

VANUATU

National Adaptation Plan

2026–2035

Vanuatu National Adaptation Plan 2026–2035









List of Acronyms and Abbreviations

Acronym	Full Form
°C	Degrees Celsius (unit of measurement for temperature)
ACIAR	Australian Centre for International Agricultural Research
ADB	Asian Development Bank
AEP	Annual Exceedance Probability
AF	Adaptation Fund
AR5	IPCC Fifth Assessment Report (completed 2014)
AR6	IPCC Sixth Assessment Report (2021–2023)
ARIs	Average recurrence intervals
AVL	Airports Vanuatu Limited
AWS	Advanced Warning System
BAI	Belém Adaptation Indicators
CAAV	Civil Aviation Authority of Vanuatu
$CaCO_3$	Calcium carbonate
CAG	Common Action Group
CBAP	Community-Based Adaptation Plan
CBO	Community Based Organization
CBT	Climate Budget Tagging
CIF	Climate Investment Funds
CCAs	Community Conservation Areas
CCAM	Conformal Cubic Atmospheric Model
CEDAW	Convention on the Elimination of All Forms of Discrimination Against Women
CCDRR	Climate change and Disaster Risk Reduction
CDCCC	Community Disaster and Climate Change Committee
CLO	Community Liaison Officer
cm	Centimetre
CMIP5/6	Coupled Model Intercomparison Project Phase 5 and 6
CO_2	Carbon dioxide
COVID-19	Coronavirus Disease 2019
CRESH	Climate-Resilient and Environmentally Sustainable Healthcare
CRRA	Climate Resilient and Regenerative Agriculture
CRVA	Climate Risk and Vulnerability Assessment
CSIRO	Commonwealth Scientific and Industrial Research Organisation
CSO	Civil Society Organizations
CTT	Commercial Timber Tree
DARD	Department of Agriculture and Rural Development

Acronym	Full Form
DEPC	Department of Environmental Protection and Conservation
DGMWR	Department of Geology, Mines and Water Resources
DLA	Department of Local Authorities
DoCC	Department of Climate Change
DoE	Department of Energy
DoF	Department of Forestry
DoL	Department of Livestock
DoT	Department of Tourism
DoWR	Department of Water Resources
DPH	Department of Ports and Harbours
DRR	Disaster Risk Reduction
DRRM	Disaster Risk Reduction Management
DSPPAC	Department of Strategic Policy, Planning and Aid Coordination
DWSSP	Drinking Water Safety & Security Planning
EbA	Ecosystem-based adaptation
ECCE	Early Childhood Care and Education
EiE	Education in Emergencies
EEZ	Exclusive Economic Zone
EIA	Environmental Impact Assessment
ENSO	El Niño Southern Oscillation
EOC	Emergency Operations Centre
ERP	Education Recovery Program
ETF	Enhanced Transparency Framework
ESTA	Espiritu Santo Tourism Association
EU	European Union
EWS	Early Warning System
FAD	Fish Aggregating Device
FAO	Food and Agriculture Organization of the United Nations
FCPF	Forest Carbon Partnership Facility
FoC	Framework of Coordination
FRDP	Framework for Resilient Development in the Pacific
GAFSP	Global Agriculture and Food Security Program
GBV	Gender Based Violence
GCF	Green Climate Fund
GDP	Gross Domestic Product
GEDSI	Gender Equality, Disability, and Social Inclusion
GEF	Global Environment Facility
GGGI	Global Green Growth Institute
GHG	Greenhouse gas

Acronym	Full Form
GoV	Government of Vanuatu
GPE	Global Partnership for Education
GPS	Global Positioning System
HDI	Human Development Index
HNAP	Health National Adaptation Plan
HPS	Health Promoting Schools
HSS	Health Sector Strategy
ICT	Information and Communications Technology
IFAD	International Fund for Agricultural Development
IFC	International Finance Corporation
IHR	International Health Regulations
INGO	International Non-Governmental Organisation
IPCC	Intergovernmental Panel on Climate Change
IPO	Interdecadal Pacific Oscillation
IUCN	International Union for Conservation of Nature
IWRM	Integrated Water Resource Management
JEE	Joint external evaluation
JICA	Japan International Cooperation Agency
LEDS	Low Emissions Development Strategy
km	Kilometre (1,000 metres)
km^2	Square kilometres
m	Metres
MALFFB	Ministry of Agriculture, Livestock, Forestry, Fisheries and Biosecurity
MCA	Multi-Criteria Analysis
MERL	Monitoring, Evaluation, Reporting and Learning
MFAT	Ministry of Foreign Affairs and Trade (New Zealand)
MFEM	Ministry of Finance & Economic Management
MHPSS	Mental Health and Psychosocial Support
MHW	Marine Heatwave
MIA	Ministry of Internal Affairs
MIPU	Ministry of Infrastructure and Public Utilities
MJO	Madden Julian Oscillation
MLNR	Ministry of Lands and Natural Resources
mm/yr	Millimetres per year
mm	Millimetres
MoCC	Ministry of Climate Change Adaptation, Meteorology & Geo-Hazards, Energy, Environment and Disaster Management
MoET	Ministry of Education and Training
MoH	Ministry of Health
MoJ	Ministry of Justice

Acronym	Full Form
MQS	Minimum Quality Standards
MSMEs	Micro, Small, and Medium Enterprises
MTTCNVB	Ministry of Tourism, Trade, Commerce and Ni-Vanuatu Business
NAB	National Advisory Board on Climate Change and Disaster Risk Reduction
NAP	National Adaptation Plan
NAP-ID	NAP Priority Adaptation Action Identifier
NAPA	National Adaptation Programme of Action
NAP-PSC	NAP Project Steering Committee
NbS	Nature-based solution
NBSAP	Vanuatu National Biodiversity Strategy and Action Plan 2018–2030
NCD	Non-Communicable Disease
NCFCP	National Climate Finance Country Programme
NDC	Nationally Determined Contribution
NDMO	National Disaster Management Office
NEPIP	National Environmental Policy and Implementation Plan
NGEP	National Gender Equality Policy
NGEF	National Green Energy Fund
NGO	Non-Governmental Organisation
NRC	National Recovery Committee
NSDP	National Sustainable Development Plan
NSIDP	National School Infrastructure Development Plan
NSFWCHOS	National Strategy and Frameworks for Weather, Climate, Hydrometeorology, and Ocean Services
NTFP	Non-Timber Forest Products
NTD	Neglected Tropical Diseases
NZMTS	New Zealand Medical Treatment Scheme
OISST	Optimum Interpolation Sea Surface Temperature
OPDs	Organizations of persons with disabilities
OPSP	Overarching Productive Sector Policy
PACC	Pacific Adaptation to Climate Change
PACCSAP	Pacific-Australia Climate Change Science and Adaptation Planning Program
PAP	Provincial Adaptation Plans
PDCCC	Provincial Disaster and Climate Change Committee
PEUMP	Pacific-European Union Marine Partnership
pH	Pondus hydrogenium – unit which measures the acidity or alkalinity of a solution on a logarithmic scale from 0 to 14, where 7 is neutral
PHC	Primary Health Care
PLTA	Public Land Transport Authority
PLWD	People Living with Disabilities
PRF	Pacific Resilience Facility
PRIF	Pacific Region Infrastructure Facility

Acronym	Full Form
PSC	Public Service Commission
PTAC	Provincial Technical Advisory Committee
PTT	Performance Tracking Tool
PWD	Public Works Department
RCP	Representative Concentration Pathways
RCP2.6	Representative Concentration Pathway 2.6 a stringent mitigation scenario aiming to limit global warming to below 2°C above pre-industrial levels by 2100
RCP4.5	Representative Concentration Pathway 4.5 is an intermediate scenario assuming peak emissions around 2040 and decline thereafter.
RCP8.5	Representative Concentration Pathway 8.5 is a high-emissions climate change scenario often considered a "worst-case" or "high-risk" pathway.
ROOTS	Restoring Our Original Trees
RWS	Rural Water Supply
SAP	Strategy and Action Plan
SCCF	Special Climate Change Fund
SCUBA	Self-Contained Underwater Breathing Apparatus
SDG	Sustainable Development Goal
SIDS	Small Island Developing States
SMART	Specific, Measurable, Achievable, Relevant, and Time-bound
SO_2	Sulphur dioxide
SOP	Standard Operating Procedure
SPC	The Pacific Community (formerly the South Pacific Community)
SPCZ	South Pacific Convergence Zone
SPI	Standardised Precipitation Index
SPO	Strategic Policy Objectives
SPREP	Secretariat of the Pacific Regional Environment Programme
SRHR	Sexual and Reproductive Health and Rights
SSPs	Shared Socioeconomic Pathway
SST	Sea Surface Temperature
TAC	Technical Advisory Council / Committee
TA	Technical Assistance
TC	Tropical Cyclone
TCP	Transmission Control Protocol
TVET	Technical and Vocational Education and Training
TXx	Annual hottest day
UI	Urban intelligence
UAE	United Arab Emirates
UNCDF	United Nations Capital Development Fund
UNDP	United Nations Development Program

Acronym	Full Form
UNDRR	United Nations Office for Disaster Risk Reduction
UNELCO	Union Electrique Du Vanuatu – Electricity provider in Vanuatu
UNESCO	United Nations Educational, Scientific and Cultural Organisation
UNFPA	United Nations Population Fund
UNICEF	United Nations International Children's Emergency Fund
UNFCCC	United Nations Framework Convention on Climate Change
URA	Utilities Regulatory Authority
US	USA – United States of America
USD	United States Dollar
VAA	Vulnerability Adaptation Assessment
Van-KIRAP	Vanuatu Klaemet Infomesen blong Redy, Adapt mo Protekt – Agricultural and Climate Information Services (CIS) Policy Review, Action and Communication Plan
VANGO	Vanuatu Association of NGOs
VAT	Value Added Tax
VCAN	Vanuatu Climate Action Network
VCAP2	Vanuatu Coastal Adaptation Project Phase II
VCCI	Vanuatu Chamber of Commerce and Industry
VCCRP	Vanuatu Community-based Climate Resilience Project
VESP	Vanuatu Education Support Program
VFD	Vanuatu Fisheries Department
VHRA	Vanuatu Hotels & Resorts Association
VIBTA	Vanuatu Island Bungalows & Tourism Association
VIRIP	Vanuatu Infrastructure Reconstruction and Improvement Project
VMGD	Vanuatu Meteorology and Geo-hazards Department
VMSA	Vanuatu Maritime Safety Authority
VNPF	Vanuatu National Provident Fund
VQA	Vanuatu Qualifications Authority
VTAP	Vanuatu Tourism Assistance Program
VTO	Vanuatu Tourism Office
VTOA	Vanuatu Tour Operators Association
VUI	Vanuatu Utilities and Infrastructure Limited
VUV	Vanuatu Vatu
WASH	Water, Sanitation and Hygiene
WASHFIT	Water, Sanitation and Healthcare Facility Improvement Tool
WHO	World Health Organisation
WinHK	WASH in Heltkea - a national WASH in Healthcare facilities assessment tool
WMO	World Meteorological Organization

Foreword from the Minister



As Minister responsible for Climate Change Adaptation, Meteorology & Geo-Hazards, Energy, Environment and Disaster Management, I am pleased to present Vanuatu's National Adaptation Plan (NAP) 2026–2035, which sets out our national direction for responding to the growing impacts of climate change and strengthening the resilience of our people, communities and natural ecosystems.

Vanuatu is highly vulnerable to the impacts of climate change. Our communities, livelihoods, ecosystems, infrastructure and cultural heritage are increasingly exposed to climate-related hazards, including tropical cyclones, drought, changing rainfall patterns, sea-level rise, marine heatwaves and ocean acidification. Strengthening our understanding of these risks and taking timely and coordinated action is therefore essential to protecting our people and sustaining our development.

The NAP builds on Vanuatu's ongoing efforts to strengthen climate resilience and integrates climate change adaptation into national, provincial and local planning. It aligns with Vanuatu 2030: The People's Plan, Vanuatu's Nationally Determined Contribution 3.0 (NDC 3.0) 2025–2035, and the National Climate Change and Disaster Risk Reduction Policy 2022–2030. It also builds on the findings of the Vanuatu Climate Risk and Vulnerability Assessment and other available climate information and assessments.

The NAP establishes a clear national direction for adaptation and identifies 27 national priority adaptation actions across nine key sectors. Its implementation will require a whole-of-government and whole-of-society approach, involving national and provincial governments, communities, development partners, civil society, the private sector and other stakeholders. The Plan also recognises the importance of locally led adaptation, kastom and traditional knowledge, and inclusive approaches that respond to the diverse needs of our people.

I extend my sincere appreciation to all government ministries and departments, provincial and local stakeholders, development partners, communities and other partners who contributed their knowledge, experience and perspectives to the development of this Plan. I encourage continued collaboration and commitment to translating the priorities of the NAP into practical action and building a climate-resilient future for Vanuatu.

Hon. Ralph Regenvanu
Minister for Climate Change Adaptation, Meteorology & Geo-Hazards, Energy, Environment and Disaster Management
Government of Vanuatu

REPUBLIC OF VANUATU
Minister of Climate Change, Adaptation Meteorology, Geohazards, Environment & Energy
Ministre Du Climat Change, Adaptation, Météorologie, Georiques, Environnement Et Energie
REPUBLIQUE DE VANUATU

Foreword from the Director General



It is my pleasure to present Vanuatu's National Adaptation Plan (NAP) 2026–2035, a strategic framework that will guide our efforts to address climate change risks and build resilience across all sectors of society over the coming decade.

The NAP represents the culmination of a nationally led process to strengthen Vanuatu's capacity to identify climate risks, prioritise adaptation needs and establish a coherent framework for climate-resilient development.

Climate change poses significant challenges to Vanuatu's sustainable development. Increasingly frequent and intense tropical cyclones, changing rainfall patterns, droughts, sea-level rise, coastal erosion, and impacts on marine and terrestrial ecosystems continue to affect our communities, livelihoods, infrastructure and economy. Responding effectively to these challenges requires coordinated planning, sound evidence, strong partnerships, and sustained investment.

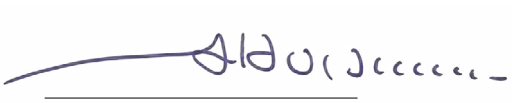
The development of this NAP represents an important milestone in Vanuatu's adaptation journey. Guided by extensive stakeholder consultations, technical assessments, and the Vanuatu Climate Risk and Vulnerability Assessment, the NAP reflects a shared national vision and a strong commitment to locally informed adaptation action. It identifies priority adaptation measures across key sectors while strengthening the integration of climate change adaptation into national, provincial, and local planning processes.

Beyond guiding adaptation actions, the NAP also serves as an important platform for mobilizing climate finance and investment. It provides a basis for strengthening partnerships with national and international stakeholders and for aligning resources towards agreed adaptation priorities.

As Chair of the NAP Project Steering Committee (PSC) and National Designated Authority (NDA) to the Green Climate Fund (GCF), I am encouraged by the collaborative approach that has underpinned the preparation of this Plan. Government agencies, provincial authorities, communities, civil society organizations, development partners, the private sector, and technical experts have all contributed to shaping this shared vision for a more climate-resilient Vanuatu.

The success of the NAP will depend on our collective commitment to implementation. This Plan provides a foundation for mobilizing resources, strengthening institutional capacity, scaling up locally led adaptation, and translating priorities into practical actions that safeguard lives, livelihoods, ecosystems, and future development gains.

I extend my sincere appreciation to all those who contributed to the development of this Plan and encourage all stakeholders to work together in advancing its implementation for the benefit of current and future generations of ni-Vanuatu.





David Gibson
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The Government also gratefully acknowledges the support of the United Nations agencies, including UNICEF Pacific, which provided technical contributions to the NAP, as well as the wider UN family for their engagement in the review process. Appreciation is extended to GHD Pty Ltd and the technical experts and consultants who supported the analysis, consultations and preparation of the NAP. Their collective efforts have helped establish a shared framework for strengthening climate resilience and climate-resilient development in Vanuatu.

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This National Adaptation Plan (NAP) 2026–2035 provides a national framework to guide climate change adaptation planning and implementation in Vanuatu. The views, findings, priorities, and recommendations presented do not necessarily reflect the views of all institutions, partners, or stakeholders involved in its development.

Prepared with support from the Green Climate Fund (GCF) and Global Green Growth Institute (GGGI) as the delivery partner. Responsibility for the content rests with the Government of Vanuatu.

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Executive Summary

Vanuatu's National Adaptation Plan (NAP) 2026–2035 sets out a strategic, evidence-based framework to guide the country's response to the escalating impacts of climate change. As a climate-vulnerable country, Vanuatu is exposed to tropical cyclones, periods of droughts, and continuing ocean acidification, which affect the nation's livelihoods, security and identity. This NAP represents a whole-of-government and whole-of-society effort to safeguard ni-Vanuatu peoples, ecosystems, livelihoods, infrastructure, and cultural heritage through coordinated, inclusive, and forward-looking adaptation planning (The Government of Vanuatu, 2025; Department of Strategic Policy, Planning and Aid Coordination, 2016). The NAP builds on a strong foundation of national climate assessments including the Vanuatu Climate Risk and Vulnerability Assessment (2026) and Van-KIRAP, aligning with key goals made by Vanuatu in the NSDP (Vanuatu 2030 The Peoples Plan), the National Sustainable Development Plan (NSDP) 2016–2030 (commonly referred to as Vanuatu 2030 The People's Plan), the Vanuatu NDC 3.0 (2025) which addresses commitments under the UNFCCC, including the Paris Agreement, and the Vanuatu Climate Change and Disaster Risk Reduction Policy 2022–2030 (Second Edition) which promotes synergy and alignment between climate action and disaster risk reduction (DRR).

The NAP process was initiated to enhance national climate resilience, through stakeholder engagement with government officials, sector specialists, civil society and development partners. This approach has guided identification and prioritisation of adaptation actions. Provincial Adaptation Plans (PAPs) translate these national priorities into locally relevant actions across the six provinces, while provincial priorities and implementation experience inform the NAP. Together, the NAP and PAPs support coordinated climate adaptation and alignment with existing national and provincial planning processes.

Vanuatu's NAP has an overarching goal to protect Vanuatu from the impacts of climate change through bold and decisive actions that strengthen the resilience of its people and the natural ecosystems. This goal is supported by cross-sectoral initiatives and outcomes across nine priority sectors identified based on their importance to the livelihoods and wellbeing for the ni-Vanuatu people: agriculture, ecosystems, education, fisheries, forestry, health and nutrition, infrastructure, tourism, and water, sanitation and hygiene (WASH). The NAP draws on available assessments of climate risks and vulnerabilities and stakeholder knowledge to identify, validate and prioritise adaptation actions. It presents 27 consolidated national priority adaptation actions, three for each sector, supported by the enabling actions in Chapter 4. These priorities retain sector responsibility while recognising shared benefits and delivery needs across sectors.

The Vanuatu Climate Risk and Vulnerability Assessment (CRVA) identifies significant current and future climate risks to the country's people, environment and economy. These include risks associated with changes in temperature, rainfall, sea level, marine heatwaves, ocean acidification and tropical cyclones. Climate risks also occur alongside earthquakes, volcanic eruptions and tsunamis. These geological hazards are not caused by climate change, but they can damage the same assets, disrupt recovery and undermine adaptation gains. The NAP therefore considers this wider risk context when planning climate adaptation, so that investments minimise exposure to other hazards and support existing disaster risk management arrangements.

Slow-onset changes, including sea-level rise, warming and ocean acidification, place increasing pressure on land, water resources, food production and ecosystems. Extreme events, including tropical cyclones, heavy rainfall and marine heatwaves, can cause sudden losses and disrupt essential services. Marine heatwaves and ocean acidification also increase pressures on coral reefs, with consequences for fisheries, food security, coastal protection and tourism. Projected changes differ by hazard, location and emissions pathway, requiring targeted contingency measures tailored to the specific nature of the changes. Limited resources, especially in remote communities, can increase vulnerability and slow recovery. The climate information summarised in Chapter 2 provides the basis for responding to these risks.

Vanuatu has a vision for a resilient, self-reliant and thriving nation, where people, culture, environment and livelihoods are protected from the impacts of climate change and disasters through inclusive action and locally grounded solutions. This will be achieved through three primary outcomes:

1. Protecting people, livelihoods, essential services and places,
2. Enabling locally led, inclusive adaptation, and
3. Sustaining long-term resilience.

Climate change does not affect everyone equally. Women, children, young people, persons with disabilities and remote communities can face disproportionate climate risks due to existing social, economic and geographic barriers.

At the same time, these groups play an important role in strengthening resilience and shaping adaptation responses. The NAP recognises that the diversity of all vulnerable groups brings valuable knowledge, experience and leadership to adaptation planning and implementation. Locally led adaptation values, lived experience and diverse perspectives ensure communities are empowered to shape solutions that respond to their needs and priorities.

Through a whole-of-society approach, the NAP brings together government and society to ensure the voices of Vanuatu's people help shape the country's response to climate change. Inclusive approaches ensure that climate adaptation is embedded across ministries, policies and planning processes, while engaging communities, traditional leaders, civil society and youth[1] in the design and implementation of adaptation actions strengthens the effectiveness of interventions. The NAP recognises that climate resilience must be equitable and inclusive, with gender equality, disability inclusion and social cohesion considered across all adaptation priorities and actions.

To support implementation, the NAP is accompanied by two separate companion documents: the Monitoring, Evaluation, Reporting and Learning (MERL) Framework (Appendix D), and the NAP Financing Strategy and Roadmap (Appendix E). Chapter 6 describes these documents alongside the NAP's communication and institutional coordination arrangements. Together, they support resource mobilisation, progress tracking, evaluation, learning and accountability. Each national priority adaptation action has a unique identifier to link implementation, finance and reporting.

Vanuatu's NAP recognises the pressure that climate impacts place on households, including subsistence farmers who lose food and income when a tropical cyclone damages their crops, livestock and market access. It also recognises the determination of Vanuatu's people to adapt with agency and foresight. The Vanuatu NAP is not just a technical document, but a plan for moving forward. By investing in resilience today, Vanuatu aims to secure a future where the ni-Vanuatu people thrive. The NAP is a call to action for national stakeholders, regional partners, and the international community to stand with Vanuatu in its journey toward a climate-resilient future.

[1] According to the national youth policy 2019–2024 Vanuatu National Youth Policy, it is defined as people aged 12-30 years.

Summary of Sectoral Adaptation Actions

Based on findings from the CRVA and comprehensive stakeholder consultations, major climate-related risks were identified and 27 key priority adaptation actions were proposed across nine sectors.

Agriculture

1. Strengthen climate-resilient crop and local food production through improved varieties, soil and water management, agroforestry, and farmer training.
2. Improve livestock resilience through resilient breeds, feed and water security, shelters, and animal health services.
3. Strengthen agricultural preparedness through seed reserves, nurseries, food storage, rapid replanting, and market support.

Ecosystems

1. Restore and protect terrestrial, coastal, and marine ecosystems through rehabilitation, community stewardship and capacity building.
2. Strengthen food resilience using food forests, food preservation, local food banks, and ecosystem-based farming.
3. Protect water-related ecosystems by restoring catchments, rivers, and groundwater recharge areas.

Education

1. Develop climate-resilient schools through safer infrastructure, WASH services, energy, and connectivity upgrades.
2. Strengthen school disaster preparedness through risk-based plans, early warning systems, and continuity of learning.
3. Integrate climate change and disaster risk reduction into curricula, teacher training, and practical learning.

Fisheries

1. Strengthen community-based fisheries management, customary stewardship, climate information, and safe fishing practices.
2. Build climate-resilient fisheries systems through upgraded landing sites, storage, aquaculture, and market access.
3. Improve fisheries monitoring, research, and climate-informed decision-making through enhanced data systems.

Forestry

1. Restore forests, catchments, and riverbanks using climate-resilient species and community forestry approaches.
2. Protect and restore mangroves, wetlands, and coastal vegetation to strengthen natural coastal buffers.
3. Improve forest mapping, monitoring, research, and data-driven planning for climate-resilient forestry investments.

Health and Nutrition

1. Climate-proof health facilities, utilities, supply chains, staffing, and essential health services.
2. Strengthen climate-sensitive disease surveillance, early warning systems, and public health response capacity.
3. Enhance nutrition, food safety, mental health, and psychosocial support during climate-related shocks.

Infrastructure

1. Develop infrastructure master plans and integrate climate risk into infrastructure planning, design, siting, standards, and asset management.
2. Upgrade and maintain critical infrastructure to withstand climate hazards and service disruptions.
3. Strengthen infrastructure risk assessment, backup systems for power and other essential services, shared information systems and evacuation arrangements.

Tourism

1. Diversify and climate-proof tourism products, destinations, and visitor experiences.
2. Strengthen resilience of tourism infrastructure, services, and business continuity systems.
3. Improve climate risk information, planning, and capacity for tourism operators and destinations.

Water, Sanitation and Hygiene (WASH)

1. Improve reliable and diversified water supplies through new and rehabilitated sources, groundwater monitoring, rainwater harvesting, and storage.
2. Upgrade and maintain climate-resilient, inclusive WASH services in communities and public facilities.
3. Implement Drinking Water Safety and Security Plans through water-quality monitoring, treatment, source protection, and hygiene education.

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CHAPTER

01

Context and Governance

1.1 Introduction

1.1.1 Structure of this Document

This document presents Vanuatu's **National Adaptation Plan (NAP).** The NAP is intended to guide coordinated, inclusive adaptation action across government as a whole, provinces, communities, civil society, development partners, and the private sector. The NAP is organised in six chapters:

- **Chapter 1** sets the strategic direction for the NAP by outlining the guiding principles, including GEDSI, policy alignment, mandates and institutional arrangements that underpin Vanuatu's approach to climate action and disaster resilience.
- **Chapter 2** assesses Vanuatu's current and future climate risks and vulnerabilities, within the country's wider multi-hazard context, drawing primarily on Vanuatu's national Climate Risk and Vulnerability Assessment (CRVA), which synthesises national hazard and exposure information (including Van-KIRAP, ocean hazard modelling and CSIRO climate projections) alongside local observations and sector evidence. This section provides the evidence base for sectoral risk analysis and adaptation planning and is intended to be read as the "risk baseline" for the NAP.
- **Chapter 3** introduces Vanuatu's Adaptation Pathway, detailing the strategic priorities and measures identified for this initial phase of the NAP. It reflects national priorities and builds on the risk assessment to guide future investment and action.
- **Chapter 4** focuses on enabling conditions for effective adaptation. It outlines actions to strengthen institutional capacity, promote vertical and horizontal integration and coordination, and advance gender equality and social inclusion outcomes, through gender-equitable approaches that address different needs and barriers, which are critical elements for building systemic resilience.
- **Chapter 5** presents the 27 consolidated national priority adaptation actions across nine sectors. These actions respond to the risks summarised in the sector sections, with initial implementation focus on 2026–2030 and continued implementation, maintenance and review until 2035.
- **Chapter 6** describes the implementation arrangements for the NAP, covering institutional coordination, communication, monitoring, reporting, evaluation and learning, as well as financing. Appendices D and E provide the finance and monitoring, evaluation, reporting and learning (MERL) arrangements, supported by the separate companion documents. Together, these arrangements support coordinated delivery, accountability, continuous learning and improvement for the effective implementation of adaptation actions.

1.1.2 National Adaptation Plan Vision

Vision Statement

A Vanuatu that is resilient, self-reliant, and thriving – where our people, culture, environment, and livelihoods are protected from the impacts of climate change through inclusive action and locally grounded solutions.

What This Vision Means

This Vision gives practical effect to the Government's climate and disaster risk policy direction for resilient development. It translates the **Vanuatu Climate Change and Disaster Risk Reduction (CCDRR)** Policy vision of a **"resilient community, environment and economy"** into a clear national roadmap for coordinated inclusive adaptation action across all communities, islands and provinces.

The NAP is a 10-year Plan operational from 2026–2035 and should be reviewed at 5-year intervals to update technical information and current status of adaptation. The NAP aligns with national development priorities under Vanuatu 2030 and supports the delivery of Vanuatu's NDC 3.0 2025–2035 adaptation commitments. In doing so, the NAP aims to protect development gains, strengthen wellbeing, and ensure that climate risks are addressed, coordinated consistently and inclusively across sector planning, public investment, local and community-led delivery.

Strategic Outcomes

To realise this Vision, the NAP pursues three strategic outcomes:

1. **Safeguarding people, livelihoods, essential services and place** – reduce avoidable risk and strengthen resilience of communities, essential services, lifeline infrastructure, and ecosystems under current and future climate and disaster pressures.
2. **Enabling locally led, gender-transformative and inclusive adaptation** – strengthen locally grounded decision-making and delivery through kastom,

traditional and local knowledge, and promote meaningful, coordinated and inclusive participation across society, including people who are often underrepresented or disproportionately affected by climate change.

3. **Sustaining long-term resilience** – build the various supporting systems, technology, capability, capacity, and financing pathways needed to implement, maintain, and improve coordinated and inclusive adaptation actions as risks evolve.

Table 1 below summarises the NAP's strategic hierarchy and alignment to national policy direction, providing a common reference point for implementation, coordination, and reporting. It links the NAP vision and national resilience goal to the Plan's strategic and sector outcomes, for agencies, provinces, communities, and partners to appreciate the potential contribution of NAP actions to national priorities and measurable resilience gains.

This NAP covers nine sectors: agriculture, ecosystems, education, fisheries, forestry, health and nutrition, infrastructure, tourism, and water, sanitation and hygiene (WASH). These sectors were selected by the Government of Vanuatu – through a comprehensive stakeholder consultative process – to be included in the NAP's assessment using a multi-criteria approach that involved three major considerations:

- Vulnerability: The selected sectors are highly exposed and vulnerable to climate change impacts.
- Socioeconomic importance: The sectors are core systems that support livelihoods, wellbeing, and economic development in Vanuatu, with extensive cascading interdependencies between them.
- Policy coherence and synergies: The sectors are aligned with international adaptation priorities including the Global Goal on Adaptation thematic targets. Additionally, they align with stakeholder engagement and review of sector policies and plans enabling identification of actions and priorities.

Table 1. Vanuatu National Adaptation Plan Strategic Framework

National Vision
A resilient, self-reliant and thriving Vanuatu, where our people, culture, environment and livelihoods are protected from the impacts of climate change through inclusive action and locally grounded solutions.
National Goal
To build an adaptive and resilient community, environment, and economy (aligned with national climate and disaster resilience policy direction).
Strategic Outcomes
Protect people, livelihoods, essential services and place. Reduce avoidable risk from extreme events and slow-onset change through resilient infrastructure, ecosystem-based approaches, and service continuity.
Enable locally led, inclusive adaptation. Support communities, provinces, area councils, community and customary institutions to lead delivery, combining traditional knowledge with climate science.
Sustain long-term resilience. Integrate climate risk into national planning, budgeting, and investment systems to ensure development is sustainable while addressing climate change and enhancing system resilience.
Sector Outcomes
Agriculture. Household food security and climate-resilient production are strengthened through resilient crop varieties and livestock breeds, supported by targeted agricultural extension
Ecosystems. Terrestrial, freshwater, coastal, and marine ecosystems are protected and strengthened to sustain biodiversity and ecosystem services under a changing climate.
Education. The education system remains safe, accessible, and resilient to climate and disaster risks, supporting continuity of learning.
Fisheries. Fisheries and marine biodiversity are safeguarded through climate-resilient and sustainable resource management and community-based approaches.
Forestry. Forest ecosystems are sustainably managed to strengthen climate resilience, biodiversity, and community benefits.
Health and nutrition. Health and social wellbeing services and nutrition outcomes are strengthened to manage climate-sensitive risks and maintain essential services during shocks.
Infrastructure. Infrastructure systems are climate-resilient and able to withstand current and future climate hazards, supporting safe access and economic activity
Tourism. The tourism sector adapts to climate risks while protecting natural and cultural assets and supporting sustainable economic recovery.
Water, Sanitation and Hygiene (WASH). All communities have reliable access to climate-resilient water, sanitation, and hygiene services, including under drought and extreme events.

1.1.3 Values Underpinning the NAP

Vanuatu's NAP is underpinned by core values and guiding principles drawn from Vanuatu 2030 (The People's Plan), the CCDRR Policy, and Vanuatu's NDC. These values guide how adaptation is designed and delivered, ensuring that actions are practical, inclusive, culturally grounded, and accountable.

Accountability: Transparent decision-making, clear roles, and routine public reporting so resources are used well and trust is maintained between government, provinces, communities, civil society, private sector, and partners.

Sustainability and stewardship: Protection of land and sea systems that sustain wellbeing and livelihoods, with long-term maintenance and avoided maladaptation built into planning and investment.

Gender equality, disability and social inclusion: Ensuring that adaptation responds to the different needs, priorities, knowledge and capabilities of Vanuatu's people. This includes prioritising people and places most exposed and least able to recover, while enabling persons with disabilities, women, children and young people in all their diversity to contribute their knowledge, experience and leadership to adaptation decision-making and implementation. GEDSI considerations will be integrated throughout planning, implementation, financing, monitoring and learning, with attention to intersecting barriers and the risk of adaptation actions reinforcing existing inequalities.

Community leadership and kastom: Respecting customary governance and traditional knowledge and enabling locally led solutions that maintain cultural continuity.

Collaboration and partnership: Coordinated and inclusive delivery across government, provinces, area councils, communities, civil society, the private sector, development partners, women-led groups, organisations of persons with disabilities, and youth-led organisations, to reduce duplication and strengthen impact.

Evidence and learning: Using the best available climate and risk information alongside local knowledge and applying learning loops to improve implementation over time.

1.1.4 GEDSI in the NAP

Climate change and disasters affect people differently depending on factors such as gender, age, disability, income, location, livelihood, access to services and participation in decision-making. The NAP has considered these differences through its review of available gender and social vulnerability evidence, assessment of sector risks, stakeholder engagement and the identification of adaptation priorities. This has helped identify where existing inequalities and barriers may increase climate risk, while also recognising the knowledge, capabilities and leadership that diverse groups bring to adaptation.

These considerations have shaped the NAP's values, institutional and stakeholder engagement arrangements, whole-of-society approach, sector risk narratives, adaptation actions and implementation provisions. They are also reflected in requirements for inclusive participation, accessible communication, safeguards, disaggregated data and monitoring. Recognising current limitations in locally specific and disaggregated data, future Climate Risk and Vulnerability Assessment updates, Provincial Adaptation Plans and NAP monitoring should continue to strengthen the evidence base and use it to refine implementation.

1.1.5 National Context

1.1.5.1 Geography

Vanuatu is a Melanesian island nation located in the tropical South Pacific Ocean between latitudes 13°S and 21°S and longitudes 166°E and 171°E (Figure 1). The archipelago consists of 83 islands, 63 of which are permanently inhabited, stretching approximately 1,300 kilometres (km) from north to south. Vanuatu has a total land area of 12,300 square kilometres (km^2) and an Exclusive Economic Zone (EEZ) of about 680,000 square kilometres (McGree et al., 2023). Fourteen islands are larger than 100 square kilometres, with Espiritu Santo being the largest. The country's highest point is Mount Tabwemasana on Espiritu Santo, rising to 1,879 metres (m) above sea level (McGree et al., 2023).

