature of adaptation. National Designated Authorities (NDAs) also have the flexibility to involve multiple Delivery Partners in different proposals and to thereby access the most relevant expertise for formulation of adaptation planning activities.

The GCF provides technical assistance to countries using a national and/or regional delivery partner to formulate adaptation planning proposals. This support strengthens national and local adaptation planning processes by bolstering capacity. This facility helps countries develop adaptation planning theory of change, articulate country specific climate rationale and integrate relevant stakeholders in national and sub-national planning.

For further information, see the GCF website.

or coordinating mechanism to enable cross-sectoral and multi-stakeholder knowledge sharing and the identification of relevant resources and documentation.

Across PICs, many activities and projects have been designed and implemented to address adaptation needs. This includes past adaptation plans at the national, sectoral, local and community levels, studies on vulnerability and economic impacts of climate change and also technology needs assessments.

At this stage, it would be useful for countries to compile information on ongoing and past adaptation activities (projects, programmes, policies and capacity-building efforts) and to analyse how these activities have been developed and their overall effectiveness. When synthesised, this information can be used for understanding the status of the country's enabling environment for adaptation. A valuable output of the stocktaking would be a database of ongoing and past adaptation activities, and where available, information on results outcomes) and effectiveness of such activities.

2.2. Preparatory elements

During the execution of the second phase of the NAP process, countries should conduct an in-depth exposure, sensitivity and adaptive capacity assessment (known as a “climate change risk assessment”) and identify adaptation options to respond to the identified risks. This is highlighted in Figure 2.2.

The objective of a climate risk assessment is to understand the nature and level of climate change risk, and provide an evidence base to inform adaptation planning. Assessments can help to prioritise climate risks, which can then drive targeted action and investments in adaptation. The risk assessment should have a specified period of validity, and would be reviewed and updated in an iterative manner over time to monitor changing risk profiles

The next step in this phase is the identification and appraisal of adaptation options to address the identified climate change risks.

Box 5 and Box 6 lists further reading and resources to help with undertaking more detailed assessments and activities related to this phase.

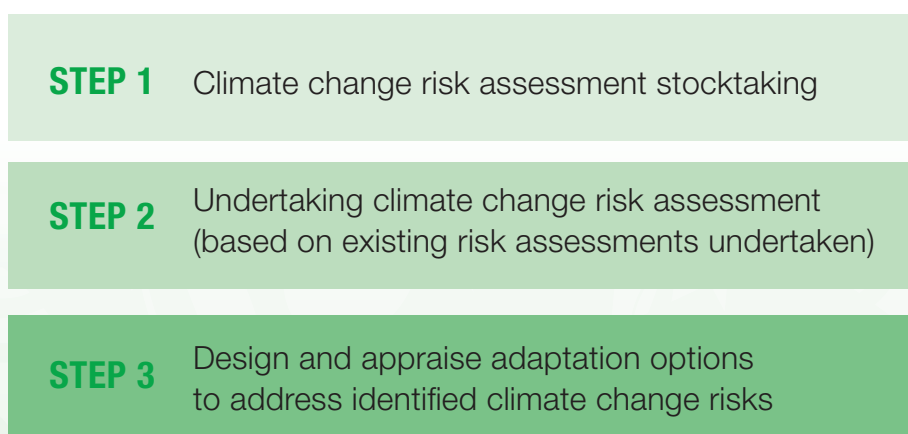


FIGURE 2.2: Completing preparatory elements

2.2.1. Undertaking a climate change risk assessment

The Fifth Assessment Report (AR5) of the United Nations Intergovernmental Panel on Climate Change (IPCC) uses the term climate change risk assessment to describe the assessment of exposure and vulnerability of systems, assets and populations.¹⁴

The present use of terminology is inconsistent across the Pacific, however, as the term “climate vulnerability assessment” is also used to differentiate a traditional risk assessment (which assesses likelihood and consequence) from a climate change assessment that

assesses exposure, sensitivity and adaptive capacity of systems, assets and populations.

To align ensure alignment with the IPCC AR5 Synthesis Report, and consistent use of terminology, this guidance uses the term “climate change risk assessment”. Based on this typology, as shown in Figure 2.3, climate change risk arises from three elements:

- Climate hazards (which can be physical events or trends, such as sea-level rise or seasonal climate changes).
- The degree to which things we value (e.g., people, assets, culture) are exposed to the hazard.

Box 3: Case study of climate change vulnerability assessments completed in Kiribati, Tuvalu and the Solomon Islands

Several PICs have chosen to use integrated (multisector) vulnerability assessments (IVAs) to capture and incorporate community-level vulnerability information into their NAP processes. The IVA Framework was developed in 2016 by Pacific organisations in response to a perceived need to support a standardised, coordinated and integrated approach to assessing climate vulnerability in the region.

The IVA Framework systematically examines how environmental and developmental changes affect local communities and the subsequent impacts of these changes on their abilities to meet their basic needs. As it provides baseline data about communities’ vulnerability through a standardised approach that can be periodically replicated, IVA can be a valuable tool to inform the development, implementation, and monitoring and evaluation of NAP processes.

The application of the IVA processes in Kiribati, Tuvalu and the Solomon Islands was supported by the use of tablets to collect outcomes of the community surveys. Use of the tablets facilitated the centralisation of all the data collected through the IVA process and enabled easier access to the data for adaptation planners, decision-makers and stakeholders. Introducing the use of this technology in the three countries was fundamental in changing the way that vulnerability was and will be assessed and is expected to influence adaptation planning at the local level.

The IVA Framework became and continues to be a valuable tool in both informing and influencing national- and community-level adaptation planning, irrespective of the stage of the country’s NAP process. A national IVA Framework that includes a system for primary and secondary data collection, systematised consolidation of information in a database for documentation and analysis, and standardised reporting forms can be instrumental in institutionalizing national-level vulnerability and adaptation knowledge management systems.

For further information on the IVA processes, see: How Integrated Vulnerability Assessments Support NAP Processes in the Pacific Region.

¹⁴ Source: <https://www.ipcc.ch/report/ar5/wg2/>

- Their vulnerability (which is determined by sensitivity and adaptive capacity) to its effects.

The completion of a comprehensive climate change risk assessment is a resource-intensive exercise, particularly if your country has many isolated communities, but it is a critical step in the adaptation planning process.

There have been a number of risk and vulnerability assessments undertaken across the region at the national, sectoral and community levels – a case study is shown in Box 4. If the existing risk assessments in your country are robust and use recent data, these assessments can be used as an evidence base for completing adaptation planning and should inform the methodology used for completing climate risk assessments.

If a national risk assessment has not been completed or the existing one requires

updating, then a national risk assessment could be completed as a part of the NAP process. Risk assessments are usually valid for a set period of time (e.g., five years), after which an additional assessment is needed to determine the changing risk profile – the risk assessment process should ideally be aligned to the NAP process, so both can be updated in parallel. In addition, the release of improved climate projections, such as downscaled projections or IPCC projections, may also be a rationale for updating risk assessments.

The basic principles for completing a national risk assessment are outlined in this section, but this should be adjusted to meet the specific context of the country/geographic area. There are several guidance documents on completing climate change risk and vulnerability assessments, as outlined in Box 6, and these should be referred to when undertaking a climate change risk assessment.

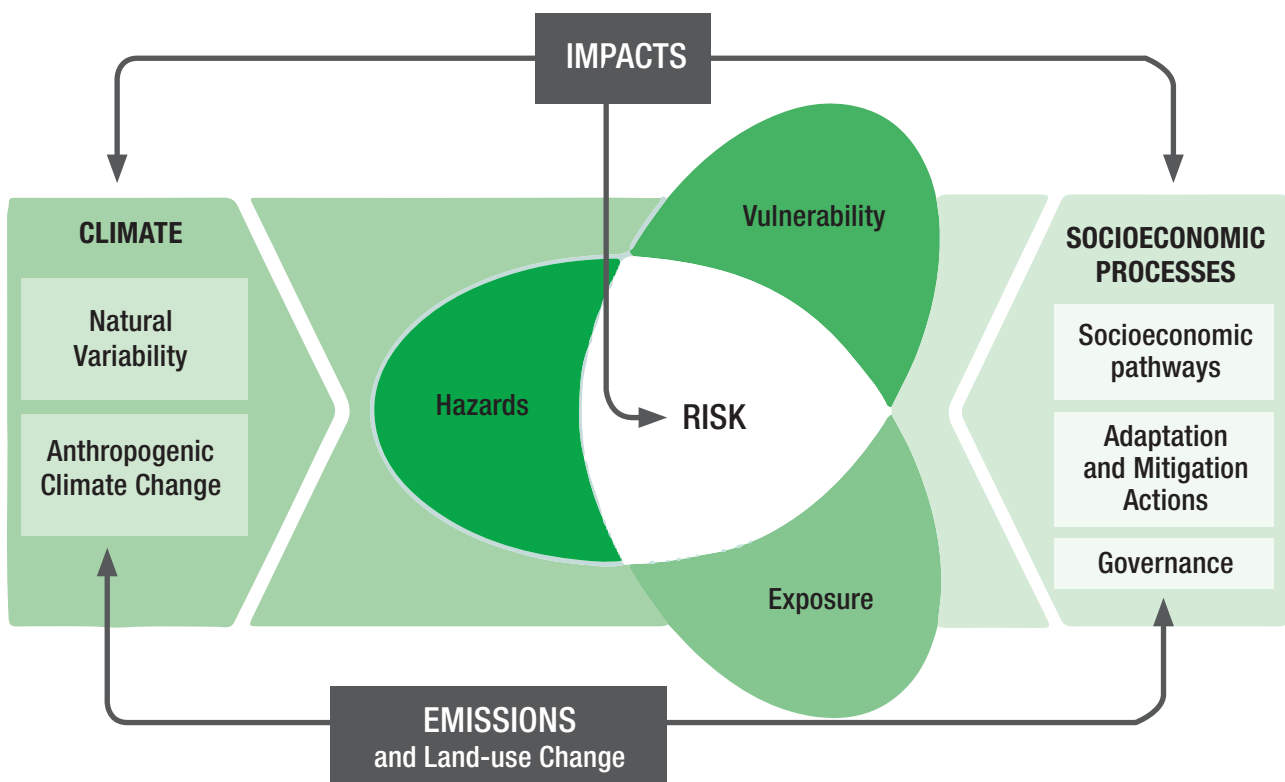


FIGURE 2.3: Climate-related risk as to the interaction of climate hazards with the vulnerability and exposure of human and natural systems¹⁵

¹⁵ Source: <https://www.ipcc.ch/report/ar5/wg2/>

2.2.1.1. COMMENCING A CLIMATE CHANGE RISK ASSESSMENT

Those carrying out the climate change risk assessment may be national and local government officials, development partners, and consultants. Careful consideration of the institutional committee is required to determine suitability for leading the assessment – it may be worth developing an additional governance structure, such as a sub-project committee for completing the risk assessment. In addition, the allocation of appropriate resources, including support from development partners, will go a long way towards making the assessment a success.

Box 4: Geospatial analysis

Geospatial analytics can inform your assessment at a more granular level. This can involve using digital geospatial tools (software such as ARC-GIS) to overlay digital hazard data with data on elements at risk.

This is most beneficial where hazard information is clearly defined, such as data on modelled coastal inundation, erosion, or inland flood plains.

2.2.1.2. SETTING UP A RISK ASSESSMENT

A combination of qualitative and quantitative information will be useful, particularly when assessing community risks. A stocktake should be undertaken at this stage, which would include the collection of data through workshops, consultations, and surveys with communities, businesses, government officials and other stakeholders. The stocktaking could also look at the institutional capacity of your country to undertake a climate change risk assessment, and this could include the ability to collect data – GCF NAP readiness finance (and/or support from other sources) could be used to strengthen this capacity.

All assessments should use local (downscaled) climate projections and other hazard data (e.g., for coastal inundation, flood hazards) if possible – although the availability and resolution of hazard data is a key issue in many PICs. If these are unavailable, national or regional projections should be used.

You can generally source information on elements at risk (e.g., infrastructure and food systems) from surveys of subject matter experts, literature reviews and engagement. If you undertake a detailed geospatial assessment, you will need specific data (e.g., infrastructure networks) – see Box 4 for further details on undertaking a geospatial assessment.

2.2.1.3. CARRYING OUT A CLIMATE CHANGE RISK ASSESSMENT

Direct climate change risks should be assessed, as outlined in the following points and as shown in Figure 2.4.

- Identifying the elements at risk. People, livelihoods, species or ecosystems, environmental processes and resources, infrastructure, or economic, social, or cultural assets. The local climate hazards affecting the geographic areas (e.g., different regions of the country) should be identified. The elements at risk (e.g., communities, systems, assets) that could be exposed or vulnerable should be listed.
- Assessing exposure to a climate hazard. Points to consider are the spatial location and extent of exposure (quantity) of an element at risk to the hazard. Evaluation of exposure is usually uncertain, due to changes in the hazard and the wider context. The scale for rating exposure ranges from low to extreme across different timeframes to represent the changing severity of the hazards.

What is exposure?

Exposure refers to the presence of people, livelihoods, species or ecosystems, environmental functions, services, and resources, infrastructure, or economic, social, or cultural assets in places and settings that could be adversely affected by a climate hazard.

- Assessing vulnerability, which comprises sensitivity and adaptive capacity, to a climate hazard. Vulnerability is assessed by separately considering an element at risk's sensitivity and adaptive capacity. It is independent of exposure or location.

What is vulnerability?

Vulnerability refers to the propensity or predisposition to be adversely affected by a climate hazard. Vulnerability encompasses a variety of concepts, including sensitivity to harm, and lack of capacity to adapt (or adaptive capacity).

- Assessing risk. Risk can be assessed based on exposure and vulnerability. Risk can be rated using a risk matrix, which is based on vulnerability and exposure rankings.

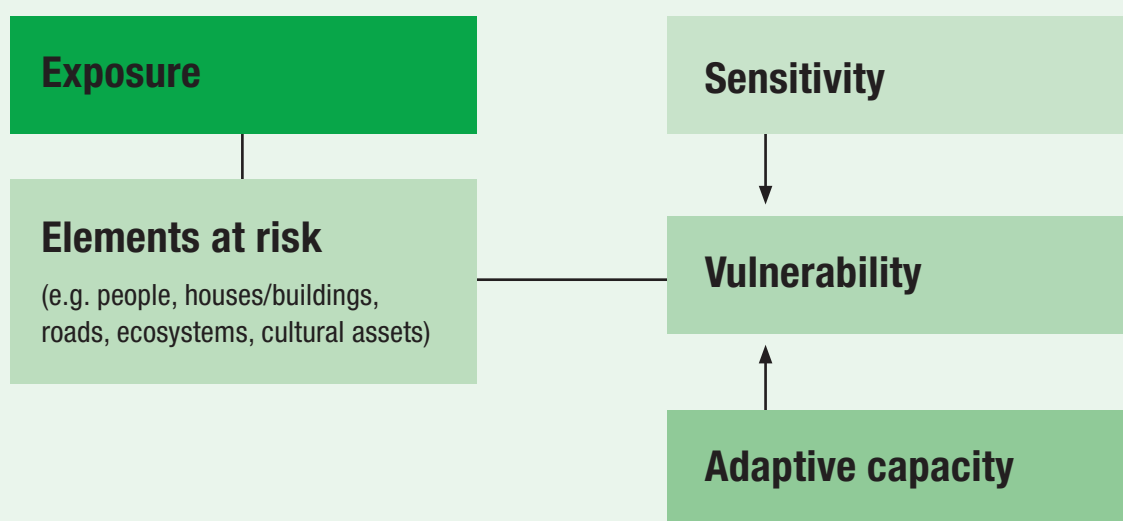


FIGURE 2.4: Assessing elements at risk

2.2.1.3. CARRYING OUT AN INDIRECT CLIMATE RISK ASSESSMENT

Assessing indirect and cascading risks is complex, but it is important to act on these risks given the significant consequences. Indirect risks can propagate and cascade through systems, with significant impacts on livelihoods. For example, climate change, through its impacts on infrastructure and food and water security. These impacts interact and can be mutually reinforcing, often leading to the greater risks, with ramifications for community wellbeing, health, identity, autonomy, and sense of belonging. These will be felt most strongly by those groups that are already vulnerable, facing hardship, and who are less able to access/pay for resources.