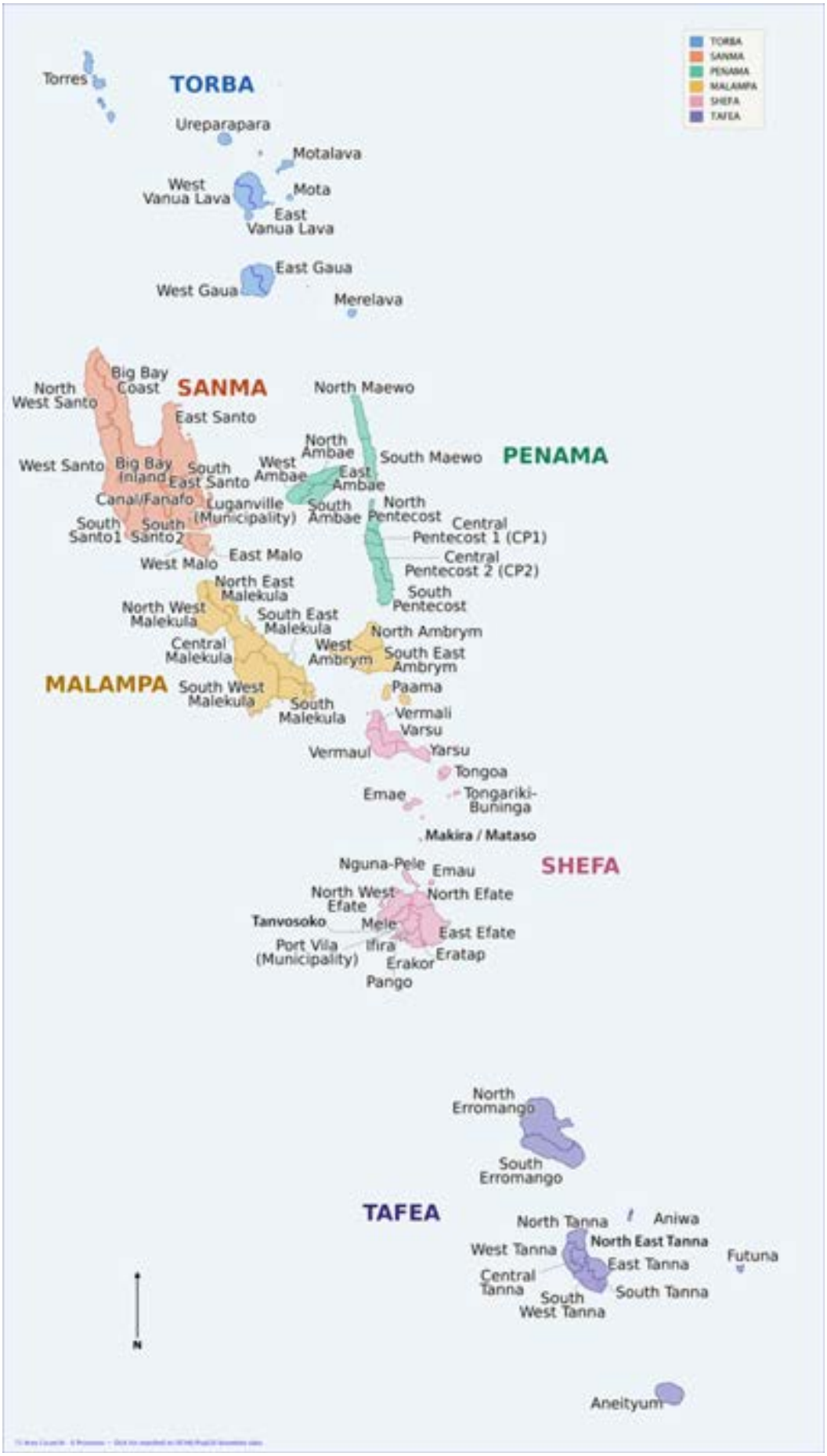


Figure 1. Map of Vanuatu Showing the Six Provinces (Department of Climate Change, 2026)

1.1.5.2 Culture and Heritage

Historical evidence suggests that Vanuatu was first settled over 3,000 years ago (often described as ~3,000-4,000 years) by Lapita navigators, and its culture today reflects a rich Melanesian heritage with strong customary traditions known as kastom (SPC, 2020). Citizens of Vanuatu are called ni-Vanuatu (meaning 'of Vanuatu'). Social life is organised around kinship systems and chiefly authority, with the Malvatumauri (National Council of Chiefs) safeguarding custom and language. Chiefs serve as both the community's primary representatives and custodians of local governance.

Vanuatu is one of the most linguistically diverse nations globally, with more than 130 indigenous languages alongside three official languages: Bislama, English, and French (SPC, 2020). Bislama serves as the national lingua franca, while English and French are used in formal and educational settings. Customary practices such as ceremonial gift exchange and kava drinking in the nakamal (meeting house) remain central to community life. Christianity is the predominant religion, and prayers are commonly offered before meetings and meals, reinforcing the integration of faith and tradition (SPC, 2020).

The **Vanuatu 2030: The People's Plan** explicitly anchors national wellbeing in culture, traditional knowledge, and Christian principles balancing society, environment, and economy to sustain resilience and social harmony. Cultural expressions such as sand drawing (recognised by UNESCO), traditional dance, music, and storytelling are vital to ni-Vanuatu identity and wellbeing, fostering social cohesion and harmony with the environment (SPC, 2020).

Closely linked to the culture, are the ecosystems and environments of Vanuatu which range from mountainous, forest, urban and rural townships, coastal areas, fringing coral reefs and deep-water oceanic areas. Although Vanuatu sits in the East Melanesian Biodiversity Hotspot, an area identified as high in species richness and endemism, due to the relatively young geological age of the Islands of Vanuatu, there tends to be a lower concentration of endemic species than the surrounding older islands (DoCC, 2026). The 2022 State of Environment Report notes a total of 2% of Vanuatu (232 square kilometres) is contained in formal protected areas with 161 additional community Conservation Areas informally conserving marine, inland freshwater and terrestrial areas accounting for 3.4% of the total land area (Ministry of Climate Change Adaptation, 2022). On a local scale, ecosystems are a fundamental part of the cultural and economic structure of Vanuatu, providing a cultural grounding to locals and significant interest for tourists visiting the country.

1.1.5.3 Livelihood and Economy

At the time of the last census in 2020, Vanuatu had a population of approximately 300,000, with 66,753 (22%) people living in urban centres and 233,266 (78%) living in rural areas (Vanuatu National Statistics Office, 2020). Based on an annual growth rate of approximately 2.3%, the population in 2025 was estimated to be closer to 343,000.[2] The urban population is largely concentrated in two main urban areas, Port Vila on Efate and Luganville on Espiritu Santo, with Port Vila serving as the national capital (Vanuatu National Statistics Office, 2020). The country's population is also very young with a median age of 20 and 45% of the population under 18 (Vanuatu National Statistics Office, 2020). Most of the population resides in rural communities with livelihoods dominated by agriculture, fisheries, and services in largely informal settings. Population growth and ongoing urbanisation continue to increase demand for housing, infrastructure, services, and employment, particularly in urban centres.

Vanuatu's working-age population (15+) is 184,200 and the labour force participation rate is 43% (ILO, 2024), with men having a higher labour force participation rate relative to women. Informal employment is substantial (~67%), and most workers are engaged in agriculture and services (ILO, 2024). Primary production remains central to rural livelihoods through subsistence and smallholder activities, producing mainly copra, kava, cocoa, beef, and timber (ILO, 2024). This livelihood structure increases sensitivity to climate shocks that disrupt production, transport access, and market supply – a vulnerability dynamic reflected in the CRVA's sector risk narratives.

Vanuatu is classified as a lower-middle-income economy with an estimated GDP of about USD 1.35 billion and a GDP per capita of roughly USD 4,038.7 (World Bank, 2025). Approximately 16% of the population (47,000 people) is living below the national basic-needs poverty line, and nearly 97% of the poor reside in rural areas (World Bank Group, 2024). Vanuatu ranks 146th out of 193 countries on the Human Development Index (HDI), highlighting persistent deficits in health, education, and income (United Nations Development Programme, 2025).

[2] Population estimates were sourced from the from the Vanuatu Bureau of Statistics website. Estimates are as of 1st June 2025 and are based on projections from the 2020 census.

Vanuatu is classified as a 'high' disaster-risk country by the 2025 World Risk Index. Its exposure, lack of coping capacity and lack of adaptive capacity are classified as 'high', while its vulnerability and susceptibility are classified as 'medium' (Bündnis Entwicklung Hilft & IFHV, 2025). This composite index provides national context, while the CRVA provides the more detailed evidence used to inform adaptation priorities. In Vanuatu, vulnerability to natural hazards is compounded by limited institutional and economic capacity, which are further exacerbated by inadequate transport infrastructure, high transportation costs, and unreliable services. Efforts to achieve inclusive and environmentally sustainable growth are constrained by a small domestic market, narrow economic base, and low levels of economic diversification. An export concentration index that increased from 0.225 in 2018 to 0.368 in 2024 – above the Oceania average of 0.269 – shows limited diversity in Vanuatu's exports, which are largely dominated by kava.[3]

Despite these challenges, Vanuatu has strong potential to diversify its economy beyond subsistence agriculture and traditional sectors. Key opportunities include expanding ecotourism and cultural tourism, improving digital connectivity, and adding value to agriculture and fisheries to boost rural incomes. National strengths supporting these efforts include rich cultural heritage, abundant natural resources, and a strategic Pacific location, complemented by regional labour mobility programmes that increase remittances and skills transfer (Asian Development Bank, 2025).

1.2 Institutional Arrangements

1.2.1 Mandate for the NAP Process

The mandate for Vanuatu's (NAP) is established through Vanuatu's national legislative and policy framework for integrated climate change adaptation and disaster risk reduction. The Meteorology, Geological Hazards and Climate Change Act 2016 (No. 25 of 2016) established the National Advisory Board on Climate Change and Disaster Risk Reduction (NAB) and sets out a national governance mechanism to strengthen coordination and oversight for climate- and hazard-related initiatives.

The NAP also has synergies with the national policy direction, including the Vanuatu Climate Change and Disaster Risk Reduction Policy 2022–2030 (Second Edition), and aligns with national development priorities under the National Sustainable Development Plan 2016–2030 (Vanuatu 2030 / The People's Plan). In this way, the NAP supports a consistent national approach to mainstreaming climate and disaster risk considerations into sector and subnational planning and implementation.

The NAP recognises that each sector is guided by its own policies, strategies, and plans. The purpose of the NAP is therefore to harmonise and strengthen sectoral and cross-sectoral adaptation planning, improve coordination, and support implementable delivery across Vanuatu's islands.

1.2.2 Proposed Governing Arrangements

Addressing climate change impacts in Vanuatu requires a whole-of-government approach, supported by a whole-of-society delivery model. While line ministries and responsible agencies remain accountable for implementing adaptation actions within their mandates, the NAP's governing arrangements are designed to ensure national coherence, reduce duplication, and minimise maladaptation.

National Coordination and Oversight

The NAB provides a central cross-government mechanism for coordinated oversight and alignment of priorities, including appraisal and endorsement functions for relevant initiatives in line with its legislative mandate. The Ministry of Climate Change Adaptation, Meteorology and Geo-Hazards, Energy, Environment and National Disaster Management (MoCC) and its climate change functions support this role by providing day-to-day coordination, convening, and reporting support.

The NAP recommends that the National Joint Working Group on the National Gender Equality Policy (NGEP) and

[3] https://www.wto.org/english/news_e/news_docs/pages_from_s481_sum_e.pdf

Convention on the Elimination of All Forms of Discrimination Against Women (CEDAW) serve as a coordination interface between NAP implementation and national gender equality, disability and social inclusion priorities. This coordination should be facilitated through the Director of Women's Affairs, who is represented on the National Advisory Board on Climate Change and Disaster Risk Reduction (hereafter referred to as the National Advisory Board). This proposed arrangement would draw on an existing national coordination mechanism without creating a new body, while the National Advisory Board would retain its overall responsibility for oversight and coordination of NAP implementation. This arrangement would help strengthen GEDSI integration by ensuring that NAP implementation is informed by existing expertise, priorities and commitments under the NGEP and CEDAW, while promoting more inclusive and equitable climate **adaptation outcomes.**

Sector Implementation Accountability

Line ministries and responsible agencies implement actions within their respective sector mandates. They integrate NAP priorities into sector plans, annual workplans, budgets and routine delivery systems, including the operation and maintenance of schools, clinics, roads, ports, electricity and water supplies. Where actions involve more than one sector, the lead agency coordinates the programme while supporting agencies remain accountable for their assigned components. Recovery responsibilities remain with the relevant government agencies under existing arrangements.

Strategic Integration with National Development

Implementation of the NAP is integrated with national planning and budgeting processes so that adaptation priorities are reflected in public investment decisions and sector performance management. This includes coordinated engagement with central planning and public finance functions to ensure feasibility, continuity, and alignment with Vanuatu's broader development priorities.

1.2.3 Subnational Implementation and Vertical Integration

Vanuatu's geography requires delivery mechanisms that work from national level through to provinces, municipal councils, area councils and communities. Subnational implementation is structured so that:

- national policy and financing settings translate into practical decisions at provincial, municipal councils, area council, communities and local levels; and
- people's experiences and priorities inform national decision-making, sequencing, and learning over time.

Local delivery uses existing subnational governance and community decision channels, consistent with Vanuatu's decentralisation framework. In practice, this means adaptation is planned and delivered in ways that reflect each island's unique circumstances, including its level of isolation, climate and hazard exposure, infrastructure and service access, institutional capacity, and connectivity, while remaining aligned with national priorities, standards, and accountability requirements. It also ensures that proposed adaptation actions are relevant to all members of the community, including vulnerable people.

1.2.4 Stakeholder Participation and Partnerships

Successful NAP implementation depends on structured participation across society. Participation must be:

- practical – fit for the island context, capacity, connectivity and distance,
- inclusive – of people of all genders, persons with disabilities, sexual minorities, older people, and people in high-risk coastal and remote communities where access to services and recovery options are limited), and
- purpose-driven – clear about how input influences decisions.

Civil society coordination mechanisms, such as the Vanuatu Association of NGOs (VANGO) and the Vanuatu Climate Action Network (VCAN), can support coherent engagement and reduce fragmentation, while maintaining alignment with national priorities and locally led delivery.

Stakeholder engagement processes must proactively seek to engage the voices of those often excluded from national and community dialogues. Recognising those most vulnerable to climate change, it is important to seek out and elevate their knowledge and leadership in the process of adaptation. For example, providing meaningful opportunities for adolescent girls and youth representatives to participate could strengthen their ability to influence decisions, contribute local knowledge, and help shape the resilient and inclusive future they want for their

communities, while ensuring adaptation actions remain relevant, effective and sustainable.

Relevant sector agencies should identify existing officers or focal points to support GEDSI mainstreaming, implementation and reporting during NAP delivery, working through the NAB and existing national gender and disability coordination mechanisms. These officers or focal points can help facilitate consideration of the needs and priorities of women, children, youth, persons with disabilities and older persons within sector planning and implementation processes.

Where NAP actions intersect with climate-related displacement and mobility, implementation aligns with the National Policy on Climate Change and Disaster-Induced Displacement (2018) to protect rights, dignity, and durable outcomes for affected communities. The National Disaster Management Office (NDMO) works with relevant sector agencies and provincial authorities within their existing mandates. Displacement-related information is handled securely, with access restricted to authorised users, while continuity of essential services and protection support reflects the needs of women, girls, persons with disabilities and other affected groups.



Table 2. Summary of Proposed Institutional Roles

Institution/Body	Role in NAP implementation
National Advisory Board on Climate Change and Disaster Risk Reduction	**Oversight and alignment:** cross-government mechanism for coordinated oversight, appraisal and endorsement of relevant initiatives in line with its legislative mandate.
MoCC Department of Climate Change (DoCC),	**Coordination:** supports the NAB and coordinates day-to-day NAP implementation functions, including reporting and implementation support across sectors. Sector agencies retain responsibility for delivery within their respective mandates.
Line ministries and responsible agencies	**Implementation:** integrate and deliver NAP actions within sector mandates through sector plans, workplans, budgets and routine delivery systems.
Department of Strategic Policy, Planning and Aid Coordination (DSPPAC) and Ministry of Finance and Economic Management (MFEM)	**Integration:** supports alignment with national development planning and budgeting processes, helping ensure feasibility and continuity of implementation.
Department of Women's Affairs and relevant government GEDSI focal points	**Equality:** connect NAP implementation with existing gender equality and disability inclusion mechanisms, support sector agencies to apply inclusive approaches, and contribute to monitoring and review.
Provincial and local governance structures	**Local delivery:** connect PAP priorities with development plans, local implementation and monitoring, and bring community priorities and experience into provincial and national review through existing technical and planning arrangements.
Customary institutions, community structures, civil society organisations	**Community participation:** contribute local priorities and knowledge, support co-design and locally led delivery, and provide feedback on benefits, access and unintended impacts.
VANGO / VCAN, NGOs and development partners	**Partnerships for implementation:** facilitates development partner and NGO coordination, delivery and structured engagement to support locally led delivery and reduce fragmentation.
Youth-led networks (e.g., Vanuatu Youth Council, provincial youth committees)	**Youth participation:** bring youth priorities and knowledge into planning, delivery and monitoring through accessible and meaningful participation.
Women-led Organisations	**Partnership for gender equality:** contribute women's priorities, knowledge and leadership to adaptation decisions and review the accessibility and distribution of benefits.
Organisations of Persons with Disabilities	**Partnership for disability inclusion:** contribute priorities and lived experience, advise on accessibility, and support meaningful participation and review of adaptation outcomes.
Relevant agencies and partners for displacement and mobility policy	**Policy alignment:** support alignment with the National Policy on Climate Change and Disaster-Induced Displacement (2018) where NAP actions intersect with displacement and mobility.

1.3 Policy Alignment

The NAP for Vanuatu is designed to complement and build upon the country's existing legal and policy frameworks. It is not intended to replace or duplicate existing strategies, but rather to serve as a strategic instrument that integrates climate adaptation across sectors and levels of governance. The NAP draws from and reinforces key national documents including:

- Vanuatu Climate Change and Disaster Risk Reduction Policy 2022–2030 (Second Edition)
- the NSDP 2016–2030 (Vanuatu 2030 the People's Plan) (Department of Strategic Policy, Planning and Aid Coordination, 2016)
- National Gender Equality Policy (2020–2030) (Government of the Republic of Vanuatu, 2021)
- National Disability Inclusive Development Policy 2018–2025 (Ministry of Justice and Community Services, 2018)

Other relevant strategies and plans including:

- National Energy Road Map 2016–2030 (Department of Energy, 2019).
- the Long-Term Low Emissions Development Strategy 2022–2050 (LEDS) (UNFCCC, 2022).
- the National Water Strategy 2018–2030 (Department of Water Resources, 2017).
- Vanuatu Meteorology and Geo-Hazards Department's National Strategy and Framework for Weather, Climate, Hydrological and Ocean Services 2024–2029.
- the Vanuatu Digital Transformation Master Plan 2024–2030 (Department of Communications and Digital Transformation, 2025).
- Vanuatu National Security Strategy 2019 (Government of Vanuatu, 2019).

This NAP aligns with the Pacific regional Framework for Resilient Development in the Pacific 2017–2030 (FRDP) (Pacific Resilience Partnership, 2020) for integrated climate and disaster resilience and supports implementation of Vanuatu's NDC adaptation commitments under Vanuatu's Nationally Determined Contribution 3.0 2025–2035 (The Government of Vanuatu, 2025).

This NAP is aligned with Vanuatu's commitments under the 2030 Agenda for Sustainable Development and its Sustainable Development Goals (SDGs), as well as the Sendai Framework for Disaster Risk Reduction 2015–2030 (United Nations, 2015), by promoting integrated approaches to climate resilience, disaster risk reduction, sustainable development, and inclusive risk-informed decision-making.

Customary law and traditional governance are central to effective adaptation in Vanuatu. The NAP reflects these principles in its design and implementation so that adaptation measures are technically sound, socially inclusive and culturally appropriate. This approach recognises the relationship between statutory law and customary practices, and the contribution of traditional knowledge to resilience.

To strengthen these strategic linkages in practice, the NAP sets out an implementation architecture (Chapter 6) to support cross-sector coordination, consistent decision-making, and coherent mobilisation of finance and partnerships – while maintaining sector accountability for delivery.

1.3.1 Strategic Policy Linkages

The NAP builds on earlier efforts such as the Vanuatu National Adaptation Programme of Action (NAPA), 2007, which focused on urgent and immediate needs. In contrast, the NAP aims for a more comprehensive and longer-term approach, integrating inclusive climate adaptation and its contribution to disaster resilience into national development planning. It draws on the CCDRR Policy's integrated framework, which links adaptation and disaster risk reduction, and translates its strategic directions into actionable plans.

Alignment of the NAP with the NSDP 2016–2030 (Vanuatu 2030 / The People's Plan) helps embed climate adaptation and is embedded within the broader vision for sustainable development. This includes respecting indigenous rights, promoting inclusive governance, and drawing on traditional knowledge systems. The NAP also aligns with related strategies such as the LEDS and National Environment Policy and Implementation Plan (NEPIP), which emphasise decarbonisation, ecosystem-based adaptation, and community ownership. Sector plans, for example the Health National Adaptation Plan (HNAP), should be recognised as

sector-owned implementation instruments within this architecture.

The NAP responds directly to the commitment in Vanuatu's NDC 3.0 (2025–2035) to develop a National Adaptation Plan (A112) and supports delivery of relevant adaptation commitments through its national priority actions and enabling measures (The Government of Vanuatu, 2025). Table 3 identifies these contributions across the nine sectors. The sector priority tables and action crosswalk retain links to the source priorities and provincial actions. The delivery arrangements in Chapter 6, supported by the finance and MERL companion documents, connect these priorities with investment planning, potential funding sources and the assessment of implementation and adaptation outcomes. Evidence and lessons from national and provincial implementation can inform future NAP and Government-led NDC reviews, including refinements to adaptation targets, indicators and investment priorities.

Table 3. Contribution of the 27 National Priority Adaptation Actions to Selected NDC 3.0 Adaptation Commitments

Sector	NAP priority actions (summary)	Relevant NDC adaptation commitments and contribution
Agriculture	NAP-AGR-01: Crop and local food production. NAP-AGR-02: Livestock resilience. NAP-AGR-03: Agricultural preparedness and recovery.	Crop production, climate advice and traditional practices support A3–A4 and A7–A9. Livestock training and suitable breeds support A32–A33. Preparedness, producer skills and recovery support A2, A5–A6, A10 and A31.
Ecosystems	NAP-ECO-01: Ecosystem conservation, restoration and monitoring. NAP-ECO-02: Community food security. NAP-ECO-03: Catchment and water-source protection.	Community conservation, stewardship and ecosystem-based adaptation support A54, A57–A58 and A61–A62. Local food systems and traditional practices support A3 and A9. Catchment restoration and water-source protection support A37.
Education	NAP-EDU-01: Resilient schools and essential services. NAP-EDU-02: School safety and learning continuity. NAP-EDU-03: Climate learning and skills. Includes MoET priorities.	School infrastructure, Health Promoting Schools, WASH, power and connectivity support A95–A97 and A100. Inclusive access, preparedness, protection and warnings support A91–A93 and A98–A99. Curriculum, teacher education and traditional knowledge support A87 and A94.
Fisheries	NAP-FIS-01: Community fisheries management and safer fishing. NAP-FIS-02: Resilient production and value chains. NAP-FIS-03: Research, monitoring and advisories.	Community fisheries management, traditional practices and appropriate technologies support A14, A16 and A64. Production, livelihoods and adaptation skills support A15–A16. Stock monitoring and climate-impact assessment support A17.
Forestry	NAP-FOR-01: Forest restoration and sustainable management. NAP-FOR-02: Mangroves and natural coastal buffers. NAP-FOR-03: Climate-informed forestry planning.	Forest restoration, suitable species and community management support A20, A22, A23 and A28–A30. Mangrove and shoreline protection supports A21 and A30. Risk monitoring, studies and restoration mapping support A19, A24 and A30.
Health and Nutrition	NAP-HN-01: Essential health-service continuity. NAP-HN-02: Climate-health assessment, surveillance and response. NAP-HN-03: Nutrition and community health.	Resilient services, emergency procedures, cold chains and protection referrals support A44–A45 and A49–A52. Surveillance and timely response support A44–A45 and A51. Nutrition preparedness and mental health and psychosocial support contribute to A46–A48.
Infrastructure	NAP-INF-01: Risk-informed planning and standards. NAP-INF-02: Resilient transport, drainage and slopes. NAP-INF-03: Shared lifelines and public facilities.	Land-use controls, risk assessment and infrastructure standards support A53 and A71–A73. Resilient transport and access support A71–A73. Shared communications, resilient facilities and backup arrangements support A70–A73.

Sector	NAP priority actions (summary)	Relevant NDC adaptation commitments and contribution
Tourism	NAP-TOU-01: Risk-informed tourism planning and assets. NAP-TOU-02: Preparedness and business continuity. NAP-TOU-03: Community tourism and diversified livelihoods.	Climate-informed siting, resource inventories and environmental and social assessment support A117 and A119–A120. Risk awareness and preparedness support A118. Operator–community partnerships and tourism diversification support A123–A124.
Water, Sanitation and Hygiene (WASH)	NAP-WASH-01: Reliable and diversified water supplies. NAP-WASH-02: Inclusive, resilient WASH services. NAP-WASH-03: Water safety and hygiene.	Water-resource mapping, storage and reliable supplies support A34–A35 and A39. Resilient services and preparedness support A34, A36 and A40. Source protection, Drinking Water Safety and Security Plans and hygiene support A37–A38, A40 and A42.

Source: Government of Vanuatu (2025), Vanuatu's Nationally Determined Contribution 3.0, adaptation commitments; NAP priority action list and action crosswalk. Action summaries are provided for policy alignment; the sector priority tables retain the full action wording. The table identifies contributions to selected commitments and does not imply delivery of each NDC commitment or target in full. A contribution to more than one NDC commitment does not create an additional NAP action. Shared expenditure and results are recorded consistently to avoid double counting.

The enabling arrangements also support NDC commitments on decentralised coordination and local planning (A104–A105), climate governance and policy integration (A108–A109), gender-responsive monitoring and learning (A79), and climate finance and gender-responsive budgeting (A128 and A130).

Adaptation plans need to fit coherently within existing development plans and processes to support implementation at provincial, municipal, Area Council, local and community-levels. Figure 2 illustrates how national priorities, provincial planning and community needs inform an integrated planning and delivery system.

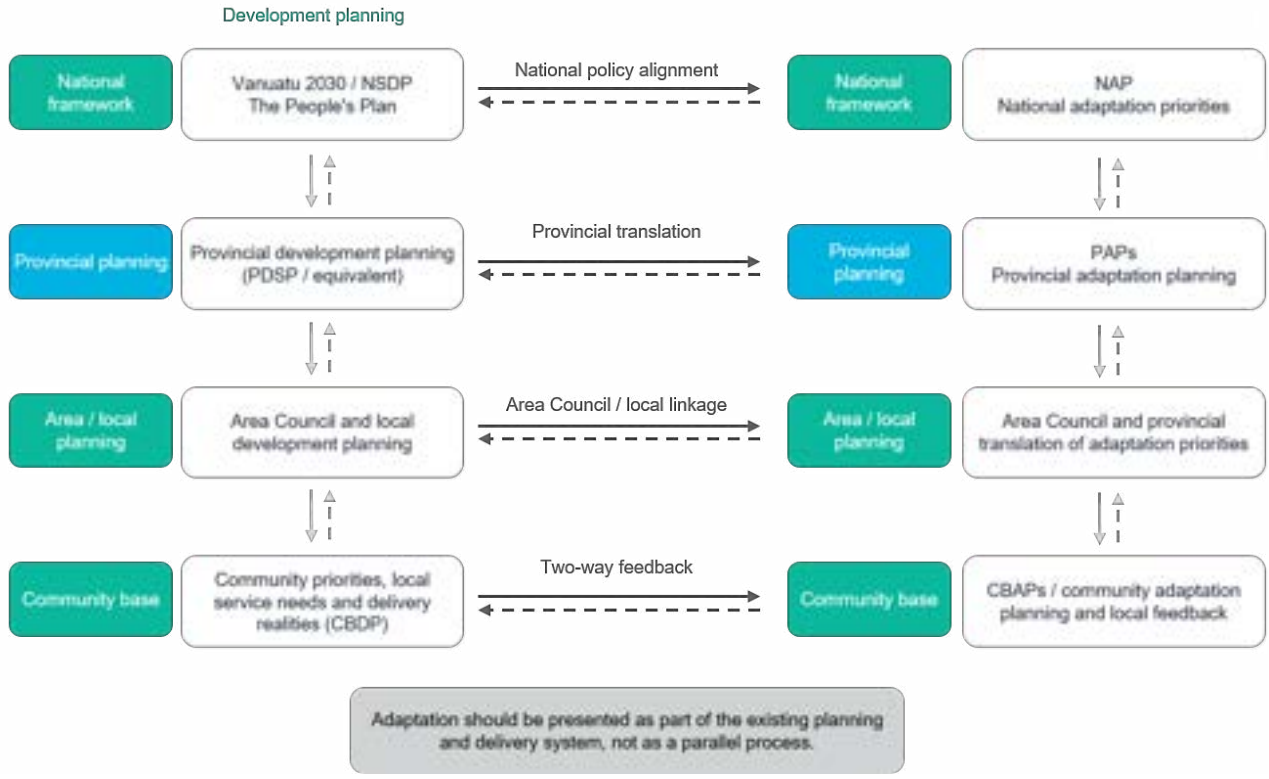


Figure 2. National, Provincial and Community Planning Architecture Validated through the Workshop Consultations and Follow-Up Review

1.3.2 Alignment with Provincial Adaptation Plans

The PAPs translate national adaptation priorities into provincial actions that respond to local climate risks, development priorities and community needs. They operate as adaptation companions to provincial development plans and connect priorities with provincial planning, budgeting and monitoring. In turn, provincial priorities, implementation experience and learning inform national adaptation reporting and NAP reviews.

Similarly, integration of community and village priorities from Community-based Adaptation Plans (CBAPs) informs provincial priorities through Area Council screening and review by the Provincial Technical Advisory Committee (PTAC) which brings together provincial technical and sectoral representatives. This helps to align community priorities with provincial planning, budgeting, implementation and monitoring processes.

Vanuatu's decentralised governance structure, established under the Decentralisation Act [CAP 230] (originally enacted as Act No. 1 of 1994), provides a strong foundation for local adaptation planning. Provincial governments and customary authorities play a critical role in implementing climate strategies at the community level. The NAP acknowledges this and emphasises the need for alignment between national and provincial plans, ensuring that adaptation actions are locally relevant and culturally appropriate.

This alignment is particularly important given the diversity of customs and governance systems across Vanuatu's islands. The NAP must therefore be flexible enough to accommodate local variations while maintaining coherence with national objectives. Decision-making processes must involve chiefs, landowners, and community members, respect customary authority and ensure informed consent.

To support delivery, the NAP provides practical guidance for provincial and local adaptation planning that reflects national priorities while allowing local tailoring and includes capability-strengthening actions for provincial authorities and Area Councils to support facilitation, prioritisation, and implementation.

1.3.3 Streamlining Implementation for Climate Resilience

Effective implementation of the NAP requires a coordinated and inclusive governance approach that respects both statutory and customary law. The NAP emphasises the importance of transparency, consultation, and community-led initiatives, recognising that adaptation must be grounded in local realities. It supports the use of existing legal tools, such as environmental impact assessments and land tenure laws, to support adaptation projects.

The NAP also advocates for decentralised implementation, empowering communities to lead adaptation actions that reflect their specific needs and knowledge systems. This includes integrating traditional practices into formal planning and ensuring that decisions are made with the free, prior, and informed consent of affected groups.

Implementation of the NAP should avoid actions that increase exposure or vulnerability, including by shifting risks to other communities or ecosystems. This requires intersectional gender and social analysis to understand how proposed interventions affect women, girls, gender-diverse people, persons with disabilities and other groups facing barriers to participation or support. Environmental and social assessment should consider these effects, including risks of gender-based violence, and identify appropriate safeguards.

To streamline implementation, the NAP will operate through the NAB-supported coordination arrangements set out in Chapter 6, with clear reporting, escalation, and learning loops across sectors and provinces. Where enabling legal or procedural safeguards are identified as necessary (e.g., to protect community-led adaptation or manage displacement risks), these will be progressed through the agreed policy and legislative pathways, consistent with national law and the displacement policy.



CHAPTER

02

Climate Risks and Vulnerabilities

2.1 How Risk Evidence Is Used in the NAP

This section provides the evidence base for sectoral risk analysis and adaptation planning and is intended to be read as the "risk baseline" for the NAP.

Understanding how a changing climate affects people and systems supports better adaptation decisions. Climate risk arises through the interaction of :

- climate related **hazards**,
- the people, assets and systems **exposed** to those hazards
- their **vulnerability**, including sensitivity and capacity to cope and adapt
- The risk framework is conceptualised in Figure 3.

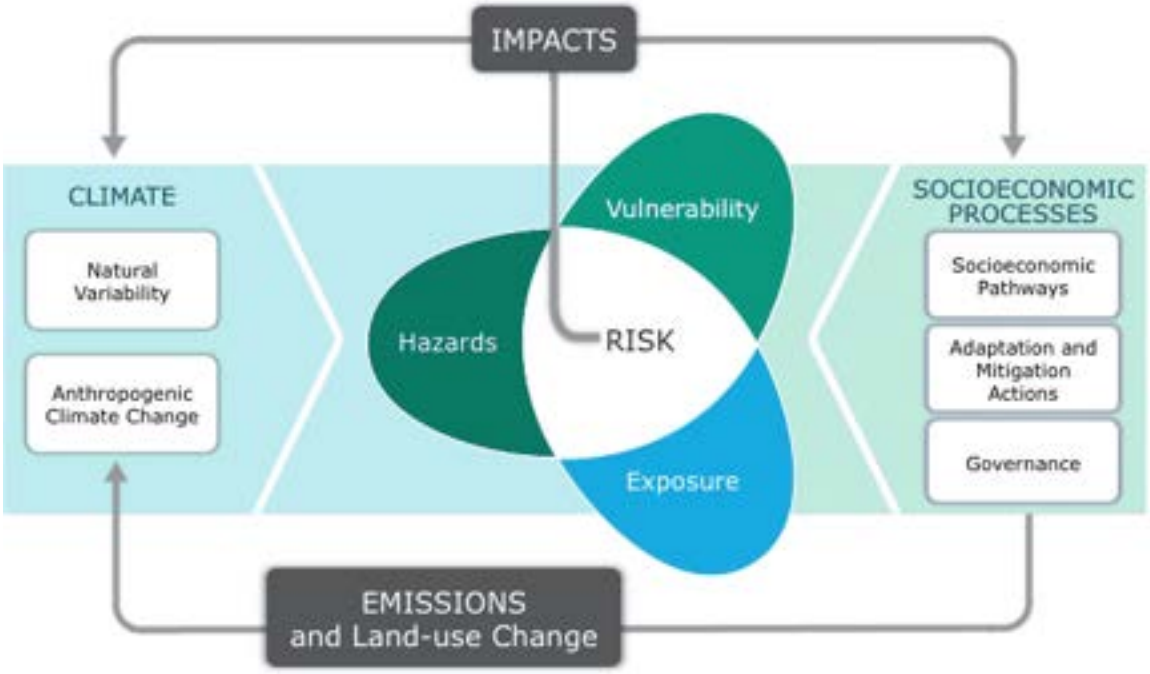


Figure 3. Conceptual risk framework. Sourced from Figure 1 of Climate change 2014: impacts, adaptation, and vulnerability – fifth Assessment Report summary for policymakers (IPCC, 2014)

Climate risk information is a core input to the formulation of a National Adaptation Plan (NAP). Vanuatu's current and future climate risks presented in this NAP draw primarily on Vanuatu's national Climate Risk and Vulnerability Assessment (CRVA). The CRVA synthesises national hazard and exposure information (including Van-KIRAP, ocean hazard modelling, Coupled Model Intercomparison Project (CMIP) projections and Commonwealth Science and Industrial Research (CSIRO) climate projections) alongside local observations and sector evidence. Where possible, a quantitative risk assessment was undertaken in the CRVA; however, where numerical data were scarce or absent, a more qualitative process was applied.

The CRVA draws on datasets with different methods, timeframes and geographic coverage. Quantitative coverage is strongest where hazard and asset information is available; social vulnerability, adaptive capacity and some sector and hazard combinations are less fully assessed.

Absence from a modelled area or dataset does not demonstrate low risk. The NAP therefore combines the CRVA with sector evidence, stakeholder knowledge and local experience. It does not use incomplete exposure counts to produce a national ranking across unlike hazards. Site-specific decisions use the relevant assessment coverage, scenario and limitations alongside local conditions.

Risk statements in Chapter 5 identify what is at risk, the relevant climate hazards and the consequences for people, livelihoods, ecosystems or services. The sector narratives explain the factors that increase exposure and vulnerability and justify the proposed adaptation actions. Detailed methods, maps and assessment results remain in the CRVA.

2.2 Current and Future Climate Conditions for Vanuatu

2.2.1 Introduction

This section summarises the climate evidence used in the CRVA (DoCC, 2026[4]). The CRVA draws on ***Van-KIRAP*** and CSIRO climate and ocean-hazard research to support a consistent national evidence base (CSIRO, 2023; CSIRO, SPREP, VMGD, 2023a–c). The summary informs screening of climate risks and national adaptation priorities. Local planning and investment decisions also require information appropriate to the site, service or ecosystem being considered, including the relevant hazard coverage, exposure, vulnerability and expected lifetime of the decision.