2.2.2. Identifying, reviewing, and appraising adaptation options

2.2.2.1. OVERVIEW

This step aims to select adaptation options considering their contribution to short-term and long-term sustainable development, their costs, effectiveness, and efficiency. Categorizing adaptation options by different typologies can help to undertake this process. To ensure that the conditions for success are in place, it is also important to take lessons learned from past experiences in your country, and the piloting of various adaptation initiatives and projects, into account.

After the risk assessment, the next step is to identify adaptation options to respond to the climate change risks. This constitutes a long list of adaptation options. Adaptation options can be categorised as follows (and these option typologies can be combined in some instances):¹⁶

- Structural and physical measures (also known as “hard” options):
 - i. Engineered and built environment options, e.g. coastal protection and flood defence structures, building codes and transport and road infrastructure adaptation;
 - ii. Technological options, e.g. new crop and animal varieties, efficient irrigation, and hazard mapping and monitoring technologies;
 - iii. Ecosystem-based options (also known as “green options”), e.g. wetland restoration, afforestation, and community-based natural resource management;
 - iv. Services, e.g. social safety nets, municipal services and public health services.
- Social measures (also known as “soft options”):
 - i. Educational options, e.g., awareness-raising, sharing knowledge;
 - ii. Informational options, e.g., hazard and vulnerability mapping, systematic monitoring and remote sensing, and improve climate forecasts;
 - iii. Behavioural options, e.g., evacuation planning, managed retreat, and economic diversification (such as new activity or changing practices to take advantage of changing climatic conditions).
- Institutional measures (also known as “soft options”):
 - i. Economic options, e.g., taxes and subsidies, off-setting losses by sharing or spreading risks through insurance, and financial transfers;
 - ii. Laws and regulations, e.g., land zoning laws, building standards, and disaster planning and preparedness;
 - iii. Government policies and programs, e.g., regional and sectoral action plans, city-level plans, adaptive management approaches.

¹⁶ Source: <https://www.ipcc.ch/report/ar5/wg2/>

Some of these adaptation options may involve incrementally adjusting current development activities (e.g., climate-proofing or building resilience of existing systems) while others may be new. Furthermore, other options may require major transformations in systems, operations and planning (see Section 3.4 for further information on transformational adaptation). Other considerations include the spatial scale of the action (local, regional or national), and an indication of urgency based on the timing, expected level and severity of expected impacts.

An additional point that needs to be considered when selecting adaptation options is the decision lifetime of the adaptation option – this involves both the lead time required to implement the action, and the consequence period of the action. This is explained further below:

- Short lead + short consequence period (which crop cultivar to plant).

- Short lead + long consequence (building a house).
- Long lead + short consequence (breeding a climate-resilient crop varietal).
- Long lead + long consequence (location of a new suburb outside of a coastal hazard zone).

The timeframes of selected adaptation options/decisions are shown in Figure 2.5.

The adaptation literature highlights the preference for selecting no/low regrets adaptation options (that deliver high net socio-economic benefits whatever the extent of future climate change) and win-win adaptation options (options that achieve adaptation while also having other social, environmental or economic benefits).¹⁷ While the design of adaptation options that maximise co-benefits is encouraged, this should not be considered a requirement for designing adaptation options – particularly if it detracts from addressing the systemic threats in your country.

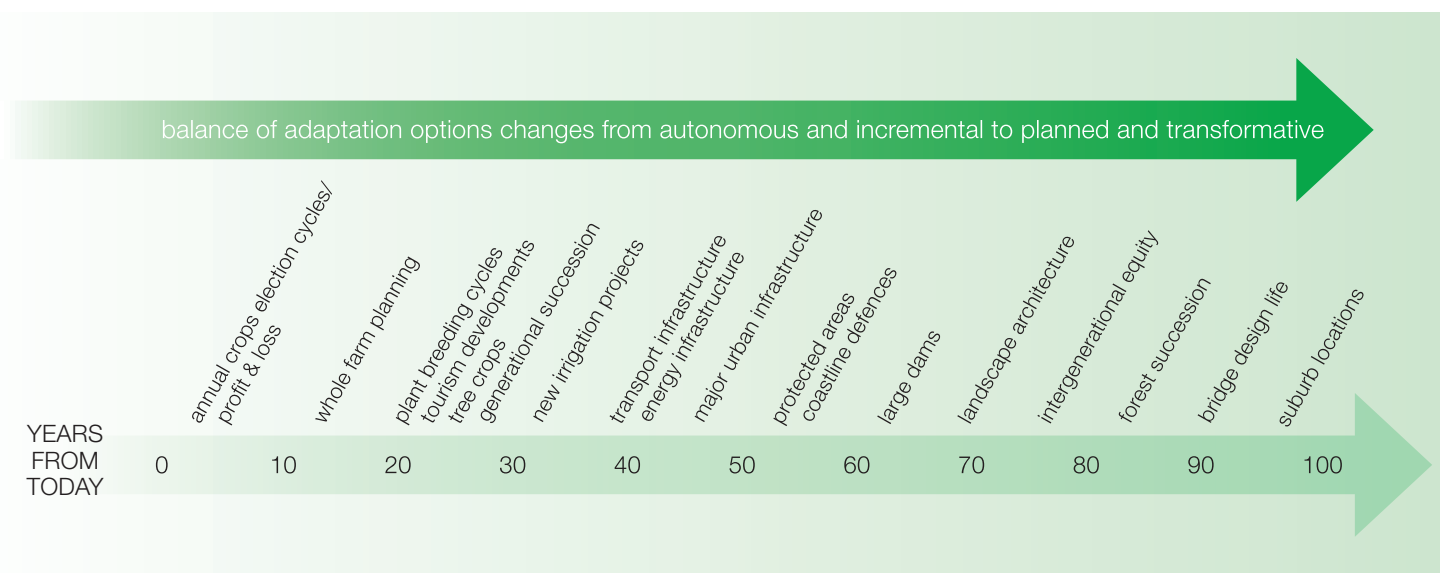


FIGURE 2.5: Decision lifetime of adaptation options¹⁸

¹⁷ Source: <https://www.ipcc.ch/report/ar5/wg2/>

¹⁸ Stafford Smith, M.; Horrocks, L.; Harvey, A. & Hamilton, C. 2011. Rethinking adaptation for a 4°C World. Phil. Trans. R. Soc. 369, 196-216. <http://rsta.royalsocietypublishing.org/>

These adaptation options should be considered as overlapping rather than discrete and can be pursued simultaneously as a part of adaptation plans. Broadly, the NAP should identify adaptation options that are effective, least cost and minimise risks associated with implementation (such as actions resulting in maladaptation and moral hazard). Such a risk could be the lock-in of adaptation responses from poorly designed adaptation options, which could exacerbate future climate vulnerabilities.¹⁹

Another adaptation typology that could be used to design adaptation options is dynamic/adaptive management approaches. Adaptive management places an emphasis on taking action and then using the lessons learned to inform future actions to make better-informed decisions, with change occurring based on an agreed trigger. This process is often incremental while enabling decisions in the face of uncertainty. This can result in the development of adaptation options that are robust against a wide range of plausible future climate and societal changes. This approach

also differs from the other typologies, as it allows for testing and deployment of transformational adaptation approaches that may have a higher implementation risk. It can also help to minimise potential maladaptation, such as building assets which do not work, are high-cost and do not meet the needs of future users. Although, the potential trade-off between adaptation action that is incremental and options that result in transformational changes at speed and scale should be assessed if dynamic/adaptive management approaches are used.

2.2.2.2. SECTORAL CONSIDERATIONS

At this phase of the NAP process, strong engagement with line ministries and sectoral agencies is crucial to ensure that the adaptation options identified are aligned with sectoral plans and processes, expert knowledge is elicited for the design of options, and opportunities to mainstream climate change adaptation in sectoral planning (horizontal integration) are utilised.²⁰

Box 5: Further reading and resources on undertaking a climate change risk assessment

- UNFCCC. 2012. National Adaptation Plans: Technical guidelines for the national adaptation plan process. Element B of the LDC Technical guidelines provides guidance on completing a risk/vulnerability assessment as a part of the NAP process.
- NAP Global Network. 2019. How Integrated Vulnerability Assessments Support NAP Processes in the Pacific Region. This briefing note will highlight the significance of the IVA Framework to the NAP processes underway in three Pacific island states: Kiribati, Tuvalu and the Solomon Islands. After briefly summarising the background and purpose of the IVA Framework, this note will outline how it was applied, identify key lessons learned and make recommendations for future iterations of this work.
- World Bank. Climate & Disaster Risk Screening Tools. A database of tools, provided by the World Bank, for understanding climate and disaster risks to national- or project-level activities.
- IPCC. 2018. Assessing and Managing the Risks of Climate Change. A high-level briefing note from the Intergovernmental Panel on Climate Change on risk assessment methodology. This is based on the AR5 summary for policymakers.
- IPCC. 2021. The concept of risk in the IPCC Sixth Assessment Report: A summary of cross Working Group discussions. A guidance document from the IPCC that outlines the latest thinking on climate change risk.

¹⁹ Source: <https://www.sciencedirect.com/science/article/pii/S2212096317300712>

²⁰ In addition, sectoral ministries and sub-national agencies should also be engaged as a part of the risk assessment.

As sectoral ministries are usually responsible for implementing adaptation options, their input into the design of the adaptation options is crucial – and the adaptation options may also be cross-sectoral to address systematic cascading risks.

There are a range of good practices for designing sectoral adaptation options, and lessons learnt from past climate change adaptation projects and planning processes should also be integrated into the design of adaptation options (which could take place as a part of the stocktaking step – see Section 2.1.2). See Box 6 for further reading and resources on sectoral considerations.

2.2.2.3. REGIONAL ADAPTATION OPTIONS

Alongside the identification of national adaptation options, the development of regional adaptation options should also be considered. There are a range of climate risks and adaptation responses that are international, regional and/or transboundary in nature, including the impact of extreme weather and strong winds on supply chains and aviation, access to regional education institutions (e.g., the University of the South Pacific), changes in the distribution of fish stocks (particularly tuna stocks), flows of climate migrants/refugees between countries, and other economic/social/political impacts.

These transnational challenges require inter-country and regional cooperation and collective action. The role of regional organisations, such as the Council of Regional Organisations of the Pacific (CROP) agencies, will be vital for managing these issues effectively. These considerations should be integrated into the NAP process, particularly in the pipeline of adaptation options identified.

Regional organisations, including CROP agencies, donors, and international NGOs, also have an important role in delivering capacity building and transferring knowledge

between countries (e.g., best practices and case studies). This support will be particularly important for smaller countries with lower capacity, which may require assistance from development partners to augment capacity and resources for undertaking adaptation planning and implementing the NAP.

2.3. Implementation strategies

The third phase of the NAP process is concerned with the design of NAP implementation strategies. Work during this part of the process would focus on prioritizing adaptation actions within the national planning process, identifying synergies, and developing and enhancing the country's long-term capacity for planning and implementing adaptation. Work on capacity-building, institutional arrangements, data-gathering, assessments, and communications initiated in earlier stages would continue. Implementation would build on existing activities, planning frameworks, and project pipelines, to the extent possible.

Box 9 lists further reading and resources to help with undertaking more detailed assessments and activities related to this phase.

2.3.1. Prioritisation approach

The action plans linked to the NAP should list the pipeline of priority actions, assign responsibilities to relevant agencies/stakeholders, and provide a timeframe for implementing actions. At this stage, the actions identified should also be costed if possible, which will help with the prioritisation approach and mobilisation of climate finance. Prioritisation of adaptation actions at the national level results in several benefits, including improved access to climate finance (as the priority investments are clear) from both the domestic budget and international funding sources.

Box 6: Further reading and resources on sectoral adaptation options and actions

- CBD. 2014. Promoting synergies in addressing biodiversity and climate change adaptation issues: linking national adaptation plans and national biodiversity strategies and action plans. This note, published by the Convention on Biological Diversity, aims to strengthen synergies between the conservation and sustainable use of biodiversity and climate change adaptation at the national level through design, review and implementation of National adaptation plans and national biodiversity strategies and action plans.
- WHO. 2014. Guidance to protect health from climate change through health adaptation planning. A Health National Adaptation Plan (HNAP) is defined by the World Health Organization (WHO) as a plan developed by a country's Ministry of Health as part of the NAP process. This guidance document, published by the WHO, describes the principles and fundamental concepts of the national health adaptation planning process, critical elements of health adaptation to climate change, and steps in developing the plan.
- WHO. 2021. Quality criteria for health national adaptation plans. This guidance document from the WHO outlines criteria that reflect the lessons learned by the WHO in its support to countries in developing HNAPs as part of the process to formulate and implement NAPs.
- Conservation International. 2015. Tool for integration ecosystems into climate change adaptation planning processes. The core objective of the tool is to help facilitate an efficient process for consideration of ecosystems within the National Adaptation Planning (NAP) planning process.
- FAO. 2015. Voluntary Guidelines to Support the Integration of Genetic Diversity into National Climate Change Adaptation Planning. The Guidelines seek to ensure the relevance of genetic resources for food and agriculture to the overall national adaptation planning process in a country by identifying clear goals for conservation and use of GRFA as part of national adaptation to climate change, and ensuring the fullest involvement of all stakeholders.
- ITU. Information and communication technologies for climate change adaptation in cities. This Technical Report has been prepared within the Focus Group on Smart Sustainable Cities, International Telecommunication Union, and responds to the need to explore how Information and Communication Technologies (ICTs) and their infrastructure can support cities' adaptation to climate change.
- WMO. 2016. Climate Services for Supporting Climate Change Adaptation: Supplement to the Technical Guidelines for the National Adaptation Plan Process. This document from the World Meteorological Organisation provides guidance on the role of National Meteorological and Hydrological Services in the provision of climate services and support to the National Adaptation Plan process.
- FAO. 2017. Addressing Urban and Human Settlement Issues in National Adaptation Plans: A Supplement to the UNFCCC Technical Guidelines on the National Adaptation Plan Process. This guide aims to comprehensively address urban and human settlement issues in NAPs at the formulation and implementation stage.
- CGIAR. 2017. 10 best bet innovations for adaptation in agriculture: A supplement to the UNFCCC NAP Technical Guidelines. This paper aims to tap into agricultural research for development conducted by CGIAR Centres and research programs, to identify best bet innovations for adaptation in agriculture, which can help achieve food security under a changing climate, while also delivering co-benefits for environmental sustainability, nutrition and livelihoods.
- FAO. 2017. Addressing agriculture, forestry and fisheries in National Adaptation Plans: Supplementary guidelines. This guidance document aims to support developing countries in reducing vulnerability of the agriculture sectors to the impacts of climate change by building adaptive capacities and resilience; addressing agriculture in the formulation and implementation of NAPs; and enhancing the integration of adaptation in agricultural development policies, programmes and plans.
- Global Water Partnership. 2019. Addressing Water in National Adaptation Plans: Water Supplement to the UNFCCC NAP Technical Guidelines. Water is the most-cited pathway through which countries experience climate impacts, and also the most-often-prioritised sector through which countries seek to build resilience in their economies, their populations' livelihoods, and their natural ecosystems. The NAP Water Supplement aims to support developing countries to: (i) incorporate water-related adaptation needs and opportunities in the formulation and implementation of NAPs; (ii) enhance the integration of water-related adaptation in development policies, programmes and plans; and (iii) strengthen the resilience of economies, livelihoods, and natural ecosystems by reducing water-related climate vulnerabilities, and building adaptive and transformative capacities.
- FAO. 2020. Addressing forestry and agroforestry in National Adaptation Plans – Supplementary guidelines. These supplementary guidelines therefore aim to: (i) show the need for adaptation of forests and trees; (ii) show the importance of forests and trees for adaptation; (iii) show the need to appropriately integrate forest and trees in the NAP process; and (iv) support NAP practitioners in integrating the management of forest and trees in NAPs.
- UNDRR. 2021. Promoting Synergy and Alignment Between Climate Change Adaptation and Disaster Risk Reduction in the Context of National Adaptation Plans. This supplement to the UNFCCC National Adaptation Plan Technical Guidelines provides practical recommendations to guide NAP technical teams and focal points on how to strengthen and better promote synergy and coherence between climate change adaptation and DRR, including within broader national development planning processes and implementation.
- FAO. 2017. Addressing Agriculture, forestry and fisheries in National Adaptation Plans: Supplementary guidelines. This guidance document aims to support fisheries and aquaculture institutions to enable adaptation planning within the sector; and national planners and decision-makers working on climate change to understand the specific vulnerabilities and priorities for adaptation in the fisheries and aquaculture sector as part of the national development and adaptation system.

A consultative process for prioritising adaptation actions should be developed. There is a range of prioritisation methodologies that could be used as outlined below:

- **Group perceptions:** Communities and stakeholders can prioritise adaptation actions through consultative processes. Community representatives could vote on their preferred adaptation actions in a community workshop or questionnaires/surveys could be completed. This approach ensures the prioritisation is inclusive and stakeholder-led, which can result in improved project effectiveness.
- **Criteria-based approach:** A more comprehensive prioritisation approach is multi-criteria analysis (MCA), which is a decision-making tool that could be used to assess different adaptation options and interventions. A set of criteria should be developed to prioritise the options and interventions, with the option of weights being assigned to each criterion. Then

stakeholders (usually experts, such as sectoral representatives or members of the coordination mechanism) provide a ranking of the adaptation options based on these criteria. For MCA to be successful, the stakeholders engaged in the process require expertise in climate change adaptation project design and implementation. Therefore, MCA may not be the most suitable methodology for community-led prioritisation. There is a significant global experience in using criteria to prioritise adaptation options and interventions, and these lessons should be integrated into the NAP prioritisation process. In the Republic of Fiji National Adaptation Plan, MCA was used for prioritising adaptation actions – a summary of this process is provided in Box 8.

Prioritisation can also be completed using geospatial analysis. For example, the CommonSensing project has developed a geospatial tool called the Decision Support System. This is based on INFORM, which is a methodology designed to support decisions

Box 7: Republic of Fiji National Adaptation Plan

All prioritised actions contained within Fiji's NAP were selected via a prioritisation process. The prioritisation process converted the values and criteria contained within the NAP Framework into a participatory and inclusive multi-criteria analysis. The analysis was applied to actions provided through a stocktaking process.

The Climate Change and International Cooperation Division acted as the administrative lead for the prioritisation process. The prioritisation process for each section was assigned a technical lead – the government entity most closely associated with its implementation – whose responsibility was to facilitate the prioritisation process while in session. Experts and other stakeholders relevant to each NAP component were identified to support the prioritisation process.

The identification and integration of gender and human rights issues and approaches into adaptation planning processes was vital because exposure and sensitivity to climate change, as well as the capacity to adapt, vary substantially across social and economic groups. The NAP states that operationalising a 'gender and human rights-based' approach to adaptation planning requires that the differentiated impacts and degrees of vulnerability across societal groups be established. It also requires that members of low-income and otherwise disadvantaged groups are identified as 'active agents of change', rather than being identified as a 'vulnerable group' which can diminish agency.

For further information, refer to the Republic of Fiji National Adaptation Plan.

related to risk prevention, preparedness and response. The Decision Support System includes a multi-criteria decision support tool, which requires users to select from a list of preloaded layers and parameters in the GIS software (e.g., availability of infrastructure and exposure to climate hazards). The selected layers and parameters can then be weighted based on relative importance to identify suitable sites (e.g., the site with the lowest exposure to coastal hazards). An example of when this would be used is the identification of a suitable alternative site for relocating an impacted community. Further information on the CommonSensing Decision Support System is provided here.

The prioritisation will also need to be informed by the structure of the action planning undertaken – for instance, the NAP could include a high-level prioritisation, and adaptation options/actions could be further prioritised and elaborated at a more granular level in sectoral/stakeholder action plans (different options are outlined below). The prioritisation methodology developed in the NAP could also be used in the development of the sectoral/stakeholder action plans.

2.3.2. Developing action plans

Adaptation planning should include a comprehensive financing strategy to implement priority actions. The development of costed action plans linked to the NAP should be considered a priority – this can include a prioritised pipeline of project ideas and funding proposals. There could be a national action plan linked to the NAP, and/or several plans for priority sectors or agencies, such as line ministries and local governments.

For example, countries in the region are preparing health NAPs (H-NAPs) and strategic action plans, which are plans developed by the ministry of health as part of the NAP process. Moreover, some countries have existing health plans, such as Fiji's Climate Change and Health Strategic Action Plan 2016–2020 (CCHSAP), which should be integrated into the NAP process. Fiji's CCHSAP was developed in 2016 before the country's NAP was published in 2018, and Fiji's NAP includes a number of high priority health sector actions (including 10 of the 40 actions from the CCHSAP).²¹

Box 8: Further reading and resources on implementation strategies

- UNFCCC. 2012. LDC Technical Guidelines. Detailed guidance on NAP implementation strategies is provided in Element C of this guidance document.
- UNCDF. 2018. Financing local adaptation to climate change: Experiences with performance-based climate resilience grants. This guidance, developed by UNCDF, includes recommendations on the prioritisation of adaptation options.
- NAP Global Network. 2019. Toolkit for a Gender-Responsive Process to Formulate and Implement National Adaptation Plans. Provides guidance on the steps for developing a gender-responsive implementation strategy.
- UNITAR. Overview of the CommonSensing decision support system. Provides a summary of the tool and contact details for a country to access support.
- The sectoral guidance provided in Box 7 also provides guidance on developing sectoral implementation strategies.

²¹ Source: <https://www.health.gov.fj/wp-content/uploads/2018/03/Climate-Change-and-Health-Strategic-Action-Plan-2016-2020.pdf>

Coordinating the NAP priorities with existing investment plans, such as national, sectoral and local planning frameworks, should also be considered a priority. As a part of the action planning process, the required external expertise and capacity building needs should be identified.

Developing a pipeline of adaptation projects is also an important enabling factor for implementing the NAP. Adaptation planning processes provide a crucial evidence base for the design of project proposals for sources of climate finance, both from domestic and international financiers. Creating a pipeline of bankable projects in the short, medium, and long-term can mobilise public and private sector investment to achieve adaptation outcomes and strengthen coordination between stakeholders.

2.3.3. Allocation of responsibility

There are multiple ways that responsibility could be allocated to stakeholders, with different approaches outlined below:

- Local government, sectoral ministries, and other stakeholders could also be required to develop action plans to align with the NAP to meet these targets. Under this approach, the NAP could set the desired impact statement and targets, and these action plans would be responsible for the development and implementation of relevant action plans.
- A more flexible approach could be designed through allocating finance for implementing adaptation options. Local governments, and other stakeholders, could be given preferential financing to implement NAP actions. This finance could be allocated through a financing mechanism and via a national budgeting process (potential financing approaches are discussed in more detail in Section 3.8 below).

2.4. Monitoring, evaluation and learning

The fourth entry point on monitoring, evaluation and learning (MEL) is focused on collecting information on the NAP process, assessing it through a national system, providing outputs for reporting on progress, and incorporating lessons learnt into the NAP process. Given the scale, scope, and complex nature of climate change adaptation, which cuts across sectors and timeframes, it is essential that MEL is used to better inform and improve programme strategies.²²

The activities should be implemented throughout the NAP process, starting with the design and launch of the MEL system during the launch of the NAP process.

Developing an effective MEL framework is a core component of the NAP process, as it allows for integrating learnings and achieving continual improvements of adaptation planning processes.²³

- Monitoring is the systematic and continuous collection of information that enables stakeholders to check whether an intervention is on track or achieving set objectives.
- Evaluation is a systematic assessment of the worth or utility of an intervention at a specific point in time – for example, whether a policy has been effective in achieving set objectives.
- Learning is new knowledge that is used to shape behaviour, as manifested in decision-taking or actions.²⁴

There are three main areas where MEL can contribute to strengthening NAPs and adaptation outcomes:

- Supporting the formulation and implementation of NAPs, which is vital for steering it towards successful outcomes by promoting best practices.

²² Source: <https://www.ukcip.org.uk/wp-content/PDFs/MandE-Guidance-Note1.pdf>

²³ Source: <https://www.iisd.org/publications/developing-national-adaptation-monitoring-and-evaluation-systems-guidebook>

²⁴ Source: https://napglobalnetwork.org/wp-content/uploads/2020/09/Learning-from-ME-Sept-2020_Paddy-Pringle.pdf

- Demonstrate accountability for funds allocated and show value for money.
- Complete MEL of adaptation outcomes and impact, including systematic observation of adaptation outcomes and impacts at different levels (e.g. sectors and specific adaptation interventions).
- Integration of learning into adaptation planning processes, including the design and implementation of technical projects, sharing knowledge between stakeholders, and improving systems and policymaking processes.

The NAP should be considered a living document, with progress tracked and future iterations of the adaptation planning process incorporating the lessons captured from the MEL process. As with other national development plans, the NAP would have a limited window of applicability before it would need to be updated to take into account implementation progress, emerging changes in climate science and technologies, and to incorporate lessons learned.

A number of countries across the region have developed monitoring and evaluation (M&E) frameworks for climate change adaptation. In Tuvalu, community-based M&E is used for monitoring progress (see Box 11). Moreover, Tonga has developed an M&E framework for its Joint National Action Plan on Climate Change and Disaster Risk Management, which involves a stakeholder survey (see Box 12).

Box 14 lists further reading and resources to help with undertaking more detailed assessments and activities related to this phase.

2.4.1. Initiating the MEL process

BOX 9: What is a MEL framework?

The MEL framework forms the conceptual building blocks for the MEL system.

The framework sets out what to monitor and evaluate, why it is undertaken (the purpose), and how to go about doing this.

The first step in initiating the MEL process is agreeing on the purpose of MEL system (this is outlined in the MEL framework, as outlined in Box 9). At this stage, it is important to agree on a clear definition of the purpose and the intended use of MEL results. In general, national MEL systems have one or more of the following purposes:²⁵

- **Learning:** Producing knowledge about the evolving adaptation context, needs, and experiences.
- **Accountability:** Reporting to stakeholders on progress and/or results.
- **Adaptive management:** Checking whether a policy, plan, or intervention is on track and adjust the course of action accordingly

Setting up a MEL system (defined in Box 10) at the beginning of the NAP process is essential for collecting data and establishing

BOX 10: What is a MEL system?

The MEL system aims to turn the concepts in the MEL framework into something usable. It refers to a set of activities and processes that gather evidence to understand changing vulnerability and to understand and communicate adaptation progress.

²⁵ Source: <https://www.ukcip.org.uk/wp-content/PDFs/MandE-Guidance-Note1.pdf>

a baseline against which progress can be measured over time. Completing MEL of the adaptation process is also crucial for capturing lessons learnt, and therefore allowing for the undertaking of corrective measures to improve future adaptation planning efforts.

When designing the MEL system, key points to consider are the relevance of the system to the needs of decision-makers, integration with existing MEL systems and/or data sources, and the buy-in and feasibility of the MEL system. At this stage, the metrics for completing MEL should be developed and agencies responsible for undertaking MEL should be identified. The set of activities and processes in the MEL system might include:

- Data collection, storage, and analysis (e.g., the development of a database).
- Report development.
- A communication strategy so that progress in implementing the NAP, or lessons from doing so, are communicated to people who make climate-relevant decisions in your country.
- A structured conversation amongst colleagues about the results of vulnerability assessments or about lessons learned from implementing a programme.

At this stage, the selection of the agency responsible for MEL should be completed in a consultative manner to ensure buy-in and commitment – it would be efficient for the same agency that is responsible for developing the NAP to complete MEL, but another entity could be selected if there is a strong rationale. Usually, an individual or team within this institution is in charge of the establishment of a national adaptation MEL system.

To monitor the NAP, a results framework should be developed which includes a logical framework (input, output, outcome, impact) and MEL metrics for formulating and implementing the NAP. This includes targets (e.g., the number of local adaptation plans developed; people made climate-resilient, disaggregated by gender) and indicators (e.g., the damage cost of extreme weather events). There are specific guidance documents that can be referred to for developing metrics, these should be consulted alongside this guidance.

Box 11: Community-based M&E in Tuvalu

In Tuvalu, performance measures comprise evidence that the island council (*kaupule*) has established a project monitoring facility to review ongoing projects as well as evidence that the climate change investments have been reviewed after implementation and discussed in the *falekaupule* (elders) assembly and other consultative meetings.

2.4.2. MEL metrics

Indicators for monitoring and evaluating progress, effectiveness and gaps will be diverse – there is no discreet set of climate change adaptation indicators, because adaptation is not an outcome in itself. NAP indicators seek to enable the achievement of goals and decrease vulnerability to the adverse effects of a changing climate.

The complexities and uncertainties inherent in climate change are better-served with a broader selection of indicators that could involve the measurement of factors that range from programme planning, to resulting adaptation knowledge and practical applications across sectors, to the ultimate impact of policy decisions on society. To this end, there should be an appropriate selection of qualitative, quantitative, and binary indicators. The indicators can be selected through a multi-stakeholder dialogue, with the agency responsible for the NAP overseeing this process.

The indicators that can be used are process or outcome based. While many development

programmes emphasise outcome indicators, e.g., those that demonstrate that a particular objective has been achieved, MEL of climate adaptation also requires indicators that measure ‘reduced vulnerability’ or ‘increased resilience’. These process indicators measure progression towards the achievement of an outcome (e.g., ‘resilience to drought’), but do not guarantee or measure the final outcome itself. Some examples of process and outcome indicators that might be found in a national adaptation MEL system are shown in Table 2.1.

In Pacific countries, the selection and design of indicators should also account for challenges with data availability and spatial and temporal consistency of data. This means that quantitative metrics are not always possible, and qualitative information plays an important role in sense-making and contextualising qualitative indicators.

Further guidance on the approach for selecting and designing indicators is available in “Developing national adaptation monitoring and evaluation systems: A guidebook” and “Guidance note 2: Selecting indicators for climate change adaptation programming”.

Box 12: M&E framework for the Tonga Joint National Action Plan on Climate Change and Disaster Risk Management

The M&E for the Tonga Joint National Action Plan on Climate Change and Disaster Risk Management 2018-2028 is based on 22 sector resilience and cross-sector resilience targets. For each of the overarching targets, there a number of objectives/activities and associated indicators. To complete M&E, a survey is periodically sent out to stakeholders responsible for sectoral adaptation planning – this survey elicits information on whether the adaptation activity is reflected in a corporate plan, progress made on an activity in the last 3 months, and capacity issues that need to be addressed.

TABLE 2.1: Examples of process and outcome indicators²⁶

Process indicators	Outcome indicators
<ul style="list-style-type: none"> ▪ # of direct beneficiaries involved in project milestone decision making (household level) through community mobilisation activities ▪ % of men and women applying drought-resistant agricultural practices learned in programme-sponsored workshops ▪ Government disaster preparedness personnel are monitoring and analysing climate change observations and projections as per trainings provided by programme ▪ Training quality as perceived by participants ▪ Disaster management coordination is improved by networking structures introduced by programme 	<ul style="list-style-type: none"> ▪ Coping strategies index score ▪ Disaster early warning system is in place and effectively communicates to public ▪ % of people with safe, convenient access to sufficient quantity of water for household use year-round ▪ Coastal city's protective infrastructure upgraded to meet international standard ▪ % of buildings with insurance coverage for extreme weather events ▪ % reduction of population living in flood plain ▪ % of hectares of crops planted with drought-resistant strains

2.4.3. Learning and communicating findings

Learning is vital given the urgency of climate change, and as climate adaptation action is a new and emerging field. Both monitoring and evaluation can serve learning purposes, and it is important that these lessons are integrated explicitly into adaptation planning approaches. Learning is particularly important for climate adaptation planning given that:²⁷

- Significant, radical and rapid adjustments to 'business as usual' societal decisions are likely to be needed.
- Urgency and cost do not allow us the luxury of a trial and error approach.
- Climate change adaptation is still an emerging field, and the effectiveness of adaptation policies and actions is poorly understood
- There may be winners and losers resulting from adaptation

Learning is challenging, and the MEL process should be designed to overcome the barriers to achieving learning. The barriers to learning in your country should be identified, and these could include:

- A lack of incentives to learn (and disincentives to talk about failure).
- Only considering lessons that appear immediately relevant within the spatial, temporal and thematic boundaries of a given funding stream.
- Staff turnover and losses of institutional memory.
- Lessons not reaching reach decision-makers in a timely and accessible form.

To achieve learning, and continual improvement of adaptation planning, countries could consider the following points:

- Establish learning objectives in the MEL framework – and be prepared to learn the unexpected.
- Consider multiple perspectives, and what success may look like for different stakeholders (including those who are not always heard).
- Develop a learning-by-doing system that can help to inform policy decisions.