Vanuatu experiences year-to-year variability driven by large ocean–atmosphere patterns impacting the climate at sub-weekly, multidecadal timescales, which in turn influence the overall rainfall amount as well as tropical cyclone and convective activity. One of the key systems for Vanuatu is the El Niño–Southern Oscillation (ENSO) which shifts other large systems on a multi-year timeframe, impacting patterns like the South Pacific Convergence Zone (SPCZ). The SPCZ contributes to the two distinct seasons experienced in Vanuatu; the wet season occurring November to April and the dry season occurring May to October. The wet season is associated with the north-west monsoon, which brings increases in rainfall, humidity and temperatures (University of Hawaii, CSIRO and Climate Comms, 2023a). The dry season, from May to October, is dominated by the south-east trade winds and is generally drier and cooler than the wet season. Although the country generally has the same climate, local conditions vary substantially between islands due to latitude, topography, exposure to prevailing winds, and ocean conditions (University of Hawaii, CSIRO and Climate Comms, 2023a; CSIRO, SPREP, VMGD, 2023b).

How to Read Projections (Scenarios, Timeframes and Uncertainty)

Van-KIRAP products use a combination of climate model ensembles and emissions pathways. Some analyses are presented using Representative Concentration Pathways, referred to as RCP's (e.g., RCP2.6, RCP4.5, RCP8.5), and others use Shared Socioeconomic Pathways, known as SSPs (e.g., SSP1-2.6 and SSP5-8.5). For NAP purposes, these can be interpreted as broadly comparable "lower" and "higher" emissions futures. Projections are presented as ranges because uncertainty increases further into the future and differs by variable, for example temperature is generally more consistent than rainfall and tropical cyclones (CSIRO, SPREP, VMGD, 2023b). The Van-KIRAP products present future climate projections based on four time periods centred on 2030, 2050, 2070 and 2090. Timeframes are a useful guide for managing future climate uncertainty when undertaking long term planning. This means that under higher emission scenarios the timeframe when a threshold will be reached occurs earlier than under a lower emission scenario.

2.2.2 Natural Climate Variability

Natural variability (especially ENSO) strongly influences rainfall, sea level, tropical cyclone behaviour, and marine conditions around Vanuatu. This variability can temporarily amplify or mask longer-term climate change signals and is a

[4] Administrative boundary note: The quantitative CRVA was undertaken using the 2024 Area Council and municipal boundary datasets available at the time of analysis. Updated 2025 boundary data have since been incorporated into Resilience Explorer. Comparative analysis indicates high consistency between datasets and national/sector findings are not expected to be materially affected, but location-specific interpretation should use the updated Resilience Explorer filters and the Data Update Addendum.

key reason why planning should rely on ranges and risk-based thresholds rather than single numbers for future projections (see Figure 4) (University of Hawaii, CSIRO and Climate Comms, 2023a; CSIRO & SPREP, 2021; McGree et al., 2023).

What this means for planning: variability affects the timing and severity of impacts in any given year. The NAP therefore promotes a flexible adaptation pathway approach, where decisions are monitored and adjusted over time as climate knowledge and local conditions evolve.

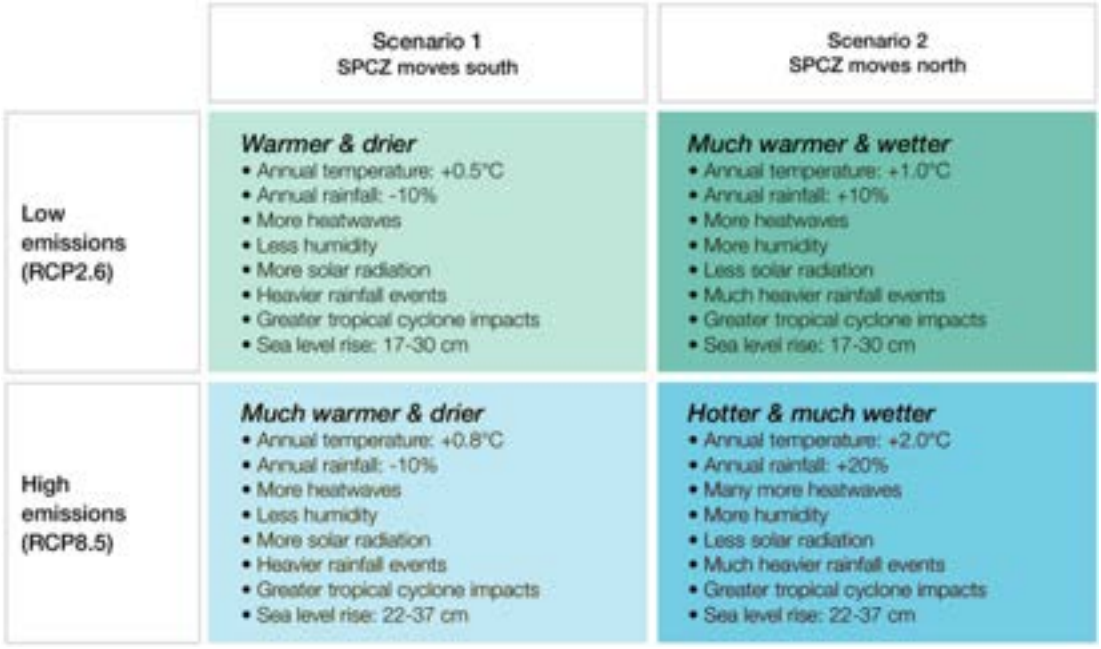


Figure 4. Standardised Scenarios for Vanuatu for the Period 2040–2059 relative to 1986–2005 for Low and High Emission Pathways and Indicative Climate Change Risk (CSIRO & SPREP, 2021)

2.2.3 Atmospheric Climate Conditions

2.2.3.1 Air Temperature

Temperature Observations and Trends

Air temperatures in Vanuatu have increased in line with the broader Pacific warming trend. Regional synthesis indicates approximately 0.7°C warming since the pre-industrial baseline, with more hot days and warm nights, and fewer cool days and cool nights (University of Hawaii, CSIRO and Climate Comms, 2023b; CSIRO & SPREP, 2021).

Although warming in tropical regions can appear smaller than in mid-latitudes, this does not imply lower risk. Tropical ecosystems and many livelihoods operate within narrower historical temperature ranges, so relatively modest warming can lead to disproportionate impacts (University of Hawaii, CSIRO and Climate Comms, 2023b).

As mean air temperatures rise, the frequency, duration, and intensity of heat extremes increase. This has direct implications for:

- human health (heat stress),
- natural, terrestrial and marine ecosystems,
- water demand and drought sensitivity,
- crop and livestock productivity, and

- infrastructure performance (e.g., materials, maintenance cycles) (CSIRO, SPREP, VMGD, 2023b).

Implications for planning: Heat steadily changes the operating conditions for communities, ecosystems, services, and outdoor labour, affecting work, school attendance, health-risk, and asset maintenance.

Projected Air Temperatures

Future warming is projected under all scenarios. By mid-century, warming is in the order of:

- around **+0.6°C** (range approximately 0.4–1.0°C) under a lower emissions pathway; and
- around **+1.2°C** (range approximately 0.9–1.6°C) under a higher emissions pathway. (CSIRO, SPREP, VMGD, 2023b).

In addition to overall warming, annual hottest day is projected to increase as shown in Table 4

Table 4. Projected Change in the Annual Hottest Day (TXx) and the 1-in-20-Year Extreme Maximum Daily Temperature (°C) (Kirono, et al., 2023)

Region	Hottest day of the Year (TXx)				1-in-20 Year Extreme Daily Max Temperature			
	2030	2050	2070	2090	2030	2050	2070	2090
Vanuatu North	0.7 (0.5 – 1.0)	1.3 (0.7 – 1.7)	1.9 (1.0 – 2.4)	2.7 (1.0 – 3.3)	0.7 (0.4 – 0.8)	1.2 (0.6 – 1.6)	1.9 (0.8– 2.3)	2.7 (0.9 – 3.1)
Vanuatu Central	0.7 (0.5 – 0.9)	1.3 (0.8 – 1.6)	2.0 (0.9 – 2.4)	2.7 (1.0 – 3.3)	0.7 (0.4 – 0.7)	1.2 (0.7 – 1.7)	1.9 (0.7 – 2.2)	2.7 (0.9 – 3.1)
Vanuatu South	0.6 (0.5 – 0.9)	1.4 (0.8 – 1.5)	2.1 (0.8– 2.5)	2.9 (1.0 – 3.6)	0.6 (0.5 – 0.9)	1.5 (0.6 – 1.7)	2.0 (0.7 – 2.4)	2.7 (0.7 – 3.5)

Note: Table 4 shows temperature that has on average a 5 per cent chance of happening in any given year (1 in 20-year event) for the three sub-regions in Vanuatu, over four future time periods (2030, 2050, 2070 and 2090). Values shown are the multi-model median with range (minimum to maximum) in brackets based on five Conformal Cubic Atmospheric Models (CCAMs)

2.2.3.2 Rainfall

Rainfall Observations and Trends

Rainfall in Vanuatu is strongly seasonal and highly variable, driven by SPCZ dynamics and ENSO. Flooding and landslides are often driven by short-duration extremes rather than annual totals. Long-term trends in annual rainfall are not clear over recent decades, and predicted future trends are subject to substantial variability. However, rainfall extremes remain a key driver of impacts such as flooding, landslides, and service disruption (University of Hawaii, CSIRO and Climate Comms, 2023a; CSIRO, SPREP, VMGD, 2023c).

Implications for planning: rainfall variability already drives disruption, so preparedness and service continuity planning should assume periodic severe floods and landslides will continue even where long-term trends are unclear.

Projected Rainfall

Projections of average rainfall in the future remain less certain than temperature, and results vary by season, location, and model. The practical planning implication is to treat average rainfall change as uncertain, while designing for more intense rainfall extremes and maintaining flexibility in water resource and flood management decisions (CSIRO, SPREP, VMGD, 2023c).

While changes in average rainfall are uncertain, extreme rainfall intensity is projected to increase. Rainfall intensity matters more for flooding, landslide, and drainage design thresholds than changes in annual totals (CSIRO, SPREP, VMGD, 2023c). Indicative Van-KIRAP projections for extreme daily rainfall (10 to 100-year return periods) show increases for major urban centres, as shown in Table 5.

Table 5. Indicative Van-KIRAP Projections for Extreme Daily Rainfall Rates (10 to 100-Year Return Periods) for Major Urban Centres (CSIRO, Federation University, Climate Comms, 2023)

Location	Scenario	2040–2070	2070–2100
Port Vila	Lower scenario - RCP 4.5	+21%	+30%
	Higher scenario - RCP 8.5	+40%	+70%
Luganville	Lower scenario - RCP 4.5	+18%	+27%
	Higher scenario - RCP 8.5	+26%	+57%

Implications for planning: while changes in average rainfall remain uncertain, the strongest and most relevant signal for decision-making is an increase in extreme rainfall intensity, which drives flooding, landslide, and drainage risks. More intense downpours increase pressure on drainage capacity, flood pathways, and slope stability, necessitating the prioritization of performance under extreme events rather than average rainfall conditions during asset design and upgrades.

2.2.3.3 Sea-Level Rise

Sea-Level Rise Observations and Trends

Sea-level rise is already affecting Vanuatu, particularly in the western tropical Pacific, where it increased by around 10–15 cm between 1993 and 2020 (CSIRO, 2023). While sea-level rise is a global phenomenon, where a number of contributing factors have led to global rise in sea level, occurrence rates are not equal globally. Observed relative sea level at specific sites can differ from regional patterns due to amplification or offset of rise from vertical land motion through tectonic uplift/subsidence or sediment compaction. These factors have led to the western Pacific experiencing greater relative sea level than in parts of the central and eastern tropical Pacific. Changes in land motion led to differences between tide gauge trends and satellite altimetry over time (University of Hawaii, CSIRO and Climate Comms, 2023a).

Sea-level rise causes higher coastal water levels, which increases the likelihood and severity of flooding and erosion in low-lying areas (Marra et al., 2022).

Implications for planning: higher background sea levels mean that high tides and storms start from a higher baseline or starting point for coastal hazards, so coastal flooding and erosion thresholds are reached more often. Events that used to be “rare” high-water levels can become more frequent, increasing disruption risks for coastal settlements, infrastructure, and services. The highest impacts from coastal inundation often come from compounding events, such as a high tide combined with storm surges and waves. Climate-resilient coastal planning needs to treat these as a combined hazard.

Sea-Level Rise Projections

Sea-level rise projections in this NAP draw on the Van-KIRAP medium projections under RCP pathways, relative to 1995 baseline (Figure 5) (DoCC, 2026; CSIRO, 2023). Figure 5 presents the projected sea-level rise for Vanuatu for three climate scenarios over the period from 2020–2150 at 10-year intervals. The mean value is represented by the point while shaded areas represent the 17th to 83rd percentile. Beyond 2050, the spread between the three pathways widens (Figure 5). To respond to the widening impacts, the Vanuatu NAP emphasises implementing low-regret actions, staged decisions, monitoring, and adaptation pathways, particularly for long-life coastal assets. The data shows that at the highest scenario, Vanuatu may experience 0.97 metres of sea-level rise by the end of the century (2100).

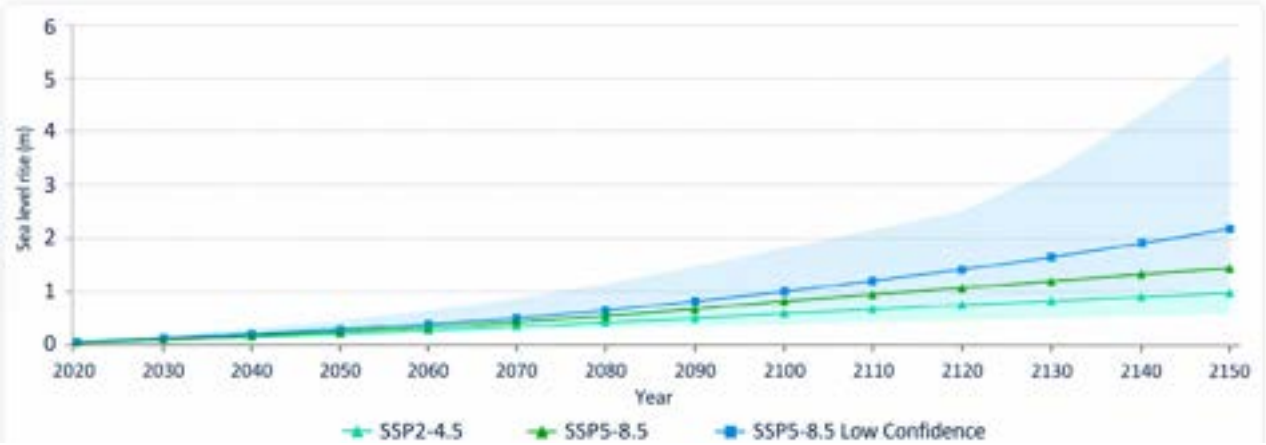


Figure 5. Projected Sea Level Change for Vanuatu (World Bank, 2026)

2.2.3.4 Sea Surface Temperature

Observations and Trends of Sea Surface Temperature

Sea surface temperatures (SSTs) around Vanuatu have increased over recent decades. Rising SSTs increase coral bleaching risk and contribute to more frequent and severe marine heatwaves that impact marine ecosystems (CSIRO, SPREP, VMGD, 2023a).

Projected Sea Surface Temperature

Sea surface temperature (SST) is projected to increase under all scenarios, with higher warming under higher emissions pathways, increasing stress on marine ecosystems and fisheries (CSIRO, SPREP, VMGD, 2023a).

Implications for planning: this directly affects food security and livelihoods through a reduction in coral reef condition and fisheries productivity.

2.2.3.5 Ocean Acidification

Ocean Acidification Observations and Trends

Ocean acidification occurs when the ocean absorbs carbon dioxide from the atmosphere, lowering seawater pH and reducing the availability of carbonate, which is essential for forming calcium carbonate shells and skeletons.

Observed trends across the western tropical Pacific warm pool show ongoing declines in pH and the aragonite saturation state, consistent with increasing atmospheric carbon dioxide (CO_2) concentrations. Aragonite saturation state is a chemical measure of how favourable seawater is for forming or dissolving aragonite, a form of calcium carbonate ($CaCO_3$) used by many marine organisms to build shells and skeletons. It is a key indicator of ocean acidification. This reduces the ability of corals and other shell-forming species to grow and maintain reef structure, with flow-on effects for marine biodiversity and ecosystem services ***(CSIRO, SPREP, VMGD, 2025).***

Implications for planning: ocean acidification increases long-term pressure on reef health, which can reduce coastal protection, ecosystem services and fisheries productivity

over time. Therefore, adaptation planning ought to strengthen reef resilience and avoid actions that add local stress (e.g., poor water quality, reef damage) while planning for potential declines in reef-based services.

Projected Aragonite Saturation and pH

Ocean acidification is projected to continue under all emissions pathways, with larger changes under higher emissions futures. Reduced aragonite saturation poses increasing risks to coral reef growth and resilience, with knock-on implications for fisheries, shoreline protection, and tourism values (CSIRO, SPREP, VMGD, 2023a).

Implications for planning: continued carbon dioxide emissions drive ocean acidification, adding to local pressures on reefs and other marine ecosystems.

2.2.4 Climate Hazards

2.2.4.1 Coastal Inundation Projections

Coastal inundation is the flooding of normally dry coastal land by seawater, driven by sea level rise, tides and storms.

Vanuatu's coastline is highly exposed to coastal inundation, with risks amplified by global warming-induced sea-level rise and more severe coastal extreme events.

Coastal inundation risk is driven by the combined effect of tides, storm surges, storm waves – including sea level variability (notably ENSO) – and long-term sea-level rise (CSIRO, 2023; Sharma et al., 2024).

Coastal inundation may occur in exposed reef-fronted areas even where sheltered harbour tide gauges do not record unusually extreme levels. Analysis of Tropical Cyclone Pam impacts on Efate demonstrates that storm waves can dominate costal impacts in some settings (Sharma et al., 2024).

The risk to existing infrastructure from coastal inundation is provided in Table 6 based on the modelled extent of inundation and the location of infrastructure (where known), noting that in some cases infrastructure may have been misidentified or not identified.

Table 6. Risk to infrastructure from coastal flooding in Vanuatu sourced from the Resilience Explorer (DoCC, 2026)[5]

Asset	Risk to infrastructure with no sea-level rise	Risk to infrastructure 0.5 metre sea-level rise	Risk to infrastructure 1 metre sea-level rise
Infrastructure			
Roads	At least 38 of 3072 km of roads (1%) are threatened.	At least 66 of 3072 km of roads (2%) are threatened.	At least 98 of 3072 km of roads (3%) are threatened.
Bridges	Approximately 18 of 116 bridges (16%) are threatened.	Approximately 20 of 116 bridges (17%) are threatened.	Approximately 31 of 116 bridges (27%) are threatened.
Buildings	Approximately 4,527 of 178,520 (3%) of buildings are threatened.	Approximately 6,953 of 178,520 (4%) of buildings are threatened.	Approximately 9,860 of 178,520 (6%) of buildings are threatened.
Network towers	Approximately 7 of 227 towers (3%) are threatened.	Approximately 13 of 227 towers (6%) are threatened.	Approximately 20 of 227 towers (9%) are threatened.
Beach Landings	Approximately 3 of 115 landings (3%) are threatened.	Approximately 7 of 115 landings (6%) are threatened.	Approximately 8 of 115 landings (7%) are threatened.
Productive sectors			
Crops	Approximately 1,735 of 78,434 hectares (2%) of crops are threatened	Approximately 2,349 of 78,434 hectares (3%) of crops are threatened	Approximately 3,008 of 78,434 hectares (4%) of crops are threatened
Logging concessions	Approximately 198 of 78,115 hectares (1%) of logging concessions are threatened	Approximately 268 of 78,115 hectares (1%) of logging concessions are threatened	Approximately 334 of 78,115 hectares (1%) of logging concessions are threatened
Tourist accommodations	Approximately 19 of 183 (10%) of buildings are threatened.	Approximately 30 of 183 (16%) of buildings are threatened.	Approximately 34 of 183 (19%) of buildings are threatened.

[5] Note that the data collected is incomplete and as such risks may be higher or lower than stated.

Asset	Risk to infrastructure with no sea-level rise	Risk to infrastructure 0.5 metre sea-level rise	Risk to infrastructure 1 metre sea-level rise
Natural ecosystems			
Coral reefs	Approximately 687 of 110,616 hectares (1%) of coral reefs are threatened.	Approximately 754 of 110,616 hectares (1%) of coral reefs are threatened.	Approximately 812 of 110,616 hectares (1%) of coral reefs are threatened.
Forest	Between approximately 5,124 of 1.0M hectares (1%) of forest are threatened.	Between approximately 6,382 of 1.0M hectares (1%) of forest are threatened.	Between approximately 7,843 of 1.0M hectares (1%) of forest are threatened.
Seagrass	Between 1,119 of 320,174 hectares (1%) of seagrass are threatened.	Between 1,356 of 320,174 hectares (1%) of seagrass are threatened.	Between 1,584 of 320,174 hectares (1%) of seagrass are threatened.
Human wellbeing			
Health facilities	Approximately 2 of 129 (2%) of centres are threatened under this scenario.		Approximately 4 of 129 (4%) of centres are threatened under this scenario.
Schools	Approximately 15 of 408 (4%) of schools are threatened.	Approximately 16 of 408 (4%) of schools are threatened.	Approximately 22 of 408 (5%) of schools are threatened.

Van-KIRAP has developed a national numerical ocean hazard modelling system that combines tides, storm surge, waves, interannual variability, and sea-level rise to estimate extreme sea level magnitudes for different ARIs and future periods (CSIRO, 2023). It estimates how high the sea can get at the coast during rare but damaging events (for example a '1-in-50-year' or '1-in-100-year' storm tide), and how those high-water levels increase as sea-level rises.

As an indicative national reference under a high emissions pathway (RCP8.5), modelled 10-year ARI extreme sea levels increase substantially between the baseline period and mid-century. For example, Port Vila baseline extreme sea level of ~0.86 m increases to ~1.14 m by 2050, with larger increases by late century (CSIRO, 2023).

Table 7. Mean Value for Extreme Sea Level Intensity (m) for a 40-Year Baseline Centred on 2000 and Future 20-Year Periods Centred on 2050 and 2090 with Average Recurrence Intervals (ARIs) of 10-Years, 50-Years and 100-Years for Selected Sites in Vanuatu for RCP8.5 (CSIRO, 2023)

Location	Node #	Baseline (2000)			2050			2090		
		10-year ARI	50-year ARI	100-year ARI	10-year ARI	50-year ARI	100-year ARI	10-year ARI	50-year ARI	100-year ARI
Sola	46201	1.06	1.12	1.15	1.34	1.4	1.43	1.81	1.86	1.89
Hog Harbour	18632	1.03	1.09	1.12	1.31	1.37	1.4	1.78	1.84	1.86
Lamap	51686	0.96	1.03	1.05	1.24	1.31	1.33	1.71	1.77	1.79
Port Vila	71667	0.86	0.92	0.95	1.14	1.20	1.23	1.60	1.66	1.69
Lenakel	92863	0.87	0.98	1.04	1.15	1.26	1.32	1.61	1.72	1.79
Aneghowhat	97735	1.01	1.24	1.38	1.29	1.52	1.66	1.75	1.98	2.12

Note. ARI refers to Average Recurrence Interval (return period). "Extreme sea level intensity" represents combined coastal water levels from tides, storm surge, wave effects, and background sea level as modelled under the Van-KIRAP ocean hazard framework. Scenario labels (RCPs) are retained to match the underlying Van-KIRAP/CSIRO products and maintain consistency with the CRVA evidence base. Additional sites and scenarios (including lower emissions pathways) are available via the Vanuatu Climate Futures portal.

Implications for planning: Coastal inundation should be treated as a systemic adaptation issue as it affects community safety, lifeline infrastructure, and groundwater quality, not just the coastal shoreline.

2.2.4.2 Extreme Rainfall and Flooding

Observations and Trends of Extreme Rainfall and Flooding

Flooding is among the most significant climate-related hazards affecting Vanuatu and are closely linked to periods of intense rainfall. While many flood events occur during tropical cyclones and tropical depressions, damaging floods as well as landslides can also occur during extreme rainfall events outside of cyclones. Vanuatu's steep terrain, short and rapidly responding catchments, and concentration of communities and infrastructure in coastal and riverine areas increase exposure to these hazards. Historical events demonstrate the severe impacts that extreme rainfall can have on communities, infrastructure, livelihoods, and essential services. For example, heavy rainfall associated with Tropical Cyclone Lusi in 2014 triggered a landslide on Santo that destroyed an entire village, while a major landslide on Paama Island in 2013 affected approximately 400 households and caused extensive damage to food gardens, water supplies, and livestock (CSIRO, SPREP, VMGD, 2023c).

Flooding already causes significant disruption across the country. The CRVA identifies exposure of transport networks, buildings, schools, health facilities, water supply systems, and other essential assets to both fluvial (riverine) flooding and pluvial (surface water) flooding. Flood events can damage critical infrastructure, isolate communities, disrupt access to services, and affect water quality and food security. Landslides can further compound impacts by damaging infrastructure, restricting transport access, and increasing risks to lives and property.

Implications for planning: flooding and landslide hazards already pose significant risks to communities, infrastructure, and essential services. Adaptation planning should prioritise flood-resilient infrastructure, effective stormwater management, catchment protection, slope stabilisation, land-use planning, and emergency preparedness in areas exposed to flooding and slope instability.

Projected Flooding Risks

Climate projections indicate that the intensity of extreme rainfall events is likely to increase across Vanuatu,

increasing the likelihood and severity of both riverine and surface water flooding. More intense rainfall events will place greater pressure on drainage systems, increase flood depths and extents, and elevate the risk of infrastructure damage and service disruption (CSIRO, SPREP, VMGD, 2023c).

Implications for planning: Planning and investment decisions should prioritise measures that improve resilience to more intense rainfall events, including enhanced drainage design, flood management, resilient transport infrastructure, slope stabilisation, ecosystem-based catchment management, and development controls that reduce exposure in flood-prone areas. Strengthening flood and landslide monitoring, hazard mapping, and early warning systems will also be important to support risk-informed decision-making (CSIRO, SPREP, VMGD, 2023c; DoCC, 2026).

2.2.4.3 Marine Heatwaves

Marine heatwaves are projected to increase substantially in frequency and duration. For example, in the central Vanuatu region:

- by around 2050, marine heatwave conditions are projected to occur for around 80–150 days per year under a lower emissions pathway (SSP1-2.6) and around 170–300 days per year under a higher emissions pathway (SSP5-8.5); and
- by around 2090, around 110–190 days per year (SSP1-2.6) versus around 320–360 days per year (SSP5-8.5) (CSIRO, SPREP, VMGD, 2023a).

CRVA-aligned projections also highlight a shift toward more severe and extreme marine heatwaves becoming a regular feature of future conditions by mid-century, with higher risks in northern and central waters.

Implications for planning: marine heatwaves directly increase the likelihood of coral bleaching and reef degradation, with follow-on impacts for fisheries, tourism, coastal protection and ecosystem services provided by coral reefs.

2.2.4.4 Drought

Drought Observations and Trends

Drought occurrence in Vanuatu is closely linked to rainfall variability and ENSO. Impacts can be severe where communities rely on rain-fed water supplies and shallow groundwater lenses (Kirono et al., 2023).

Implications for planning: drought risk is a service continuity issue, affecting water supply, health, schools, and agriculture, not just an environmental issue.

Projected Drought

Van-KIRAP drought analysis indicates a shift towards more intense droughts under future climate change. However, projected changes in drought frequency and duration are more uncertain and depend on the location and emissions pathway (Kirono et al., 2023; CSIRO, SPREP, VMGD, 2024). The CRVA has identified inconsistencies between the literature with some indicating approximately constant intensity of extreme droughts while other models show a considerable increase in intensity. This differs from the intensity of moderate droughts which are generally understood to remain about as intense as they are today.

Implications for planning: drought is a compound risk which affects water security, agriculture, health, and energy, particularly where water storage is limited.

2.2.4.5 Tropical Cyclone and Extreme Wind

Observations and Trends of Tropical Cyclones and Extreme Wind

Tropical cyclones are a major driver of high-impact events in Vanuatu, affecting wind, rainfall, waves, and storm surge. Over recent decades, tropical cyclone counts show a general downward tendency, while the proportion of more intense tropical cyclones has increased. Tropical cyclone-related impacts therefore remain a core national risk (Australian Bureau of Meteorology and CSIRO, 2014; CSIRO, SPREP, VMGD, 2023b).

ENSO influences tropical cyclone occurrence around Vanuatu. In general, tropical cyclones tend to be less frequent during El Niño years and more frequent during La Niña years, reflecting shifts in the SPCZ and tropical cyclone genesis regions (McGree et al., 2023).

Implications for planning: tropical cyclone risk is not only about frequency; it is also about the intensity and compound impacts (wind + extreme rainfall + coastal inundation), and the compounding effect of rising sea levels.

Tropical Cyclone Projections

Future projections remain uncertain in exact frequency, but the overall cyclone risk profile is shaped by:

- sea-level rise (higher coastal water levels during storms),
- more intense rainfall extremes during tropical cyclones, and
- potential increases in extreme wind metrics. (Dowdy et al., 2022; CSIRO, SPREP, VMGD, 2023b).

Van-KIRAP analysis indicates that extreme daily wind speed associated with tropical cyclones may increase slightly by late century under higher emissions, with some locations showing increases in the order of **2–5%**. While projections indicate tropical cyclone frequency may decline under higher emissions, intensity and tropical cyclone-related rainfall are expected to become more severe ***(CSIRO, SPREP, VMGD, 2023b).***

Implications for planning: the "worst days" drive a large share of national disruption – so it is the compound effect of coastal inundation, extreme wind speeds and intense rainfall hazards that matter most for resilience and adaptation planning.

2.2.5 Summary of Climate Data

The climate evidence summarised above provides a common basis for assessing sector risks and adaptation priorities. Decisions also depend on exposure, vulnerability, interactions between hazards and services, local priorities, institutional capacity, affordability and social and cultural acceptability. Adaptation measures should address the risks relevant to each location, consider benefits and trade-offs across sectors, and remain effective under a range of plausible future conditions. Cross-sector measures can offer shared benefits, but their suitability depends on the problem being addressed and the arrangements for delivery and maintenance.

For implementation, the following sources are used together:

- the CRVA, which brings together the national risk evidence;
- Van-KIRAP and CSIRO hazard and projection products, retaining their scenarios, reference periods and coverage;
- sector-specific evidence, including water resource information, health surveillance and agricultural knowledge; and
- local and traditional knowledge to inform risk interpretation and feasibility of measures. (CSIRO, 2023; CSIRO, SPREP, VMGD, 2023a–c).

Key directional changes in future climate projections relevant across sectors are:

- Warming continues to increase heat stress and evapotranspiration;
- Sea-level rise results in higher coastal flood baselines and erosion risk;
- Extreme rainfall intensity increases flood and landslide risk, higher drainage and design thresholds;
- Drought intensity may increase water security risk, particularly in rain-fed systems;
- Marine heatwaves sharply increase coral bleaching as well as marine ecosystem and fisheries stress;
- Ocean acidification continues to exert long-term pressure on reef ecosystems and reduced resilience (CSIRO, 2023; CSIRO, SPREP, VMGD, 2023a–c; CSIRO, SPREP, VMGD, 2024).

Table 8. Summary of Observed Trends and Future Projections for Vanuatu Climate

Historical climate	Climate variable	Projected change			
1995 (1985–2005 unless otherwise noted)		2030	2050 Low emissions RCP2.6	2050 Very high emissions RCP8.5	Confidence
ATMOSPHERIC VARIABLES					
Max ~ 28°C[6] Min ~ 21°C	Annual average temperature (°C)	0.6 (0.3 to1.0)	0.7 (0.5 to 1.1)	1.3 (0.5 – 1.1)	High
34.7°C (34.0 to 35.4)[7]	Annual average hottest day (°C)	0.7 (0.5 to 0.9)	No data	1.3 (0.8 to 1.6)	High
11.7°C (10.3 to 13.8)[6]	Annual average coldest night (°C)	0.7 (0.5 to 1.2)	No data	1.3 (1.1 to 1.7)	High
4000mm 1500mm[9] 2504.7mm	Annual average rainfall (%)	1 (-9 to 13)	1 (-6 – 9)	0 (-12 to 14)	Low to medium
167 (77 to 377) mm/day[6]	Annual maximum daily rainfall (mm/day)	6 (-12 to 23)	No data	11 (-5 to 30)	Low to medium
No Data	Average drought intensity (more negative = more intense)	Slight increase	No data	Slight increase	Low
No Data	Average drought frequency (per 20 years)	Slight increase	No data	Slight increase	Low
Data Unavailable	Average drought duration (months)	Slight increase	No data	Slight increase	Low
34.59 m/s[10]	Tropical cyclone windspeed intensity (m/s)	No data	No data	+ 1 (-6 to 12) %	Medium
31 per decade[11]	Tropical cyclone frequency (%)	No data	No data	-12 (-40 to 0) %	Low to medium
OCEAN VARIABLES					
0 m	Annual average sea level (m)	0.13 (0.10–0.17)	0.23 (0.17–0.30)	0.28 (0.22–0.37)	High
26.5°C to 27.5°C[12]	Sea surface temperature (°C)	No data	+0.7	+ 1.1	High
25 days/yr	Marine heatwave frequency (days/year)	No data	80 to 150	170 to 310	High
	Coral bleaching frequency	No data	Increase	Increase	High
-0.0013 per year	Annual average change in ocean pH over Tropical Pacific Warm Pool	No data	Decrease by 0.05 units in pH	Decrease by 0.4 units in pH	High
-0.0083 per year	Annual average change in aragonite saturation	No data	Decrease	Decrease	High

6 Calculated from the World Bank Group Climate Change Knowledge Portal data, 2025 for Vanuatu.
7 Average annual values for Port Vila are given with the minimum and maximum annual values in brackets.
8 Wet tropical in the north.
9 Subtropical in the south.
10 Wind speed at Shefa provinces in Vanuatu Central for the period 1971–2021.
11 Average (TCs) per decade within a 500-kilometre buffer surrounding the country over the period of available data (1971–2021).
12 Vanuatu Central mean sea surface temperature for the periods 1982–2019.

Note: In Table 9 and Table 10 projected change in Vanuatu annual-average temperature and rainfall for 20-year periods centred on 2030 and 2050, relative to a 20-year period centred on 1995 (unless otherwise stated), for low (RCP2.6) and high (RCP8.5) emissions pathways for different geographical regions. Median changes are shown with the 10-90 percentile range of uncertainty in brackets. Changes are also shown for different global warming levels.

Table 9. Summary of projected climate change for Vanuatu North, Central and South relative to 1995[13]

Projected changes for 20-year period centred on 2030								
Area	Temperature (°C)	Rainfall Nov-Apr (%)	Rainfall May-Oct (%)	Extreme Rainfall (%)	Sea Level (m)	Tropical cyclone Intensity (%)	Tropical cyclone Frequency (%)	Marine Heatwaves (days)
Low Emission Scenario RCP2.6								
Vanuatu North	0.5 (0.4 to 0.8)	-0 (-10 to 5)	-1 (-12 to 7)	-	0.13 (0.10 to 0.17)	-	-	-
Vanuatu Central	0.5 (0.4 to 0.7)	-2 (-10 to 7)	-2 (-12 to 9)	-		-	-	-
Vanuatu South	0.5 (0.3 to 0.7)	-2 (-9 to 7)	-3 (-11 to 12)	-		-	-	-
High Emission Scenario RCP8.5								
Vanuatu North	0.7 (0.5 to 0.8)	-1 (-7 to 6)	-2 (-15 to 10)	8 (-12 to 24)	0.14 (0.10 to 0.18)	-	-	-
Vanuatu Central		0 (-15 to 7)	-2 (-16 to 13)	6 (-12 to 23)		-	-	-
Vanuatu South		-2 (-14 to 7)	-4 (-15 to 14)	-6 (-12 to 9)		-	-	-

[13] Summary of the median value is given with the 10th to 90th percentile range of uncertainty in brackets, projected climate relative to a 20-year period centred on 1995.