²⁶ Adapted from: <https://www.ukcip.org.uk/wp-content/PDFs/MandE-Guidance-Note2.pdf>

²⁷ Source: https://napglobalnetwork.org/wp-content/uploads/2020/09/Learning-from-ME-Sept-2020_Paddy-Pringle.pdf

The NAP process should also include a progress reporting step to capture and communicate the lessons learnt. This progress report would be used for evaluating the implementation of the adaptation plan and its effectiveness at periodic intervals after the publication of the NAP (the timing could be linked to the policy and planning cycle). Each progress report could include:

- An assessment of the progress made towards implementing the strategies, policies, and proposals included in the plan (based on the selected metrics).
- An assessment of the degree to which the objectives of the plan have been achieved and how well the plan responds to the most significant risks posed by climate change (based on the selected metrics).
- An identification of any known barriers to the implementation and effectiveness of the current plan, including recommendations for how those barriers might be addressed or overcome in future.

It is also important that the MEL findings are communicated in a targeted manner. The development of a progress report does not automatically result in learning or guarantee that the findings reach the right decision-makers and stakeholders. The target audiences should be identified (determined by who benefits from the findings), and the lessons need to be packed in a form that is both understandable and useful for key decision-makers.

2.4.4. Institutional considerations

M&E should be built into the institutional arrangements of countries. The national adaptation planning process is an opportunity to strengthen and standardise M&E systems and develop capacity across sectors and levels of government (both central and sub-national governments). This is particularly relevant for PICs, which generally have limited resources and staffing for conducting M&E. It may be beneficial for the NAP focal unit to hire personnel responsible for M&E, and resourcing may be available through the NAP process for

this – see Section 3.8 for further information on available financing.

It has been found that strengthened institutional frameworks play a major role in M&E, including through:

- Improving the design and implementation of climate adaptation projects, including incorporating lessons learnt from past experiences.
- Collecting and stocktaking climate information and facilitating information sharing across agencies to foster learning and improve ongoing adaptation planning and implementation efforts. This will also require the allocation of roles and responsibilities for collecting and sharing information, and the storage of data in a systematic manner.
- Strengthened sectoral and sub-national adaptation planning, including through establishing an M&E mechanism for linking sectoral and sub-national M&E systems to the NAP M&E process.
- Reviewing and updating the NAP M&E process, and thereby improving future iterations of the NAP.
- Synthesising and communicating M&E findings to share information with government agencies, national stakeholders, and international partners (including reporting progress to the UNFCCC and the COP). This could be linked to the metrics (indicators and targets) selected. The right approach in your country will depend on the structure of your NAP and the information and knowledge you wish to obtain.
- In addition, PICs should also prioritise the development of a framework for tagging, tracking and disclosing adaptation expenditure at both the central and local government levels, which can also help to evaluate the implementation progress of the NAP.

There is no one-size-fits-all approach to developing a national system for M&E of adaptation and the NAP process. Using the above considerations, and the additional guidance provided in the recommended readings, should help you put in place an M&E system that is suited for your specific context.

Box 13: Further reading and tools for undertaking MEL

- GIZ. 2015. Developing national adaptation M&E system: A guidebook. This guidebook is intended for decision makers and technical advisors involved in the development of national M&E systems for adaptation.
- UNFCCC. 2015. Monitoring and assessing progress, effectiveness and gaps under the process to formulate and implement National Adaptation Plans: The PEG M&E tool. This guidance has established ten essential functions of the process to formulate and implement NAPs to encapsulate the main expected outcomes of the process. In order to monitor and assess progress, a set of generic metrics that can be applied to each of these essential functions when monitoring and assessing progress and effectiveness has been developed. These generic metrics can be applied in a flexible manner, and the results are useful in directing efforts where gaps exist to ensure an effective and successful process over the long-term.
- UNFCCC. 2012. LDC Technical Guidelines, Element D. This element of the guidelines focuses on developing the reporting, monitoring and review systems for the NAP process. This element provides guidance on designing and launching the M&E process, and how the M&E outcomes can inform regular updates of the NAP.
- NAP Global Network. 2016. Vertical Integration in NAP Processes. This guidance note is designed for strengthening vertical integration in the NAP processes. In the context of the NAP process, vertical integration is the process of creating intentional and strategic linkages between national and sub-national adaptation planning, implementation and M&E.
- Government of Fiji. 2020. Monitoring and Evaluation Framework for Fiji's National Adaptation Plan Process. The purpose of this framework is to provide guidance to the Government of Fiji on how a system to comprehensively monitor and evaluate the NAP process should be designed and to encourage government entities, their civil servants, and other stakeholders to support its development. This framework does not cover the operationalisation and governance of the M&E system (e.g., institutional arrangements, resource requirements, output types, and communication), but it represents the first step in the development of an M&E system for Fiji's NAP process.
- IIED. Tracking adaptation and measuring development (TAMD). The TAMD initiative concentrates on developing robust and bespoke frameworks tailored to national circumstances to plan, implement and track the interventions countries are investing in.
- Climate Analytics. 2020. Presentation on learning from M&E. Climate Analytics/SPREP presentation on learning from M&E in Pacific countries.
- UKCIP. 2014. Guidance note 1: Twelve reasons why climate change adaptation M&E is challenging. Overview of the role and purpose of MEL in adaptation planning.
- UKCIP. 2014. Guidance note 2: Selecting indicators for climate change adaptation programming. Provides recommendations on selecting MEL indicators.
- Climate Analytics. 2019. Climate Adaptation and Theory of Change: Making it work for you. A practical guide for Small Island Developing States (SIDS) on developing a theory of change, and how it can be a useful tool for SIDS in planning and evaluating climate change projects.



3. Guidance on enabling activities and approaches

There are enabling activities and approaches that can be undertaken throughout the NAP process, and these provide important opportunities for addressing systematic barriers and constraints to achieving climate change adaptation outcomes (as shown in Figure 3.1).

Many of these activities are about process—in terms of who is involved, how much influence they have and how decisions are made— and these enabling activities are critical to ensuring the effectiveness and sustainability of the NAP process.

1. Establishing institutional arrangements	Strong institutional arrangements are necessary for the implementation of the NAP and achieving transformational adaptation outcomes
2. Mainstreaming climate change risk and adaptation	Improving horizontal and vertical integration and coordination is crucial to the development of more systematic responses to climate change problems
3. Gender Equality and Social Inclusion	Issues related to gender, youth, and disability issues need a coordinated and integrated approach to maximise the potential for collective impact
4. Transformational adaptation	Transformational adaptations occur at greater scales than incremental adjustments, and this is necessary for developing climate-resilient communities
5. Loss and damage considerations	Strengthening data collection mechanisms play a crucial role in estimating loss and damage, and the NAP process can result in strengthened data systems
6. Capacity development	Capacity development is an essential foundation for the NAP process, particularly in parts of the process where there are expertise and resourcing gaps
7. Stakeholder engagement	Achieving climate adaptation outcomes requires effective stakeholder engagement at every stage of the NAP process
8. Securing climate finance for adaptation	Significant financial resources are required to adapt to the adverse effects and reduce the impacts of climate change, requiring strengthened access to finance
9. Information sharing and data collection	Vulnerability and climate hazard-related data can assist in informed decision making and improve the design of climate change adaptation measures

FIGURE 3.1: Enabling activities²⁸

²⁸ Adapted from: <https://napglobalnetwork.org/resource/toolkit-for-gender-responsive-national-28-adaptation-plans/>

3.1. Establishing institutional arrangements

3.1.1. Overview

Institutional arrangements need to consider government institutions, sectors, and societal domains at all levels (e.g., national, regional) in an approach that manages challenging priorities and demand for resources.

Institutions provide an enabling environment for implementing adaptation actions, as they provide guidance and incentives that shape the distribution of climate risk, promote adaptation, encourage the development of adaptive capacity, and define protocols for making and acting on decisions.²⁹

PICs have particular institutional barriers and challenges due to overlapping and competing priorities, small and under-resourced administrations (especially in less populated countries), high staff turnover in key agencies, and limited institutional memory.³⁰ The NAP process should have a focus on addressing these challenges, which will help to ensure that the design and structure of institutions in your country enable adaptation planning.

National governments play an integral role in adaptation planning as they determine funding priorities and trade-offs, establish regulations,

Box 14: Case study of Palau's National Climate Change Coordination Committee

Palau's National Climate Change Coordination Committee (NC4) and its National Climate Change Working Group (WG) were established in 2018, following the endorsement of Palau's National Climate Change Policy: For Climate and Disaster Resilient Low Emissions Development (PCCP) in 2015. The NC4 is a cross-sectoral multi-stakeholder coordination mechanism with membership from sectoral agencies, civil society and the private sector. The sectoral representatives of the NC4 are the climate change focal points for Palau's sectors listed in the PCCP with whom are the leads for implementing priority interventions in coordination and collaboration with their respective Working Group members.

A key role of the NC4 is to allocate climate finance between sectors. When international assistance is provided to Palau, the NC4 acts as a coordination mechanism – with NC4 representatives deciding which agencies are to receive financial assistance based on eligibility criteria. The NC4 is therefore a stakeholder-driven process and allows for the efficient allocation of climate finance based on Palau's needs and priorities.

The NC4 also undertakes appraisal and review of climate change projects and programmes from their conceptual stage to detailed projects and programs, prior to their implementation. This process improves the design of projects, allows for assistance to be tailored to the Palau context, and strengthens government/stakeholder ownership of climate initiatives.

The NC4 represents best practice on coordinating climate finance and technical assistance. The National Government facilitates available support and eligibility criteria proceedings with the NC4, but the selection of where support is allocated, how it is designed, and implemented are driven and owned by the sectoral agencies.

²⁹ Source: <http://un-gsp.org/topic/institutional-arrangements>

³⁰ Source: https://www.forumsec.org/wp-content/uploads/2019/03/PIF-Vol-3_Pacific-Experiences_FINAL.pdf

promote institutional structures, and provide policy direction to governments at all levels (e.g., local, state) in the country. Adaptation planning involves the creation of partnerships between several governmental institutions and requires strong stakeholder engagement and coordination – for example, the Government of Fiji produced their NAP in 2018 with the support of various stakeholders. Similarly, the Kiribati National Expert Group on Climate Change and Disaster Risk Management, which included representatives from the Office of Te Beretitenti, various sectoral ministries, non-governmental organisations, civil society organisations and private sector stakeholders, led the development of the NAP.

3.1.2. Recommendations

The complexities of governance systems, such as the presence of multiple actors and institutions and informal governance systems, can result in barriers to achieving adaptation outcomes. Unclear roles and responsibilities of the actors involved in adaptation can lead to ineffective coordination, and duplication of effort. Coordination between different actors is important for facilitating adaptation decision making and implementation. Developing an effective institutional coordination mechanism between different political and administrative levels in society is recommended, which includes clear roles and responsibilities of stakeholders involved.

Strong institutional arrangements are necessary for the implementation of the NAP and achieving transformational adaptation outcomes. Achieving strong stakeholder engagement goes beyond the completion of stakeholder workshops and consultations for formulating the NAP. It is recommended that strong engagement of all affected parties takes place to improve the effectiveness of implementation. Good practices indicate that institutional mechanisms, such as the national coordination agency/committee for climate action, are used for engagement,

and also in the design and implementation of proposals/actions.

The establishment of a national coordination mechanism is a key step in the development of a NAP. Ideally, this should be undertaken through a committee which is already in existence. As most PICs now have a number of coordination institutions in place for managing climate change, the NAP process can usually be undertaken through an existing mechanism (or via a sub-committee of an existing institution). This is a more efficient approach, as it does not duplicate systems and therefore limits administrative and transaction costs.

Representation on the national coordination mechanism should be from all key stakeholders, including key central government agencies, sectoral agencies/line ministries, utilities/infrastructure providers, the private sector, civil society, community representatives and academia/research institutes.

PICs have significant experience with institutional arrangements and coordination processes for climate adaptation planning. Case studies on Palau's National Climate Change Coordination Committee (NC4) and Vanuatu's National Advisory Board (NAB) on Climate Change and Disaster Risk Reduction, both of which represent good practice, are outlined in Box 15 and Box 16.

The establishment of additional sectoral committees and sub-committees may be useful for implementing the NAP. These committees could support the development of sectoral NAPs, such as a health NAP (H-NAP), which are linked to the national adaptation planning process. It may be worthwhile to develop pilot sectoral adaptation plans, and scale these up across sectors to facilitate the implementation of NAP priorities and their associated investment plans.

BOX 15: Case study of Vanuatu's National Advisory Board (NAB) on Climate Change and Disaster Risk Reduction

The Vanuatu National Advisory Board (NAB) on Climate Change and Disaster Risk Reduction was established in 2012. The NAB is Vanuatu's supreme policymaking body for climate change and disaster risk reduction and is responsible for policy formulation, providing advice to government, facilitating and endorsing programmes and projects.

Membership is cross-sectoral and made up of representatives of government agencies, non-government organisations and the private sector. The NAB meets once every month. There is a secretariat which provides support to the NAB and is responsible for the implementation of NAB decisions and provision of policy and strategic advice related to CCDRM; national coordination of CCDRM; and implementation of international commitments and obligations under the UNFCCC.

The NAB Secretariat is fully funded by the Government of Vanuatu, with its structure approved by the Public Service Commission since 2018 under the Corporate Services Unit of the Ministry of Climate Change. Currently, there are five staff with permanent positions, which enables the NAB Secretariat to undertake its roles and functions. This also demonstrates the government's commitment towards addressing climate change and DRR impacts in the country.

A number of working groups and task forces are linked to the NAB and are overseen by the NAB Secretariat. The NAB Secretariat provides oversight and coordination of these working groups. These are the Climate Finance Working Group; the UNFCCC Taskforce; the Project Compliance Working Group; and the Information, Educational and Communication Materials Working Group. These working groups are chaired by focal points and members from various government departments, NGOs and CSOs, and private businesses, which brings a wealth of knowledge and expertise to support NAB decisions and deliberations. These working groups are mandated under the Meteorology, Geological Hazards and Climate Change Act (2016), which provides authority to the Chair

of the NAB to call meetings and conduct engagements under with stakeholders.

The NAB represents several best practices, including:

- The legislative mandate for its setup and functions mean that the NAB has a concrete enabling and operating legislative/policy framework.
- The NAB clarifies structures and processes for CCDRM and provides dedicated resourcing for strategic and policy advice, coordination of activities and fostering cooperation amongst agencies.
- By playing a leading role in project appraisal and gatekeeper for project approvals, the NAB contributes to enhancing synergies across sectors and different actors and thereby reducing duplication. The NAB also enhances the quality of climate projects, and contributes to developing institutional memory and the integration of past learnings into project design.
- The NAB Portal provides general climate change activity updates and projects information enabling easier access to information, enhancing information sharing and wider dissemination of CCDRM information. The NAB portal also has a dedicated section on climate financing.

The NAB also faces some challenges, as outlined below:

- Climate change and resilience planning requires analysis and actions to be taken by various technical departments. The NAB Secretariat has no formal authority or jurisdiction over other technical departments, which risks the authority of the NAB. The NAB's engagement and dialogue with other technical departments has to be deliberative and systematic.
- There are unclear links to M&E. Vanuatu currently does not have a national climate change M&E framework and system in place, with M&E occurring at the project level. There is a gap between project level M&E and sector wide and national M&E processes.

3.2. Mainstreaming climate change risk and adaptation

3.2.1. Overview

Mainstreaming climate change adaptation is the process of integrating adaptation into policy, budget, and implementation processes at the national, sector, regional and international levels. It is also termed horizontal integration.³¹

Currently, PICs are incorporating adaptation actions in their development policies both at the national and local levels. Mainstreaming adaptation objectives/actions into development plans and sectoral policies can improve results across various sectoral objectives, increase coherence across sectors, contribute to effective and efficient use of resources (e.g., financial and human resources), minimise duplication of effort, reduce the cost of implementation, and enhance the sustainability and level of adaptation efforts.³²

Further, it contributes to creating resilient communities and more sustainable development. This is, therefore, a vital focus of the NAP process.

In addition, mainstreaming adaptation across different levels of government, which is termed vertical integration, is an equally important component of adaptation planning. Vertical integration is defined as “the process of creating intentional and strategic linkages between national and sub-national adaptation planning, implementation and monitoring and evaluation”. It promotes transparency through top-down and bottom-up information exchange, improved coordination and collaboration among national and sub-national actors, and improved access to finance. Vertical integration can also systematically recognise diversity in the adaptation planning process (e.g., social and cultural diversity) and provides entry points for vulnerable groups to be involved in the adaptation planning and implementation processes.³³

Mainstreaming of climate change across institutions and levels of government is presently recognised as a priority by PICs and as a key component of adaptation planning. In Fiji, for example, mainstreaming of climate action is one of the eight climate-related policy priorities. Moreover, the Climate Change and Disaster Risk Reduction Policy (2016–2030) of Vanuatu has outlined mainstreaming as one of their cross-cutting issues and has mainstreamed climate change adaptation and disaster risk reduction activities into various sectoral policies.