Table 10. Summary of Projected Climate Change for Vanuatu North, Central and South Relative to 1995

Projected changes for 20-year period centred on 2050 (2040–2059)								
Area	**Temperature (°C)**	**Rainfall Nov-Apr (%)**	**Rainfall May-Oct (%)**	**Extreme Rainfall (%)**	**Sea Level (m)**	**Tropical cyclone Intensity (%)**	**Tropical cyclone Frequency(%)**	**Marine Heatwaves (days)**
Low Emission Scenario RCP2.6								
Vanuatu North	0.7 (0.5 to 1.0)	1 (-4 to 7)	-0 (-14 to 12)	-	0.23 (0.17 to 0.30)	-	-	130–220
Vanuatu Central	0.6 (0.5 to 1.0)	2 (-10 to 8)	-3 (-13 to 9)	-		-	-	80–150
Vanuatu South	0.6 (0.4 to 1.0)	-2 (-12 to 7)	-3 (-12 to 12)	-		-	-	50–150
High Emission Scenario RCP8.5								
Vanuatu North	1.2 (0.9 to 1.6)	-1 (-13 to 9)	-0 (-23 to 15)	4 (-16 to 38)	0.28 (0.22–0.37)	1 (-6 to 12)[14]	-12 (-40 to 0)	200–330
Vanuatu Central		-2 (-17 to 10)	-4 (-22 to 13)	11 (-5 to 30)				170–300
Vanuatu South		-1 (-17 to 8)	-5 (-18 to 14)	41 (-2 to 57)				160–310

2.2.6 Geophysical Hazards

Vanuatu is exposed to geophysical hazards including volcanic eruptions, earthquakes and tsunamis. Landslides may be triggered by heavy rainfall, earthquakes or other changes in slope conditions. This NAP focuses on climate adaptation and considers these wider hazards where they affect the location, design, durability or delivery of adaptation measures. It supports Vanuatu's disaster risk reduction and disaster risk management arrangements within their existing mandates.

In many locations, climate-related and geophysical hazards overlap, and may affect the same people, assets and services. Adaptation measures should therefore avoid increasing exposure to another hazard. For example, relocating a flood-prone facility requires consideration of slope stability, seismic safety and access, as well as future flooding. Local hazard profiles, community knowledge and existing disaster risk management arrangements inform these decisions so that climate investments remain effective in Vanuatu's wider risk context.

While geophysical hazards are not driven by climate change, their impacts may be exacerbated by climate-related factors such as extreme rainfall, coastal erosion, and increasing pressure on vulnerable settlements and infrastructure. Strengthening monitoring and early warning systems, risk-informed land-use planning, resilient infrastructure standards, community preparedness, and evacuation planning remains critical to reducing disaster risk and supporting a multi-hazard approach to resilience in Vanuatu.

[14] (Knutson et al., 2020) projections for the southwest Pacific





CHAPTER

03

Vanuatu's Adaptation Planning Process

3.1 Adaptation Planning

Vanuatu's adaptation pathway recognises a clear reality: the country's development, wellbeing, societal norms, and cultural continuity are shaped by layered risk. There is a need to respond to slow-onset climate pressures including warming temperatures, sea-level rise, ocean acidification, and changing rainfall patterns while also living with rapid on-set, high-impact hazards linked to Vanuatu's geography and tectonic setting.

Climate change does not replace Vanuatu's existing hazard profile but rather compounds it. In practice, this means communities are being asked to recover and rebuild more often, with less time and fewer resources between events. Climate change can intensify climate-related disruption and raise the costs of maintaining services, infrastructure, and livelihoods. These disruptions can affect access to services that support basic human rights and often have disproportionate impacts on women, girls, persons with disabilities, and other vulnerable groups.

This NAP sets out how Vanuatu will reduce avoidable climate risk and strengthen resilience over time, while recognising and responding to the losses and damages that can remain despite adaptation.

3.1.1 Adaptation Planning Overview

The Climate Reality

For communities across Vanuatu, climate change is not a distant scenario; it is experienced through stronger storms, coastal erosion, changing water availability, pressure on food systems, and increasing disruption to essential services. These impacts are not evenly distributed geographically or socially. Risk varies across islands and provinces, and within communities, depending on exposure, livelihoods, housing quality, land tenure, access to services and transport – including for remote island communities, low-lying coastal households, and persons with disabilities and older people who may face mobility and access constraints.

The adaptation plan in this NAP is grounded in national policy settings and development priorities, including the NSDP 2016–2030 (Vanuatu 2030 / The People's Plan) and CCDRR Policy. It is also informed by national climate and risk analysis and sector vulnerability work undertaken with Vanuatu institutions and partners.

In addition, there are two broad classifications of adaptation: Incremental adaptation adjusts existing practices, for example raising taro beds to reduce waterlogging. Transformational adaptation changes important features of a system, such as relocating settlement and service networks where continued occupation cannot be sustained. Neither approach follows a fixed sequence, and the choice of approach depends on the nature of the risks, community priorities, available options and the time needed to act.

Limits to Adaptation

Adaptation is essential for protecting lives, livelihoods and natural systems, but it cannot prevent all climate impacts. As climate pressures intensify, there will be circumstances where adaptation becomes less effective, too costly, or no longer feasible. For example, in some places, the signal could be repeated damage to the same assets; in other places, it could be the gradual loss of freshwater quality or land stability. These are commonly described as limits or thresholds. It is important to note that reaching adaptation limits and the subsequent climate-induced displacement, disproportionately exacerbates existing gender and other social inequities, increasing the risk of GBV, sexual violence, and human trafficking.

Limits to adaptation can be categorized as either soft or hard. Soft limits are constraints driven by financing, technology, information, or institutional capacity. These constraints can be reduced over time through improved systems, stronger capability, better access to climate finance, and more effective delivery. On the other hand, hard limits entail physical change, irreversible loss, or persistent disruption, where impacts cannot be avoided through adaptive actions. These may include permanent loss of land, salinisation of freshwater sources, and irreversible loss of culturally significant sites.

Because of this, Vanuatu's adaptation plan is designed as an evolving journey. It aims to:

- reduce avoidable climate and disaster risks through practical and sustained adaptation actions;
- strengthen the systems that enable delivery across all levels in Vanuatu; and
- prepare for unavoidable impacts through an explicit loss and damage lens alongside continued more transformational adaptation.

3.1.2 Loss and Damage

Loss and damage refer to the impacts of climate change that occur despite adaptation efforts. This is where risks exceed what communities and systems can reasonably cope with or recover from. In this NAP, loss and damage is treated as a necessary complement to adaptation, not a substitute for it. Loss and damage help Vanuatu plan earlier for situations where disruption becomes persistent.

Loss and damage can be:

- economic, such as damage to infrastructure, homes, productive land, and livelihoods; and
- non-economic, such as loss of life, health impacts, loss of cultural heritage, identity, knowledge, social cohesion, and connection to place.

Some impacts are best understood as damage – where repair and recovery are possible. Others are loss – where impacts are irreversible.

A loss and damage lens supports Vanuatu to:

- reduce avoidable loss and damage through adaptation, and identify where risks may become unavoidable, necessitating early planning;
- protect dignity and wellbeing when disruption persists or relocation becomes necessary;
- ensure cultural heritage and identity are considered alongside economic losses; and
- strengthen national systems for preparedness, response, recovery, and long-term support.

This NAP aligns with Vanuatu's National Loss and Damage Policy Framework and Implementation Plan, alongside CCDRR Policy and supports practical pathways to address unavoidable impacts alongside continued investment in risk reduction and resilience.

The NAP contributes to averting, minimising and addressing loss and damage by reducing exposure and vulnerability where adaptation remains feasible, identifying residual risks and service-continuity needs, and linking relocation, cultural heritage, ecosystem, health, education, WASH and infrastructure risks to finance and implementation pathways.

3.1.3 Activities within the NAP

The NAP draws on national and sector policies, climate risk evidence, consultations and sector expertise to identify adaptation priorities that support Vanuatu's development, wellbeing and cultural continuity. Key inputs include the NDC, the NSDP 2016–2030 (Vanuatu 2030 / The People's Plan), sector documents, national workshops and provincial planning processes. Chapter 4 sets out enabling actions and Chapter 5 presents the 27 consolidated national priority adaptation actions. These priorities guide implementation while allowing their design and sequencing to respond to local conditions, new evidence and lessons from delivery.

Implementation of the adaptation pathway described above is elaborated in:

- **Chapter 4**, which sets out the system components required for delivery, including whole-of-society and whole-of-government approaches, and capability strengthening; and
- **Chapter 5**, which sets out sector and cross-cutting adaptation actions for the initial implementation period.

The list of actions supporting this pathway has been developed through consultation and stakeholder input. Many validated adaptation priorities are enabling or system-wide measures rather than stand-alone adaptation projects. The adaptation type should be considered for the implications to financial access, proposal readiness, data availability, coordination, capability and communications. Where appropriate, prioritised actions are identified as enabling in Chapter 4 to highlight the potential requirement for cross sectoral collaboration. A large number of sectors identified priority actions associated with finance-readiness. Priority of finance-enabling architecture within the sectors includes prioritising trainings and guidance for proposal development, climate finance literacy, grant writing, pipeline development and process understanding for subnational sector actors to access domestic and external finance.

Priority actions were validated and prioritised at February 2026 workshop in Port Vila using the urgency and feasibility criteria described in the technical foundations

and methodology appendix. The process established a planning priority; it did not constitute project approval, confirmation of finance or a substitute for investment-specific appraisal.

The NAP distinguishes measures that:

- reduce avoidable climate risks and disaster risks (adaptation);
- strengthen enabling systems and capability for implementation (enabling); and/or
- support preparedness and response to unavoidable impacts (loss and damage).

Where cross-cutting enabling actions are relevant to multiple sectors, the NAP will intentionally link these measures across sections to support integration, while maintaining clear sector ownership and accountability for delivery.

3.1.4 Implementation Sequence

In Vanuatu, implementation is identified as a series of actions that move a project or programme beyond validation in a sequential manner. This includes progressing a validated priority through programme or project design, costing, appraisal, funding, delivery, monitoring and review (Figure 6). Public financial management is the government process for approving, budgeting, spending, accounting for and reporting public resources. Its entry point for a NAP investment is the responsible agency's planning and budget or project-appraisal process, with central planning and finance authorities involved as required. Project finance coding links approved activities to their budgets and expenditure records and does not itself confirm funding or replace the relevant approvals.

As previously identified, programmes often align across sectors promoting cross-sector collaboration, central planning and finance functions with involvement of the provincial government, Department of Local Authorities (DLA) and local structures. Coordination across provincial government allows for mechanisms to enable accountability as well as short-, medium- and long-term planning horizons at the provincial implementation level. Provincial-level groups are well situated to coordinate between national level entities including ministries, planners, financers, community-oriented NGOs, CBOs, CSOs, and private sector partners on the ground, enabling successful delivery and aligning projects to community needs (Figure 7). Specifically, coordination ensures the inclusion of women-led, youth-led, and organisations of persons with disabilities, as essential partners for implementation.

Programmes need clear oversight, coordination, technical support, delivery and review responsibilities. The lead agency coordinates delivery within its mandate, and each supporting agency remains accountable for its assigned components. Programme arrangements identify who manages finance, maintains assets or services, collects and checks monitoring information, and responds to implementation shortfalls and challenges. Provincial authorities, Area Councils and community partners connect delivery with local priorities and provide feedback to sector and national decision-makers. These arrangements follow the institutional roles in Chapter 1 and the monitoring and financing arrangements in Chapter 6.

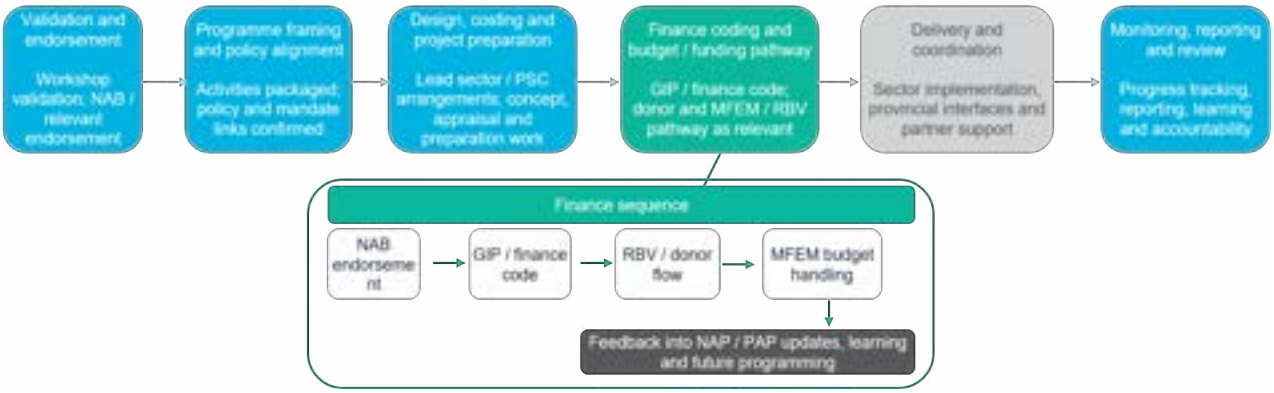


Figure 6. Implementation Pathway and Financing Sequence Validated through Programme, Policy Alignment and Finance Discussions

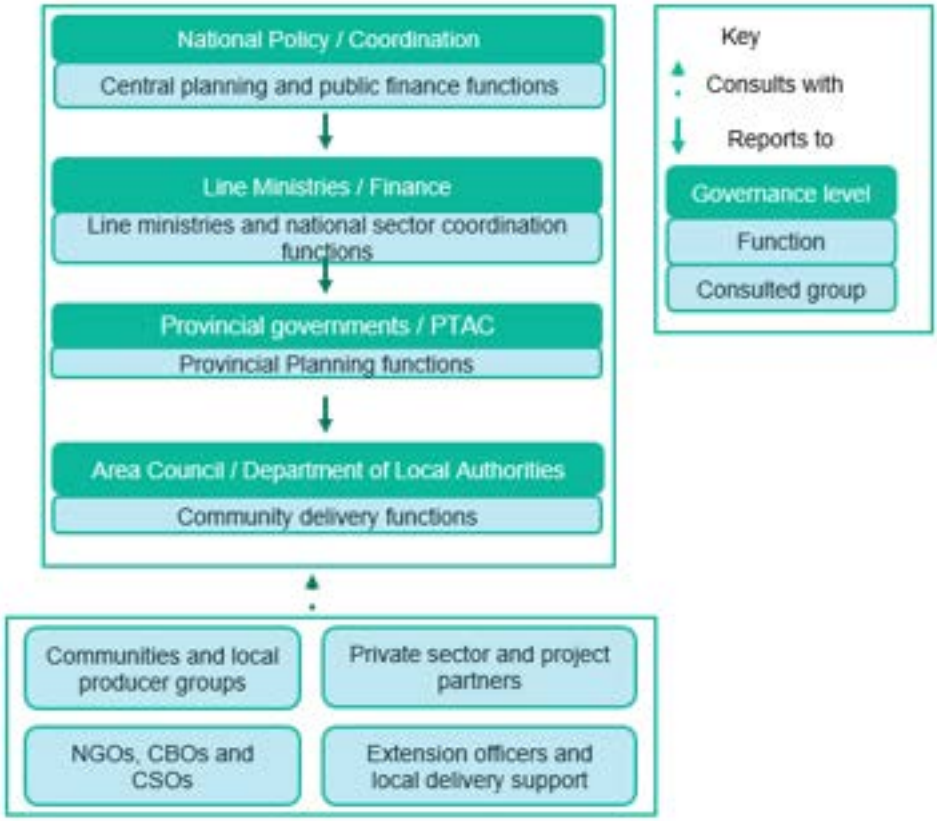


Figure 7. Indicative Programme Delivery Structure across National, Provincial and Community Levels







CHAPTER

04

System Components for Adaptation

4.1 Introduction

Climate change and disaster risks in Vanuatu do not stay neatly within sector boundaries; their impacts cascade across the systems that sustain daily life and national development. In practice, shocks rarely occur in isolation. A single drought, for example, can trigger multiple, overlapping impacts – affecting water supply, health, education, household gardens, and livelihoods simultaneously. Beyond agriculture, drought can reduce water availability for homes, schools, and health facilities, while also placing additional pressure on catchments and ecosystems. Likewise, flooding impacts are greater than the immediate inundation of land, as they can cut off households from markets, essential services, and health care.

Against this backdrop, this NAP is designed to be implemented as an integrated and coordinated inclusive programme, rather than a set of disconnected sector actions. While Chapter 5 sets out sector and cross-cutting actions, Chapter 4 explains the enabling "system components" needed to deliver those actions in a coherent, coordinated, and locally and community grounded way across Vanuatu's islands and communities.

4.1.1 System Components

To deliver adaptation effectively, the NAP applies a systems lens that aligns with national development priorities and resonates with the way vulnerability and resilience are addressed in Vanuatu's policy architecture. In practical terms, the NAP's enabling system components are expressed through three mutually reinforcing approaches namely, whole-of-society, whole-of-government, and capability strengthening. These approaches jointly provide the foundation for effective climate adaptation by ensuring that all stakeholders, communities, institutions, governments, civil society, and the private sector work as partners in planning and delivery; that policies, investments, and actions are coordinated across all levels of government to avoid duplication and maladaptation; and that the skills, systems, institutions, information, and financing needed for long-term resilience are strengthened. Together, these approaches create an enabling environment that supports both immediate adaptation priorities and sustained resilience as climate risks intensify. Each approach is elaborated in further detail in subsections 4.2- 4.4.

4.1.2 System Interdependence

The success of this NAP depends on recognising interdependence and managing trade-offs. Actions that strengthen resilience in one area should not undermine resilience elsewhere. Throughout the design and implementation of adaptation interventions or actions, two crucial considerations need to be carefully gauged.

Synergies: Ecosystem restoration and protection (for example, mangroves, sand dunes and coastal vegetation) can reduce coastal hazard impacts while supporting livelihoods and food security.

Trade-offs: Infrastructure and economic development priorities must be planned and designed in ways that avoid damaging ecosystems, increasing exposure, or disrupting customary access and social cohesion.

This NAP therefore emphasises integrated design and decision-making: actions will be prioritised and implemented with attention to system-wide benefit, distributional impacts (who benefits and who bears costs), and long-term sustainability. Where choices are complex, the NAP's implementation approach will support transparent decision-making processes that consider evidence, feasibility, inclusion, and risk reduction outcomes. Consistent with this approach, the adaptation actions included in the NAP were prioritised in collaboration with key stakeholders throughout its development, and where decisions involved complex trade-offs, an evidence-based approach was applied to find a feasible compromise.

4.2 Whole of Society Approach

4.2.1 Overview

Achieving ambitious adaptation objectives in Vanuatu requires public support, political commitment, and sustained capacity-building across all levels of governance and society. A whole-of-society approach ensures that adaptation efforts engage a diverse range of partners including communities and customary institutions, provincial and local governance structures, civil society and faith-based organisations, education providers and academia, the private sector, and national planning and coordination entities.

In practice, people do not experience climate change in "sectors"; they experience water shortages, damaged gardens, disrupted livelihoods, and interruptions to schools and health services, often at the same time. Effective adaptation therefore combines national policy direction with local knowledge and lived experiences to ensure that actions are implementable, locally relevant, and sustained over time across Vanuatu's islands. This approach strengthens shared responsibility for resilience, helps align community-led initiatives with national priorities, and supports long-term ownership.

4.2.2 Implementation Considerations

A whole-of-society approach will only succeed if participation is practical, information is usable, and delivery mechanisms work from community level through to national decision-making – the bottom-up approach. The considerations below focus on the enabling conditions needed to support consistent and inclusive implementation across Vanuatu.

Community Empowerment and Locally Led Delivery

Locally and community led adaptation is essential for long-term resilience. This requires more than consultation: it involves co-design and community ownership, so actions fit local conditions, priorities, and customary decision-making. Strengthening locally and community led planning helps ensure that adaptation measures are maintained over time and continue to work as risks evolve. Engaging children and youth as active agents of change secures their essential involvement in national climate decision-making processes. It also creates a practical channel for lessons learned to inform provincial and national decisions, rather than being trapped within individual projects.

Participants in stakeholder consultative workshops and follow-up discussions consistently linked national priorities to provincial planning processes, area council structures, and community-level implementation, with PAPs identified as the primary instrument for sub-national delivery. Review of the existing sub-national planning framework reinforces this alignment. The Decentralization Act [CAP 230], together with the DLA Risk-Proofed Planning, Budgeting and Monitoring Guidelines, outlines a structured process from community and village priorities, through Area Council screening and Technical Advisory Committee (TAC) /PTAC review, to provincial planning, budgeting, implementation, and monitoring. Clear provincial and national collaboration provides a clear pathway for strengthening the implementation architecture of the NAP and ensuring that adaptation actions are not only prioritised but are also institutionally anchored and operationally deliverable.

Climate Information, Data Availability, and Usability

Accessible climate information and risk knowledge are foundational to a whole-of-society approach. VMGD/ NSFWCGOS 2024–2029 provide the framework for coordination and strengthening of governance, institutions, partnership, services delivery, capacity building and training related to services and information on slow-onset and rapidonset or extreme climatic and disaster events. National climate services and initiatives such as Van-KIRAP provide important inputs that can support planning and preparedness across sectors and islands. The implementation challenge is not only availability of information, but its usability: ensuring information is translated into formats that communities, service providers, and local planners can apply to day-to-day decisions (e.g., water security, cropping choices, school operations, community preparedness, health system continuity, GBV risk mitigations). Where data gaps remain, the NAP should promote transparent assumptions, practical decision-making under uncertainty, with iterative improvement over time.

Inclusive Communication and Engagement across Islands

Effective communication is essential for participation, trust, and uptake of adaptation actions – particularly in an archipelagic context. A whole-of-society approach involves a mix of communication channels that work in Vanuatu, including face-to-face engagement where necessary, locally trusted networks, schools and education settings, and broader media (radio, television and social media) where appropriate. Communication should be two-way: communities need clear and actionable information, and decision-makers need structured feedback on barriers, priorities, and required support to implement actions locally. Communications should be inclusive including in Bislama, with sign language, simple language understandable for children and young people, or audio formats with inclusive accessibility where required.

Cultural Integration and Kastom as a Delivery System

Culture is not only heritage to protect; it is also a transfer system that shapes decisions, responsibilities, and collective action. Adaptation planning should actively integrate kastom, traditional knowledge, and customary leadership, recognising their role in legitimacy, compliance, and sustained implementation. As risks intensify and limits are reached in some locations, planning should consider both economic impacts and non-economic loss, including impacts on identity, connection to place, and intergenerational knowledge.

Education, Youth Engagement, and Intergenerational Knowledge Transfer

Education and knowledge transfer are central to sustaining adaptation over the long term. Youth are concerned about climate risks, but connection to formal planning processes can be limited. A whole-of-society approach should therefore make youth participation practical and meaningful, including clear roles that mobilise youth strengths (communication, stewardship, leadership, community action) beyond ad hoc engagement, and pathways for youth priorities to inform planning and implementation. Education settings are a key mechanism for building climate literacy and supporting intergenerational knowledge transfer, including documenting and applying traditional practices that strengthen resilience.

Gender Equality, Disability, and Social Inclusion (GEDSI)

In this NAP, gender equality is the intended outcome, and gender-equitable measures are the practical steps used in implementation to address different barriers and needs so all genders can benefit equally. Adaptation planning should recognise that climate-related shocks can exacerbate existing inequalities and protection risks, particularly for adolescent girls, including risks associated with school discontinuation, gender-based violence and early marriage. Inclusion must be designed into implementation, not added later. A whole-of-society approach should ensure inclusive engagement and delivery mechanisms are accessible, safe, and representative - including for persons with disabilities, people of all genders, older people, and remote island communities with limited access to services and transport, who may experience higher exposure or lower capacity to recover. This includes practical measures such as accessible engagement formats, representation in consultations and community decision processes, safeguarding and child protection where relevant, and targeted support to overcome participation and protection barriers. Particular attention should be given to groups experiencing intersecting vulnerabilities, including adolescent girls, who may face disproportionate impacts from disasters through disrupted education pathways, menstrual hygiene management (MHM) constraints, elevated protection risks, and interruptions to sexual and reproductive health services.

Wellbeing, Mental Health, and Psychosocial Support

Climate impacts can place pressure on wellbeing, particularly for young people and communities facing repeated disruption. A whole-of-society approach should recognise psychosocial impacts and strengthen pathways to support, information dissemination, and practical engagement that increases agency and preparedness. Where specific needs are identified through engagement processes, these should inform how adaptation actions are communicated and delivered, and how services incorporate wellbeing considerations as part of preparedness and resilience.

Coordination and Resource Mobilisation

Whole-of-society implementation requires coordinated roles across government, civil society, communities, and partners so that effort is not fragmented and locally led

priorities are not displaced by donor-driven agendas. Partnerships can unlock capability and resourcing, but they should reinforce local leadership and align with agreed national and community priorities. Clear coordination arrangements, consistent engagement processes, and financing pathways that are accessible to communities and provinces will be important for sustaining participation and implementation over time.

4.2.3 Adaptation Actions

Table 11 summarises enabling actions that support implementation of the whole-of-society approach. These actions are intentionally reflected across relevant sector chapters (Sections 5.1 to 5.9) to reinforce horizontal integration, while retaining sector ownership and accountability for delivery. Interlinkages to sector actions are identified where relevant.

Table 11. Adaptation Actions under the Whole-of-Society Approach

Code	Action	Timeframe	Responsible Agency
WS1	**Local Communities** Development of Community Based Adaptation Plans (CBAPs), with improved local governance and access to climate information and early warning.	1 – 3 years	-
WS2	**Funding** Streamline processes to ease access funding.	1 – 3 years	MoCC MFEM
WS3	**Whole of society engagement** Develop innovative partnerships with relevant stakeholders (national government, provincial government, area council, municipal council, private sector, CSOs, etc.) to integrate climate change and disaster risk resilience approaches and actions. Support relevant stakeholders to develop guidelines and trainings to ensure appropriate standards and consistency when integrating climate change and disaster risk resilience into subnational planning and budgeting processes. Organise multi-stakeholder awareness campaigns on a frequent basis throughout the year. Have ongoing consultations with provincial and national governments, area councils, municipal councils, CSOs and International Non-Governmental Organisation (INGOs), specifically including youth-led organisations, women-led organisations, and organisations of persons with disabilities. Increase awareness on a range of sectors through updating education material and undertaking at least one event per year including through career days, clean-ups, seminars and competitions.	3 – 5 years	MoCC
WS4	**Community stakeholder engagement** Carry-out participatory vulnerability assessments at provincial and community levels and develop approaches/ processes to include community stakeholders and vulnerable groups in climate change adaptation initiatives in municipal, provincial and national climate and disaster decision-making. This should be done through transfer of technical knowledge at the community level. Efforts towards community stakeholder engagement may include training and encouragement of community ownership.	1 – 3 years	DARD DEPC Communities Village Chief Councils Area Councils Provincial Government NGOs INGOs
WS5	**Disaster risk management** Collaborate with NDMO, National Recovery Committee (NRC) and relevant stakeholders to address preparedness and recovery to climate change impacts into national, sectoral, provincial, municipal, area council and community level plans.	3 – 5 years	MoCC NDMO

Code	Action	Timeframe	Responsible Agency
WS6	**Traditional knowledge** Incorporate traditional knowledge for increasing climate change and disaster resilience. Implement agroforestry approach using indigenous practices, in line with the Technology Needs Assessment (TNA).	3 – 5 years	MoCC
WS7	**Gender equality, disability inclusion and social inclusion** Protect marginalised people in society including in education and healthcare environments by strengthening preparedness and response systems to minimize disruptions caused by climate and disaster shocks. Protection may include provision of mental health and psychosocial support services (MHPSS), GBV and child protection.	3 – 5 years	MoJ MHPSS
WS8	**Education, youth engagement, and intergenerational knowledge transfer** Institutionalise meaningful inclusion and engagement of young people in high-level discussions on climate adaptation, recognising their unique role in developing adaptation measures. Improve mobilisation and training of young people as community volunteers and leaders in implementing climate adaptation initiatives.	3 – 5 years	MoCC MoJ Vanuatu Youth Council

4.3 Whole of Government Approach

4.3.1 Overview

A whole-of-government approach embeds climate risk considerations across planning, budgeting, regulation, policy and service delivery. This horizontal integration is essential because climate impacts affect the mandates and budgets of several agencies at the same time. It brings together ministries, technical agencies, central planning and finance functions, and relevant partners to coordinate decisions and resolve shared delivery needs. Vertical integration connects these national arrangements with provinces, municipal councils, Area Councils and communities. Clear responsibilities across both levels support coherent service delivery and reduce duplication.

One of the key benefits of whole-of-government coordination is its ability to identify and resolve contradictions between policies and programmes and have national priority adaptation actions streamlined. When agencies work in isolation, actions in one sector can unintentionally increase risk in another, for example, land use decisions that expand exposure in flood-prone areas, or infrastructure investments that do not account for future rainfall intensity and maintenance capacity. Integrating climate risk early in decision-making reduces the need for costly retrofits later and strengthens the likelihood that adaptation measures will remain effective as conditions change.

Whole-of-government coordination is also necessary for addressing the practical "constraint issues" that shape adaptation outcomes in Vanuatu, including land tenure and customary governance, resourcing and workforce constraints, equitable distribution of services across islands, and the sequencing of investments where needs exceed available funding. The NAP therefore reinforces coordination across central agencies, line ministries, and subnational governance, ensuring that adaptation delivery is coherent, feasible, and equitable across provinces and islands.

Institutional Arrangements for Whole-of-Government Implementation

Vanuatu has strengthened its national climate governance and coordination settings over the past decade, including through the CCDRR Policy and the institutional mechanisms that support cross-government alignment

and project appraisal. Planning settings have improved, but implementation remains constrained by capacity, financing, and coordination challenges, particularly where delivery requires multiple agencies to act in sequence (for example, land use planning, infrastructure design standards, and local enforcement).

Strengthening whole-of-government implementation requires that existing coordination mechanisms are consistently used for the purposes they were established for: setting priorities, aligning investments, appraising initiatives, and ensuring that climate and disaster risk are integrated into sector planning and budgeting, rather than treated as stand-alone climate projects.

Because many adaptation actions depend on subnational delivery, whole-of-government implementation must also operate vertically from national policy and financing settings through to provincial, municipal council and area council-level implementation channels, so decisions made in Port Vila translate into implementable actions that fit island realities.

Cross-Sectoral Coordination for Adaptation Planning

Effective adaptation requires a coordinated response across the entire government. This includes:

- **Policy alignment** (so sector strategies and regulations reinforce adaptation goals rather than work at cross-purposes).
- **Investment alignment** (so public infrastructure and service delivery budgets reflect climate and disaster risks, as well as future maintenance needs).
- **Shared implementation pathways** (so agencies understand who does what, in what order, and how coordination is resourced).

In practice, cross-sectoral coordination is most important where risk is created or reduced through government systems particularly land use planning, building controls, infrastructure design standards, environmental safeguards, and the siting and continuity of essential services. These are not single-agency issues and hence require collective decisions across planning, finance, line ministries, and local authorities.

Climate Information Services and Accessibility

Vanuatu has invested in climate information and risk knowledge through national and partner-supported initiatives, including climate projections and hazard information that can support planning and preparedness. The key implementation challenge is not only the availability of information, but its consistent use in decision-making.

Whole-of-government delivery requires that climate information is:

- **Translated into decision-ready guidance** (for example, siting and design parameters, service continuity thresholds, and local planning assumptions).
- **Used consistently across agencies** (so ministries and provinces are not working from different scenarios, datasets, or time horizons).
- **Accessible to subnational decision-makers** (so provincial and area-level planning and approvals are supported, not left to interpret technical products without guidance).

Strengthening practical application of climate information will improve prioritisation, reduce avoidable investment risk, and support more transparent choices where uncertainty is high.

4.3.2 Implementation

Effective implementation of whole-of-government adaptation actions requires deliberate focus on coordination, inclusive mechanisms, capability, and resourcing. Policy and planning settings can be strong on paper, but delivery will be limited unless the enabling conditions set out below are addressed.

Institutional Capacity and Coordination

Whole-of-government coordination depends on clear roles, routine coordination pathways, and realistic resourcing. Coordination must be anchored in existing governance and planning processes, with clear expectations for how agencies integrate NAP actions into sector plans, annual work programmes, and budgets. Where multi-agency actions are required, responsibilities should be explicit, so delivery does not stall between mandates.

Subnational Delivery and Local Implementation Support

Because implementation must work across a dispersed geography, whole-of-government coordination needs functioning channels between national agencies, provincial government, municipal and area council-level delivery. Local

implementation should be supported through practical guidance, technical assistance where needed, and realistic sequencing of actions that accounts for local capacity, connectivity constraints, and access to services.

Financing and Resource Allocation

Implementation will require a mix of domestic budget allocations and climate finance. Whole-of-government delivery depends on financing pathways that are predictable enough to support multi-year actions (for example, infrastructure upgrade programmes, service continuity investments, and workforce strengthening), and accessible enough for provinces and local delivery mechanisms to implement priorities without relying on ad hoc project cycles.

Data, Shared Systems, and Decision Discipline

Whole-of-government delivery requires shared data and consistent assumptions. Where gaps remain, decision-making should be transparent about assumptions and uncertainty, and implementation should improve iteratively rather than waiting for perfect data. Use sex-, age- and disability-disaggregated information where relevant and safe, with personal information protected and access proportionate to the reporting need. Without disaggregated data, cross-government investments risk overlooking the specific, multidimensional climate vulnerabilities of women, girls, gender-diverse individuals, and persons with disabilities. Consistent use of agreed information products and planning parameters across agencies is a practical requirement for coherence and consistency. The CRVA and Resilience Explorer are examples of information resources intended for use across government.

Policy Coherence and Safeguards Against Maladaptation

As adaptation actions accelerate, policy coherence becomes more important and must account for climate-induced population dynamics, including migration and displacement. Whole-of-government coordination should be used to identify and resolve conflicts between development pressures and risk reduction objectives, and to prevent maladaptation – where actions increase future exposure, create unaffordable maintenance burdens, or displace risk to other communities or sectors. Actions must be safeguarded to ensure they do not inadvertently marginalise mobile populations, as displacement can disrupt access to essential health services and increase risks of gender-based violence.

GEDSI Implementation Considerations

During implementation and programme development, sector agencies and delivery partners should ensure adaptation actions promote equitable participation, access to benefits and inclusive decision-making, while avoiding unintended negative impacts on vulnerable and marginalised groups. Where required by the Government of Vanuatu, relevant financing mechanisms, or the scope of a specific investment, proportionate GEDSI or gender action plans should be prepared and aligned with the NAP's GEDSI principles, safeguards and monitoring arrangements.

Implementation and Financing Pathways

Validated adaptation priorities move through programme design, costing and appraisal, finance and budget arrangements, implementation, monitoring and review (Figure 8). The relevant government and financing requirements apply to each investment. Cross-sector programmes retain clear responsibility for each component, funding source and expenditure record.

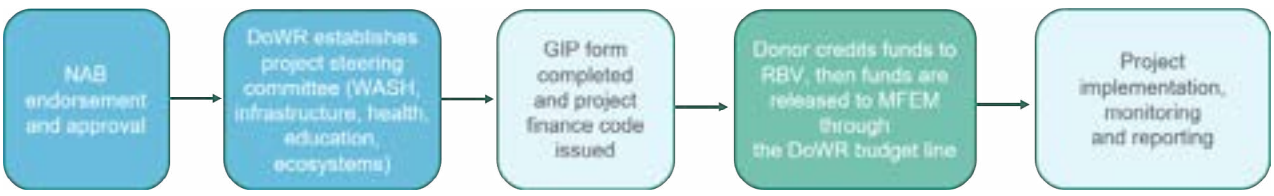


Figure 8. Indicative Implementation and Financing Pathway for a Cross-Sectoral WASH-Led Programme

4.3.3 Adaptation Actions

Table 12 summarises whole-of-government enabling actions to be implemented by the relevant ministries and agencies, working with provincial governments, municipal councils, and Area Councils. Links to sector priorities show how these actions support delivery while retaining sector responsibility and accountability. Where the same measure supports more than one sector, it is coordinated and reported once rather than treated as a separate investment in each sector.

Table 12. Adaptation Actions under the Whole-of-Government Approach

Code	Action	Timeframe	Responsible Agency
WG-001	Mainstream climate and disaster risk and NAP priorities into Corporate Plans and budgets: relevant line ministries and agencies to integrate climate and disaster risk considerations and relevant NAP actions into annual corporate planning and budget processes to ensure that delivery is sustained through routine government systems.	1 – 3 years	DSPPAC; MFEM; Line ministries and agencies
WG-002	Operationalise Climate Budget Tagging (CBT) to track domestic and international climate-related expenditure consistently through government budget and financial reporting systems, aligned with MFEM arrangements and relevant NAB processes.	1 – 3 years	MFEM
WG-003	Climate-informed land use and development controls (ridge-to-reef intent): strengthen and enforce risk-informed land use planning and development controls across national and subnational planning authorities to avoid siting new assets and settlements in known high-risk areas. Land use and development controls must incorporate safety, accessibility, and gender-sensitive spaces (e.g., secure, segregated WASH facilities).	3 – 5 years	DLA, relevant planning/lands authorities; Provincial Government Councils; Area Councils
WG-004	Climate information services for decision-making: strengthen national capacity to generate and deliver sector-relevant climate and hazard information products (e.g., design rainfall, agrometeorological advisories, drought and flood early warning) that can be used in planning, design, and preparedness at national and local levels.	1 – 3 years	VMGD; DoCC, NDMO
WG-005	Cross-ministry preparedness and continuity planning: operationalise whole-of-government preparedness through ministry contingency planning, with scheduled reviews and minuted updates to protect essential service continuity during disasters.	3 – 5 years	NDMO; Line ministries; DoCC
WG-006	Climate and disaster risk screening for public investment and externally funded proposals: strengthen the national appraisal/endorsement process so that public investment proposals and externally funded programmes undergo climate risk screening before approval, to reduce maladaptation and improve value-for-money.	1 – 3 years	NAB Secretariat; DSPPAC; MFEM
WG-007	Private sector resilience financing mechanism: establish a cross-government resilience financing facility (grants/loans) to support private sector adaptation investment and resilient retrofits (tourism/MSMEs as a potential pilot), aligned with national adaptation priorities and financing settings.	3 – 5 years	Relevant economic/ industry ministry; MFEM; DoCC
WG-008	Vertical integration mechanism for NAP implementation: formalise coordination between national governance arrangements (including NAB/lead ministry functions) and Provincial Government Councils to support devolved delivery through Area Councils and locally legitimate decision channels, and to ensure local priorities and lessons inform national sequencing.	1 – 3 years	DoCC; DLA, Provincial Government Councils; Area Councils

4.4 Capability Strengthening for Resilience and Adaptation

4.4.1 Overview of Capability Strengthening

Capability strengthening is essential to deliver adaptation and resilience consistently and maintain them over time. In Vanuatu, the ability to plan, design, deliver, and maintain adaptation and resilience measures is constrained by a small population base, dispersed islands, and uneven access to specialist skills. Shortages in areas such as climate and hazard risk information services, impact assessment, engineering design and supervision, and project/programme management can limit delivery particularly outside Port Vila and Luganville.

These capacity constraints are compounded by common implementation barriers: unclear coordination across multiple partner-supported initiatives, stretched staffing and budgets, and frequent turnover in key roles. When experienced staff move on, institutional knowledge can be lost and programmes can stall, even when policy intent remains strong.

In practice, this shows up when essential maintenance cannot be carried out because there is no trained technician or budget line to keep a system running, or when delivery is delayed because design, procurement, supervision, and reporting roles are thinly staffed.

Strengthening capability therefore needs to focus on practical delivery systems: retaining and developing staff, embedding skills within government and education institutions, and ensuring that communities and local authorities have the tools and support needed to carry forward locally led actions. This is fundamental to achieving the NAP's outcomes and maintaining momentum across sectors over the life cycle of the plan.

4.4.2 Elements of Capacity Building

Building national capability for climate and disaster risk resilience in Vanuatu requires a long-term, systematic approach that addresses technical and professional skill gaps, and institutional and organisational delivery constraints. While capacity-building activity occurs across programmes, capability works best when it is embedded in national systems, aligned with sector needs, and sustained beyond project cycles.

Institutionalising Capability Strengthening

To ensure continuity, training and upskilling should be institutionalised within government agencies and education systems rather than only delivered as short-term project inputs. This includes:

- formal training pathways for climate and disaster risk screening, project management, and supervision roles;
- integrating climate and disaster risk into curriculum and teacher training; and
- resourcing agencies to maintain tools, guidance, and standards, including measures for gender-equality, equity and inclusion, that staff can apply in day-to-day delivery.

Retention and Succession Planning

Staff turnover and thin staffing levels can undermine continuity. Practical measures include:

- defined succession planning for climate and disaster-critical functions (planning, procurement, engineering supervision, risk assessment, MERL);
- mentoring and supervised "step-up" roles for early- and mid-career staff; and
- incentives and support packages that make long-term service feasible, including for provincial and other islands postings.

Peer Learning and Regional Collaboration

Vanuatu can benefit from structured peer-to-peer learning with other Pacific countries and regional institutions. These partnerships work best when they are designed around real delivery needs (e.g., building inspections, procurement, climate information products, DWSSP/DRR integration) and include a clear handover plan so skills remain in-country. In addition, Vanuatu should advance peer learning involving knowledge exchange between women-led, youth-led, and SRHR-focused Civil Society Organisations (CSOs).

Community-Based Capability Development

Many adaptation outcomes depend on community delivery, maintenance, preparedness, land and resource stewardship, and locally led planning. Capability support should therefore prioritise:

- training-of-trainers and peer-to-peer models that build local and community capability for continuous learning and practice;
- practical materials designed for provincial, local and community use (simple guidance, checklists, templates); and
- alignment with local and community legitimate governance and decision channels so training translates into action.

Sector-Specific Technical Strengthening

Targeted technical capability is still required within sectors (e.g., agriculture extension and climate-smart practices, fisheries co-management, forestry systems, resilient infrastructure supervision, health emergency readiness, WASH operational planning). Where external financing supports sector programmes, capability components should be explicit, funded, and linked to defined roles – not treated as incidental add-ons.

Monitoring, Reporting and Learning

Capability strengthening should involve monitoring that is proportionate to support delivery needs and robust enough to guide continuous improvement. This includes:

- clear indicators of capability uptake (not just "people trained");
- disaggregated participation data where relevant (age, gender, disability, geography); and
- routine reviews that adjust training content and delivery support based on what is working in practice.

4.4.3 Adaptation Actions

Some of the actions identified in this section are also included in sector chapters. This duplication is intentional to signal that capability strengthening is a cross-cutting enabler for delivery across the NAP, while maintaining sector ownership of sector outcomes. For monitoring and reporting, however, each capability action should have one unique identifier. Actions were identified through stakeholder engagement (Appendix B) and review of relevant sector policies and plans.



Table 13. Adaptation Actions under the Capability Strengthening Approach

Code	Action	Timeframe	Responsible Agency	Interlinkages
CB-001	Establish a national climate project delivery capability programme: training and coaching in climate and disaster risk screening, procurement-ready design inputs, contract management, supervision, and reporting (built for government delivery roles).	1 – 3 years	DoCC; DSPPAC; MFEM; PSC	Whole of government; All sectors
CB-002	Retention and succession planning: Develop and implement retention and succession planning for climate- and disaster-critical roles across government and provincial delivery functions (including mentoring and supervised "step-up" pathways).	3 – 5 years	PSC; Line ministries; Provincial Government Councils	Whole of government; All sectors
CB-003	Climate change and DRM in school curriculum: Integrate climate change and DRM content into national curriculum and teacher training (pre-service and in-service), with practical materials that can be delivered consistently across islands.	1 – 3 years	MoET; DoCC	Education; Whole of society
CB-004	Increase human resource skills: create targeted scholarships/internships for priority technical and professional skill gaps (engineering supervision, planning, climate information services and MERL), using a gender and diversity approach, linked to bonded service or structured return-to-service pathways where feasible.	3 – 5 years	PSC; DSPPAC; Line ministries	Capability strengthening; All sectors
CB-005	Roster of experts: build and maintain a roster of national and regional technical expertise to support vulnerability/impact assessment and risk-informed design inputs, paired with on-the-job upskilling of counterpart staff.	1 – 3 years	DoCC; Line ministries; Provincial Government Councils	Data and information; All sectors
CB-006	Strengthen building code compliance capability: train and support building inspectors and relevant technical officers to apply and enforce building standards, including climate resilience considerations in approvals and inspections.	3 – 5 years	Relevant infrastructure/building authorities; Provincial/municipal authorities	Infrastructure; DRM
CB-007	Strengthen climate information services capability and uptake: improve the production and practical use of sector-relevant climate and hazard products (e.g., advisories, thresholds, early warning) with user training at national and provincial levels.	1 – 3 years	VMGD; DoCC	Whole of government; All sectors
CB-008	Training of Trainers: implement Training-of-Trainers models for provincial, area councils and community delivery (local planning, preparedness, maintenance, stewardship), including practical toolkits and locally usable guidance	1 – 3 years	Provincial Government Councils; Area Councils; DoCC	Whole of society; Local governance
CB-009	Strengthen health and social service system capability for climate and disaster readiness: training, coordination arrangements, and service continuity planning inputs integrated into routine health delivery systems. It is critical to build capacity on Minimum Initial Service Package for Sexual and Reproductive Health, for gender-responsive health response.	3 – 5 years	MoH; NDMO; DoCC	Health; DRM
CB-010	Strengthen community-based psychosocial and wellbeing support capacity: Organise training for provincial government, area councils, municipal councils and communities on psychosocial and wellbeing support for climate-related disruption through practical training pathways and referral/linkage systems (embedded within existing community structures). Mental Health and Psychosocial Support (MHPSS) training must be trauma-informed and tailored to address the heightened risks of climate-related sexual violence and GBV, as well as the severe eco-anxiety increasingly affecting children and youth	3 – 5 years	MoH; Relevant community partners	Whole of society; Health

Code	Action	Timeframe	Responsible Agency	Interlinkages
CB-011	Strengthen WASH operational capability: training and support for DWSSP implementation, DRR integration, maintenance planning, and information management for rural and urban providers, including gender equality and inclusion training	1 – 3 years	DoWR; Relevant WASH agencies; NDMO	WASH; DRM
CB-012	Improve climate finance literacy and proposal-readiness: provide training on climate financing and development of proposals for producers and extension services (e.g., agriculture/forestry), including practical guidance on accessing finance mechanisms and meeting basic requirements.	1 – 3 years	Relevant economic/ sector ministries; MFEM; DoCC	Finance; Agriculture, Forestry
CB-013	Strengthen community-based resource management capability: provide training in fisheries and coastal settings, co-management support, and locally applicable monitoring approaches.	1 – 3 years	Fisheries authorities; Provincial/Area Councils	Fisheries; Ecosystems
CB-014	Build MERL and data-use capability for the NAP: define simple, usable indicators; train focal points; and establish routines for reporting, learning, and updating implementation approaches over time.	1 – 3 years	DoCC; DSPPAC; Line ministries	Whole of government; All sectors
CB-015	Strengthen the capacity of youth-led organisations and provincial youth networks in climate finance literacy and proposal writing to facilitate access to small-scale adaptation grants.	1 – 3 years	Relevant economic / sector ministries and partners	Whole of government







CHAPTER

05

Sectoral Components for Adaptation

The impacts of climate change and disasters pose significant challenges to the livelihoods, environment, and economy of Vanuatu. To effectively tackle these challenges, it is important to implement targeted, sector-specific actions that reduce both current and future climate and disaster risks across the country.

This subsection of the NAP outlines the adaptation actions identified and validated for nine priority sectors chosen by the people and Government of Vanuatu (Table 14). These sectors are: **(i) agriculture, (ii) ecosystem, (iii) education (iv) fisheries, (v) forestry, (vi) health and nutrition, (vii) infrastructure, (viii) tourism,** and **(ix) water, sanitation and hygiene (WASH).** Each of these sectors is already experiencing effects of climate change, and strategic actions are needed to make a real difference for ni-Vanuatu.

Table 14. Overview of Each Sectoral Component Section

Sectoral Section	
Introduction	Provides an overview of the sector and justifies the need for climate change adaptation and disaster risk resilience action.
Policy Linkages	Outlines the policies that support climate change adaptation and disaster risk resilience within the sector.
Adaptation Actions	Presents the validated, shortlisted actions that will help the sector adapt to climate change and disaster risks and apportions responsibility for carrying out the action.
Adaptation Limits	Identifies potential soft and hard adaptation limits that may affect the sector's ability to adapt to climate change and highlights residual risks that may remain even where adaptation measures are implemented.

Each of the nine sectoral sections focuses on a specific sector and is divided into three key subsections to ensure a clear and practical approach to addressing the challenges and opportunities within these areas. The adaptation and resilience actions set out in this section are in line with the priorities and frameworks outlined in Vanuatu's national policies, sector plans, and international agreements.

During validation of the adaptation and resilience actions, consultation-derived priority shortlists support drafting and initial financing focus, and do not always represent a strict rank order where workshop ties remained. Workshop-validated actions for each sector are presented in a structured format that highlights key enabling, capacity, governance and sector-specific measures, while maintaining alignment with the detailed sector priorities presented in Appendix C. The top three prioritised activities are intended to support coordinated planning, prioritisation of investments, and the translation of sector actions into implementable programmes.

The full list of prioritised adaptation and resilience activities can be found in Appendix C.

5.1 Agriculture

5.1.1 Sector Overview

Agriculture broadly encompasses crops, livestock, fisheries, forestry, and biosecurity. Within this NAP, the Agriculture sector focuses specifically on crop and livestock production, with fisheries (Section 5.4) and forestry (Section 5.5) presented as separate sectors.

Agriculture is the foundation of Vanuatu's livelihood, food and nutritional security, and economy. Over 87% of the population of Vanuatu are involved in agricultural activities covering 7% of Vanuatu's total land area, with nearly 70% of ni-Vanuatu households raising livestock (Vanuatu Bureau of Statistics, 2023). Agricultural activities provide for subsistence farming, exchange, domestic, and export revenue. Agriculture production in low-lying coastal areas is vulnerable to tropical cyclone activity, waterlogging during floods and saltwater intrusion.

Agriculture bridges traditional and cash economies, contributing to subsistence livelihoods and national GDP. According to the World Development Indicators, the sector accounted for about 45% of total employment in 2025.[15] Agricultural crops are important not only for food security but also as a source of income, with more than half of all households producing crops for sale at markets.

Despite the relative importance of agriculture in Vanuatu's economy, food production is still not sufficient to cover nutritional needs, particularly for children. The 2023 Multiple Indicator Cluster Survey found that 29.1% of children under five experience stunting (Vanuatu Bureau of Statistics, 2024), indicating prevailing shortfalls in food and nutrition security. These challenges are further exacerbated by the exposure of agricultural systems to natural hazards and climatic stresses. In low-lying coastal areas, agriculture systems are vulnerable to tropical cyclone activity, waterlogging during floods and saltwater intrusion . These pressures are anticipated to intensify under climate change, increasing risks to agricultural production and the communities that depend on it.

5.1.2 Policy Linkages

The Overarching Productive Sector Policy 2025–2030 (OPSP) (Ministry of Agriculture, Livestock, Forestry, Fisheries and Biosecurity (MALFFB), 2025) is the key policy that guides the development of Vanuatu's agriculture sector including crop and livestock production, aquaculture, and forestry for food and non-food products. The OPSP aligns with the NSDP 2016–2030 (Department of Strategic Policy, Planning and Aid Coordination, 2017) The overarching goal is the integrated and sustainable management of Vanuatu's agricultural resources to provide food, enhance incomes, and contribute to environmental and social services, ultimately improving the well-being of the population.

The OPSP outlines five key development outcomes:

1. Commodity production and market access.
2. Quality and safety.
3. Food security.
4. Environmental, climate change and DRR management.
5. Governance, institution, and inclusion framework.

Other key strategies, plans and acts related to the agriculture sector include the:

- Vanuatu NDC 3.0, 2025.
- Disaster Risk Management Act (2019), NDMO.
- Environmental Protection and Conservation Act (2002, amended 2010).
- Land Leases Act and Customary Land Management Act (2013).
- Forestry Act and Related Regulations (2019).
- National Climate Change Adaptation Strategy for Land-Based Resources (2012–2022).
- Vanuatu's Forest Policy (2013–2023).
- VMGD National Strategy and Frameworks for Weather, Climate, Hydrometeorology, and Ocean Services (NSFWCHOS) 2024–2029.

The policy interconnections with other sectors are presented in Figure 9.

[15] https://data.worldbank.org/indicator/SL.AGR.EMPL.ZS?locations=VU

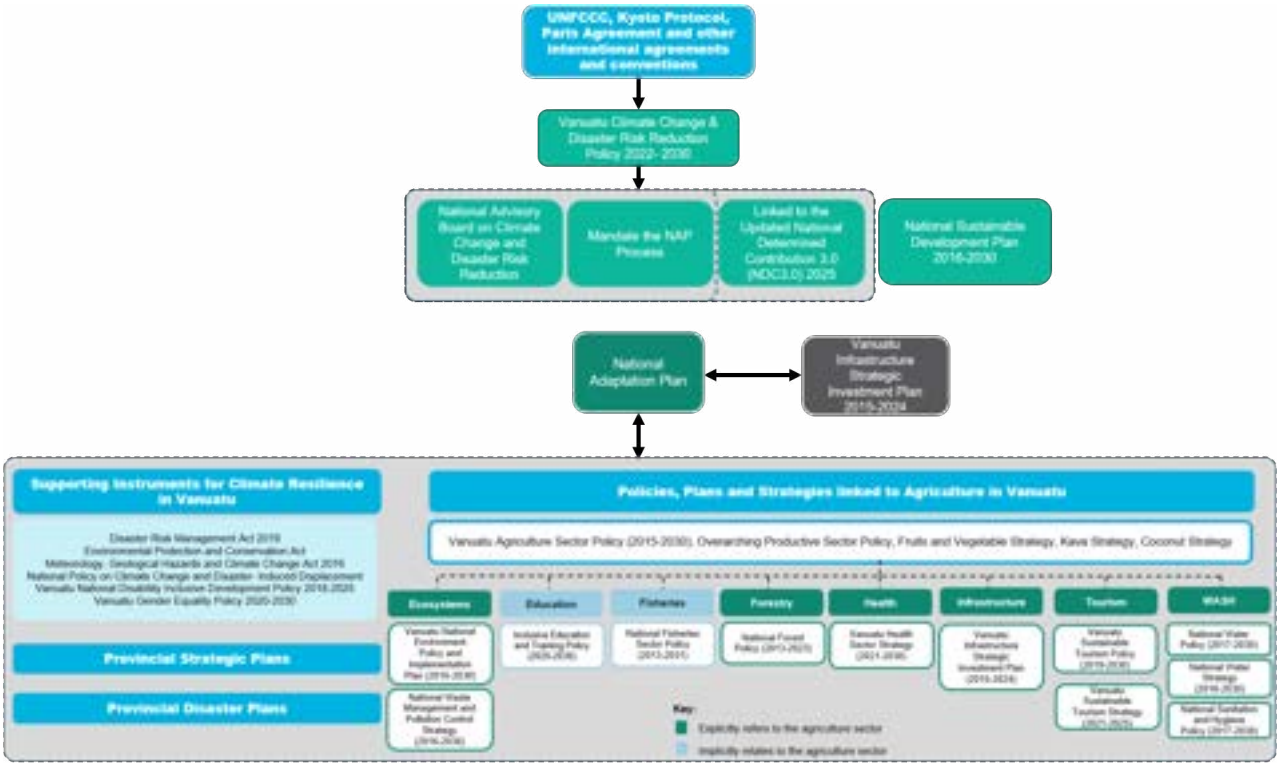


Figure 9. Key Policy Documents and Interlinkages for Agriculture

5.1.3 Climate Risks and Vulnerabilities

Agricultural systems in Vanuatu are subject to multiple climate vulnerabilities (DoCC, 2026). These risks relate to slow-onset events such as temperature increases and sea-level rise, as well as one-off damage from extreme events such as high intensity rain and tropical cyclones. As a country that experiences approximately two to three tropical cyclones within its territory per year (World Vision, 2015) the agricultural sector faces significant climate-related challenges. In addition to slow-onset climate impacts, intensifying extreme events are increasingly affecting agricultural plantations across communities. Rising sea levels, water scarcity and increasing air temperatures are further impacting crops and livestock; anecdotal evidence within Vanuatu has identified reduced crop quality and increased presence of pests spoiling crops.
Temperature increases of 1.2 - 2.7°C by 2090 could push some staple crops, including taro, yam, sweet potato, and cassava, beyond optimal growing ranges, reducing yields and compromising storage quality for the 97.5% of rural households engaged in vegetable production. Sweet potato tubers in particular are adversely affected by temperatures above 34°C, while kava is vulnerable to both drought and waterlogging. Taro has limited tolerance to drought, and cassava is susceptible to waterlogging. Tropical cyclones can also cause severe crop losses through strong winds, particularly affecting coconuts, kava, and bananas, while flooding and salinisation further reduce sweet potato and taro production. These impacts are often compounded by drought and reduced water availability, increasing the demand for irrigation and placing additional pressure on rural communities. Coastal flooding and sea-level rise also affect land suitability and the availability of fresh water for crops and livestock.

The interconnections between agriculture and climate change can be difficult to associate with a specific climatic change. Once identified, quantifying losses associated specifically with climate impacts can also be difficult as many external factors influence agricultural production including natural rainfall, sunlight hours, soil suitability and pollinator presence.

Water resources represent a particular vulnerability for all agriculture in Vanuatu, particularly for the rural communities that are dispersed and largely remote. Steep catchments and narrow coastal plains are ubiquitous in these islands and are vulnerable to flooding and sea level

rise. The predominantly coastal location of Vanuatu's population further adds to vulnerability of homesteads, agricultural undertakings, and livelihoods. Land suitable for agriculture is predominantly in low-lying coastal areas which can lead to an increased vulnerability to high waves, storm surges as well as sea inundation, coastal flooding and saltwater intrusion.

The loss of agricultural resources impacts the agricultural value chains – including from exports and imports – and creating long lasting impacts on food supplies and livelihoods. This results in families needing to purchase expensive food alternatives which can have a reduced nutritional value and contribute to health deficiencies. Climate change impacts threaten to worsen gender inequalities, increase household and community tensions and escalate existing vulnerabilities for among children who are impacted by food security issues through developmental impairment from reduced nutrition and disruptions to education. Education is also often sacrificed during drought and/or after a tropical cyclone due to increased agricultural labour demands.

Climate change also affects livestock and agricultural workers. Higher temperatures increase heat stress in cattle and reduce the number of safe and productive working hours available for agricultural labourers, with implications for productivity and livelihoods. Drought can reduce feed and water availability, while cyclones and flooding can injure or kill animals and damage shelter and production assets. Additional water collection during drought can increase workloads and heat exposure.

Possible adaptation actions for crops vary depending on the intensity, duration and frequency of climate impacts. Staple food crops, for instance, have a varying degree of vulnerability to rising temperature, drought and waterlogging. With 20.9% of the ni-Vanuatu population experiencing food insecurity, an additional 2.4% experiencing severe food insecurity and 10% of the population categorised as undernourished, managing the vulnerability of food supply is clearly a priority for communities. The Technology Needs Assessment (TNA) identified and prioritised adaptation technologies for Vanuatu's agriculture and water sectors that effectively reduce vulnerability and enhance the resilience of natural and human systems to climate change impacts. Key technologies and practices related to the agriculture sector which have been integrated into the NAP include crop diversification and new varieties, agroforestry and farmer field schools.

5.1.3.1 Compounding, Cascading Risks and Interdependences

Climate impacts on the agriculture sector can trigger compounding and cascading impacts across multiple sectors due to their strong interconnections with natural and human systems. Examples include:

- Ecosystems: If a substitution of food types occurs, additional pressure on ecosystems is possible, especially if many people are affected. In urban areas, households may switch to imported foods.
- Education: If agricultural production decreases, children's nutrition and ability to concentrate in class declines. If agricultural labour demands increase, children may be withdrawn from school to support food production. This situation can be compounded if a school is designated as the emergency and recovery shelter, with schools closed for varying periods of time.
- Health and nutrition: If agricultural production is reduced, food security or the ability to earn an income (particularly in rural areas) through the sale of produce is reduced. Flow-on impacts on human health, nutrition and social well-being are likely unless households switch to other food sources.
- Tourism: If local agricultural production is reduced, tourism may be affected by the rising costs of supplying food to guests.

5.1.3.2 People and Locations Most at Risk

The CRVA identifies Central Malekula as the most susceptible to fluvial and pluvial flooding, followed by North-West Malekula and South-East Malekula. Central, South and South-East Malekula are identified as the most exposed to coastal flooding and sea-level rise. It is worth noting that available fluvial and pluvial flood modelling data is limited in extent, therefore local evidence is needed to identify other locations that are experiencing impacts on the agricultural sector.

Groups most exposed to climate-related disruption in the agriculture sector include agricultural workers and subsistence farmers, particularly in rural areas. Women can face heightened vulnerability due to heavy workloads managing agricultural work alongside marketing, handicraft production, caregiving, and housework, while having limited access to resources and decision-making. Crop losses and

infrastructure disruptions can also directly affect women's income from market trading activities. These impacts are compounded by the fact that 78% of women are involved in subsistence farming (Kilroy, McNamara, Witt, & Raynes, 2025). Children, persons with disabilities and pregnant women can be particularly vulnerable to food shortages and worsening nutritional deficiencies. A decline in local food production and an increased reliance on imported food has both financial and health implications. As staple crops are vital to human and stock nutrition and food security, this will have ongoing impacts across other sectors including forestry, fisheries, education and human health with impacts possible across all sectors.

Climate and disaster-related disruptions to the agriculture sector intensify gender tensions and gender inequalities by further constraining women's economic opportunities while increasing their care responsibilities during recovery periods. Children are disproportionately impacted by food security issues through reduced nutrition and disruption to education, including temporary or permanent discontinuation of school attendance in support of household food production following crop failures.

5.1.4 Adaptation Actions

These risks require complementary action to protect crop and local food production, maintain livestock health and productivity, and restore production and market access after climate shocks. Suitable crop varieties, healthy planting material and soil and water management strengthen crop resilience, while reliable feed, water, shelter and animal-health support protect livestock welfare and production. Seed reserves, nurseries, safe food storage and recovery arrangements help reduce losses and shorten climate-related disruptions. Climate advice and farmer training help producers anticipate risks and apply practices suited to local conditions. Training also strengthens producers' business skills and ability to use verified existing support services, supporting preparedness and recovery. Table 15 presents the three consolidated priority adaptation actions for the agriculture sector.



Table 15. Top Three Consolidated Priority Adaptation Actions for the Agriculture Sector

ID	Risk statement	Adaptation action	Timeframe	Indicative costs (USD)	Responsible agency
NAP-AGR-01	Higher temperatures, drought, extreme rainfall, waterlogging, cyclones and coastal salinity damage crops and soils, reducing yields, local food security and farm incomes, particularly for subsistence producers and nutritionally vulnerable households.	Strengthen climate-resilient crop and local food production through suitable varieties, healthy planting material, soil protection, farm-water management, agroforestry and traditional practices. Provide climate advice, farmer training and plant-health and biosecurity support, including agreed moves of exposed household food production to safer sites.	Short to medium term	13,512,000	MALFFB (with DARD as operational lead)
NAP-AGR-02	Heat and drought can stress livestock and reduce feed and water availability, while cyclones and flooding can injure or kill animals and damage shelter and production assets, reducing animal welfare and productivity, particularly in smallholder systems.	Improve livestock resilience through suitable breeds, reliable feed and water, pasture management, shade and shelter, animal health and biosecurity. Provide climate advice and farmer training to protect animal welfare and production during heat, drought, cyclones and flooding.	Short to medium term	9,909,000	MALFFB (with DoL as operational lead)
NAP-AGR-03	Cyclones, flooding and drought disrupt planting material, nurseries, food storage, markets and recovery arrangements, prolonging production losses, food insecurity and income loss, particularly for remote producers.	Strengthen agricultural preparedness and recovery through seed reserves, nurseries, safe food storage, rapid replanting and reliable market access. Build producers' risk awareness and business skills, including training to use verified existing support services, to reduce food losses and restore production after climate shocks.	Short to medium term	3,355,000	MALFFB (with DARD as operational lead)

5.1.5 Adaptation Limits

Adaptation limits are reached when unacceptable risks can no longer be avoided through adaptation. Hard limits arise where no adaptation options can avoid these risks while soft limits arise where options may exist but are not currently available, for example because of financial, institutional or technological constraints. Limits need to be assessed for particular systems, locations and objectives.

Potential soft adaptation limits that may affect the effectiveness of adaptation measures in the agriculture sector include:

- limited access to finance,
- shortages in agricultural extension services and technical expertise,
- difficulties delivering services and inputs across remote islands,
- limited climate information and monitoring systems,
- challenges in maintaining supply chains, and
- limited agricultural infrastructure.

Potential hard adaptation limits include:

- the permanent loss of productive land from coastal erosion and sea-level rise,
- increasing salinisation of soils and groundwater resources,
- prolonged water shortages affecting crops and livestock, and
- climatic conditions exceeding the tolerance limits of some agricultural systems.

As climate hazards intensify, risks may remain despite adaptation measures and can result in loss and damage. These residual risks may include reduced agricultural productivity, crop and livestock losses, damage to agricultural assets and transport networks, loss of household income, declining food and nutrition security, displacement of vulnerable communities, and erosion of traditional agricultural practices and knowledge. These impacts are likely to be felt most strongly by subsistence farmers, remote communities, women, children and groups of low socio-economic background.

Monitoring should be undertaken to identify whether agricultural systems are approaching irreversible change and identify where additional measures, livelihood transition planning, disaster risk reduction or transformational responses may be required. This should track crop and livestock losses, soil and water conditions, recovery times and access to planting material, with affected communities involved in reviewing when existing measures need to change.

5.2 Ecosystems

5.2.1 Sector Overview

Ecosystems are a fundamental part of Vanuatu's culture and economy, supporting local livelihoods, cultural identity, and tourism. Traditional ecological knowledge, such as seasonal planting calendars and resource management practices, are essential for sustainable livelihoods and disaster preparedness, especially amid increasing climate variability. Natural systems are deeply integrated into customary land and marine tenure, supporting the country's largely informal rural economy. The ecosystems of Vanuatu are also intrinsically connected to all other sectors, particularly forestry, fisheries, and agriculture. Although many ecosystem services are not captured in GDP statistics, they provide significant economic value. This is reflected in the agriculture, forestry, and fisheries sectors, which accounted for 24.3% of the economy in 2022 (World Bank, 2023)

Ecosystems cover all environments within Vanuatu including terrestrial, freshwater, coastal and marine environments, and are subject to impacts from climate change and disasters. Ecosystems are made up of a large

number of organisms, from micro-organisms to macro-organisms, such as plants and animals. These work together to self-sustain the ecosystem whilst also providing and regulating cultural services of benefit to human society. The Convention on Biological Diversity defines biodiversity at three levels: genes, species and ecosystems. Collectively, these are critical for the conservation and sustainable use of biodiversity (Secretariat of the Convention on Biological Diversity, 1993). Ecosystem interactions occur not only among living organisms but also between living and non-living components of the environment.

The impacts of climate change on ecosystems are often complex and can vary across different species, habitats and ecological processes. Climate and ecosystem interactions are particularly complex because ecosystems consist of interconnected physical processes, biological relationships and human interactions. As a result, an impact on one component can influence other components, thereby increasing the vulnerability of natural, livelihood and social systems. For example, the sex determination of marine turtles is highly vulnerable to temperature.

Vulnerability can vary greatly across ecosystems, depending on the ability of individual organisms to adapt to changes in abundance, reproduction and behaviour. Similarly, vulnerability can arise from a change in overall ecological community structure or the ecosystem's ability to carry out the processes necessary to maintain functional ecosystem stability in the face of the new climatic conditions. For example, at an ecosystem level, coral reef ecosystems are vulnerable to changes in ocean acidification and shifts in ocean temperature. The complexity of ecosystem interactions highlights the need for integrated approaches to ecosystem management and climate adaptation for Vanuatu.

5.2.2 Policy Linkages

The ecosystems sector is governed by MoCC. Within this ministry, the Department of Environmental Protection and Conservation (DEPC) serves as the central authority responsible for environmental regulation, biodiversity conservation, pollution control, and environmental impact assessments. DEPC operates under the Environmental Protection and Conservation Act [CAP 283] and works closely with provincial authorities, communities, and other ministries.

Other key departments include the DoCC, which coordinates national climate policy, mitigation, and adaptation efforts, including the implementation of the NAP; and the VMGD, which provides scientific forecasting and early warning services. The DoE and the NDMO also play complementary roles in managing environmental risks and promoting sustainable resource use.

The key sectoral strategic documents driving activities in the ecological sector are the Vanuatu National Environment Policy and Implementation Plan 2016–2030, and the Vanuatu National Biodiversity Strategy and Action Plan 2018–2030 (NBSAP). Other key documents include the Overarching Productive Sector Policy 2025–2030 (GoV 2025) and NSDP 2016–2030 (Vanuatu 2030/The People's Plan), which guide the development of Vanuatu's agriculture sector including crop and livestock production, aquaculture, and forestry for food and non-food products. Additionally, the Health NAP (2025) explores some aspects of ecosystem health.

Other key strategies, plans and acts related to the ecosystem sector include the:

- Vanuatu NDC 3.0.
- Disaster Risk Management Act, 2019, NDMO.
- Vanuatu Gender Equality Policy (2020–2030).
- Environmental Protection and Conservation Act (2002, amended 2010).
- Land Leases Act and Customary Land Management Act, 2013.
- Forestry Act and Related Regulations Act, 2019.
- National Climate Change Adaptation Strategy for Land-Based Resources (2012–2022).
- Vanuatu's Forest Policy (2013–2023).

The policy interconnections for the ecosystems sector are presented in Figure 10.

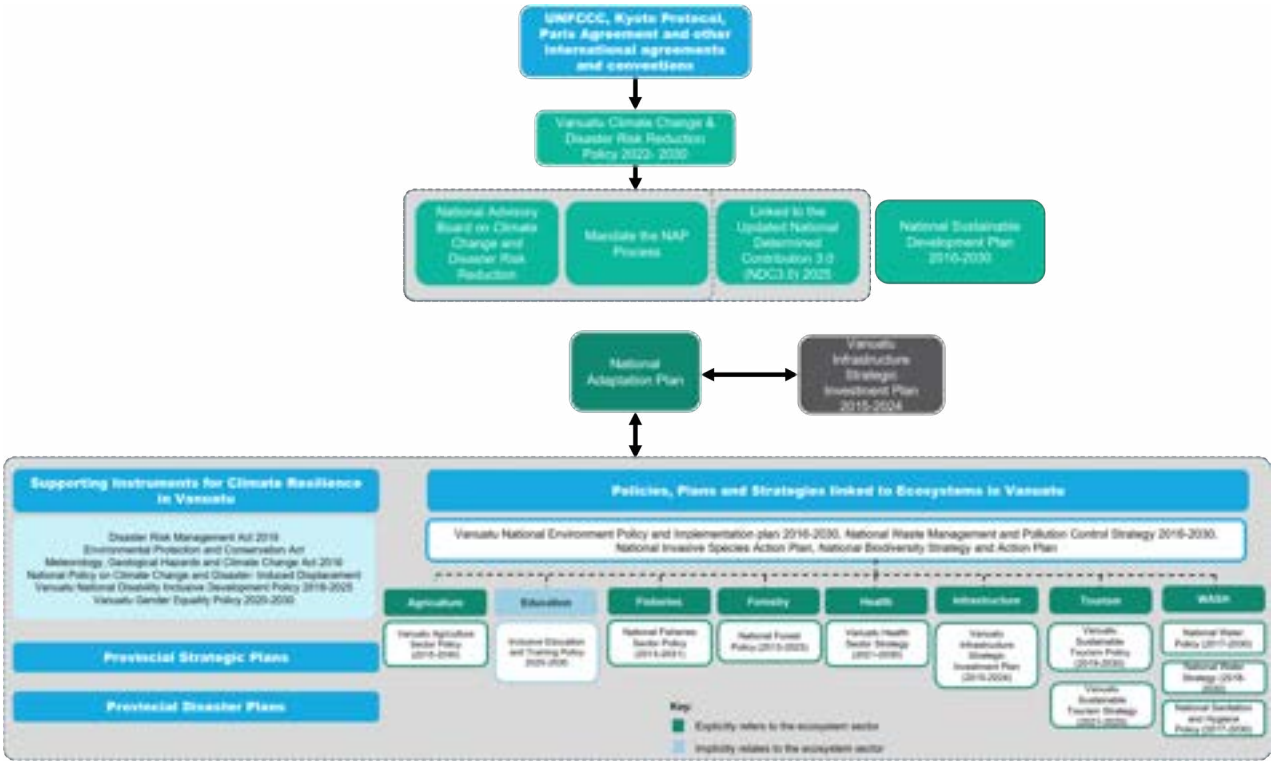


Figure 10. Key Policy Documents and Interlinkages for Ecosystems

5.2.3 Climate Risks and Vulnerabilities

Vanuatu's ecosystems are highly vulnerable to climate change due to their sensitivity to rising temperatures fluctuating rainfall patterns, intensified extreme events and sea-level rise. This vulnerability is reflected in the conservation status of several species, with fourteen plant and animal species in Vanuatu currently listed as 'Critically Endangered' on the IUCN Red List (IUCN, 2025). The nation's coral reef systems continue to face risks from global ocean warming and acidification, marine heatwaves and coral bleaching. Mangroves and seagrass meadows are threatened by sea-level rise, sedimentation and run-off, erosion, foreshore development and infrastructure, coastal erosion, storm surge and strong winds. The degradation of mangroves, seagrass meadows and coral reefs reduces the ecosystem services they provide, including coastal protection, habitat provision, water quality regulation and support for fisheries and tourism. As these ecosystems decline, villages and coastal infrastructure become increasingly exposed to erosion, flooding, storm surge and wave damage.