Project-based programming and mainstreaming initiatives have been undertaken across the region. For example, mainstreaming climate adaptation into national and sectoral levels of policies and plans of PICs is a key outcome of the Pacific Adaptation to Climate Change (PACC) project implemented by the United Nations Development Programme and SPREP.³⁴

Mainstreaming requires coordination among multiple actors, institutions, and processes, and the journey from policy design and coordination to implementation can be slow. Climate adaptation mainstreaming is considered in most policies and plans across PICs, but the implementation of mainstreaming is often constrained due to a lack of financial and human resources, disconnect between access to globally available adaptation funds and countries’ own development agendas, and a lack of climate information. Other issues faced in mainstreaming climate change adaptation include translating political will into coherent policy, a lack of clear roles and responsibilities of key stakeholders of adaptation and implementation, and inconsistencies between long-term development goals and short-term adaptation activities and projects.

³¹ Source: <https://www.cbd.int/financial/climatechange/g-climatedapationguide-undp.pdf>

³² Source: <https://www.wri.org/research/planning-action-mainstreaming-climate-change-adaptation-development>

³³ Source: <https://www.iisd.org/publications/vertical-integration-national-adaptation-plan-nap-processes-guidance-notelinking>

³⁴ Source: <https://www.sprep.org/pacc>

3.2.2. Recommendations

Improving horizontal (cross-sectoral) as well as vertical (between national, local government and communities) integration and coordination is crucial to the development of more systematic responses to climate change problems. The NAP can include prioritised actions on achieving horizontal and vertical integration (as per the Fiji NAP), and NAP can explicitly outline how climate change adaptation actions are aligned with, and contribute to, sectoral and national planning priorities.

Establishing a national framework for mainstreaming climate adaptation with various thematic working groups, clearly defined roles and responsibilities of stakeholders, and a clear implementation strategy could improve outcomes. Further, prioritising training and awareness programmes for government officials and policymakers will help to achieve climate adaptation mainstreaming into development policies, decisions, and planning.

Aligning the adaptation component of the NDC with the NAP process is also recommended. The NDC should communicate the adaptation

priorities, which are determined by the NAP process – the NAP process can therefore be used to inform the development of future NDCs. Seeking alignment of these two policy processes and applying expertise drawn from the NAP process and linking it with NDCs can accelerate enhanced adaptation action.³⁵

Additionally, there are several guidelines to assist the integrating of adaptation concerns into planning frameworks. The OECD's "Integrating Climate Change Adaptation into Development Co-operation" is an example of adaptation-oriented policy guidance that follows the 'entry point concept', i.e., "that systematic integration of adaptation might happen at different levels and steps of planning and decision-making".³⁶

Similarly, "Mainstreaming Climate Change Adaptation in the Pacific" is a practical guide developed for integrating climate change risks into national and sector plans and policies, and this document provides a step-by-step framework on mainstreaming climate adaptation into development plans and decision-making processes.³⁷

³⁵ Source: <https://napglobalnetwork.org/themes/ndc-nap-linkages/>

³⁶ Source: <https://www.oecd.org/development/integratingclimatechangeadaptationintodevelopmentcooperationpolicyguidance.ht>

³⁷ Source: https://reliefweb.int/sites/reliefweb.int/files/resources/Mainstreaming_CC_Adaptation_Guide_.pdf

3.3. Gender equality and social inclusion

3.3.1. Overview

There is a strong rationale for a gender-responsive approach to the NAP process, as gender equality is a universal human right that is recognised by all UNFCCC provisions on adaptation. Consideration of the interlinkages between climate change and gender inequality is increasingly recognised as fundamental for effective adaptation, and adaptation planning processes are a key opportunity to address the gender dimensions of climate change adaptation.³⁸

Gender also shapes the sensitivity and adaptive capacity of households and communities to climate change, and the NAP process should recognise the differential impacts of climate change on women and disadvantaged groups. This can be achieved by undertaking consultations that have equitable participation of women and disadvantaged groups, ensuring the needs of these groups are properly addressed, and including interventions in the NAP to reduce sensitivity and enhance capacities to adapt and propose specific interventions for that purpose.³⁹

A gender-responsive approach to the NAP process addresses gender differences, promotes gender equality and actively challenges the biases, behaviours and practices that lead to marginalisation and inequality. It recognises that gender intersects with other socioeconomic factors to influence vulnerability to climate change and adaptive capacity. A gender-responsive approach increases the likelihood that adaptation investments will yield equitable benefits for people of all genders and social groups, including those who are particularly vulnerable.⁴⁴

A gender-responsive NAP process focuses on three key considerations:⁴⁰

- Recognition of gender differences in adaptation needs and capacities.
- Gender-equitable participation and influence in adaptation decision-making processes.
- Gender-equitable access to financial resources and other benefits resulting from investments in adaptation.

Gender and social inclusion considerations in adaptation planning frameworks and adaptation options are often included as an afterthought to meet the requirements for various global climate funding institutions, and are thus not well harmonised with national mechanisms. The result is that gender and social inclusion progress is often ad hoc and therefore ineffective, and not leading to transformational changes.

3.3.2. Recommendations

Cross-sectoral and multi-sectoral issues related to gender, youth, and disability issues need a coordinated and integrated approach to maximise the potential for collective impact. To achieve this, gender and social inclusion considerations need to be at the core of adaptation planning, including the implementation of adaptation actions.

Achieving improved gender and social inclusion outcomes requires resourcing by sectoral budgets and staff. At present, in cases where a budget is allocated, the amount is generally too small to support effective execution and investment is largely in activities that do not address causes of structural inequalities. Additionally, it is important that policymakers and practitioners have a strong understanding of gender issues to give adequately integrate gender in adaptation planning processes.

In PICs, some ministries and local governments

³⁸ Source: <https://napglobalnetwork.org/resource/gender-responsive-nap-processes-synthesis-38-report-2019-2020/>

³⁹ Source: https://pacificwomen.org/wp-content/uploads/2021/07/10_Thematic-Brief_Climate-Change_v19-FINAL-Jul2021.pdf

⁴⁰ Source: <https://www4.unfccc.int/sites/NAPC/Documents/Supplements/NAPGenderToolkit2019.pdf>

have gender focal persons, but there is a need to conduct training to develop the skills needed to conduct gender analysis, integrate gender issues into planning frameworks, and implement gender actions. Moreover, the development of a clear framework for integrating gender in policy, across governance levels, and in M&E systems will provide consistency across government, resulting in improved outcomes.

Gender also influences the capacity of people to participate in adaptation actions. Men and women have differing, and often complementary, knowledge and experiences that can contribute to adaptation efforts. For example, women in PICs have a range of traditional knowledge that has proven

useful in dealing with the impacts of climate change, including gardening practices, food preservation and storage, and locations of traditional water sources.

This type of knowledge is often under-valued in adaptation decision-making processes, however, which may inhibit its application in favour of, for example, technological solutions. Recognizing and valuing women's knowledge on issues such as household food security, forestry and land management is essential to ensuring that adaptation efforts are inclusive and build on existing capacities.

For more comprehensive guidance on a gender-responsive NAP process, see the additional reading in Box 16.

Box 16: Further reading and tools on gender considerations

- NAP Global Network. 2019. Toolkit for a Gender-Responsive Process to Formulate and Implement National Adaptation Plans (NAPs). This toolkit is designed to support country efforts to pursue a gender-responsive NAP process. It will be useful for government actors coordinating the NAP process, as well as for stakeholders and development partners supporting adaptation planning and implementation. The toolkit offers a flexible approach, recognizing that there are opportunities to integrate gender considerations regardless of where you are in the NAP process. The toolkit also provides links to key tools for gender-responsive approaches, as well as other useful resources.
- UNFCCC. 2015. Strengthening gender considerations in adaptation planning and implementation in the least developed countries. This paper, developed by the UNFCCC LDC Expert Group, provides guidance on strengthening gender consideration in adaptation planning and implementation.
- Pacific Women. 2021. Thematic Brief: Women and Climate Change in the Pacific. This Thematic Brief provides information and analysis about the differential climate change issues affecting women and girls in the Pacific Islands region.

Box 17: Defining incremental and transformational adaptation

Incremental adaptation: Adaptation actions where the central aim is to maintain the essence and integrity of a system or process at a given scale.

Transformational adaptation: Adaptation that changes the fundamental attributes of a system in response to climate and its effects.

3.4. Transformational adaptation

3.4.1. Overview

Transformational adaptations occur at greater scales than incremental adjustments, and this is necessary for developing climate-resilient economies, communities and livelihoods in PICs (the concepts of incremental and transformational adaptation are defined in Box 18).⁴¹

Transformational adaptations recognise and confront the root causes of vulnerability in human-environment systems, which allows for alternative and safer development pathways to emerge.⁴²

Undertaking transformation adaptation in PICs is important for the Pacific, given the extreme climate risk faced by many communities, and as limits to incremental adaptation are being reached in locations, sectors, and systems across the region.

Examples of transformational adaptation could include introducing new technologies at scale, relocating human settlements and economic activities, major changes in environmental and ecosystem management, and systematic governance reforms – examples of transformation adaptation in Palau and Fiji are shown in Box 18 and Box 19.

It is important that the NAP process, therefore, incorporates transformational adaptation principles. This will differ between countries, provinces, islands and communities, and it is vital that the stakeholder engagement process involves consultations to determine what transformational adaptation means in these differing geographic areas and contexts. It is also important that adaptation planning incorporates lessons learnt from previous examples of transformational adaptation, such as the successful relocation of communities and the introduction of innovative technologies.

Box 18: Case study on transformational adaptation in Palau

The Palau National Marine Sanctuary is an example of transformational adaptation, as it is a fundamental change at scale to marine ecosystem protection in the country. Within the sanctuary, which covers 80 percent of Palau's exclusive economic zone (EEZ), all extractive activities such as fishing and mining are now prohibited. Locally managed fisheries are still permitted to operate within the remaining 20 percent of Palau's EEZ. The marine sanctuary, while not resilient to all climate change impacts, provides areas of reduced stress, and is likely to improve the ability of marine organisms to adapt to climate change. This approach, moreover, could be scaled up across the Pacific region.

Further information is provided below:

- Palau National Marine Sanctuary: <https://picrc.org/picrcpage/palau-national-marine-sanctuary/>
- Marine protected areas and climate change: <https://www.iucn.org/resources/issues-briefs/marine-protected-areas-and-climate-change>

⁴¹ Source: <https://www.mdpi.com/2071-1050/12/4/1657>

⁴² Source: <https://www.sciencedirect.com/science/article/pii/S1462901119305337>

BOX 19: Case study on transformational adaptation in Fiji

The Government of Fiji has developed two key approaches for mitigating coastal hazard risks faced by communities. These are examples of transformational adaptation as the actions are scalable, address extreme climate risks, and move beyond a status quo response.

The first line of defence for at-risk coastal communities in Fiji is the development of a hybrid seawall to reduce exposure to sea-level rise and storm surges. The Ministry of Waterways and Environment support the design of the seawall, and tailor it to the local community context. The seawalls use a combination of human-made and nature-based solutions to provide protection that is more effective and less expensive than a standard concrete seawall. The design in one community involved the use of boulders that were acquired from nearby, which reduced construction costs, and the planting of mangroves in front of the wall and vetiver (a type of plant) behind the wall. The use of nature based solutions provides extra protection, and can also provide additional co-benefits such as the reduction of tidal flow impacts and ecosystem benefits. Moreover, the design and construction process is highly consultative, and community members are engaged in the construction and maintenance of the seawalls. This approach helps to build community ownership and support for the infrastructure development.

For those communities that face immediate coastal hazard risks, relocation is used as a last resort – after all other feasible adaptation options have been explored. Relocation is, therefore, undertaken for those communities that have reached the limits to adaptation, and approaches such as the hybrid seawall can no longer provide adequate protection. The Government of Fiji developed Planned Relocation Guidelines in 2018, which include standard operating procedures on undertaking this process. This includes a risk assessment of the community, feasibility assessment, and planning process to ensure that the relocation of communities is carried out in a manner that guarantees long-term survival, results in viable options for economic activity, and provides support and services for those being relocated. The relocation of communities is a high cost exercise, which involves the coordination of numerous agencies and the development of housing and infrastructure, and a trust fund has been developed to mobilise and pool climate finance for these activities. The trust fund includes a contribution from a tax on luxury goods (Environment & Climate Adaptation Levy), but further sources of funding are needed – the Government of Fiji is currently assessing additional financing options, including from international climate finance sources.

Further information on the hybrid seawall and relocation guidelines are provided below.

- Article on the hybrid seawall: <https://www.fiji.gov.fj/Media-Centre/News/Feature-Stories/Hybrid-Seawall-Helps-Address-Sea-Level-Rise>
- Government of Fiji Planned Relocation Guidelines: <https://cop23.com.fj/wp-content/uploads/2018/12/CC-PRG-BOOKLET-22-1.pdf>

3.4.2. Recommendations

Pacific countries require innovation and technology transfer to support transformational adaptation. Adaptation research is also needed for understanding what society needs to adapt to in concrete terms, to identify available options, and to understand how adaptation can be effectively promoted and implemented. Transformative adaptation is also needed

at the sectoral level in PICs. For example, transformational adaptation is critical in the agricultural sector for averting and minimising loss and damage while enhancing food security and avoiding maladaptation.⁴³ Transformative adaptation can also be locally led or autonomous, whereby local communities use indigenous knowledge to respond to climate impacts without external support or guidance. The NAP process can be used to transfer these lessons and best practices between communities, which will facilitate transformative

adaptation by drawing on local-led experiences, such as the indigenous adaptation responses in outer island communities.

Given the projected impacts of climate change on communities, transformational adaptation involving radical change is needed – incremental change is unlikely to be sufficient, particularly for coastal communities and atoll countries, which are at existential risk due to climate change. For vulnerable coastal communities, transformational adaptation will invariably require relocation of vulnerable communities and infrastructure to less exposed locations, a process that often requires livelihood reconfiguration and economic and cultural changes that may also be transformative.⁴⁴ In this context, enabling transformational adaptation – especially relocation – in island contexts is easier to plan than to implement successfully. Relocation is complex and difficult and is rarely what vulnerable local communities desire.

Box 20: Vanuatu's perspective on loss and damage from climate change

Vanuatu has seen an increase in the frequency and intensity of extreme weather events due to climate change. It is expected that natural hazards and extreme weather events will intensify even further as temperatures continue to rise. Climate modelling for Vanuatu has predicted an increase in the frequency of extreme temperatures, greater precipitation, a higher number of dry days, and sea level rise and coastal erosion.

Vanuatu is expected to incur, on average over the long term, losses of US\$48 million per year due to tropical cyclones and earthquakes, which is equivalent to 6.6% of Vanuatu's GDP. It is further estimated that Vanuatu has a 50% chance of experiencing a loss exceeding US\$330 million and casualties larger than 725 people from a single event in the next 50 years.

These estimates do not yet account for loss and damage resulting from slow-onset climate disasters such as drought or coastal erosion, or complex interactions between different types of impacts. It is clear from Vanuatu's experience with Cyclone Pam that the costs of future loss and damage will far exceed the nation's coping capacities. This is even more so if the costs of preventing and addressing non-economic loss and damage – such as the loss of traditional knowledge or distinct ways of life – are also taken into account. Vanuatu has therefore intensified its efforts to acquire loss and damage finance from international sources through the multilateral loss and damage regime.