Rising temperatures, changing rainfall patterns and habitat destruction also affect the health, reproduction and longevity of species in terrestrial and freshwater ecosystems. Changes in rainfall intensity and prolonged drought can degrade freshwater ecosystems, increase contamination risks and reduce the availability of clean water, affecting both ecosystem health and the communities that depend on these resources. Invasive species, deforestation, pollution, and over-extraction are further anthropogenic causes of ecosystem degradation. All of these compounding pressures, coupled with the limitations in data, monitoring and management capacity, increase the vulnerability of Vanuatu's natural ecosystems. Increasing temperatures and drought conditions may also create favourable conditions for invasive species, increasing competition with native species and contributing to shifts in species distributions and declines in vulnerable native populations.

Ecological systems are vulnerable to slow-onset changes such as temperature increases and sea-level rise, and to extreme events such as high-intensity rainfall and tropical cyclones. Tropical cyclones, storm surges and strong winds

can also cause extensive damage to mangrove forests, reducing habitat quality and limiting their capacity to protect coastlines from future climate and disaster impacts.

Climate impacts are likely to be diverse and may change environmental conditions, causing cascading impacts across ecosystems. For example, increased rainfall can lead to erosion, landslides, and flooding, increasing sedimentation in coastal areas. On the other hand, drought conditions may increase plant stress, causing slower plant growth, and may increase microbial growth and mosquito breeding in rivers, impacting water quality and human health. Aspects of climatic change may positively impact some species while negatively impacting others.

Shifts in ocean temperature and sea-level rise can cause widespread stress across coastal ecosystems and associated marine species. Degradation of coral reef systems and coastal beaches may also reduce the attractiveness of tourism destinations, affecting tourism operators and communities that depend on nature-based tourism activities. These environmental pressures can lead to migration in mobile species where suitable habitat is available, or species mortality, which can ripple through food webs. Where suitable habitat is unavailable, local declines in fish populations may occur, affecting food security and reducing access to marine food resources for communities that rely on fisheries for subsistence and livelihoods. The loss of mangrove and seagrass habitats can reduce nursery areas for fish and invertebrates, contributing to declines in biodiversity and affecting the productivity of coastal fisheries. Shifts in atmospheric temperature can change the timing of flowering, nesting, or fruiting along the freshwater-estuarine-marine continuum, potentially resulting in a mismatch between interdependent species.

Increased temperatures may also result in more subtle changes such as migration of species to higher elevations (terrestrial), deeper (marine) or further south (marine and terrestrial). These dynamics may have significant ecological and cultural impacts across the country. For instance, sand temperature has a significant impact on the sex determination of turtle eggs, potentially impacting the long-term survival of marine turtle species without human intervention (DoCC, 2026).

Due to the complicated, diverse and interconnected nature of the ecosystem sector, adaptation options are wide ranging. Actions will often benefit one part of an ecosystem, while potentially having unintended consequences elsewhere. For Vanuatu, the loss of key species will have wide-ranging impacts on livelihoods, health, fisheries, agriculture and tourism, with subsequent flow-on impact across all sectors. While significant modifications to ecosystems resulting from climate change may be partially addressed through adaptation and mitigation actions, the wide range of ecosystem types and services they provide makes it difficult to identify solutions that are effective across all ecosystems.

5.2.3.1 Compounding, Cascading Risks and Interdependences

Climate impacts on the ecosystem sector can trigger compounding and cascading impacts across multiple sectors due to their strong interconnections with natural and human systems. Examples include:

- Agriculture: Declining ecosystem health reduces alternatives for food sources resulting in additional pressure on agriculture. Loss of agricultural production can also increase pressure on remaining natural food resources.
- Education: Loss of coastal reefs and mangrove forests reduce environmental protections from coastal inundation contributing to the risk of flooding in schools located near the coast.
- Fisheries: Reduction of mangrove, seagrass and coral ecosystems which act as habitat for breeding and living for many marine species causes species migration or species loss.
- Forestry: Significant land clearing can change sedimentation, water filtration, pollination, cooling and humidity levels resulting in damage to freshwater and coastal ecosystems. This loss of forests and trees significantly impacts ecosystem services and can have multiple cascading impacts across sectors. Forestry loss and related impacts have been noted in existing literature, and in the future forestry, loss may be amplified by secondary impacts (Department of Forests, 2011).
- Health and nutrition: Ecosystem decline contributes to reduced mental and physical wellbeing through reduced access to alternative or primary food and

water sources. Children and young people may be particularly affected by these mental health risks. Additionally, reduced ability to gather food, material for buildings, medicine and fuel and practice kastom can limit the ability to pass on traditional knowledge and kastom because key species are rare or absent, resulting in a loss of culture and mental wellbeing.

- Infrastructure: Loss of coastal reefs and mangrove forests reduce environmental protection, increasing the susceptibility of infrastructure to coastal flooding and inundation risks.
- Tourism: The decline in local ecosystem, particularly coral reef and seagrass, reduces tourism demand and results in economic losses for tourism operators.
- WASH: Changes in ecosystem services contributes to contamination of drinking water sources (such as rivers and lakes) resulting in higher prevalence of water quality issues and associated health conditions and disease, or increased travel distances to source water.

5.2.3.2 People and Locations Most at Risk

Marine heatwaves and ocean acidification threaten coral reef systems across Vanuatu, with the north and central regions particularly vulnerable given their relatively high share of mapped coral reefs – 45% and 43% respectively (DoCC, 2026). These risks affect the coastal communities that rely on these ecosystems for food security, livelihoods, coastal protection, and cultural wellbeing, particularly those in remote island communities with limited alternative sources of income and nutrition.

Rural communities, subsistence farmers and tourism operators that depend on the natural environment for resources are particularly vulnerable to climate-related disruption to ecosystems. Climate-related anxiety, grief and a sense of lost future opportunities associated with ecosystem loss can affect children and young people as they witness damage to Vanuatu's ecosystems and cultural sites.

Women and men may rely on and manage ecosystem services in different ways, reflecting their roles in food collection and production, water and household resource management, informal livelihoods and customary practices. The degradation of forests, reefs, mangroves, freshwater systems and coastal resources may therefore affect workloads, income, food security and access to natural resources differently. Ecosystem adaptation should draw on the knowledge of women, men, young people and persons with disabilities and support their meaningful participation in decisions relating to ecosystem restoration, conservation and resource management.

5.2.4 Adaptation Actions

Climate pressures and existing degradation threaten biodiversity and the ecosystems that provide natural protection, food and water for communities. Conservation, restoration and community stewardship help sustain these functions. Climate shocks can disrupt locally produced and gathered food, while ecosystem degradation reduces alternative food sources. Food forests, preservation, locally managed food banks and ecosystem-based farming, supported by traditional knowledge, help maintain community food supplies and support recovery. Protecting and restoring catchments, recharge areas and water-source ecosystems help maintain water availability and quality, informed by local knowledge and monitoring. Delivery requires coordination with Agriculture, Fisheries, Forestry and WASH so that shared food-security and restoration activities have clear responsibilities and complement one another without duplication. Table 16 presents the three consolidated priority adaptation actions for the ecosystems sector.

Table 16. Top Three Consolidated Priority Adaptation Actions for the Ecosystems Sector

ID	Risk statement	Adaptation action	Timeframe	Indicative costs (USD)	Responsible agency
NAP-ECO-01	Higher air and sea temperatures, marine heatwaves, ocean acidification, drought, extreme rainfall, sea-level rise and cyclones can degrade terrestrial, freshwater, coastal and marine ecosystems. These pressures compound existing habitat degradation, reducing biodiversity, ecosystem services and natural protection relied on by communities.	Conserve, restore and monitor priority terrestrial, freshwater, coastal and marine ecosystems through community-led management, suitable-species nurseries, local knowledge and technical training. Strengthen public understanding and long-term stewardship to protect biodiversity, ecosystem services and natural protection under climate change.	Short to long term	5,872,300	DEPC
NAP-ECO-02	Cyclones, flooding and drought can disrupt locally produced and gathered food, storage and preservation, while ecosystem degradation reduces alternative food sources, increasing food insecurity and slowing recovery, particularly in remote communities.	Strengthen community food security during climate shocks through food preservation, locally managed food banks and food forests, traditional knowledge and ecosystem-based farming. Support inclusive community management to maintain alternative food sources and speed recovery.	Short to long term	11,652,600	DEPC
NAP-ECO-03	Drought and higher temperatures can reduce water availability, while heavy rainfall and flooding can increase erosion, sediment and contamination in community water sources. Degraded catchments and riverbanks can compound these pressures, reducing the reliability and quality of water available to communities.	Protect and restore catchments, recharge areas, riverbanks and water-source ecosystems through community stewardship and monitoring to sustain water availability and quality during drought, heavy rainfall and flooding.	Short to long term	4,250,000	DEPC

5.2.5 Adaptation Limits

Ecosystem responses to climate change are complex due to the interconnected nature of terrestrial, freshwater, coastal and marine environments, where changes to one component can have cascading impacts across multiple species, habitats and ecosystem services. Adaptation limits are reached when unacceptable risks can no longer be avoided through adaptation. Hard limits arise where no adaptation options can avoid these risks while soft limits arise where options may exist but are not currently available, for example because of financial, institutional or technological constraints. Limits need to be assessed for particular systems, locations and objectives.

Potential soft adaptation limits that can impact the effectiveness of adaptation measures in the ecosystem sector includes:

- limited access to finance,
- shortages of technical expertise and monitoring capacity,
- insufficient ecological data,
- difficulties coordinating across agencies and communities,
- challenges associated with customary land and marine tenure arrangements,
- competing pressures from development and resource use.
- Constraints in governance and enforcement,
- Limited research capacity, and long-term funding for ecosystem management interventions.

Potential hard adaptation limits include:

- repeated coral bleaching and mortality, with reduced recovery and growth associated with marine heatwaves and ocean acidification,
- coastal squeeze where mangrove and other costal habitats cannot persist or migrate,
- irreversible degradation of freshwater ecosystems,
- loss of critical habitat for threatened species,
- ecosystem regime shifts, species decline or extinction,
- permanent loss of ecosystem functions and services.
- loss of habitats faster than restoration or conservation efforts can compensate.

As climate hazards intensify, risks may remain despite adaptation measures and can result in loss and damage. These residual risks may include reductions in biodiversity, loss of culturally significant species and traditional ecological knowledge, declining fisheries productivity, degradation of freshwater resources, reduced ecosystem services, loss of natural coastal protection, impacts on tourism assets and landscapes, and broader flow-on effects to agriculture, fisheries, forestry, health, and community wellbeing. These impacts may disproportionately affect rural communities, customary resource owners, subsistence households and communities whose livelihoods and cultural identity are closely linked to the natural environment.

Monitoring should be undertaken to identify whether natural ecosystems are approaching irreversible change. It should identify areas where additional ecosystem restoration, conservation, disaster risk reduction, livelihood transition or transformational responses may be required. Changes in habitat condition and recovery should inform conservation and restoration choices, while losses of culturally significant species and places should be documented with customary owners.

5.3 Education

5.3.1 Sector Overview

Vanuatu's education sector covers Early Childhood Care and Education (ECCE) right through to tertiary education and vocational training, providing an essential foundation for the future success of younger generations and societal prosperity. The education sector in Vanuatu is vital to the national economy and societal development and is central to the implementation of the NSDP 2016–2030 (Vanuatu 2030/The People's Plan). The sector is also an important source of employment, with education being the largest government service deliverer and employer in Vanuatu.

Key assets in the sector include school infrastructure across 1,342 schools (around 90% of which are in rural areas), as well as the infrastructure involved in further training

outside of formal school-age education. School infrastructure is separated into groups based on the educational facilities they service – Early Childhood Care Education (ages 3 – 5), primary school (ages 6 to 11), Junior Secondary (ages 12-15), and Upper Secondary (ages 16–18) along with additional training and education. Exposure mapping indicates that approximately 89% of schools are in drought-prone areas, 34% are in high flood-risk zones, and around 20% are located less than five metres above sea level (Kagawa & Selby, 2024).

More than 50% of Vanuatu's population is younger than 21, placing significant pressure on school infrastructure, teaching materials and teaching staff capacity (Ministry of Education and Training, 2020). School enrolment peaks at primary school level (ages 6 to 11), with reduced attendance at higher levels. Reasons for children leaving education vary but generally include financial and transport burdens, the need to undertake work and other priorities, particularly following disaster events (Ministry of Education and Training, 2020).

Educational attendance is not compulsory in Vanuatu due to the remote and isolated nature of many of its communities. Education levels differ by geographical location, with enrolment rates highest in urban communities and reduced resources in rural areas affecting equal access to schooling (Vanuatu Bureau of Statistics, 2024; Ministry of Education and Training, 2020). Recent initiatives such as the School Grant Programme have enabled children to attend schools outside of their community, increasing enrolment in rural communities (Ministry of Education and Training, 2020).

Children with disabilities experience additional access challenges as well as issues with inclusion in learning, appropriate teaching methods, appropriate facilities, and discrimination. Lack of access to education for persons with disabilities contributes to increased vulnerability within communities. A study reported that 60% of persons with disabilities in Vanuatu did not have information on what to do in an emergency before Tropical Cyclone Pam hit in 2015 (Bula, Morgan, & Thomson, 2020). Primary school entry was around 77% for both male and females. Junior secondary school attendance among children of junior secondary school age was higher for females (56.9% in comparison to male 46.6%), however this was offset with more males of this age attending primary school resulting in the out of school percentage being similar, 15.3% for females and 16.7% for males (Vanuatu Bureau of Statistics, 2024).

Education spending as a share of total public expenditure has remained at around 13% (Government of Vanuatu, 2021). The economic contribution of the education sector results both from its active contribution through employment and the potential future benefits of education, neither of which can be easily quantified. An effective education sector provides benefits at national, family and individual levels, as low educational attainment leads to poorer employment opportunities associated with unemployment and low literacy levels.

A 2025 UNICEF youth survey found that 65.8% of respondents consider climate change a serious or very serious issue; 52.5% reported worry, and 31.2% reported feelings such as sadness, anxiety, helplessness or fear. While relevant policies recognise the importance of psychosocial support in schools, coverage and capacity remain limited, particularly outside urban areas. The sector's dependence on dispersed infrastructure, service continuity and equitable access to learning creates a range of vulnerabilities in the face of climate change and disasters.

5.3.2 Policy Linkages

The education sector is governed by the Ministry of Education and Training (MoET), which is committed to making educational facilities physically accessible. The Vanuatu Education and Training Sector Strategic Plan 2021–2030 highlights the sector's vulnerability to disasters and climate change, and the need to mainstream climate change and disaster management across sectoral policies and mobilise further resources. (Government of Vanuatu, 2021)

The sector is guided by the Education Act No. 9 of 2014. Key policies include the Inclusive Education and Training Policy 2025–2030, Education and Training Sector Strategic Plan 2020–2030 and the 2018–2025 National Disability Inclusive Development Policy. These policies support equitable access to quality education for children with disabilities, inclusive environments, teacher training, and barrier-free infrastructure.

Recognising the strong connection between the continuation of education and WASH services at schools,

the WASH in Schools Policy 2024–2030 and associated implementation framework to improve resilient WASH services are also key policies. Other relevant documents and initiatives include the Vanuatu school health policy, the Farm to School Project, the MoET ICT Policy 2025, the Education in Emergency Policy 2025 and the Education Sector Snapshot for Comprehensive School Safety and Education in Emergencies

The sector receives financial contributions from global partners, including NGOs and foreign governments.

International support includes the European Union (EU) and UNICEF partnership focused on resilience to climate-related disasters (Delegation of the European Union to the Pacific, 2025). Additionally, the Australian Department of Foreign Affairs and Trade (DFAT) is providing targeted support to the MoET for education and training under the Vanuatu Australia Education Support Program.

The policy interconnections for the education sector are presented in Figure 11.

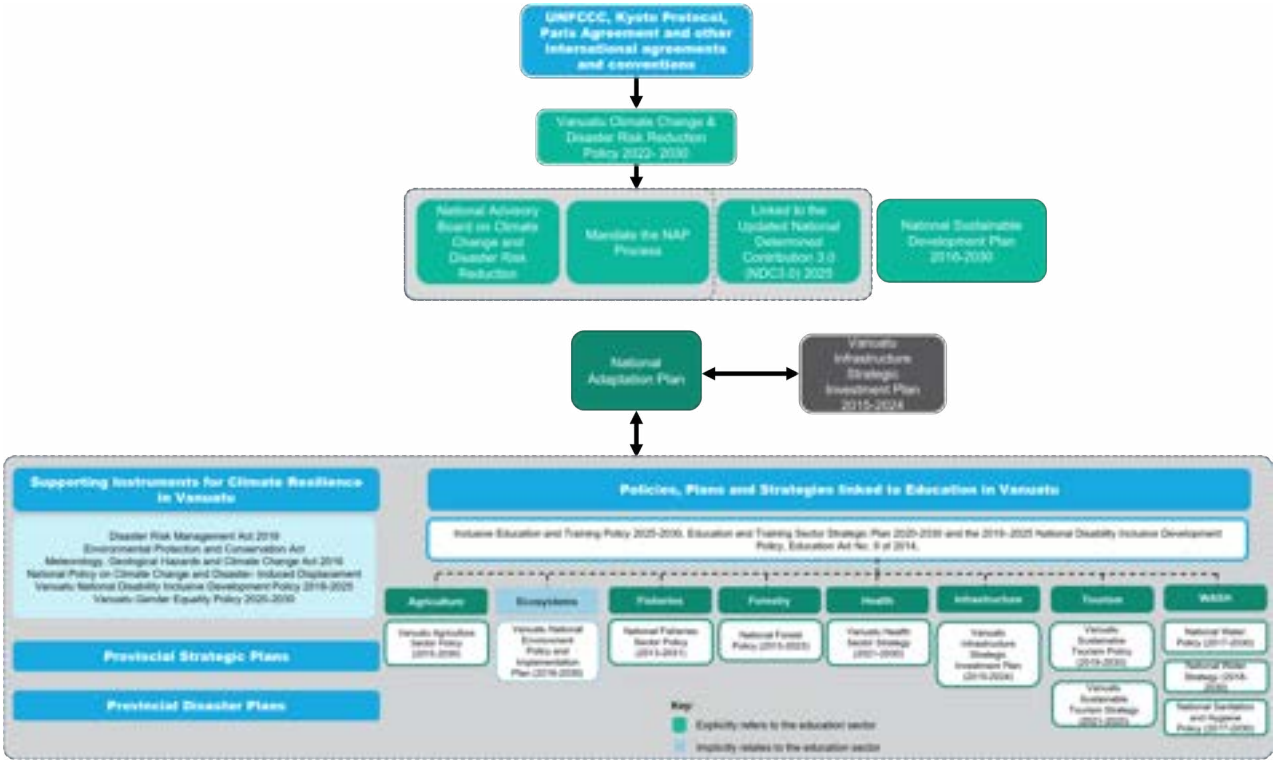


Figure 11. Key Policy Documents and Interlinkages for Education

5.3.3 Climate Risks and Vulnerabilities

The education sector is vulnerable to hazards which impact physical infrastructure including tropical cyclones, coastal inundation, heavy rainfall, and fluvial and pluvial flooding. These hazards can result in reduced access to infrastructure, decreased safety of buildings and loss of school learning materials. Runoff and overflowing streams can flow directly through classrooms, creating immediate safety hazards, forcing the total suspension of classes or creating dangerous transit conditions that prevent students and teachers from travelling to school, leading to absenteeism.

Damage to or loss of school buildings and key WASH facilities can interrupt safe and inclusive learning. In low-lying coastal areas, sea-level rise and permanent inundation may require the relocation of school buildings and associated infrastructure where on-site measures are insufficient, and in some cases, may lead to the closure of affected facilities. Damage to education facilities is generally caused by extreme events such as tropical cyclones and significant floods. Heavy rainfall and extreme winds can cause more localised impacts such as landslides

or tree fall that may also significantly damage buildings and restrict safe access to schools.

The education sector is also vulnerable to increasing temperatures and droughts. These conditions contribute to heat stress and dehydration, affecting students' wellbeing and academic performance. Drought-related food insecurity can also affect children's nutrition and wellbeing, reducing their ability to concentrate, participate effectively in learning and achieve positive educational outcomes. Many schools also rely on rainwater harvesting, leading to school closures during periods of low rainfall. Extended drought conditions can also reduce the availability of safe drinking water at schools, contributing to school closures, absenteeism, dehydration and adverse health outcomes among students. Temporary facilities such as tents can also become excessively hot, affecting students' ability to focus and participate effectively in learning.

Damage to education infrastructure from extreme events results in cascading impacts on schools and students, including reduced schooling hours or poor working conditions and extended rebuilding periods following a disaster. Schools may lack key services such as power or water, while the relocation of students to other schools can reduce available resources for children and increase the risk of illness under crowded conditions. The uncertainty, trauma, and anxiety following an extreme event can also affect learning outcomes.

In many cases, schools are used as evacuation centres, causing temporary loss of access to education. When this happens, it is essential that child protection and safeguarding standards are applied. For example, safe child-friendly spaces, separate washing and toilet facilities for girls and boys, and clear referral pathways for violence cases, to ensure that the protective role of schools is not compromised during emergencies.

Tropical Cyclone Pam damaged or destroyed over 50% of schools, disrupting education for 34,500 children. Thirty-four structurally intact schools were used as shelters, causing closures across the island for up to 30 days (MoET and Save the Children, 2016). In April 2020, Tropical Cyclone Harold damaged or destroyed 885 schools while in 2023, Tropical Cyclones Judy and Kevin affected 390 schools and disrupted learning for around 75,000 students, resulting in an estimated education-sector impact of USD 29 million.

The low level of WASH services in schools also makes schools highly vulnerable to climate change. Inadequate WASH infrastructure can affect the health, safety and attendance of students, particularly girls, students living with disabilities, and students in rural communities. Limited access to safe, private and dignified menstrual hygiene facilities may increase absenteeism among adolescent girls and contribute to poorer educational outcomes.

Learning is negatively impacted when schools are closed, inaccessible or operate at reduced hours, and when children are temporarily removed from education to support disaster recovery, domestic or agricultural activities. These interruptions can affect routines and sense of normalcy, which are important for wellbeing. Post-disaster financial stress may also force families to prioritise immediate needs over schooling costs. A 2021 analysis of school curricula in Vanuatu found that in-depth learning on disasters and climate change was not included until the end of secondary education (Pierce & Hemstock, 2021). The CRVA records more recent efforts to include climate-related materials in school curricula, while identifying a need to monitor their implementation and effectiveness. This supports continued teacher development and practical climate learning alongside measures to maintain school access and continuity. Together, these impacts demonstrate how climate change can affect not only education infrastructure and service delivery but also learning outcomes and the long-term wellbeing of children and young people.

5.3.3.1 Compounding, Cascading Risks and Interdependences

Climate impacts on the education sector can trigger compounding and cascading impacts across multiple sectors due to their strong interconnections with natural and human systems. Examples include:

- Agriculture: Extra effort to harvest food for the family or for sale may require children to leave education. Loss of family income may cause children to drop out of school due to the cost of school fees. In addition, food insecurity and malnourishment can lower students' ability to concentrate, reducing learning outcomes
- Ecosystems: Loss of coastal reefs and mangrove forests reduce environmental protection from coastal inundation contributing to the risk of flooding in coastal schools

- Fisheries: Extra effort to harvest food for the family or for sale may require children to leave education.
- Health and nutrition: Food insecurity and malnourishment can lower students' ability to concentrate, reducing learning outcomes. Displacement, financial pressure and disrupted protection services can also increase risks faced by children and adolescents, including child marriage and sexual exploitation and abuse. Additionally, climate related changes in vector habitats and water contamination can increase the risk of vector borne and waterborne diseases which impact school attendance and teacher health (Ministry of Health, 2025). In addition to physical health impacts, disasters can result in long term psychological effects, particularly where displacement occurs, reducing educational outcomes for students (Ministry of Health, 2025)
- Infrastructure: Access issues and costs associated with travel to school may cause children to pause or drop out of school, especially for remote communities and after major weather events.
- WASH: Inadequate WASH facilities at schools limits safe and dignified access to bathroom facilities particularly for menstrual hygiene creating inadequate conditions for girls, students living with a disability, and students in rural communities.

5.3.3.2 People and Locations Most at Risk

Within the CRVA's mapped school and road inventory, South Malekula, Erakor, North-East Malekula and North Tanna have the highest relative present day risk to coastal flooding. South-East Malekula has the highest relative risk of school and road exposure to coastal flooding under one metre of sea-level rise[16].

Children and young people face different barriers to maintaining education during climate and disaster-related disruption. Where access, school WASH or alternative learning arrangements are inadequate, disruption can be greater for rural students and children living with disability. School closures also increase care responsibilities, particularly for women (Kilroy, McNamara, Witt, & Raynes, 2025).

Where roads are damaged, students living with disability, and rural students are likely to disproportionately experience reduced access and safety. Girls are more likely to undertake additional domestic and caregiving responsibilities following climate and disaster events, which can contribute to reduced attendance, prolonged disruption to learning and an increased risk of early school dropout (Ministry of Education and Training, 2025). Students living with disabilities may experience inaccessible routes, inadequate school and WASH facilities, exclusion and discrimination. Health Promoting Schools provide a cross-sector platform linking school WASH, nutrition, child protection, mental health and climate-sensitive health risk communication, with detailed health interventions guided by the health sector actions and relevant MoH plans.

Post-disaster financial pressure may force households to reduce spending on education, with consequences that vary by age, gender and household circumstances, including the prioritisation of boy's education over girls and permanent withdrawal of adolescent girls from education. Harmful coping strategies can increase as pressure intensifies, including child labour. Heightened risks of gender-based violence in overcrowded shelters can also increase the risk of permanent dropout.

5.3.4 Adaptation Actions

Addressing these risks requires measures that protect children and sustain safe, inclusive learning as climate conditions change. Resilient school buildings, reliable essential services and Health Promoting Schools with safe, accessible WASH support safer learning environments. School risk planning, child-sensitive warnings and tested continuity arrangements help protect children and sustain learning during disruption. Climate education, teacher development and practical skills strengthen the ability of learners, teachers and the wider workforce to anticipate and manage changing risks. The actions bring together priorities identified by the Ministry of Education and Training and UNICEF. Table 17 presents the three consolidated priority adaptation actions for the education sector.

[16] The vulnerability of Malekula was validated during CRVA, NAP and PAP workshops as well as anecdotally within news reports published throughout the CRVA (DoCC, 2026).

Table 17. Top Three Consolidated Priority Adaptation Actions for the Education Sector

ID	Risk statement	Adaptation action	Timeframe	Indicative costs (USD)	Responsible agency
NAP-EDU-01	Cyclones and flooding, including coastal inundation associated with sealevel rise, can damage school buildings, essential services and access routes. Heat and drought can make learning spaces unsafe or reduce water availability, increasing the risk of closures and unequal access to education, especially where ventilation, water storage, maintenance and alternative access are limited.	Upgrade and maintain school buildings, teacher accommodation and essential services under the Asset Master Plan and national standards, using climate-resilient, low-carbon design, reliable water, sanitation and hygiene services, renewable power and connectivity; expand Health Promoting Schools with safe, accessible water, sanitation and hygiene. Redesign or relocate schools only where risk assessment shows on-site measures are insufficient, with safe-site, land-tenure, community-participation and child-rights safeguards.	Short to medium term	37,956,600	MoET
NAP-EDU-02	Climate events close schools and disrupt access and services, increasing health, safety and protection risks and causing learning loss where planning, warning and continuity arrangements are weak.	Implement climate-risk-informed School Improvement Plans, WASH improvement plans, and the School-Based Disaster Risk Reduction and Education in Emergencies policies, based on school vulnerability assessments. Train school teams and test arrangements for child-sensitive warnings, safeguarding, psychosocial support, referrals and alternative learning, linked to community and Area Council adaptation, preparedness and response	Short to medium term	38,730,500	MoET
NAP-EDU-03	Where climate learning is not implemented consistently and teaching or technical capacity is limited, learners, teachers and the workforce may lack the knowledge and practical skills needed to prepare for changing climate risks and support adaptation.	Integrate climate change, disaster risk reduction, traditional knowledge and environmental stewardship into curricula, assessment and practical school–community learning. Strengthen pre-service and in-service teacher education, locally appropriate resources and relevant tertiary and vocational qualifications, with a designated MoET climate and resilience function supporting all three Education actions.	Short to medium term	773,900	MoET

5.3.5 Adaptation Limits

Adaptation limits are reached when unacceptable risks can no longer be avoided through adaptation. Hard limits arise where no adaptation options can avoid these risks while soft limits arise where options may exist but are not currently available, for example because of financial, institutional or technological constraints. Limits need to be assessed for particular systems, locations and objectives.

Potential soft adaptation limits that may affect the effectiveness of adaptation measures in the education sector include:

- funding constraints for climate-resilient infrastructure, temporary learning spaces and adaptation programmes
- shortages of trained teachers, counsellors and technical specialists,
- high staff turnover resulting in the loss of trained personnel and institutional knowledge,
- limited access to technology, digital learning tools and connectivity in remote locations
- inadequate climate and disaster risk training and educational materials, including materials in local languages,
- weak coordination, data sharing and institutional capacity, and
- challenges maintaining school infrastructure, ICT systems and WASH facilities across dispersed and outer island communities

Possible hard adaptation limits include:

- permanent closure or loss of schools due to coastal erosion, sea-level rise and submergence,
- climate hazards occurring faster than evacuation, response or adaptation measures can be implemented,
- prolonged learning disruption and learning loss associated with prolonged displacement and repeated disasters,
- psychosocial trauma exceeding available support services and response capacity,
- permanent displacement of communities, students and teachers,
- destruction of critical education infrastructure by severe climate-related events, and
- loss of traditional knowledge, local context and educational relevance as ecosystems, livelihoods and communities are transformed by climate change

As climate hazards intensify, risks may remain despite adaptation measures and can result in loss and damage. These residual risks may include prolonged interruptions to education services, unequal access to learning opportunities, reduced educational attainment, damage to education infrastructure and assets, loss of traditional and place-based knowledge, increased psychosocial stress and mental health impacts, reduced inclusion of vulnerable groups, and long-term effects on child wellbeing, community resilience and future livelihood opportunities.

Monitoring should be undertaken to identify whether climate impacts are affecting the continuity and accessibility of education services. This should focus on monitoring school attendance and continuity, days of learning lost due to climate and disaster events, the condition and functionality of school infrastructure, access to WASH and ICT services, implementation of school-based disaster risk management measures, teacher capacity and retention, student wellbeing, and the effectiveness of adaptation measures in maintaining safe and equitable access to education.

Where repeated disruption persists, findings should inform alternative learning arrangements, psychosocial support and, where needed, assessment of safer school sites in consultation with affected communities.

5.4 Fisheries

5.4.1 Sector Overview

Vanuatu has a coastline of 1,920 kilometres and an Exclusive Economic Zone (EEZ) of 680 000 square kilometres, with fisheries making up approximately 0.7% of Vanuatu GDP. (Food and Agriculture Organization of the United Nations, 2017). Fisheries in Vanuatu can be broadly categorised into two costal or inshore and oceanic or offshore fisheries.

Coastal fisheries are located within shallow reefs, estuaries and shallow bottom areas generally up to 200 metres in depth (the photic zone). Fish species residing in the coastal area are generally reliant on the nutrient rich near-shore waters. Vanuatu's inner reefs and lagoons have been estimated to cover an area of approximately 448 square kilometres with an additional 25 square kilometre area of mangrove habitat (Food and Agriculture Organization of the United Nations, 2017). These areas support subsistence, artisanal, customary, recreational and tourism-related fishing activities. Fishing is vital for subsistence communities within Vanuatu with an average of 48% of rural households and 11% of urban households engaging in fishing.

Oceanic fisheries generally occur from 10 nautical miles from the shoreline to the edge of Vanuatu's EEZ. Oceanic (pelagic) ecosystems extend beyond the continental shelf and fluctuate according to ocean depth, global climate cycles and nutrient cycles. Many open ocean species are migratory and move in response to changing biological and physical conditions. Due to the size of the fish, distance from shore and difficulty of access, oceanic fishing is dominated by commercial vessels, although some subsistence, recreational and small-scale commercial fishers also access these resources.

Fishing also provides important recreational, food-supply and financial benefits at local and commercial scales. Financial benefits include local trading, commercial and international fish sales, and tourism activities such as scuba diving, snorkelling and recreational fishing.

5.4.2 Policy Linkages

The fisheries sector is primarily governed by the Vanuatu Fisheries Department, under the MALFFB. The DEPC is responsible for environmental regulation, biodiversity conservation, pollution control, and environmental impact assessments. DEPC operates under the Environmental Protection and Conservation Act [CAP 283] and works closely with provincial authorities, communities, and other line ministries.

The sector is guided by the Vanuatu National Fisheries Sector Policy 2016–2031, which includes strategic objectives related to climate change and disaster risk reduction. The policy addresses governance, economics, resource security, infrastructure support, environment, ICT, compliance, and collaboration. The policy aims to address key constraints and challenges faced by the fisheries sector through eight Strategic Policy Objectives (SPO).

Other key strategies, plans and acts related to the fisheries sector include the:

- Vanuatu NDC 3.0.
- Vanuatu National Roadmap for Coastal Fisheries (2019–2030).
- Overarching Productive Sector Policy (GoV 2025).
- Fisheries Act No. 10 of 2014.
- Fisheries Regulations Order No. 28 of 2009.
- High Seas Transhipment Order No. 212 of 2020.
- Vanuatu National Fisheries Sector Policy 2016–2031.
- Vanuatu National Roadmap for Coastal Fisheries 2019–2030.
- Disaster Risk Management Act No. 23 of 2019, NDMO.
- Environmental Protection and Conservation Act (2002, amended 2010).
- The Vanuatu Meteorology and Geo-Hazards Department National Strategy and Frameworks for Weather, Climate, Hydrometeorology, and Ocean Services (VMGD NSFWCHOS), 2024–2029.

The policy interconnections for the fisheries sector are presented in Figure 12.

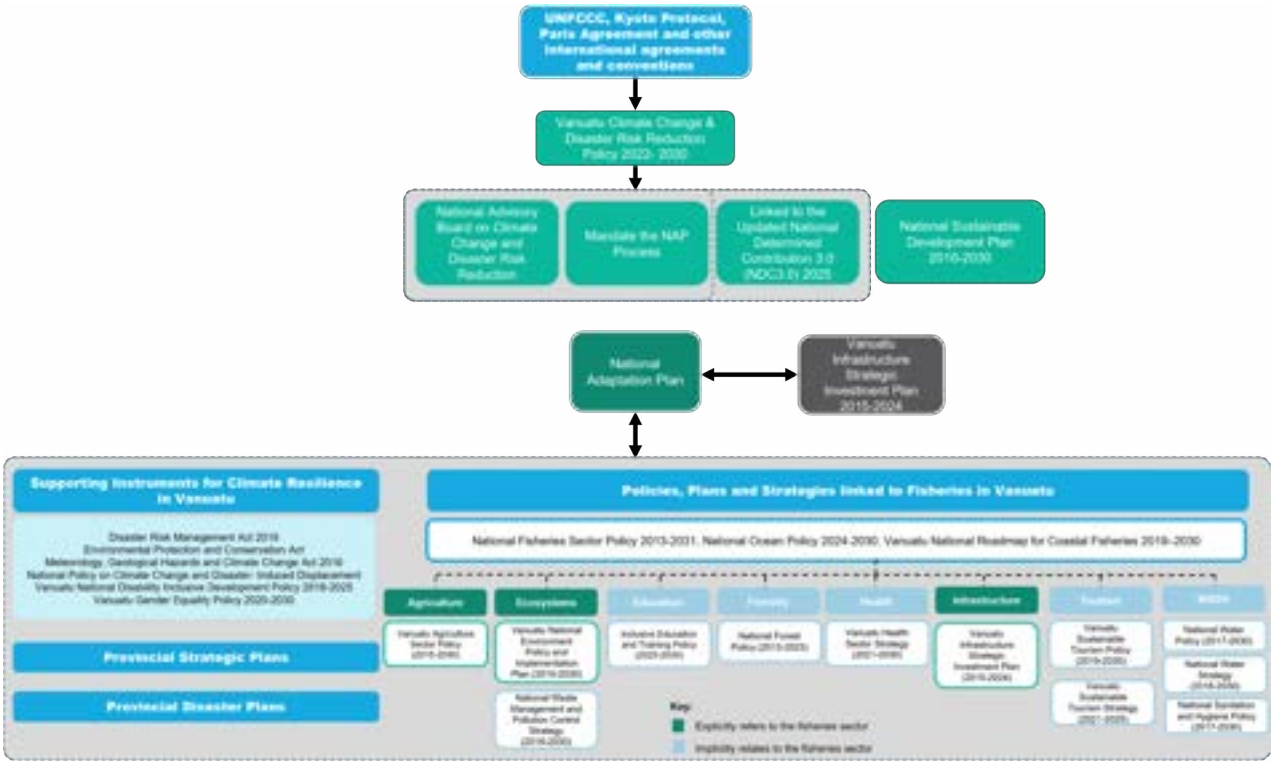


Figure 12. Key Policy Documents and Interlinkages for Fisheries

5.4.3 Climate Risks and Vulnerabilities

Vanuatu's coastal and oceanic fisheries face climate-related pressures that vary according to the ecosystem. Coastal fisheries are sensitive to land-based and marine climate impacts, while offshore fisheries are driven by large-scale ocean circulation including ENSO. As climate change increasingly affects ocean ecosystems and marine resources, including tuna, improved ENSO-informed forecasting will become increasingly important for fisheries management and preparedness (FAO, 2024).