⁴³ Source: <https://www.fao.org/3/i5188e/i5188E.pdf>

⁴⁴ Source: <https://www.nature.com/articles/palcomms201792>

3.5. Loss and damage considerations

3.5.1. Overview

The Paris Agreement (Article 8) highlights the importance of preventing, minimizing, and addressing loss and damage related to the adverse effects of climate change.⁴⁵ COP26 reached an agreement to fund Santiago Network on Loss and Damage (SNLD), a body that aims to build technical expertise on dealing with loss and damage, such as helping countries consider how to move communities away from threatened shorelines. The SNLD will connect vulnerable developing countries with providers of technical assistance and resources needed to address climate risks comprehensively in the context of averting, minimizing and addressing loss and damage.⁴⁶

Loss and damage in this document refers to “adverse effects of climate-related stressors that have not been or cannot be avoided through mitigation and adaptation efforts”.⁴⁷ In simple terms, loss and damage occurs if the efforts to undertake climate adaptation cease to be effective (which is linked to the concept of limits to adaptation) and the impact is caused by a climate change-induced event. There is still no clarity on loss and damage finance in terms of sources, scale, and institutions. Climate-induced losses and damages are already occurring across the Pacific, and impacts are expected to increase in the coming years.

In PICs, there is a scarcity of reliable, long-term historical data and knowledge due to inadequate human, technical and financial resources, and this could hinder the estimation of loss and damage impacts. Initiatives such as the Pacific Catastrophe Risk Assessment

and Financing Initiative (PCRAFI), Pacific Damage and Loss (PDaLo) and other regional initiatives aim to provide the PICs with hazard risk modelling and tools for carrying out assessments to understand present and future climate change risk and loss estimation.^{48,49}

3.5.2. Recommendations

Strengthening data collection mechanisms play a crucial role in estimating loss and damage. The impacts caused by hazards (climate change related) on infrastructure, people and society are usually complicated to model precisely. As an alternative, developing empirical models or probabilistic modelling using big data such as global, regional, and local hydrometeorological, geo and socioeconomic databases may be more effective. The models then need to be calibrated with historical losses. The quantification of losses would help with evaluating direct losses such as damage to buildings, infrastructure, and natural resources and indirect losses such as reduced productivity or revenue, and impacts on the wellbeing of communities.

Attributing loss and damage to climate change must consider the cause of impacts. The current attribution methodologies require the usage of relevant high-quality data collected periodically, including data related to changes to socio-economic and demographic conditions. Gathering data that provides evidence to attribute impacts to climate change would support PICs with averting, minimizing and addressing loss and damage.

Standardisation of loss data quantification approaches can assist with improving risk information and strengthening risk assessments, which can help to predict future losses and damage costs.

⁴⁵ Source: https://unfccc.int/files/adaptation/groups_committees/loss_and_damage_executive_committee/application/pdf/ref_8_decision_xcp.21.pdf

⁴⁶ Source: <https://unfccc.int/santiago-network/about>

⁴⁷ Source: https://link.springer.com/chapter/10.1007/978-3-319-72026-5_9

⁴⁸ Source: <https://gem.spc.int/projects/capacity-building-on-the-hazard-and-exposure-database-for-pacific-catastrophe-risk>

⁴⁹ Source: <http://www.pacificdisaster.net/main>

Improved access to data can also support the development of engineering measures to inform rebuild solutions, which are supported by adequate legislation and regulations, that reduce climate change risks. To harmonise the data, a dedicated organisation/body is essential. Assessing loss and damage should be an integral part of PICs climate change risk assessments and adaptation planning processes. Where possible, geospatial tools could be used to map projected loss and damage under future climate scenarios. An approach to anchoring loss and damage in NDCs is summarised in Figure 3.2 – this approach also applies to the NAP process.

PICs need effective country-level legislation to enable meaningful action to reduce loss and

damage. An effective approach would include mandating a centralised data ecosystem for hazard, exposure and vulnerability data. Sectorial databases, baseline indicators, long-term data sets and satellite maps, documentation of community perceptions of change and considerations of uncertainty are other crucial elements that need to be developed/considered. The collected data needs to be shared between organisations to improve the flow of information and to avoid institutions working in silos. PICs can adopt an open data policy, a proactive method of sharing the data by different government agencies, both at the national and sub-national levels, in standardised human and computer/machine-readable formats.



FIGURE 3.2: Anchoring loss and damage in NDCs⁵⁰

Box 21: Further reading and tools on capacity development

- WRI. Ready or Not: Assessing National Institutional Capacity for Climate Change Adaptation. This is a national adaptive capacity framework developed by the World Resources Institute that could be used for assessing the strengths and weaknesses of institutions that may support or hinder adaptation planning and implementation.
- UNFCCC. National Adaptation Plan process country-level training: Capacity development for multi-sectoral involvement in the NAP process. This is a factsheet for a NAP country-level training to strengthen capacity.
- UNITAR. 2015. Skills assessment for National Adaptation Planning: How countries can identify the gap. This guidance document. This paper from UNITAR offers a way of assessing the skills gap that a country may have in designing and implementing a national adaptation plan. To achieve this, the guidance proposes a skills assessment framework, to complement the NAP Technical Guidelines.

⁵⁰ Source: https://wwfint.awsassets.panda.org/downloads/wwf_expectations_on_loss_and_damage_at_cop26.pdf

3.6. Capacity development

3.6.1. Overview

Completing the NAP process requires additional capacities within the coordinating mechanism and among NAP stakeholders, and it also requires the engagement of new actors who have specialist expertise but may be less familiar with climate change issues. Capacity development is therefore an essential foundation for the NAP process, particularly in parts of the process where there are expertise and resourcing gaps.

Efforts to enhance capacities should be needs-based and as targeted as possible to specific steps in the NAP process, providing relevant actors with the knowledge and tools they need. Capacity development is required across different institutions and levels of government, as well as for stakeholders in the NAP process, and should be treated as an ongoing process.



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3.6.2. Recommendations

Capacity development to facilitate the NAP processes may involve:

- Capacity building on different steps of the NAP process, including building expertise to implement enabling activities. Enhancing the awareness of individuals, organisations, and institutions on climate change vulnerability, impacts and adaptation can be a starting point for building individual and institutional capacity for planning and implementation.
- Capacity building on the NAP process can be completed by government officials, development partners, civil society and the private sector, to enable meaningful engagement.
- Securing additional resources for capacity development on climate adaptation for national stakeholders, including for staff in the climate change department/ministry and/or coordination mechanism. For example, this could include the provision of funding for positions on project design, grant writing, and M&E.
- Learning processes that bring climate change actors together in dialogue (for example, through training workshops for different sectoral ministries). Targeted investments in training and mentoring to promote leadership and climate change champions, with an emphasis on strengthening the involvement of women, community representatives, and representatives of marginalised groups in the NAP process.
- Investments in education and training systems to increase the pool of expertise on climate change adaptation.

For more comprehensive guidance on capacity building, see the additional reading in Box 21.

3.7. Stakeholder engagement

3.7.1. Overview

Achieving climate adaptation outcomes requires effective stakeholder engagement at every stage of the NAP process, as illustrated in Figure 3.3. Stakeholder engagement and participation are central to climate adaptation planning and implementation, with greater participation increasing the ability to foster the will, intention and means to engage in adaptive behaviour.

In both preparation and implementation, the NAP process needs to be multi-stakeholder driven and all relevant stakeholders must be

involved in planning, implementation, and M&E of the adaptation options and priorities. Achieving strong stakeholder engagement is particularly important when identifying and prioritising the adaptation actions/options to be included in the NAP – and this should be undertaken using a legitimate, transparent and inclusive approach.

Therefore, the process for formulating and implementing the NAP should involve engagement with all affected stakeholders, particularly those which are most affected by climate risks and adaptation actions. The NAP engagement process, and the adaptation actions identified, should also be gender-sensitive (as

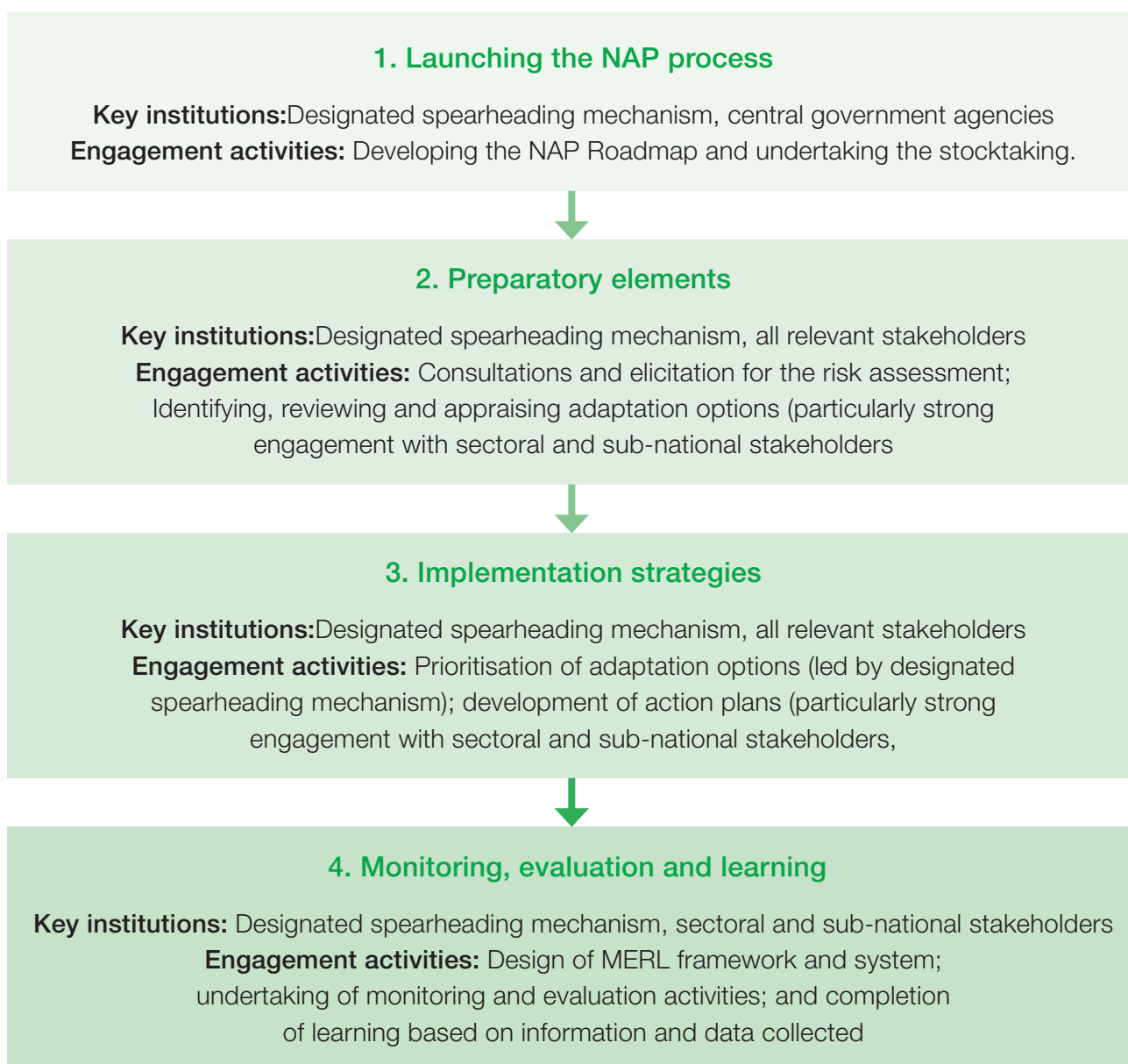


FIGURE 3.3: Summary of NAP stakeholder engagement for each entry point

outlined in Section 3.3), and focused on the needs of vulnerable groups and communities (including the elderly and disabled persons). The substantive participation of vulnerable groups and communities in the NAP process can be challenging due to limited resources, timeframes, and potential marginalisation of vulnerable groups.

In addition, strong political buy-in and good leadership are among the important criteria for advancing NAPs (as outlined in Section 2.1). The presence of NAP champions, such as high-level officials in the head of state's office, are important for advancing adaptation planning, and bridging links to different stakeholder groups crucial to NAP formulation. The presence of NAP champions can help broaden the scope of adaptation planning under NAPs to promote connectivity with the broader development context and thereby effectively contribute towards achieving the Sustainable Development Goals.

Pacific countries have a long history of engaging stakeholders, including community representatives via traditional stakeholder consultation approaches. The NAP process should use Pacific methods of stakeholder engagement, and integrate the lessons learnt from past consultation and engagement initiatives. For instance, the concept of “Talanoa”, which is a process of storytelling for the common good, can be used for the NAP process. Talanoa dialogues can be established within communities and countries, and between countries, for sharing stories on adaptation initiatives and achieving collaboration.⁵¹

It is advisable to identify the relevant stakeholders and their specific roles at an early stage of the process. For this to happen, a stakeholder mapping should be completed (if one has not recently been completed) to understand stakeholders in central government, local government, civil society, and academic and research institutes. This should include an

assessment of what they do and what they are already doing on climate change adaptation,

Based on the stakeholder mapping, an indicative list of stakeholders who could be part of the process to formulate and implement NAPs could be included in the initial framework and strategy. Depending on the activities and steps, different stakeholders may be relevant at different stages. The roles and responsibilities of key stakeholders in the NAP process should also be defined. A list of key stakeholders that could be consulted as a part of the NAP process, and their potential roles and responsibilities, are suggested in the below sections.

3.7.2. Engagement of government agencies

The engagement of government agencies is crucial for formulating and implementing the NAP. Government agencies are crucial stakeholders in the NAP process, including for aligning adaptation planning to national planning processes, mainstreaming adaptation planning into sectoral plans and priorities, and integrating climate change adaptation into budgeting processes.

3.7.3. Engagement of sub-national authorities

Engagement of subnational governments, such as local and provincial governments, which hold many of the responsibilities for building climate resilience, is also crucial.

At the initiation of the NAP process, it is important to consider how sub-national perspectives can be integrated to enable appropriate design and sequencing of planning activities and outputs. The NAP process should address the diverse development needs and climate vulnerabilities of sub-national authorities, which often have limited capacity and financing.

The engagement of sub-national agencies in the

⁵¹ Source: <https://unfccc.int/process-and-meetings/the-paris-agreement/the-paris-agreement/2018-talanoa-dialogue-platform>

NAP process can facilitate the reflection of local development needs and climate vulnerabilities, which can contribute to developing adaptation planning that is participatory, gender-sensitive and inclusive of vulnerable groups. The integration of adaptation into sub-national development planning can also increase the sustainability and effectiveness of national adaptation planning processes.

To realise their roles and responsibilities in relation to adaptation, sub-national actors require capacity development, including technical knowledge on adaptation as well as process-oriented skills such as inclusive facilitation and M&E.

3.7.4 Engagement of the private sector

The involvement of the private sector is imperative to the overall success and sustainability of the NAP process. In PICs, the private sector is an important stakeholder for providing livelihoods and creating goods and services that support adaptation. The Pacific has a diverse private sector within and between countries, and the engagement approach should be tailored to the particular challenges and opportunities faced by the private sector in your country.

In some cases, financing from the private sector is provided to support adaptation actions. The private sector consists of key stakeholders that must be engaged in the process, including representatives from key sectors and small and medium-sized enterprises.

In many PICs, representatives from the Chamber of Commerce and business organisations are engaged in climate adaptation planning processes, including through participation in coordination mechanisms. Private sector representatives should be involved in NAP planning meetings and consultations, and business membership organisations can nominate representatives. This will help to ensure that the private sector is involved in NAP process decision-making

and that channels of communication through which governments can raise awareness of and interest in the NAP are open.

The NAP process should support the deepened engagement of the private sector, including the building of relationships to elicit information on the opportunities and challenges posed by climate change for business activities. Also, the NAP process could involve a climate risk assessment and adaptation planning support for businesses and key economic sectors (e.g., the tourism and agricultural sectors), particularly for small businesses that lack the resources and capacity to undertake these assessments. In many countries, moreover, the private sector faces fatigue from past consultations, and the design of engagement approaches should minimise disruption and emphasise the benefits of climate action to businesses.

The NAP team should also conduct an analysis of the private sector to understand which entities are operating in the national economy, particularly in the sectors deemed a priority for the NAP process. The climate risks facing the private sector should also be assessed (and this can be done as part of the risk assessment, outlined in Section 2.2.1), and this could include threats from climate change to jobs and tax revenue generated by the private sector.

Case studies and examples of private sector adaptation support and action should also be collected, with special attention paid to SMEs – a case study is provided in Box 22. It must also be recognised that many SMEs and private sector activities will operate in informal sectors of the economy, which could result in difficulties in engaging entities in the NAP process. The NAP team will therefore require a strong understanding of the country's economic context, including key sectors and their importance to economic development.

The engagement of women-led and women-focused businesses should also be a priority. Their inclusion not only contributes to the gender-sensitive mandate of the NAP process, but evidence also demonstrates that their

participation can deliver co-benefits across a variety of sectors, resulting in food security, public health and broader community benefits.

The NAP process should also articulate the reforms required for strengthening legal, policy, and regulatory frameworks. This will help to develop an enabling environment to facilitate the engagement of businesses in adaptation measures. The reforms and actions could include strengthened legislation, policies, and regulations to influence adaptation investment decisions and ensuring that existing policies, incentives, and regulations do not promote maladaptation. Regulatory and policy measures could include offering fast-tracked permitting for adaptation-focused activities or requiring or encouraging the disclosure of climate risks among companies and financiers (including retail banks and foreign investors).

For more comprehensive guidance on the inception phase of the NAP process, see the additional reading in Box 22.

3.7.5. Community engagement

Strong public and community representation are vital, and community-led participatory climate planning must be a part of the NAP development process. The consideration of vulnerable groups, communities and ecosystems in the NAP process is highlighted in the UNFCCC decision from Cancun that established the NAP process.

This principle recognises that countries are not homogenous in their vulnerability to climate change or their adaptation priorities. The NAP process should provide entry points for vulnerable groups and communities to participate in the process, as well as

Box 22: Case study of COAST Insurance Program in Saint Lucia and Grenada

A case study from the Caribbean that is relevant to the Pacific context is the use of parametric insurance (index-based insurance that is triggered based on the severity of a weather event) for the fisheries industry. This instrument is designed to protect the fishing industry from economic losses and also to incentivise the adoption of climate-resilient business practices.

The Caribbean Oceans and Aquaculture Sustainability Facility (COAST) is a regional adaptation program that was launched in July 2019 in Saint Lucia and Grenada. It provides parametric insurance coverage to individuals in the fisheries industry, including crew members, boat owners, and fish vendors and processors, to help them adapt to severe weather events and recover more quickly from them.

COAST is a partnership between the United States Department of State, the World Bank, the Caribbean Catastrophe Risk Insurance Facility Segregated Portfolio Company (CCRIF SPC), and the Caribbean Regional Fisheries Mechanism (CRFM). Purchased by governments, COAST policies provide livelihood protection through microinsurance. Pay-outs are made to the ministries of finance who in turn transfer funds to policyholders. CCRIF SPC has been providing insurance against tropical cyclones and earthquakes since 2007. In 2013, it added coverage for excess rainfall events.

COAST insurance provides coverage for losses and direct damages to fishing vessels, fishing equipment, and fishing infrastructure from adverse weather events. As of 2019, 732 fisheries sector workers, including 44 women, were registered with COAST.

To encourage the adoption of climate-smart fishery practices among beneficiary countries, those receiving support from CRFM must be implementing the Caribbean Community Common Fisheries Policy (CCCFP). The CCCFP promotes measures such as ecosystem-based management of fisheries, including spatial management. This improves the sustainability of stocks, which can result in increased resilience of fisheries to climate stresses and shocks.

opportunities to consider adaptation needs and priorities at the ecosystem level.

To engage with communities, the NAP process should include a comprehensive community engagement phase. This should involve community climate change risk assessments and the elicitation and prioritisation of community climate adaptation investment priorities. This bottom-up approach results in strengthened community ownership and strengthens the design of adaptations measures, which can contribute to the success of a national adaptation programme.

In addition, communities should always be consulted during the implementation of NAP priorities and investments. Depending on the type of scheme and local practice, the community may become involved in monitoring or even take a direct role in implementation.

There are specific challenges to engaging communities in Pacific countries, particularly those countries with outer island communities and challenging geographies. It is expensive

and time-consuming to undertake community engagement in remote communities, which often reduces the amount of engagement that is undertaken. Community dynamics, such as the representation of women, can also impact engagement, as the views of community leaders may not be representative of the communities. Moreover, consultation fatigue in communities from multiple consultations can also limit the effectiveness of engagement, and willingness of communities to participate – coordinating NAP related consultations with existing consultation processes can help to alleviate potential fatigue.

PICs have a long history of engaging communities in planning processes, and the past experiences and lessons learnt should be integrated into the NAP process. A case study on community-led adaptation planning in Samoa is provided in Box 23 and a case study on undertaking a community climate risk assessment and adaptation planning process in Papua New Guinea is provided in Box 24.

Box 23: Case study of community engagement in Samoa's Community Integrated Management Plans

Samoa's Community Integrated Management (CIM) planning process involved substantial community engagement. The CIM plans are a bottom-up process, and all districts in Samoa have now completed CIM plans.

The CIM plan consultations involved meeting with village community representatives to understand the issues/problems faced by the community. The solutions and interventions outlined in the CIM plans were also identified by village community representatives, with this participatory process helping to achieve village ownership of the plans.

The community consultations undertaken as a part of this process were comprehensive and meaningful, with multiple weeks spent consulting with each district. This should help to secure village and district support for the implementation of the CIM plans, as village ownership is a crucial component of designing interventions that are effective, tailored to, and responsive to livelihood concerns.

Box 24: Case study of the Building Resilience to Climate Change in Papua New Guinea project

The Asian Development Bank funded Building Resilience to Climate Change (BRCC) project in Papua New Guinea is building the capacity of the government to assess and incorporate climate change risks in its development investment program. The project is supporting climate risk and resilience planning and vulnerability assessments for at-risk islands and atolls, as well as sustainable fishing activities and food security investments.

As a part of the BRCC project, in 2019-2021, the United Nations Development Programme undertook a series of climate risk assessments and adaptation plans, which was led by Tonkin + Taylor International, for 21 outer islands and atolls across Papua New Guinea.

This support involved the development of the methodology for engaging community stakeholders and assessing climate change risks in communities. The communities on the 21 outer islands and atolls completed adaptation plans, which included the prioritisation of community projects. This focused on all sectors, including coastal infrastructure, sea transport, water security, and the prioritised adaptation projects also addressed gender-based risks and the needs of vulnerable community members. This project also included completion of gender-responsive disaster strategies (and associated emergency response plans).

Box 25: Chiefly system collaboration yields better development outcomes?

The Tanna Island integrated water, sanitation, and hygiene project is a good example of engaging an NGO to achieve community ownership and effective project implementation in Vanuatu. This project, which was implemented by the Department of Water Resources and World Vision, supplied water and sanitation to 6,000 people in 18 communities.

World Vision, the implementing NGO, developed a philosophy of strong engagement processes with local communities, which resulted in a successful project in terms of clean water, gender and sanitation outcomes. World Vision spent extra time during project implementation building trust with the local communities, which included working very closely with the local chiefs, employing many local Tannaese staff, recognising local customs, and working with local church groups.

Further examples and good practices on engaging NGOs and CSOs are provided in this report: <https://development.asia/explainer/participation-tools-pacific-part-1-engaging-pacific-civil-society-organizations>

3.7.6. Non-governmental organisations and civil society organisations

Non-governmental organisations (NGOs) and civil society organisations (CSOs) also have an important role in the NAP process, including reflecting local realities and promoting voices from the community level. CSOs are important actors, who support climate adaptation initiatives in PICs, including the delivery of services, designing gender-sensitive initiatives, and provision of community infrastructure. A case study on engaging NGOs and CSOs is shown in Box 25.

3.7.7. Academic and research institutes

Academic and research institutes can provide support to the NAP process, including through contributing to the design of initiatives and projects, contributing to the reform process, and assessing and monitoring climate risk.

3.8. Securing climate finance for adaptation

3.8.1. Overview

Significant financial resources are required to adapt to the adverse effects and reduce the impacts of climate change. The GCF has USD 3 million available per country for adaptation planning processes (as outlined in Section 2.1), and, as outlined in this section, finance can also be accessed from other sources.

Climate finance refers to the financial resources mobilised to fund actions that mitigate and adapt to the impacts of climate change. The short-term cost of transitioning to a climate-resilient development pathway in PICs is significant.

PICs can access finance from the national budget, regional entities, and international public and private financiers and donors for adaptation planning. There is a range of guidelines that are focused on strengthening climate finance access – these are listed below.

In the Pacific region, climate finance is mostly accessed through multilateral and bilateral donor organisations. Nearly 86% of the climate finance in the Pacific region is delivered through project type interventions, while only 1% is channelled as direct budget support, and 1% for sector budget support.⁵² At COP26 in Glasgow, a commitment was made to double flows of adaptation finance by 2025 – and this included financial pledges made to the Adaptation Fund (totalling over USD 350 million).⁵³

At present, there is a shortfall of grant financing to PICs, particularly for adaptation action. The Joint Report on Multilateral Development Banks' Climate Finance (2019) indicates that most climate finance is allocated to climate change mitigation activities. In 2019, it was estimated that only about 25% of multilateral development bank climate financing was used towards adaptation efforts.⁵⁴ Moreover, a significant proportion of climate finance for adaptation (particularly for climate-resilient infrastructure) is in the form of loans, which can increase the debt burden for PICs.⁵⁵

Further reading on securing climate finance for adaptation is provided in Box 32.

⁵² Source: <https://www.greengrowthknowledge.org/research/climate-finance-pacific-overview-flows-region%E2%80%99s-small-island-developing-states>

⁵³ Source: <https://unfccc.int/process-and-meetings/the-paris-agreement/the-glasgow-climate-pact/cop26-outcomes-finance-for-climate-adaptation#eq-3>

⁵⁴ Source: The Joint Report on Multilateral Development Banks' Climate Finance (2019). <https://reliefweb.int/report/world/2020-joint-report-multilateral-development-banks-climate-finance>

⁵⁵ Source: Climate Finance Shadow Report (2020).

Box 26: Further reading and tools on engaging the private sector

- NAP Global Network. 2019. Engaging the Private Sector in National Adaptation Planning Processes. This guidance note provides information and analysis for governments and their partners on how to engage the private sector in the NAP process. The note includes ongoing case studies and best practices, as well as recommendations to policy-makers and practitioners.
- OECD. 2017. Engaging the Private Sector for Green Growth and Climate Action: An Overview of Development Co-Operation Efforts. This paper provides an overview of private sector engagement approaches to programs on green growth and climate change. It highlights some of the challenges and lessons learned, including the need for the private sector to take on a wider range of issues and the need to align private sector approaches with national contexts.
- UNDP. Engaging the Private Sector Tool. This online tool, developed by UNDP's Climate Change Adaptation program, provides an introduction to private sector engagement in climate change adaptation, presents the "3C's" framework (convening, catalysing, and capitalizing) and offers resources on barriers, best practices, and interventions.
- UNFCCC. Private Sector Initiative (PSI) database. Developed under the Private Sector Initiative of the UNFCCC, this online database provides good practices and profitable climate adaptation case studies being undertaken by private companies from a wide range of sectors and regions.
- World Bank Group. 2021. Enabling Private Investment in Climate Adaptation and Resilience: Current Status, Barriers to Investment and Blueprint for Action. This report provides an overview of the current state of private sector investment in adaptation and resilience and the known barriers to such investment.

Box 27: How can the NAP process be used to articulate a paradigm shift and innovation in climate adaptation action?

Climate financiers, such as the GCF and Adaptation Fund, are preferentially investing in climate adaptation action that is transformational and innovative. Achieving a paradigm shift is one of the six GCF investment criteria, and the Adaptation Fund opened a funding window in 2020 to finance innovative adaptation practices, tools, and technologies. The NAP process presents an opportunity for countries to define and articulate "transformational adaptation", which could include the identification of investment ideas that are considered innovative and paradigm shifting in the context of your country.

- Adaptation Fund Large Innovation Projects funding window: <https://www.adaptation-fund.org/apply-funding/innovation-grants/large-grants-for-innovation/>
- GCF Investment Framework: <https://www.greenclimate.fund/projects/criteria>

3.8.2. Types of climate finance

PICs have a multitude of funding channels, which increases the options and therefore possibilities to access climate finance, but also results in complexity and potentially higher administrative costs. Moreover, a well-developed NAP is a gateway to increased access to climate finance. The NAP, particularly if it includes a pipeline of prioritised investments (see Section 2.3), provides a basis for climate adaptation proposals and can be used to articulate your country's climate change adaptation national priorities.

The NAP process can be used to articulate the climate rationale (or impact potential) of the prioritised investments, as this is a key requirement for accessing finance from the GCF and other providers. Determining the climate rationale involves a number of important elements, including alignment with your country's priorities for addressing

climate change and a demonstration that the adaptation impacts would not have been achieved without the proposed activities. Adaptation proposals to the GCF and other funders also need to show that the proposed activities are an appropriate response to a specific climate change problem.⁵⁶

The NAP process can also be used to investigate and understand the transformational adaptations needed to achieve resilience in your country (see Section 3.4) – this can be used as a basis for describing how a particular adaptation investment can result in innovation or a paradigm shift (see Box 28 for further information).

While the transparency of climate finance programmed through multilateral initiatives has increased, detailed information on bilateral initiatives, regional and national funds, and other climate finance providers are often less readily available. Some key sources of adaptation finance are listed in Table 3.1.

box 28: Case study on the Tuvalu Climate Change and Disaster Survival Fund

The Tuvalu Climate Change and Disaster Survival Fund (TCCDSF) is an ex-ante financing instrument that was set up in 2015 to finance recovery and rehabilitation from climate change and disaster impacts and climate change investments in adaptation projects. The Survival Fund was designed to channel climate change funds that can be rapidly disbursed in case of a disaster but also support resilience building activities and has two main objectives: the provision of immediate vital services to the people of Tuvalu to combat the impacts of climate change and disasters; and to enable the Government and people of Tuvalu to respond to future climate change impacts and natural disasters in a coordinated, effective and timely manner. The fund can be utilised for supporting response to natural disasters following the declaration of a 'state of emergency'; and providing financial assistance for post disaster recovery and resilience building. The Climate Change and Disaster Survival Fund Act 2015 legalises the establishment of the survival fund. The fund's governance arrangements are stipulated in the Act and the TSF Regulations 2017.

The fund was initially capitalised through an A\$5million contribution by the Government of Tuvalu. Further capitalisation has subsequently been completed, including through channelling in of donations for disaster funds and climate change finance. In accordance with the TSF regulations, each year half of the funds in the TSF are made available for communities to apply. The funding allocation is 30 percent for recovery, 50 percent for rehabilitation and 20 percent for climate change adaptation, including AUD\$100,000 for small-scale projects. The other half of the funds are invested in order to replenish and grow the fund.

⁵⁶ Source: https://climateanalytics.org/media/enhancing_the_climate_rationale_in_gcf_proposals_final_03.30.2020.pdf

TABLE 3.1: Sources of adaptation climate finance

Climate finance provider	Financing instruments available
Green Climate Fund (GCF)	Technical assistance, grants, concessional loans, equity, guarantees, readiness finance (including one-off USD 3 million for national adaptation planning)
Global Environment Facility (GEF)	Technical assistance, grants, concessional loans, equity, guarantees
Adaptation Fund (AF)	Technical assistance, grants
Climate Investment Funds (CIF) – Pilot Program for Climate Resilience (PPCR)	Technical assistance, grants, concessional loans, market-rate loans, equity, guarantees
Multilateral Development Banks – World Bank Group, Asian Development Bank	Technical assistance, grants, concessional loans, market-rate loans, equity, guarantees, insurance
United Nations (UN) and International Organisations	Technical assistance, grants, concessional loans
Regional Organisations	Technical assistance, grants, insurance
Bilateral Donors and Bilateral Financial Institutions	Technical assistance, grants, loans, equity, guarantees, insurance, budget support
Private Sector	Grants, concessional loans, market-rate loans, equity, insurance
Non-government Organisation (NGO)	Technical assistance, grants
Philanthropic Organisations	Technical assistance, grants

3.8.3. Recommendations

The level of available financial support, and type of climate finance accessed, will impact the types of activities that are funded – and strengthening access to climate finance is crucial for implementing the NAP, particularly in sectors which have received less climate finance such as the health sector. Under present climate financing arrangements, there is a risk that a larger share of the available funding goes to infrastructure projects, which have high capital costs and generally higher bankability. The NAP should therefore involve the development of a framework for the equitable and effective allocation of adaptation funding to ensure that the implementation of adaptation actions across sectors is undertaken. Financing transitions to climate resilience in PICs will also need to be perceived as fair and just by the wider communities, which highlights the importance of undertaking strong stakeholder engagement.

Institutional and capacity barriers also constrain access to climate finance. There are a variety of sources of funding available for PICs, and a key challenge is that each climate finance provider has its own processes and requirements that need to be complied with. Training government officials on these processes and building capacity are key components of securing climate finance.