Changes in the distribution and productivity of fish stocks may reduce access to fisheries resources, affecting food security, livelihoods and national revenue. Locally relevant projections and monitoring are needed to guide fisheries management and investment.

In coastal ecosystems, ocean acidification, rising sea temperatures and sea-level rise cause stress to fish, coral and marine plants. Rising temperatures and marine heatwaves can cause coral bleaching, while ocean acidification reduces calcification and reef growth. Together, these pressures can weaken reef resilience and reduce habitat for fish species. Reducing non-climate pressures such as pollution and overfishing can improve the resilience of coastal ecosystems. Although local action cannot prevent large-scale ocean change, fisheries management, forecasting, safer fishing practices and livelihood adjustments can help communities respond to changes in oceanic fisheries.

Changes in temperature, salinity and sea-level rise can affect mangroves, which provide an important habitat for juvenile fish and other species such as crabs, shrimp and turtles. When these slow-onset pressures combine with marine heatwaves, tropical cyclones, increased freshwater run-off and sedimentation caused by flooding, ecosystems may be less able to recover. This can result in food web disruption, habitat loss, reduced biodiversity and declining fisheries catches.

Rising ocean temperatures and marine heatwaves are also expected to alter the distribution of pelagic species, with some commercially important fish stocks shifting beyond their traditional fishing grounds or declining where suitable habitat is no longer available. In coastal areas, extreme heat events may create conditions that result in localised fish kills in shallow waters. Increasing temperatures may also affect turtle populations by altering hatchling sex ratios and reducing the proportion of male turtles, creating long-term risks for population viability. Warmer ocean conditions can

further increase the likelihood of harmful algal blooms associated with ciguatera fish poisoning, posing risks to food safety and public health.

Climate impacts on fisheries can be difficult to attribute to a single driver because pollution, overfishing and other external factors also influence fish populations. Climate change combined with overfishing will reduce the ability of fish stocks to withstand climate hazards. Declining fish stocks and changing species distribution may reduce fisheries production, affecting government revenue, food security, household income and employment opportunities. Climate hazards can also damage landing and fish-handling facilities and interrupt the power and transport needed for preservation, cold storage and market access. These disruptions can increase food losses and delay livelihood recovery, particularly where remote communities have limited alternative facilities and market connections.

Healthy marine ecosystems are better able to recover from climate impacts and support resilient fisheries. Maintaining ecosystem health and strengthening adaptive fisheries management will help reduce climate-related risks across the sector.

5.4.3.1 Compounding, Cascading Risks and Interdependencies

Climate-related disruption to the fisheries sector can trigger compounding and cascading impacts across multiple sectors due to their strong interconnections with natural and human systems. Examples include:

- Agriculture: Loss of access to marine-based protein can affect food security and increase pressure on local agriculture. Loss of coastal livelihoods may compound resource scarcity and household stress, increasing the risk of harmful coping behaviours.
- Forestry: Significant land clearing can change sedimentation levels resulting in damage to fish habitats and fisheries.
- Education: Extra effort to harvest food for the family or for sale may require children to leave education either temporarily or permanently, which compromises their learning outcomes.
- Ecosystems: Changes of fish populations impact ecosystem dynamics
- Health and nutrition: Loss of access to marine-based protein will impact food security and may contribute to nutrition deficiencies especially among children
- Tourism: Any degradation of coral reefs due to overfishing will impact tourism businesses, and ciguatera poisoning of fish may compromise tourism through seafood poisoning in seafood dining.

5.4.3.2 People and Locations Most at Risk

Climate-related impacts on fisheries can threaten the food security and livelihood of households engaged in subsistence or commercial fishing. Dependence on local catches and limited alternative food and income sources can increase vulnerability. These disruptions may also compound existing gender inequalities by constraining women's economic opportunities and increasing the effort needed to secure food and income.

Women's roles, access to resources and participation across fisheries value chains can differ from those of men, contributing to disproportionate impacts. Women are particularly involved in inshore and reef gleaning activities and contribute to fish processing, preservation, local sale and household food security, while offshore and commercial fishing activities are more commonly undertaken by men. Declining coastal fisheries, damaged access and disrupted markets may therefore reduce women's income and food-security contributions, increase the time required to collect marine resources and affect groups with limited access to fisheries technology, finance and decision-making. Fisheries adaptation should ensure that women, young people, persons with disabilities and remote communities can participate meaningfully and benefit equitably from community management, training, technology, facilities and market support.

5.4.4 Adaptation Actions

Climate pressures threaten fisheries resources, fishing safety and the supply of fish for food and income. Community fisheries management, customary stewardship and safer fishing practices help communities respond to changing conditions while sustaining fish supplies. Resilient fisheries and aquaculture production, fish-handling facilities at landing sites, preservation, cold storage and market access help reduce food and income losses during disruption. Research, monitoring and climate and ocean information support timely management, warnings and investment decisions. Proposed aquaculture and hatchery options require technical, environmental and biosecurity appraisal before testing, with the findings informing any wider implementation. Table 18 presents the top three consolidated priority adaptation actions for the fisheries sector.

Table 18. Top Three Consolidated Priority Adaptation Actions for the Fisheries Sector

ID	Risk statement	Adaptation action	Timeframe	Indicative costs (USD)	Responsible agency
NAP-FIS-01	Ocean warming, marine heatwaves, acidification and habitat degradation can reduce or redistribute fish stocks, threatening food security, incomes and customary practices in fishing-dependent communities. Cyclones and hazardous waves can also damage fishing access and equipment and make fishing unsafe.	Strengthen inclusive community fisheries management, customary stewardship and safe fishing practices that recognise the different roles and knowledge of women and men across coastal and offshore fisheries. Provide climate information, practical training and appropriate technologies, including suitable Fish Aggregating Devices, to sustain fish stocks and marine livelihoods.	Medium to long term	8,976,000	MALFFB (with VFD as operational lead)
NAP-FIS-02	Climate hazards and ecosystem change disrupt production, landing, handling, preservation, storage and markets, increasing food losses and livelihood disruption.	Improve climate-resilient fisheries and aquaculture production, fish-handling facilities at landing sites, preservation, cold storage and market access. Support safer fishing, diverse livelihoods and planned recovery, with technical and environmental appraisal and maintenance arrangements for new technologies and assets.	Medium to long term	12,672,000	MALFFB (with VFD as operational lead)
NAP-FIS-03	Climate-related changes in fish stocks, habitats and ocean conditions can undermine fisheries management, livelihoods and fishing safety. Gaps in monitoring and locally relevant information can delay detection and limit informed management, advisory and investment decisions.	Strengthen fisheries research, stock and catch monitoring, community observations, climate and ocean advisories, early warning and local response capacity. Test suitable aquaculture and hatchery options only after technical, environmental and biosecurity appraisal, using the findings to guide adaptive management and recovery.	Medium to long term	21,648,000	MALFFB (with VFD as operational lead)

5.4.5 Adaptation Limits

Adaptation limits are reached when unacceptable risks can no longer be avoided through adaptation. Hard limits arise where no adaptation options can avoid these risks while soft limits arise where options may exist but are not currently available, for example because of financial, institutional or technological constraints. Limits need to be assessed for particular systems, locations and objectives.

Potential soft adaptation limits that may affect the effectiveness of adaptation measures in the fisheries sector include:

- limited technical expertise,
- inadequate monitoring capacity,
- shortages of specialised equipment,
- challenges accessing long-term funding,
- insufficient fisheries data,
- the high cost of offshore fishing technologies, and
- difficulties maintaining infrastructure and fisheries assets in remote locations

Possible hard adaptation limits include:

- coral reef degradation associated with marine heatwaves and ocean acidification,
- loss of fish habitat,
- shifts in migratory fish stocks beyond accessible fishing grounds,
- collapse of key fish populations,
- loss of critical nursery habitats,
- irreversible ecosystem changes, and
- the decline or loss of culturally and economically important marine species

Stock declines, habitat damage or movement beyond current fishing grounds do not alone establish a hard limit. A hard limit to maintaining a particular fishery or customary practice may arise where essential stocks or habitats are irreversibly lost, and no adaptive option can sustain that objective. As climate hazards intensify, risks may remain despite adaptation measures and can result in loss and damage. These residual risks may include reduced fisheries productivity, declining fish catches, loss of food security and income, damage to fisheries infrastructure and value chains, loss of traditional fisheries knowledge and practices, reduced ecosystem services, and broader impacts on coastal communities that depend on fisheries resources for their livelihoods and wellbeing.

Monitoring should be undertaken to identify whether fisheries ecosystems are approaching irreversible change. This should focus on monitoring fish stocks, fisheries productivity, habitat condition, ecosystem health, and changes in species distribution. Findings should inform adjustments to fisheries management and production options, with livelihood support and the protection of traditional knowledge considered where catches and habitats cannot recover.

5.5 Forestry

5.5.1 Sector Overview

The people of Vanuatu are highly reliant on forestry products with 90% of ni-Vanuatu people relying on wood and wood products for construction materials, food, income and energy (Organization, 2020). Forest products are used by households and communities for food, wild honey, medicine, weaving fibres, canoe building, fuel, timber and other construction products. The sector includes both commercial timber operations and extensive use of non-timber forest products. Traditional canoe building, using coastal tree species, remains culturally and economically significant for transportation and inshore fisheries.

Forestry contributes approximately 1% of GDP, without consideration of the additional benefits previously mentioned (World Bank, 2021). Forests provide a range of

environmental, social and physical benefits including air filtration, water filtration, carbon storage, habitat creation, ground stabilisation, providing windbreaks, storm and coastal protection, pollination services, temperature regulation, shading and aesthetic benefits.

Forests covered approximately 36.3% of Vanuatu's land area in 2023, based on the FAO definition of forest area (Food and Agriculture Organization of the United Nations, 2025). Vanuatu's forests contain seven plant species listed as Critically Endangered on the IUCN Red List (IUCN, 2026).

The country's forests can be broadly classified into five primary forest types, each characterised by distinct ecological features and geographic distribution:

- **Lowland rainforest** is characterised by dense evergreen vegetation, tall trees reaching up to 30 m, and rich volcanic soils that support high biodiversity. They are found on the windward (southeastern) sides of islands at elevations up to approximately 600 m. An example of this is the Loru Rainforest protected area located on Santo Island.
- **Montane cloud forest** occurs above approximately 600 m elevation and is characterised by persistent cloud cover, moss-covered trees, and abundant epiphytes and orchids.
- **Mangrove forest** is found along sheltered coastlines and estuaries, primarily in Malekula island, providing important coastal protection, carbon storage, and nursery habitat for fisheries.
- **Littoral forest** occurs along sandy shores and narrow coastal plains and contributes to shoreline stabilisation, coastal biodiversity conservation, and cultural uses including traditional canoe building among ni-Vanuatu communities. An example of littoral forest is the Loru Conservation Area on Espiritu Santo.
- **Plantation forest** is dominated by planted commercial species, particularly whitewood (Endospermum medullosum), which supports the forestry sector through timber production. Plantation forest is particularly found on Santo Island.

Differences in forest type, location and ecological function influence how forests respond to environmental pressures and the consequences of forest change for people and natural systems.

5.5.2 Policy Linkages

The Department of Forestry (DoF) under the MALFFB, is responsible for forestry governance. The DoF operates under the Forestry Act No. 26 of 2001, which provides for the protection, development and sustainable management of forests and the regulation of the forestry industry.

The National Forest Policy (2013–2023) revised 2011 provides the main strategic framework for the development and management of Vanuatu's forestry sector. The DEPC is responsible for environmental regulation, biodiversity conservation, pollution control, and environmental impact assessments. Forest and timber rights are also affected by governance arrangements for leased and customary land.

Other relevant strategies, plans and legislation include:

- Forestry Act and Related Regulations - Act No.31 of 2019.
- Overarching Productive Sector Policy (GoV 2025).
- Vanuatu's Forest Policy (2013–2023).
- Environmental Protection and Conservation Act (2002, amended 2010).
- National Climate Change Adaptation Strategy for Land-Based Resources (2012–2022).
- Vanuatu NDC 3.0.
- Disaster Risk Management Act No. 23 of 2019, NDMO.
- Land Leases Act and Customary Land Management Act - Act No.33 of 2013.
- VMGD NSFWCHOS, 2024–2029.

The policy interconnections for the forestry sector are presented in Figure 13.

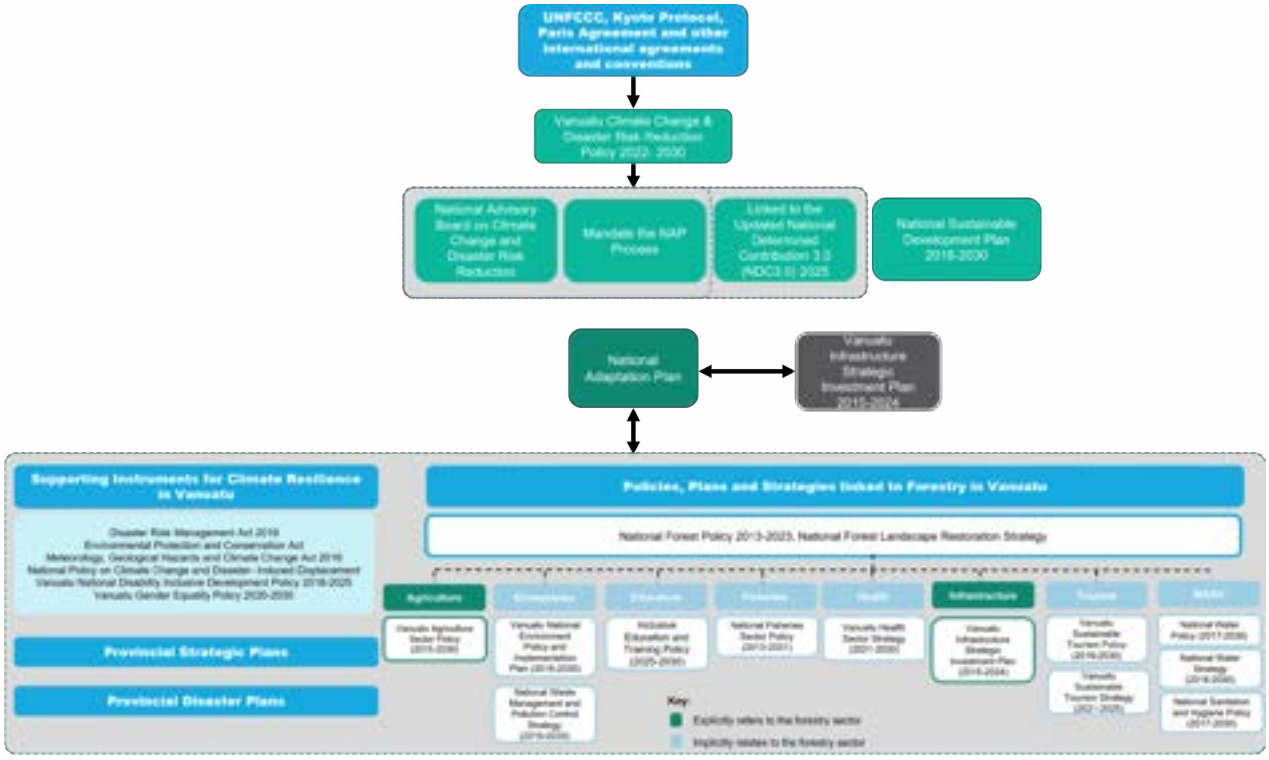


Figure 13. Key Policy Documents and Interlinkages for Forestry

5.5.3 Climate Risks and Vulnerabilities

Forests are vulnerable to several climate hazards including increasing temperatures, changing rainfall patterns, drought, coastal inundation, pluvial and fluvial flooding, and tropical cyclones. Individual species have different thresholds; however, tropical forests generally have low capacity to adapt to rapid temperature increases, which can cause heat stress, reduced growth, increased susceptibility to pests and diseases, and possible mortality.

Drought can reduce growth, increase water stress and contribute to tree mortality. Over time, drought-stressed forests become more vulnerable to secondary impacts such as pests, diseases, wildfires and tropical cyclone damage. The CRVA identifies varying drought sensitivity among important forest species, including whitewood, sandalwood and beach almond. Prolonged water stress can reduce growth and contribute to changes in forest composition.

Flooding and coastal inundation can result in habitat loss, reduced plant health or increased plant mortality. Strong winds associated with tropical cyclones can cause leaf and branch loss and uproot trees while flooding, treefall and landslides can damage roads, disrupt access and supply chains, and hinder recovery and management. Mangroves and shoreline vegetation may also lose protective and habitat functions where sea-level rise exceeds their capacity to accumulate sediment or move landward. Changes to forests can affect cultural practices, livelihoods, and resilience to future climate hazards. Forest products provide food, building materials, medicines and materials and locations for cultural practices. Forests also provide important ecosystem services by helping increase soil productivity and reduce the impacts of flooding, erosion and strong winds. Adapting forests to climate change and enabling long-term ecological sustainability within forests can contribute to reducing the vulnerability of forest-dependent people to climate change (FAO and CIFOR, 2019).

- The CRVA's forestry assessment was constrained by the national inventory information available within its timeframe. A national forest inventory was undertaken in 2019–2021 (UNFCCC, 2025). The CRVA records that newer inventory information was reported during validation but could not be accessed for the assessment. Access to current forest information, together with climate-risk assessment and monitoring, is needed to target and review adaptation measures.[17]

[17] UNFCCC (2024). Report on the technical assessment of the proposed forest reference level of Vanuatu submitted in 2023, FCCC/TAR/2023/VUT, 22 August 2024, paragraphs 7 and 24. https://unfccc.int/sites/default/files/resource/tar2023_VUT.pdf

5.5.3.1 Compounding, Cascading Risks and Interdependencies

Climate-related changes to the forestry sector can trigger compounding and cascading impacts across multiple sectors due to their strong interconnections with natural and human systems. Examples include:

- Agriculture: Degraded watersheds lose water regulation capacity, compounding agricultural water stress that drives farmers to expand into remaining forests
- Fisheries: Forest loss can increase erosion and sediment entering waterways, damaging marine habitats and affecting fish populations
- Education: Loss of culturally important forest species can reduce opportunities to practise kastom and pass related knowledge to younger generations
- Ecosystems: smothering of marine ecosystems due to increasing sediment in waterways from forest loss can cause erosion
- Health and nutrition: Changes in species diversity reduces ability of communities to collect forestry products for medical use
- Infrastructure: Loss of forests and coastal vegetation can reduce natural protection for infrastructure and coastal communities
- WASH: Changes in water filtration and water availability due to changes in forest quality

5.5.3.2 People and Locations Most at Risk

While the majority of the Islands of Vanuatu are covered in forest, there are only a number of logging concessions in place across the country with 88% of the concessions in the Northern region of the country and the remaining 12% located in the central region. Malekula, and Port Vila are identified as areas most at risk from fluvial flooding considering the location of logging concessions and roads (DoCC, 2026).

Climate impacts on forests may disproportionately affect forest-dependent households and low-lying coastal communities that rely on timber and non-timber forest products. Women may experience greater impacts because of their key role in collecting non-timber forest products. Reduced access to these resources may increase collection time and affect household needs, livelihoods and cultural practices.

5.5.4 Adaptation Actions

The risks affecting forestry require coordinated action to protect forests and natural coastal buffers, supported by information and institutional capacity needed to guide their management. Restoring and sustainably managing forests and forested catchments helps reduce erosion and support livelihoods. Protecting and restoring mangroves, wetlands and shoreline vegetation help maintain coastal protection and habitats where these systems remain viable under changing conditions. Risk assessments, monitoring and technical guidance inform the selection, coordination and review of these measures. Shared restoration activities will be coordinated with Ecosystems and WASH sectors to clarify responsibilities and avoid duplication. Table 19 presents three consolidated priority adaptation actions for the forestry sector.

Table 19. Top Three Consolidated Priority Adaptation Actions for the Forestry Sector

ID	Risk statement	Adaptation action	Timeframe	Indicative costs (USD)	Responsible agency
NAP-FOR-01	Cyclones, intense rainfall, drought and heat damage forests, forested catchments and riverbanks, increasing erosion and reducing protective, livelihood and ecosystem functions.	Restore and sustainably manage forests, forested catchments and riverbanks through suitable species, nurseries, inclusive community forestry, sustainable harvesting and long-term maintenance to reduce erosion and protect livelihoods and ecosystem services. Support the participation of women and other groups dependent on non-timber forest products in planning and ensure they benefit from livelihood and resource management initiatives.	Short to medium term	1,386,000	MALFFB (with DoF as operational lead)
NAP-FOR-02	Cyclones, storm surge and coastal erosion can damage mangroves, wetlands and shoreline vegetation. Rising sea levels can cause further habitat loss where sediment accumulation and landward migration cannot keep pace, reducing coastal protection, habitat and livelihood benefits.	Protect, restore and sustainably manage mangroves, wetlands, shoreline vegetation and other natural coastal buffers to maintain coastal protection, habitats and livelihoods as climate risks increase.	Short to medium term	8,861,000	MALFFB (with DoF as operational lead)
NAP-FOR-03	Where current forest-condition and climate-risk information is not accessible, and institutional capacity is limited, the identification of vulnerable forests and the targeting, coordination and review of restoration and management measures can be delayed.	Use forest-risk assessments, monitoring, mapping, research and technical studies to guide climate-resilient forestry planning, restoration and investment preparation. Strengthen technical guidance, stakeholder awareness and partnerships so forest management responds to changing risks.	Short to medium term	1,386,000	MALFFB (with DoF as operational lead)

5.5.5 Adaptation Limits

Adaptation limits are reached when unacceptable risks can no longer be avoided through adaptation. Hard limits arise where no adaptation options can avoid these risks, while soft limits arise where options may exist but are not currently available, for example because of financial, institutional or technological constraints. Limits need to be assessed for particular systems, locations and objectives.

Potential soft adaptation limits that may affect the effectiveness of adaptation measures in the forestry sector include:

- limited financing for restoration and conservation activities,
- shortages of technical specialists and extension services,
- limited ecological data and monitoring capacity, and
- challenges associated with implementing long-term forest management across dispersed and remote islands

Possible hard adaptation limits include:

- permanent loss of forest ecosystems due to coastal erosion and sea-level rise,
- irreversible soil degradation, species decline or extinction,
- invasive species expansion beyond management control, and
- climatic changes that exceed the tolerances of native forest species

The decline of species, expansion of invasive species, or failure of current restoration do not alone establish a hard limit. A hard limit may arise for retaining a particular forest ecosystem, species or cultural practice where irreversible change leaves no adaptive option capable of sustaining that objective. Other forest functions may remain supportable through changes in species, sites or management. As climate hazards intensify, risks may remain despite adaptation measures and can result in loss and damage. These residual risks may include biodiversity loss, declining ecosystem services, reduced forest resources, lower carbon sequestration, increased erosion, and the loss of culturally important species and forest-related traditions.

Monitoring should be undertaken to identify whether forest ecosystems are approaching irreversible change. This should include monitoring of forest condition, species composition, ecosystem health, erosion, land degradation, invasive species, and the effectiveness of restoration and conservation efforts. Findings should inform the choice of restoration sites and species and identify where support for forest-dependent livelihoods and documentation of cultural losses may be needed.

5.6 Health and Nutrition

5.6.1 Sector Overview

Vanuatu's health services are delivered through a decentralised network of public, private and NGO facilities across the six provinces. Health infrastructure includes five public hospitals, several public and private health centres, dispensaries, and aid posts. Supporting public health programmes and services include health promotion, disease control and surveillance activities. The health and nutrition sector plays a critical role in human capital development, labour productivity, and broader economic and social wellbeing.

As Vanuatu's communities are generally reliant on subsistence agriculture and fishing, their health and nutrition are impacted by the ability to produce and access sufficient food for their needs. Malnutrition in Vanuatu is an ongoing challenge, with the 2023 Multiple Indicator Cluster Survey reporting that 29.1% of children under five experienced Stunting. Climate-related disruption to food production, access and services can compound these existing nutrition challenges.

Healthcare is subsidised for Vanuatu residents and is funded domestically, with support from international

assistance in some areas. However, access to healthcare services varies between regions, with rural and remote communities often having fewer resources and travelling longer distances to access healthcare than those in urban centres. Funding for the health workforce and infrastructure is considered insufficient, and as a result, the country has one of the lowest proportions of health workers relative to population in the Pacific region, while mental health services are limited and under-resourced.

Social and gender inequalities can further reduce access to information, services, finance and support. Children comprise 44% of Vanuatu's projected 2025 population, while only 13% are covered by at least one social protection benefit, highlighting the importance of strengthening support systems for vulnerable groups (Department of Women's Affairs, 2023; Pacific, 2025). The Health National Adaptation Plan identifies the first 1,000 days of life as a critical period for ensuring good health and nutrition outcomes (Ministry of Health, 2025). Historical disparities are evident across the health system, with skilled birth attendance averaging 79% nationally but only 40% in Torba Province (Australian Agency for International Development , 2009). Birth registration remains incomplete in Vanuatu, with approximately 77% of children registered, creating additional vulnerability during disasters where records and services may be disrupted (Ha, 2022).

Women, adolescents and persons with disabilities face higher risks of violence, while sexual and reproductive health remains a critical component of resilience. National survey data indicate that 88.7% of children aged 1 to 14 experienced physical punishment and/or psychological aggression by caregivers during the previous month. The survey also found that 55.9% of women and 59.5% of men aged 15 to 49 considered violence against a wife justified in at least one of the five circumstances surveyed (Vanuatu Bureau of Statistics, 2024). Approximately 60% of women had experienced physical or sexual violence during their lifetime (Vanuatu Bureau of Statistics, 2024). Children, adolescents, older people, women - particularly pregnant women - persons with disabilities, and low-income households also face heightened health and nutrition risks. These groups may experience barriers to accessing essential goods and services, greater reliance on subsistence livelihoods, and increased exposure to stigma, discrimination and gender-based violence. These underlying social, health and service-delivery challenges influence how climate change affects health and nutrition outcomes and the capacity of the sector to respond.

5.6.2 Policy Linkages

The sector is guided by the Health Sector Strategy (HSS) 2021–2030, which supports universal access, equitable health outcomes and a health system responsive to non-communicable diseases, climate-related health risks and pandemics. The Health National Adaptation Plan 2025–2030 (HNAP) is the strategic framework that assesses, guides and addresses the health needs of the people of Vanuatu under intensifying climate impacts.

Other relevant policies, plans and acts include:

- Vanuatu Food Safety, Security and Nutrition Policy 2022–2030.
- Health Sector Implementation Plan 2022–2026.
- Public Health Act [CAP 234].
- Disaster Risk Reduction and Disaster Management Act 2019.
- Environmental Protection and Conservation Act [CAP 283].
- Vanuatu Climate Change and Disaster Risk Reduction Policy 2022–2030 (Second Edition)
- National Health Disaster Risk Management and Climate Change Adaptation Plan 2021–2025.
- National Gender Equality Policy 2020–2030.
- Vanuatu Non-Communicable Disease Policy & Strategic Plan 2021–2030.
- Vanuatu National Sanitation & Hygiene Policy 2017–2030.
- Vanuatu Reproductive, Maternal, Newborn, Child & Adolescent Health Policy, Strategy & Implementation Plan 2021–2025.
- Vanuatu Meteorology and Geo-Hazards Department National Strategy and Framework for Weather, Climate, Hydrometeorology and Ocean Services 2024–2026.
- Vanuatu School Health Policy.

The policy interconnections for the health and nutrition sector are presented in Figure 14.

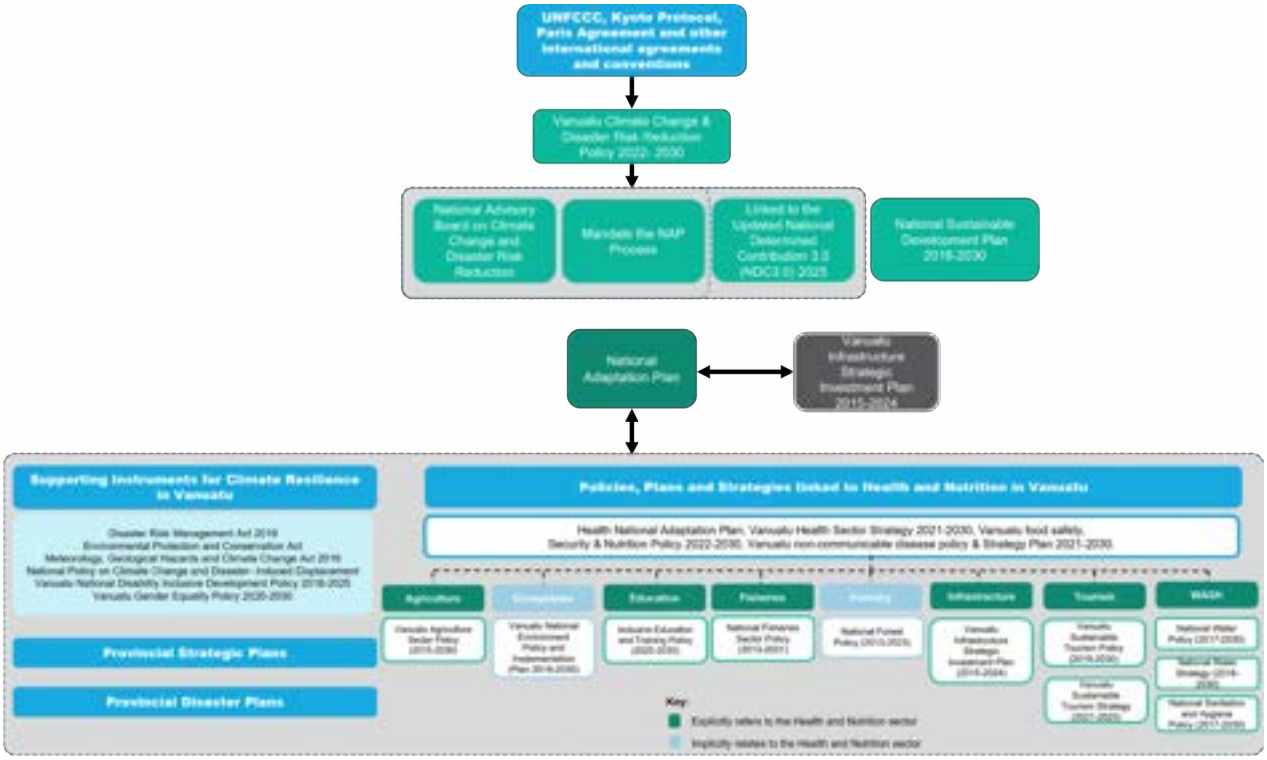


Figure 14. Key Policy Documents and Interlinkages for Human Health and Nutrition

5.6.3 Climate Risks and Vulnerabilities

Vanuatu's health and nutrition sector faces climate-related risks from tropical cyclones, sea-level rise, coastal erosion, flooding, drought, landslides and extreme heat (including temperature, humidity and radiation). These hazards affect physical and mental health, food security, WASH services, healthcare access, and social wellbeing. Climate hazards place significant pressure on an already constrained health system.

As many communities rely on subsistence agriculture and fishing, climate impacts on agriculture and fisheries can also have direct implications for food security and nutrition. Extended droughts can reduce crop yields, compromise water supplies and hygiene practices. Reduced access to safe water and sanitation can increases the risk of diarrhoeal and other related diseases. Disruptions to WASH systems, health services and supply chains can also reduce access to menstrual health information, facilities and supplies. WASH, in particular, is critical in healthcare facilities to enable the provision of safe and high-quality patient care and a safe working environment.

Flooding, sea-level rise and tropical cyclones can result in deaths, injuries, debris-related hazards, contamination of water supplies and crops, and increased transmission of water-borne, food-borne and vector-borne diseases. An assessment of climate-sensitive health risks in Vanuatu identified water-borne and food-borne diseases as posing an extreme risk, while vector-borne diseases, malnutrition, non-communicable diseases and temperature-related illnesses were assessed as high risk (Spickett, Katscherian, & McIver, 2013).

Extreme heat increases the risk of heat-related illnesses, including heat stress, heat exhaustion and heatstroke, and can exacerbate cardiovascular, respiratory and mental health conditions. Rising temperatures are also associated with increased risks to maternal and newborn health, including pregnancy complications, low birthweight and pre-term delivery (Ha, 2022). Climate shocks may also disrupt access to sexual and reproductive health services, contraception, menstrual health supplies and referral

pathways for survivors of gender-based violence, affecting health, dignity and safety, particularly for adolescents and women.

Damage to health facilities, transport networks, power supplies and water systems can disrupt healthcare delivery, reduce hospital capacity, affect access for both healthcare users and workers, and compromise medical supplies. Health facilities may also become inaccessible, require relocation, or close due to flooding and coastal inundation. First responders and those restoring essential services are exposed to increased risks from debris and contaminant exposure following floods and tropical cyclones.

Health infrastructure is exposed to climate hazards. Under the CRVA's present-day 1% annual exceedance probability (AEP) fluvial and pluvial flood event, 10 out of 129 recorded health facilities with location data were potentially exposed (8%), including Norsup Hospital in Malampa Province, which services more than 46,000 people. The flood models cover Malekula, Tanna and two catchments near Port Vila and Luganville, and do not include a climate change component. The findings identify current exposure within that coverage; assessing future national flood risk requires wider coverage and climate change projections (DoCC, 2026)

Climate-related hazards can affect health and nutrition alongside the protection and social services that support individual and community wellbeing. Disruptions, displacement and livelihood losses may contribute to increased mental health and psychosocial stress, gender-based violence (GBV), violence against children, and reduced access to essential support services (DoCC, 2026). Women, children, older people, persons with disabilities, low-income households and rural and remote communities may face additional barriers to accessing healthcare, protection services and referral pathways during and after climate-related disasters. Unequal health and nutrition risks are also shaped by structural and social conditions. In Vanuatu, discriminatory social norms, limited participation in household and community decision-making, insecure access to and control over land and resources, and women's disproportionate unpaid care and domestic workloads can reduce access to information, services, finance and recovery support. Climate shocks can intensify these existing inequalities, particularly for women and girls, persons with disabilities, older people, low-income households and people in remote communities.

5.6.3.1 Compounding, Cascading Risks and Interdependences

Climate-related health and nutrition impacts can trigger compounding and cascading impacts across multiple sectors due to their strong interconnections with natural and human systems. Examples include:

- Agriculture / Fisheries: Agriculture, fisheries and Health and Nutrition are very intertwined; reduced food availability has distinct implications for health, and those with reduced health are less able to participate in agricultural and fishing activities.
- Education: Food insecurity and malnourishment can lower students' ability to concentrate, which in turn can reduce learning outcomes.
- Ecosystems: Loss of ecosystems contributes to reduced mental wellbeing
- Infrastructure: Healthcare facilities are generally reliant on access through transport infrastructure, power infrastructure to provide appropriate services and communications infrastructure for emergency services
- WASH: WASH and Health and Nutrition are very intertwined in such a way that reduced WASH availability and quality carry adverse implications for health. Additionally, WASH is critical in healthcare facilities to enable the provision of safe and high-quality patient care and a safe working environment
- Gender and protection: Health and nutrition risks can compound existing inequalities for women, girls, adolescents, pregnant women, persons with disabilities, and survivors of gender-based violence. Disruptions to health and social services and referral pathways can reduce access to essential sexual and reproductive health care and survivor-centred support

5.6.3.2 People and Locations Most at Risk

Vulnerability is influenced not only by exposure to climate hazards but also by underlying social, economic and institutional factors. Unequal access to information, services, transport and financial resources, exclusion from decision-making processes, unpaid care responsibilities, and harmful social norms can reduce adaptive capacity and increase the likelihood of adverse health and nutrition outcomes before, during and after climate-related events.