Financing the priority actions in the PIC NAPs (particularly climate-resilient infrastructure) will require the upscaling and development of financing mechanisms. At the national level, a financing mechanism/green investment bank for implementing adaptation actions could be established. This mechanism could mobilise, pool and deploy financing, and also support with the design, implementation and monitoring and evaluation of the adaptation options prioritised in the NAP. This mechanism could provide a range of financing instruments to entities (including local government, private sector and communities), which could include

grant financing and loans and equity, to scale-up adaptation action. This mechanism could also blend public and private finance to strengthen the bankability of adaptation projects. There are several case studies across the Pacific, which lessons could be drawn from – this includes Vanuatu’s National Green Energy Fund, the Solomon Islands National Transport Fund, and the Tuvalu Climate Change and Disaster Survival Fund (see Box 28).

Adaptation actions at the local level could also be financed via payment for ecosystem service (PES) schemes. PES schemes are market-based mechanisms that are designed to provide incentives to the owners of natural resources to increase the provision of ecosystem services upon which our society depends. In relation to adaptation, key ecosystem services could include flood protection from catchment restoration and coastal protection from green infrastructure such as sand dunes and mangroves. For example, a PES scheme could provide finance to landowners to restore a floodplain, and finance would be provided by downstream communities and businesses (such as tourism operators) that would benefit from improved flood risk management. Another form of climate finance that is proposed is debt-for-climate

swaps, which have gained prominence in the Caribbean region (this is outlined in Box 29).

In addition, because domestic budgets are so well-suited to delivering adaptation finance, an argument can be made for making use of them to deliver international climate finance. This is the objective of climate-related budget support modalities, which have been deployed by a number of donors and multilateral agencies including the European Union in Samoa (see Box 30). Through these modalities, the provision of general or sector budget support is provided contingent on the government meeting several pre-agreed disbursement criteria, typically related to climate change as well as broader governance concerns. In short, the use of budget support modalities can strengthen government ownership of climate finance, as it allows for channelling of finance through national budgeting systems.

In addition, some of the climate funds listed in Table 3.1 allow direct access, which is another modality that can strengthen country ownership of climate finance. For example, both the Adaptation Fund and GCF offer direct access modalities. In this context, direct access means that national or subnational entities become accredited to receive finance directly without

BOX 29: Case study on debt-for-finance swaps

Caribbean SIDS, as with many Pacific countries, have high levels of public debt, and the increasing frequency and severity of tropical cyclones and other natural hazards is increasing indebtedness. Servicing this debt requires ongoing payments, which can reduce the national budgets available for climate change adaptation and disaster risk reduction, which thereby increases vulnerability to climate change.

Debt-for-finance swaps consist of bilateral or multilateral debt being forgiven by creditors in exchange for a commitment by the debtor to use outstanding debt service payments for national climate action programs. In the Caribbean, debt-for-climate swaps have been proposed by a range of regional bodies, and there have been a few small-scale bilateral swaps, mostly focusing on broader environmental issues such as conservation. In 2004, Jamaica engaged in a debt-for-nature swap with the United States government and The Nature Conservancy, which provided \$16 million over a period of 20 years for forest conservation activities. For further information, see: <https://www.nature.com/articles/s41558-021-01194-4>

BOX 30: Case study on budget support in Samoa

In 2018, the World Bank approved the Development Policy Operation, aimed at boosting the macroeconomic and financial resilience of Samoa to the effects of climate change and natural hazards, and at reducing the vulnerability of Samoans to non-communicable diseases. The operation provides budget support through a combination of upfront financing of \$5 million, in addition to disaster-contingent financing of \$8.7 million available in the event of a natural catastrophe.

In order to access this budget support, the Government of Samoa must meet a set of prior actions related to strengthening macroeconomic and financial resilience, enhancing resilience to climate change, and reducing vulnerability to non-communicable diseases. The prior actions include the following:

- Approval of Guidelines for the Application of the National Building Code to strengthen new single-storey residential housing against climate-related risks and earthquakes.
- Approval of the Samoa Infrastructure Asset Management Strategy.
- Approval of Community Integrated Management Plans to strengthen the resilience of all 41 districts to the impacts of climate change and natural disasters.

BOX 31: Further reading and tools on securing climate finance for adaptation

Green Climate Fund Proposal Toolkit 2020: Toolkit to develop a project proposal for the GCF. Comprehensive guidance on all of the steps needed to develop GCF proposal. Detailed information on GCF investment criteria, policies, modalities, funding windows, and accreditation requirements is also provided.

Climate Analytics. 2020. Enhancing the climate rationale for GCF Proposals. This briefing from Climate Analytics outlines what the climate rationale in a GCF proposal is and identifies some key elements that enhance the climate rationale.

OECD. 2015. Toolkit to Enhance Access to Adaptation Finance. This toolkit from the OECD outlines a spectrum of “tools” that could help the countries navigate the evolving architecture of climate finance and seize opportunities for accessing finance for adaptation.

PIFS. 2019. Pacific Experiences with Options Relevant to Climate Change and Disaster Risk Finance. Assessment by the Pacific Islands Forum Secretariat on the Pacific’s experience accessing climate finance – includes numerous case studies from across the region, and detailed recommendations on improving the enabling environment to strengthen access to climate finance.

USAID. 2017. A Quick Guide to Climate Change Adaptation Funds. Guidance from USAID on ten multilateral and bilateral climate funds and initiatives that are currently available for financing adaptation activities.

CDKN. 2017. Understanding ‘bankability’ and unlocking climate finance for climate compatible development. Guidance on how to develop a bankable (or fundable) climate change investment is provided, which is useful for designing adaptation options and accessing climate finance.

GCF. 2021. Accreditation to the Green Climate Fund. Guidance from the GCF on the GCF’s accreditation requirements and procedures.

United Nations Environment Programme. 2016. Demystifying Adaptation Finance for the Private Sector. This report examines how private enterprises make investment decisions in adaptation and how those investments are ultimately financed.

weADAPT. 2019. Guidebook: Mobilising Private Sector Finance for Climate Change Adaptation. Guidance on financing sources for the private sector, and what is needed to access this finance.

going through an international intermediary (like the World Bank or a UN agency). To achieve accreditation, the domestic entity needs to meet specific requirements, such as strong project management and implementation capabilities – GCF readiness finance can be used for an accreditation application, and this process can be undertaken in parallel to the NAP. The accreditation process is time-consuming and resource-intensive, and detailed guidance on this is provided in Box 31.

Furthermore, to obtain better data on climate finance needs and flows, PICs should continue to strengthen their capabilities in monitoring and tracking climate finance. This should also be a focus of the NAP process, and the availability of data on climate finance will facilitate informed decision making on the allocation and effectiveness of climate finance across the region.

3.9. Information sharing and data collection

3.9.1. Overview

Vulnerability and climate hazard-related data can assist in informed decision making and improve the design of climate change adaptation measures. Probability and likelihood assessments are generally used by many countries in guiding their adaptation planning, categorising how likely modelled changes and impacts are, and assessing the level of confidence in climate change estimations. Scientific knowledge, local and indigenous knowledge, gender priorities, and socio-economic development needs are also necessary while developing adaptation measures.

Box 32: Earth observation data use in response to TC Winston

Earth observation tools are vital for disaster risk reduction, particularly for events like TC Winston, both before and after the event. Prior to the event, satellite remote sensing (SRS) data can be used for forecasting and tracking extreme weather events, such as tropical cyclones. The use of SRS data can minimise loss of life and economic damages through the provision of early warning services to communities.

SRS data can also be used to improve disaster responsiveness and recovery following a natural disaster, which enhances the overall resilience of vulnerable communities. A major challenge following any significant disaster, such as TC Winston, is the ability to conduct rapid damage assessments, particularly in isolated and hard to reach areas. SRS data can assist through making spatial information available as soon as possible, which is fundamental to aiding an efficient and effective disaster response and recovery.

The collection of this data allowed for effective coordination of humanitarian assistance and increased the effectiveness and efficiency of response activities. It also allowed for effective and efficient triaging of response resources to ensure that the worst-hit areas received priority support and assistance.

BOX 33: The Inform Project

The Inform project is the unified response for the need of data-driven decision making in the Pacific thanks to the strategic partnership between PICs, SPREP and the UN Environment Programme to increase the availability of environmental data.

The key challenges the Inform project addressed are to: (1) Increase data availability as evidence of the environmental resources, trends and drivers of environmental change; (2) Improve information management and interpretation as well as standard procedures for environmental data; and, (3) easy access and timely information for decision making, planning and reporting.

And these goals have been addressed under three key deliverables: (1) A network of national Environmental Data Portals (online data repositories that provide an easy way to store, share, access and reuse national environmental data); (2) a set of environmental knowledge management tools to improve data monitoring and reporting capabilities; and, (3) national and regional capacity building to monitor, review and report on national development plans such as the State of Environment Assessment and Multilateral Environmental Agreements.

For further information, please see: <https://www.sprep.org/inform>

BOX 34: The Pacific Climate Change Portal

The Pacific Climate Change Portal is the one stop location for accessing climate resources, news, and events. This includes a virtual library, project database, and educational resources – and is a useful portal for undertaking and supporting the NAP process. For further information, please see: <https://www.pacificclimatechange.net/>

BOX 35: Pacific iCLIM

The Pacific iCLIM Project aims to enable better climate change resilience and adaptation planning in the Pacific by improving the discoverability, storage, access, and utilisation of climate change data and information. For further information, please see: <https://www.sprep.org/project/pacific-iclim-phase-2>

In the Pacific region, Fiji is implementing actions for improving climate information services and a management system to generate, manage, disseminate, and use climate change information. The Fiji NAP strongly emphasises the use of baseline data through socioeconomic vulnerability assessments, and the use of such assessments for sub-national development planning processes. Vanuatu, Fiji, and Kiribati are focused on establishing a comprehensive database to collect, store, and share climate and disaster-related information. In the PICs, the collaboration between decision-makers and scientists has resulted in the production of information tailored to user needs and the operational context.

3.9.2. Recommendations

The data collected needs to be transformed into projections, trends, economic analysis and services based on the needs of the users. Climate information services are the mechanisms that package and disseminate climate information to specific users. For example, the Global Framework for Climate Services is one such mechanism that “enables better management of the risks through the development and incorporation of science-based climate information and prediction into planning, policy, and practice on the global, regional, and national scale”.⁵⁷ There are regional initiatives in the Pacific aimed that have the objective of strengthening knowledge management and improving access to climate resources - these include the Inform Project (see Box 33), the Pacific Climate Change Portal (see Box 34), and the Pacific iCLIM project (see Box 35).

There are significant data gaps in relation to hazard, exposure, vulnerability and risk assessments. In most PICs, there are a lack

of scientific data and suitable down-scaled climate change models. There are gaps in datasets on social indicators, infrastructure conditions, food security, economic vulnerabilities, and the built environment. Strengthening of these datasets is a priority, which requires investment in capacity, systems and data collection methods. For example, geospatial data can also be collected using earth observation methods – which can also help with project design and implementation (see Box 33 for a case study on earth observation data use in Fiji).

In the Pacific region, a large quantity of climate information exists in the form of paper records. Therefore, there are issues in climate information collection, storage, analysis and sharing of data, and the use of climate data for decision-making.

Moreover, the use of climate data is becoming more advanced, which means that data is required frequently to make informed decisions. Climate Data for the Environment (CliDE), a free open-source web-based climate database management system could be used for storing climate records.⁵⁸ The NAP process should involve the training of officials on climate information services, and encourage organisations to use systems such as CliDE for efficient data management.

Difficulties surrounding climate data can also constrain progress in mainstreaming climate change actions in development policies and plans. Ineffective coordination, communication, and collaboration between stakeholders are the main reasons for poor information flow. The climate change coordination mechanism may improve information flow between agencies. Moreover, capacity development, including through education, workshops, and trainings, could improve knowledge and information sharing between stakeholders.

⁵⁷ Source: <https://gfcs.wmo.int/about-gfcs>

⁵⁸ Source: <https://www.pacificclimatechangescience.org/climate-tools/clide-climate-data-for-the-environment/>



ANNEX 1 Methodology

DOCUMENT ANALYSIS

A desk review of the existing NAP guidelines (e.g., LDC NAP Technical Guidelines and the toolkit for gender-responsive NAPs) was conducted along with relevant climate change plans and policies in the Pacific region, academic literature, and reference materials relevant to NAP formulation.

ONLINE SURVEY

An online survey was conducted using survey monkey⁵⁹ to identify the relevant guidelines and content for the Pacific region. Refer to survey https://auckland.au1.qualtrics.com/jfe/form/SV_2shS7HqECxKUgGG

STAKEHOLDER CONSULTATION

The development of the NAP Pacific Guidelines was a participatory process that is led by stakeholders in the region, particularly the NAP Focal Points in PICs. This was to ensure that the guidelines are fit-for-purpose and are practical and useful for agencies involved in carrying out NAP planning processes. The methods of consultation include online interviews with:

- NAP country focal points
- Regional organisations – e.g., SPC, SPREP- PMC, FFA, CSIRO, UNDP, USP, PRP
- Global agencies – UNDP, UNEP, UNFCCC, GCF, NAP Global Network

COMMUNICATION AND KNOWLEDGE PRODUCTS

Communication and knowledge products are critical to support well-informed adaptation decision-making. There is IKM technical working group established in 2019 under Pacific Resilience Partnership⁶⁰ and SPREP had several projects on climate change adaptation knowledge management. This project involved the development of communication products to promote the guidelines and use of the guidelines.

VIRTUAL INFORMATION SESSIONS WORKSHOP

SPREP conducted two virtual information workshops as a part of this project to understand the needs of PICs, seek endorsement of the guidelines, and promote the guidelines and encourage their use.

⁵⁹ Source: <https://www.surveymonkey.com/>

⁶⁰ Source: Information and knowledge management. <http://www.resilientpacific.org/ikm>

ANNEX 2 Agencies consulted

A2.1. ONE-ON-ONE CONSULTATIONS

The development of this guidance was also informed by consultations with the following stakeholders:

- NAP Focal Point, Government of Fiji
- NAP Focal Point, Government of Nauru
- NAP Focal Point, Government of Niue
- NAP Focal Point, Government of Palau
- NAP Focal Point, Government of Papua New Guinea
- NAP Focal Point, Government of Samoa
- NAP Global Network
- Asian Development Bank
- United Nations Development Programme
- The Pacific Community



A2.2. WORKSHOPS

	ATTENDEE	AFFILIATION
WORKSHOP ONE		
1	Fillimone Tuivanualevu	Government of Fiji
2	Evalyne Detenamo	Government of Nauru
3	Annmarie Aholima	Government of Niue
4	Haden Talagi	Government of Niue
5	Felicia Talagi	Government of Niue
6	Xavier Matsutaro	Government of Palau
7	Micki Kilbury	Government of Palau
8	Anne Rasmussen	Government of Samoa
9	Ewan Cameron	Government of the Cook Islands
10	Jamie Ovia	Government of Tuvalu
11	Florence Iautu	Government of Vanuatu
12	Leana William	Government of Vanuatu
13	Lynna Thomas	SPREP
14	Souad Boudjelas	SPREP
15	Filomena Nelson	SPREP
16	Amanda Wheatley-	SPREP
17	Paddy Pringle	SPREP
18	Juney Ward	SPREP
19	Masako Ogawa	SPREP/JICA
20	Yuji Ueno	SPREP/JICA
21	Ben Sims	T+TI
22	Bapon Fakhruddin	T+TI
23	Kate Draper	T+TI
WORKSHOP TWO		
1	Shayal Kumar	Government of Fiji
2	Takena Redfern	Government of Kiribati
3	Kirata Tekiera	Government of Kiribati
4	Reagan Moses	Government of Nauru
5	Annmarie Aholima	Government of Niue
6	Taveli Pavihi	Government of Niue
7	Haden Talagi	Government of Niue
8	Anne Rasmussen	Government of Samoa
9	Henry Taiki	Government of Samoa
10	Raymond Newnham	Government of the Cook Islands
11	Hudson Kauhiona	Government of the Solomon Islands
12	Correy A. Abraham	National Government of the Federated States of Micronesia
13	Tessa Tafua	WMO
14	Yuji Ueno	SPREP/JICA
15	Masako Ogawa	SPREP/JICA
16	Ioane Iosefo	SPREP
17	Filomena Nelson	SPREP
18	Amanda Wheatley	SPREP



SPREP

Secretariat of the Pacific Regional
Environment Programme