Within the CRVA's coastal flood assessment, South Malekula, South-East Malekula, Central Malekula and Luganville contain high proportions of exposed health-related assets.

Climate change poses severe risks to pregnant women and foetal development. Climate-related disasters, such as rising temperature and limited access to safe drinking water due to flooding or drought are associated with an increased risk of gestational complications and adverse outcomes during the newborn period (Ha, 2022). Some of the challenges related to discrete environmental disasters have been suggested to include pregnancy loss, restricted foetal growth, low birthweight, preterm delivery and delivery complications (Ha, 2022).

Regional healthcare facilities are vulnerable to increasing temperatures as cooling necessary to keep users and staff comfortable and to keep equipment and medication safe may be compromised. Loss of power due to damaged infrastructure also undermines the ability to deliver healthcare services, safely store medications and vaccinations, and to maintain water, sanitation and hygiene standards. Drought can also compromise care where water supplies are insufficient. Generally, healthcare facilities are not mobile and therefore, if not appropriately sited, may be vulnerable to coastal, fluvial and pluvial flooding. Healthcare staff capacity may decline during a hazard event, particularly for female frontline health workers, due to access issues, illness, injury, or increased need to care for their families.

Rural communities can face heightened health and nutrition risks where climate hazards disrupt food production and access to safe water, healthcare and markets (Vanuatu National Statistics Office, 2021; Ministry of Health, 2025). Their vulnerability is further exacerbated by limited service availability, longer travel distances, and greater reliance on already constrained transport and service networks. Communities that become isolated following disasters may experience reduced access to healthcare, food markets, and other essential services.

Climate hazard impacts can strain or disrupt community relationships and support systems, potentially undermining social cohesion and community wellbeing, including increasing instances of physical and emotional violence. The Health NAP reiterates that "The changing climate reduces productivity and worsens the socioeconomic conditions of those affected, particularly displaced communities and women, girls and those with intersecting vulnerabilities within those communities." (Ministry of Health, 2025). The national survey evidence reported in the sector overview shows a high baseline prevalence of partner violence, and disasters can compound these existing protection risks. Following the double Tropical Cyclone in 2011, the Tanna Women's Centre reported a 300% increase in new domestic violence cases (UN Women Pacific, 2016). These findings emphasise the importance of developing adaptation actions that will strengthen adaptive capacity, improve equitable access to services, and maintain the continuity of healthcare and nutrition support for populations most vulnerable to climate change and disasters.

5.6.4 Adaptation Actions

The adaptation response needs to reduce climate-related health risks while maintaining access to essential care during disruption. Resilient facilities, adequate staffing, reliable supplies, contingency arrangements and functioning referral pathways support continuity of care. Climate-health risk assessment, disease and environmental-health surveillance, early warning and risk communication support timely public-health action when linked to clear responsibilities. Nutrition screening, emergency nutrition, food-safety measures, outreach, and mental health and psychosocial support help protect people most at risk. Implementation will be guided by the Health National Adaptation Plan[18]and coordinated with Agriculture, Fisheries, WASH and Infrastructure. While the HNAP provides the overarching policy, institutional and operational framework for climate-resilient health systems, the NAP Health and Nutrition actions consolidate priorities into investment-oriented adaptation packages. Differences in the indicative costs reflect differences in scope, planning horizon, methodology and aggregation, with the NAP consolidating adaptation investments across multiple provincial actions and Common Action Groups (CAGs), whereas the HNAP focuses on a defined national health-sector implementation workplan for 2025–2030. Table 20 presents the three consolidated priority adaptation actions for the Health and Nutrition sector.

[18] Vanuatu's HNAP draft August 2025

Table 20. Top Three Consolidated Priority Adaptation Actions for the Health and Nutrition Sector

ID	Risk statement	Adaptation action	Timeframe	Indicative costs (USD)	Responsible agency
NAP-HN-01	Cyclones and flooding can damage health facilities and interrupt transport and utilities, while heat and drought can compromise water availability, safe working conditions and storage of medicines. Where backup systems, staffing and alternative access are limited, these disruptions can interrupt essential care, supplies, referrals and outreach as health needs increase against climate-induced disasters.	Maintain essential health services during climate disruption by upgrading and maintaining facilities and protecting their water, sanitation, power, communications, medical supplies and cold chains. Strengthen contingency plans, staffing, emergency transport, referrals and outreach, including maternal, newborn, child, sexual and reproductive health services and gender-based violence and child-protection referral pathways.	Short to medium term	5,504,700	MoH
NAP-HN-02	Heat, flooding, drought and climate variability increase climate-sensitive disease and environmental-health risks; gaps in assessment, surveillance, warning and communication delay action.	Strengthen climate-health risk assessment, disease and environmental-health surveillance, early warning and risk communication. Link alerts to clear responsibilities and timely public-health responses for priority climate-sensitive health risks.	Short to medium term	9,208,000	MoH
NAP-HN-03	Heat, drought, food disruption and repeated climate-related disasters increase undernutrition, food-safety, mental-health and wellbeing risks, particularly where outreach and referral access are constrained.	Strengthen nutrition and community health services for people most at risk through nutrition screening, surveillance, emergency interventions, food-safety measures, and targeted outreach. Provide dedicated mental health and psychosocial support during prolonged climate stress and following climate-related disasters.	Short to medium term	6,880,900	MoH

5.6.5 Adaptation Limits

Adaptation limits are reached when unacceptable risks can no longer be avoided through adaptation. Hard limits arise where no adaptation options can avoid these risks while soft limits arise where options may exist but are not currently available, for example because of financial, institutional or technological constraints. Limits need to be assessed for particular systems, locations and objectives.

Potential soft adaptation limits that may affect the effectiveness of adaptation measures in the health and nutrition sector include:

- workforce shortages,
- limited healthcare resources,
- dependence on external funding,
- capacity limitations within disease surveillance systems, and
- challenges delivering health services across remote and dispersed communities

Possible hard adaptation limits include:

- climate-sensitive disease burdens exceeding healthcare capacity,
- establishment of new disease vectors,
- loss of health infrastructure from severe climate impacts,
- disruption to critical health services, and
- increasing heat-related illness beyond response capacity

Exceeding current healthcare capacity does not establish a hard limit where prevention, additional capacity or alternative service arrangements remain possible. As climate hazards intensify, risks may remain despite adaptation measures and can result in loss and damage. These residual risks may include increased illness and mortality, malnutrition, declining mental health and wellbeing, disruption to healthcare services, damage to health infrastructure, and disproportionate impacts on vulnerable groups.

Monitoring should be undertaken to identify whether the health and nutrition sector is approaching adaptation limits. Monitoring should focus on the incidence of climate-sensitive diseases, nutrition outcomes, health service delivery, healthcare infrastructure performance, and emerging pressures that may indicate existing adaptation measures are becoming insufficient to protect public health. Findings should inform disease prevention, nutrition support, psychosocial services and contingency arrangements, including additional service capacity or safer facility locations where existing measures are insufficient.

5.7 Infrastructure

5.7.1 Sector Overview

In the context of this NAP, the infrastructure sector primarily refers to critical and/or nationally significant assets including:

- Transport assets – such as roads, bridges and transport hubs
- Building assets – such as public and privately occupied buildings
- Electricity utility assets
- Network towers and communication assets
- Water assets – such as wastewater treatment and drinking water supply infrastructure

Vanuatu's transport network comprises 2,000 to 3,000 km of roading, airports (28) and maritime transport assets including boats and ferries. The road networks within islands are mostly unpaved gravel and earth (clay) roads. Only 10% of roads are sealed, and these are entirely located on Efate and Espiritu Santo. Boats and barges are the main form of transport between islands while larger inter-island ferries are used to transport people and materials from the main urban centres (Port Vila and Luganville).

Infrastructure plays a vital role in Vanuatu's economic and social development as well as responding to disasters. As a geographically dispersed archipelago comprising over 80 islands, effective infrastructure systems are essential to

connect communities, support service delivery, and enable economic activity. The sector supports critical functions in transport, water supply, sanitation, waste management, health, communication, power, and public service buildings, all of which underpin national development priorities, social equity, and climate resilience (Government of Vanuatu, 2015).

Infrastructure resilience includes the ability of assets and networks to withstand climate impacts, maintain essential services and restore them after disruption. Ongoing maintenance and climate-resilient development of infrastructure assets are critical for sustaining community wellbeing and economic growth. Failure to prioritise maintenance and investment can reduce service reliability, diminish quality of life, and result in economic losses, including reduced tourism development opportunities.

5.7.2 Policy Linkages

The infrastructure sector in Vanuatu is managed by the Ministry of Infrastructure and Public Utilities (MIPU). Within MIPU, specific departments such as the Public Works Department (PWD), Department of Ports and Harbours (DPH), and Civil Aviation Authority of Vanuatu (CAAV) are responsible for their respective sub-sectors. The Public Land Transport Authority (PLTA) regulates land-based public transport under the Public Land Transport Act (2015), ensuring vehicle standards, effective licensing, and sector development (PLTA, 2026).

The key national strategies for the infrastructure sector are the Vanuatu National Infrastructure Strategic Investment Plan 2015–2024, Vanuatu National Energy Roadmap 2016–2030, Vanuatu's National Energy Efficiency Strategy and Action Plan 2022–2030 and the Vanuatu Rural Roads Access Framework.

Other key strategies, plans and acts related to the infrastructure sector include the:

- Ministry of Infrastructure and Public Utilities Corporate Plan 2020–2022.
- Vanuatu National Transport Sector Strategic Activity Plan.
- National Information and Communication Technology Policy 2013.
- Vanuatu Digital Transformation Master Plan 2024–2030.
- National Sustainable Development Plan 2016–2030.
- Vanuatu Meteorology and Geo-Hazards Department National Strategy and Framework for Weather, Climate, Hydrometeorology and Ocean Services 2024–2026.
- Utilities Regulatory Authority Act NO. 11 OF 2007 and amendments.
- Physical Planning Act (1986) (revised under the CCCPIR).
- Building Code (not yet fully enforced).
- Water Resources Management Act (2002) (Amended 2016).
- Waste Management Act (2014), Regulations (2018).
- Pollution Control Act (2013).
- Plastic Ban Regulations (2018–2020).

The policy interconnections for the infrastructure sector are presented in Figure 15.

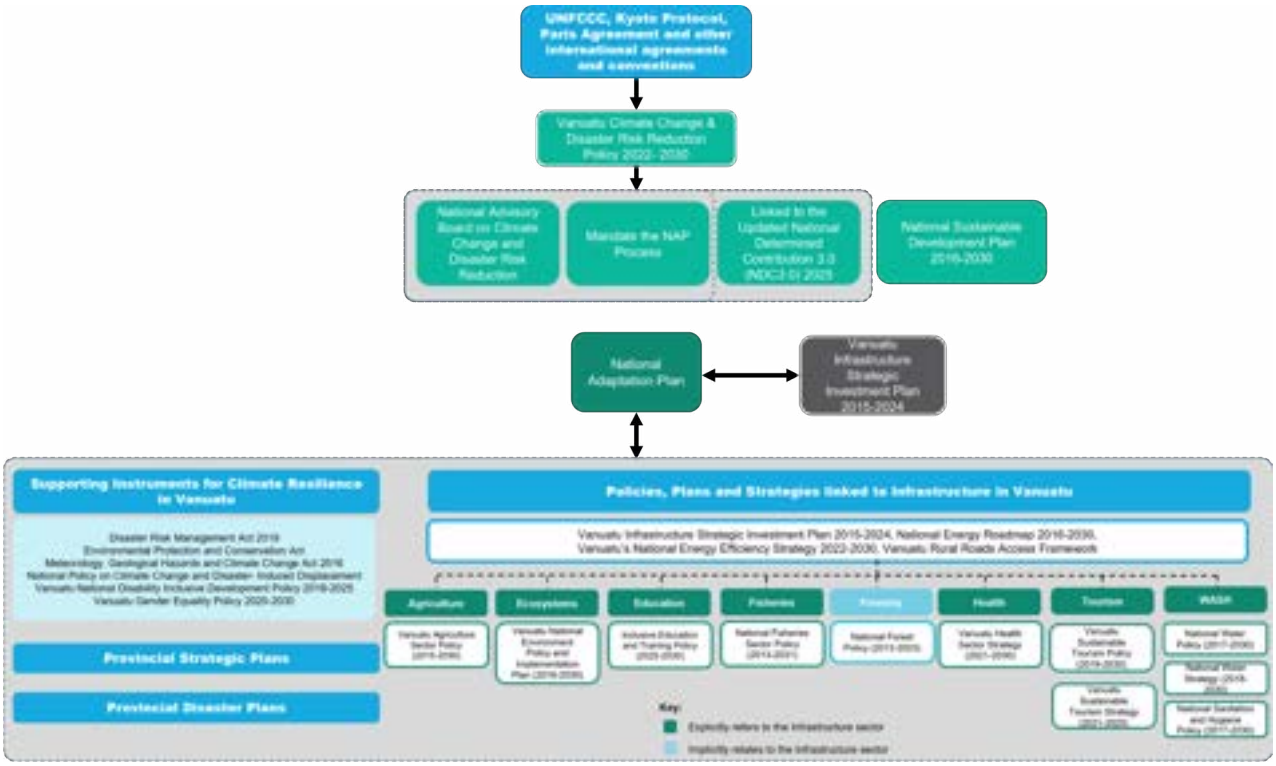


Figure 15. Key Policy Documents and Interlinkages for Infrastructure

5.7.3 Climate Risks and Vulnerabilities

Vanuatu's infrastructure faces constant pressure from the country's harsh tropical environment, frequent tropical cyclones, heavy rainfall and coastal flooding. These natural hazards regularly damage or destroy critical infrastructure including roads, bridges, power lines, and communication networks. They accelerate asset deterioration, inflate repair costs, and shorten service life, particularly for low-lying, coastal, and river-adjacent infrastructure. Earthquakes and volcanic activity create additional pressures on assets and recovery capacity but are distinct from climate-related hazards.

Transport Assets

Damage to transport networks can restrict access to workplaces, farms, markets, schools and health facilities, as well as delay emergency response and the delivery of recovery supplies. As climate risks change, transport disruptions may increasingly isolate communities and weaken the connections that support daily life and economic activity. Intense rainfall can overwhelm drainage and trigger slope failures, damaging access routes and threatening nearby settlements and public facilities.

Low-lying airports, roads, bridges, ports, jetties and wharves are particularly vulnerable to flooding, coastal inundation and storm surge. Disruption to these assets can affect passenger and freight movements, national supply chains, health and education services, commerce and disaster response operations. Coastal transport infrastructure is also exposed to erosion, overtopping and saltwater corrosion. Over the medium to long term, continued sea-level rise may affect the viability of some transport assets, requiring substantial protection works or relocation.

Building Assets

Homes and buildings face similar pressures. Traditional houses constructed from grasses, bamboo, palm and local timber in Vanuatu account for approximately 40% of housing assets and are found mainly in rural areas and outer islands. Hybrid or semi-permanent houses account for approximately 30%, while modern houses constructed from concrete, timber and corrugated iron comprise about 27% and are found mainly in urban areas (Iftekhar & McDonnell, 2020). Residential, civic and commercial buildings are vulnerable to high humidity, saltwater exposure, heavy rainfall, tropical cyclones and storm surge. These damage assets and accelerate deterioration of concrete, wood, metals and asphalt (James Cook University, 2017).

Electricity Utility, Network Towers and Communication Assets

Power and communications infrastructure is also vulnerable to extreme temperatures, high winds, flooding and salt-spray corrosion. High temperatures can cause power lines to sag, while strong winds can bring down poles and trees. This can interrupt electricity and communication services, with wider consequences for the essential services that depend on them.

Water Supply and Wastewater System Assets

Water supply and wastewater systems are also at risk. Intense rainfall and coastal flooding can overwhelm decentralised wastewater systems, contaminating rivers, soils and lagoons. Sea-level rise can also increase the risk of saltwater contamination of groundwater used for water supply.

These risks to different asset groups are closely interconnected and can have far-reaching consequences across multiple sectors. Damaged roads restrict access to health and education services, while power outages can affect water treatment and cold chains. Wastewater failures can contaminate nearshore ecosystems supporting tourism and fisheries. Repeated damage also diverts resources from potential future development towards emergency repairs, increasing pressures in the most exposed provinces and weakening national resilience.

5.7.3.1 Compounding, Cascading Risks and Interdependences

Climate-related changes to the infrastructure sector can trigger compounding and cascading impacts across multiple sectors due to their strong interconnections with natural and human systems. Examples include:

- Agriculture: Disruption of storage and transport of agricultural food products due to infrastructure damage.
- Ecosystems: Failure of wastewater infrastructure results in environmental damage of coastal infrastructure.
- Education: Damage to crucial infrastructure may worsen physical access limitations and costs associated with travel to school, which may in turn cause children to drop out of school, especially in remote communities.
- Fisheries: Damage to coastal wharves and jetties which are frequently used for fishing access may interrupt routine fishing activities and reduce fish catch and income.
- Health, protection and nutrition: Losses in energy supply may affect refrigeration of medication and upkeep of medical equipment particularly after hazard impacts. Reduced transport reduces people's access to medical treatment and life-saving protection services, especially for women, children and persons with disabilities.
- Tourism: Increased transportation costs for businesses and consumers or reduced access to tourist destinations may exert downward pressure on tourism revenue.
- WASH: Damage to infrastructure causes public health risks from exposure to sewage during WASH system failures.

5.7.3.2 People and Locations Most at Risk

Communities dependent on low-lying coastal transport assets, river crossings or a single access route are particularly affected when these connections fail. Combined disruptions to transport, power, communications, water supply and sanitation can isolate communities and restrict access to essential services. These impacts are often greater for women, older people, persons with disabilities and rural and remote communities, particularly where people already face barriers to service access. Recovery across all infrastructure asset groups may be further constrained by the migration of essential workers. As younger workers seek opportunities overseas, women, children and older people increasingly carry responsibility for recovery and rebuilding(Department of Women's Affairs, 2023).

5.7.4 Adaptation Actions

The risks affecting infrastructure require coordinated action to maintain safe access and essential services under current and future climate conditions. Climate-informed infrastructure masterplans, standards and asset management help reduce avoidable exposure and the risk of premature asset failure. Upgrading and maintaining land, marine and aviation links, improving drainage and stabilising rainfall-affected slopes help keep communities connected and protect settlements and public facilities. Investment priorities should reflect service importance, asset condition, exposure and the availability of alternatives. Dedicated systems within school, health, tourism and WASH facilities remain within their sector actions and will be coordinated with shared infrastructure investments. Table 21 presents the three consolidated priority adaptation actions for the infrastructure sector.

Table 21. Top Three Consolidated Priority Adaptation Actions for the Infrastructure Sector

ID	Risk statement	Adaptation action	Timeframe	Indicative costs (USD)	Responsible agency
NAP-INF-01	Failure to integrate current and future climate risk into planning, design, regulation and asset management locks in exposure, accelerates degradation and raises lifecycle costs and service-failure risk.	Develop and implement prioritised, costed national infrastructure masterplans that address current and future climate risk, supported by asset management and development controls. Apply and enforce standards for safe siting, design, construction, operation and maintenance to reduce service disruption and avoid locking in future exposure.	Short to long term	4,009,300	MIPU
NAP-INF-02	Cyclones, intense rainfall, flooding, coastal inundation and rainfall-triggered slope failures can damage land, marine and aviation access and threaten settlements and public facilities, isolating communities and disrupting markets and essential services.	Upgrade and maintain priority roads, bridges, culverts, crossings, drainage, wharves, boat landings, ports and airports to climate-resilience, safety and serviceability standards. Improve stand-alone drainage and stabilise rainfall-affected slopes that threaten transport, settlements and public facilities.	Short to long term	330,928,400	MIPU
NAP-INF-03	Cyclones, coastal flooding and power or communications failures disable essential networks, public facilities, warnings and coordination systems, causing cascading service failure.	Protect shared communications, information and energy systems, evacuation centres and shared public facilities through safer siting, resilient design, backup power and alternative service arrangements to maintain essential services, warnings and coordination during climate disruption.	Short to long term	17,197,500	MIPU

5.7.5 Adaptation Limits

Adaptation limits are reached when unacceptable risks can no longer be avoided through adaptation. Hard limits arise where no adaptation options can avoid these risks while soft limits arise where options may exist but are not currently available, for example because of financial, institutional or technological constraints. Limits need to be assessed for particular systems, locations and objectives.

Potential soft adaptation limits that may affect the effectiveness of adaptation measures in the infrastructure sector include:

- high construction and maintenance costs,
- limited financial resources,
- shortages of skilled personnel and specialised materials,
- supply chain disruptions, and
- land availability constraints for relocation or upgrading of assets

Possible hard limits include:

- permanent inundation of infrastructure,
- coastal land loss,
- increasing hazard intensities that exceed infrastructure design standards,
- repeated damage to critical assets, and
- permanent failure of essential infrastructure systems

Permanent land loss may prevent an asset being retained at its current site. A hard limit to service delivery requires assessment of redesign, relocation and alternative systems. As climate hazards intensify, risks may remain despite adaptation measures and can result in loss and damage. These residual risks may include disruption to transport, communications, electricity, water and wastewater services, damage to public and private assets, reduced access to essential services, economic losses, and community displacement.

Monitoring should be undertaken to identify whether infrastructure assets are approaching irreversible damage. Monitoring should assess the condition, performance and exposure of critical infrastructure assets, rising maintenance burdens, and locations where assets may no longer remain viable under future climate conditions. Persistent service disruption or repeated repair should prompt review of design standards, backup systems, alternative routes and safer sites, with affected communities involved in key decisions at all stages.

5.8 Tourism

5.8.1 Sector Overview

Tourism is a major pillar of Vanuatu's economy, generating foreign revenue and supporting employment across accommodation, food services, transport, construction, retail and related industries. Vanuatu's appeal is based on natural and cultural assets, including volcanoes, coral reefs, lagoons, beaches, forests, kastom practices, village experiences and historical sites. Hotels, resorts, tour operators, cruise terminals and aviation links support domestic, regional and international tourism (Department of Tourism, 2019). Tourism also strengthens community livelihoods through ecotourism and locally owned enterprises, all of which contribute to urban and rural development (Department of Tourism, 2019).

The tourism sector includes formal and informal operations. Of Vanuatu's more than 2,500 formally registered tourism-related businesses, 93% are locally owned and approximately 50% are operated by women (Griffith Asia Institute, 2020). The 2026 Vanuatu Tourism Value Chain Study estimates that tourism's total value-added contribution was approximately 25% of GDP in 2023 and 16% in 2024. The sector supported approximately 24,500 full-time equivalent positions in 2023 and 17,000 in 2024, with tourism-related employment estimated at around 29% of total national employment.

Tourism activity was disrupted by COVID-19 travel restrictions in 2020 and 2021, the voluntary liquidation of Air Vanuatu (until 2024), and the December 2024 earthquake, which grounded flights and diverted cruise ships (Asian Development Bank, 2025). These disruptions also affect the resources available to businesses for climate adaptation and recovery.

Following COVID-19 and tropical cyclones, the Sustainable Tourism Policy (2019–2030), Sustainable Tourism Strategy (2021–2025), and Tourism Market Development Plan 2030 emphasise resilient, inclusive, and environmentally responsible tourism that protects natural and cultural assets while sustaining livelihoods and longterm economic growth (PSDI, 2021).

5.8.2 Policy Linkages

The responsibility for tourism governance in Vanuatu lies primarily with the Ministry of Tourism, Trade, Commerce and Ni-Vanuatu Business (MTTCNVB). The Department of Tourism (DoT) within MTTCNVB leads tourism policy, regulation, licensing, provincial tourism councils, and destination standards. The Vanuatu Tourism Office (VTO) oversees national and international tourism marketing and destination promotion under the guidance of MTTCNVB.

Other key institutions include Airports Vanuatu Limited (AVL) and Air Vanuatu, which support tourism access and are central to aviation-tourism coordination, and the Vanuatu Tour Operators Association, Vanuatu Hotels & Resorts Association, Tourism Owners Association of Vanuatu and Vanuatu Island Bungalows & Tourism Association, representing private sector operators. Private tourism operators are able join international tourism networks for on-going information, support and advice in preparing and implementing a specific Climate Change Action Plan for their business, such as the Global Sustainable Tourism Council and the Future of Tourism Coalition.

Key policies, strategies and plans related to the tourism sector include the:

- Vanuatu Sustainable Tourism Policy 2019–2030.
- Vanuatu Sustainable Tourism Strategy 2021–2025.
- Vanuatu Department of Tourism 2021 Business Plan.
- Vanuatu National Sustainable Development Plan 2016–2030.
- Vanuatu Tourism Market Development Plan 2030.
- Vanuatu Strategic Tourism Action Plan 2014–2018.
- Vanuatu Sustainable Cruise Tourism Development Strategy 2019.
- Vanuatu Meteorology and Geo-Hazards Department National Strategy and Framework for Weather, Climate, Hydrometeorology and Ocean Services,2024–2029.
- Tourism Office Act (CAP.142) (2010).
- Tourism Councils Act No. 23 of 2012.
- Vanuatu Foreign Investment Act 2019 (and 2021 amendment).

The Department of Tourism further identifies the following acts as relevant foundations for tourism business and sector operations:

- Business Licence Act.
- Companies Act / Business Name Act.
- Employment Act / Labour Act / Health and Safety Act.
- Immigration Act.
- Food Control Act / Quarantine Act.
- Ports Act.
- Municipalities Act / Price Control Act / Rent Act.

The policy interconnections for the tourism sector are presented in Figure 16.

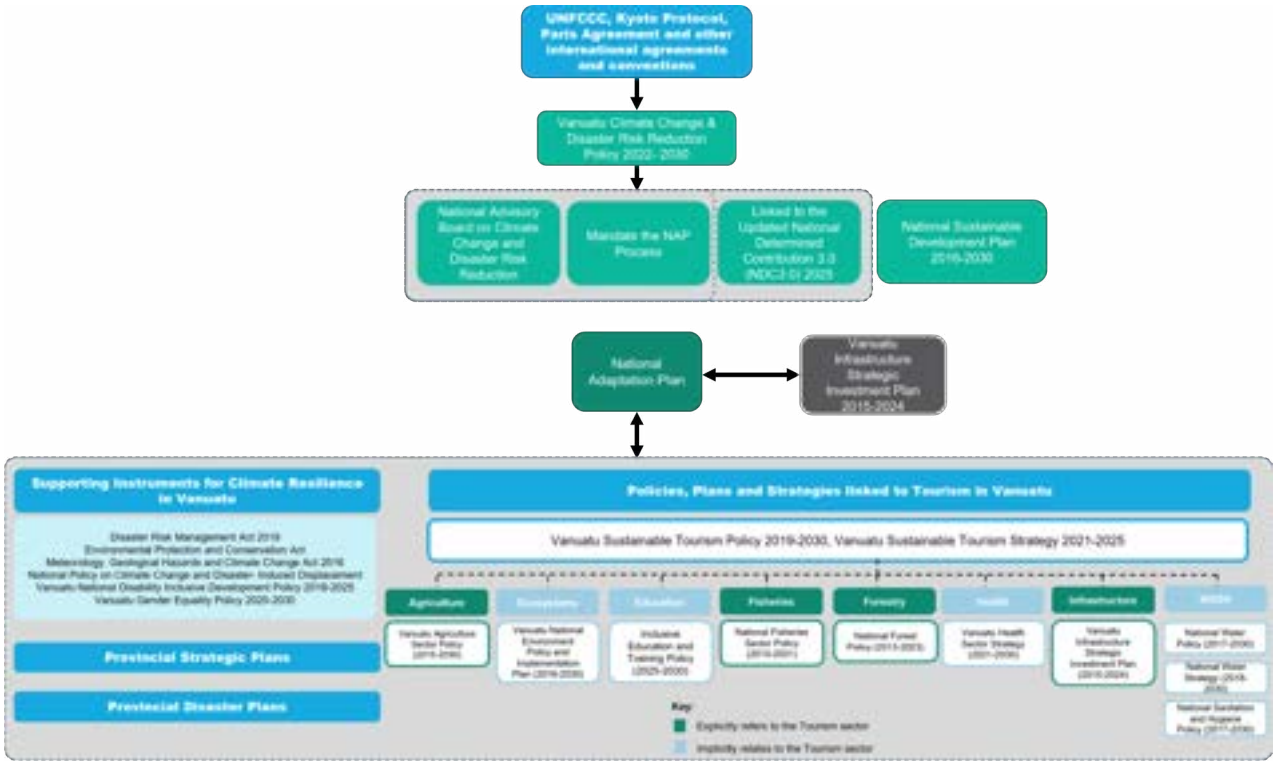


Figure 16. Key Policy Documents and Interlinkages for Tourism

5.8.3 Climate Risks and Vulnerabilities

Vanuatu's tourism sector is exposed to drought, extreme rainfall, coastal flooding, sea-level rise and tropical cyclones. The severity and frequency of these hazards can be altered by climate change, threatening the infrastructure, services and natural assets which underpin the tourism sector. Airports, accommodation, coastal roads and visitor facilities are concentrated in low-lying coastal areas, with some located within five metres above sea level. This increases their exposure to coastal inundation, storm surge and flooding. Damage to this infrastructure can disrupt tourism operations, limit access to destinations and impose significant repair costs on tourism businesses.

Tropical cyclones present an immediate risk to the sector as they can damage accommodation, transport links and visitor facilities, disrupt operations and create safety concerns for visitors. Successive events may also leave insufficient time for tourism businesses and infrastructure to recover before another cyclone occurs, with compounding effects threatening the survival of tourism businesses. Tropical Cyclones Judy and Kevin in March 2023 caused an estimated VUV 110 million in damage to the sector and VUV 472 million in economic losses (Department of Strategic Planning and Aid Coordination, 2023).

The longer-term effects of tropical cyclones on tourism are less well understood. Climate-related impacts on visitor numbers and business performance can also be difficult to distinguish from the effects of other major disruptions, including the COVID-19 pandemic and the December 2024 earthquake. This makes it difficult to assess the full contribution of climate change to changes in tourism activity.

Tourism infrastructure is also vulnerable to flooding caused by heavy rainfall and overflowing rivers. Damage to accommodation, roads and airports can restrict access to tourism destinations and interrupt the movement of visitors and supplies. Repeated disruption and repair costs may undermine the long-term viability of local tourism businesses, particularly where they have limited resources to recover. Limited business continuity arrangements,

alternative suppliers and recovery resources can prolong these interruptions.

Drought presents a different but equally important challenge. Prolonged dry periods place pressure on already limited water resources and can affect the operation of accommodation and tourism services. Increased competition for local water supplies may also affect surrounding communities. To maintain water quantity and quality during dry periods, tourism operators may need to invest in additional water storage and conservation measures.

The tourism sector also depends heavily on Vanuatu's coastal and marine environments. Beaches, coral reefs, seagrass ecosystems, natural vegetation and marine wildlife, including dugongs, contribute to the country's appeal as a tourism destination. Sea-level rise and coastal erosion may progressively reduce available beach areas, while marine heatwaves can damage coral reefs and seagrass ecosystems, and ocean acidification can weaken reef-building corals by reducing calcification. These changes may reduce the quality of boating, snorkelling and diving experiences and, over time, affect visitor numbers. Communities and businesses dependent on a narrow range of climate-sensitive attractions or products have fewer alternative sources of income when these assets deteriorate.

5.8.3.1 Compounding, Cascading Risks and Interdependencies

Climate-related impacts on the tourism sector can trigger compounding and cascading impacts across multiple sectors due to their strong interconnections with natural and human systems. Examples include:

- Agriculture: 54% of accommodation-related food is imported and this number could rise as pressures increase on the agriculture sector, leading to economic leakage.
- Ecosystems: The degradation of marine ecosystems affects not only tourism but also subsistence fishing and cultural practices, while reduced tourism revenue limits resources available for climate adaptation measures, creating a feedback loop that further increases vulnerability across multiple sectors.
- Infrastructure: Damaged tourism infrastructure reduces visitor numbers, which affects local employment, government revenue, and economic activity in interconnected sectors. Increased transportation costs for businesses and consumers or reduced access to tourist destinations can lead to reduced tourism revenue.
- WASH: Competition for limited water resources intensifies between tourism facilities, local communities and the agriculture sector, particularly during droughts.

5.8.3.2 People and Locations Most at Risk

People reliant on tourism services and tourism-related livelihoods are most exposed to climate-related disruption. Damage to tourism infrastructure, disruptions to transport networks, and impacts on tourism assets can affect employment, local businesses and household incomes in tourism-dependent communities. Women may be disproportionately affected where they are engaged in small-scale, community-based or informal tourism activities, including handicrafts, food services, accommodation support and cultural tourism enterprises, which may have limited access to finance, insurance and recovery assistance following climate and disaster events. Persons with disabilities, older people and remote communities may also face additional barriers to participating in tourism activities and accessing livelihood opportunities during recovery from climate-induced tourism disruptions.

Locations where key tourism assets are exposed include coastal accommodation, restaurants, airports, transport

links and roads. Lamap Airport on Malekula and Lamen Bay Airport on Epi are exposed to the modelled 1% annual exceedance probability (AEP) coastal flood event under present-day sea levels and the three assessed sea-level-rise increments. These results identify potential exposure rather than predicted damage .

Tourist accommodation is particularly exposed to coastal flooding. Of 183 mapped tourist accommodation buildings in the CRVA, 18 (10%) are exposed to a 1% AEP coastal flood event under present-day conditions. Exposure increases to 30 (16%) buildings under 0.5 m sea-level rise, 34 buildings (19%) under 1.0 m sea-level rise, and 47 buildings (26%) under 1.5 m sea-level rise. These sea-level increments are assessment conditions, rather than dated forecasts of damage.

Efate and adjacent islands contain 98 of the mapped tourist accommodation buildings. Eighteen are exposed to the modelled 1% AEP coastal flood event at present-day sea levels, increasing to 34 under 1.5 m sea-level rise. On Santo, none of the 36 mapped buildings are exposed under present-day sea levels, but 12 buildings are exposed when considering the 1.5 m sea-level rise scenario. On Malekula, one of the six mapped buildings is exposed under present-day sea levels and all three assessed sea-level-rise increments. These findings do not establish the absence of risk from other hazards or at unmapped locations.

5.8.4 Adaptation Actions

The risks to tourism require complementary action to protect tourism assets, strengthen business continuity and support resilient livelihoods in tourism-dependent communities. Climate-informed mapping, siting, design and maintenance help reduce avoidable exposure and protect on-site services and natural and cultural assets. Preparedness and tested continuity arrangements help operators and host communities maintain safety and restore services after disruption. Locally led, climate-resilient tourism products, community enterprises and diversified livelihoods, developed through partnerships between operators and tourism-dependent communities, can reduce reliance on a narrow range of climate-sensitive activities. Their development should support inclusive community participation and be assessed against climate exposure and effects on natural and cultural values. Shared transport and utility needs will be coordinated with the responsible sectors. Table 22 presents the three consolidated priority adaptation actions for the tourism sector.



Table 22. Top Three Consolidated Priority Adaptation Actions for the Tourism Sector

ID	Risk statement	Adaptation action	Timeframe	Indicative costs (USD)	Responsible agency
NAP-TOU-01	Cyclones, flooding, sea-level rise, drought, heat and ecosystem degradation can damage tourism assets, interrupt water and other essential services and reduce the condition of natural attractions. Concentration in exposed coastal locations and inadequate climate-informed siting and design can increase disruption and future losses.	Map climate risks and important natural and cultural assets, and apply the findings to tourism planning, siting, design, upgrading and maintenance. Protect on-site services and use environmental and social assessment to guide development and any necessary redesign or relocation.	Short to medium term	13,056,300	DoT
NAP-TOU-02	Climate events disrupt tourism operations, access and essential services; limited preparedness and continuity arrangements prolong interruption, livelihood disruptions and recovery.	Strengthen tourism preparedness, business continuity and recovery through staff training, establishment of operating procedures, climate-related licensing compliance, accessible warnings and evacuation arrangements. Resource and test plans with tourism operators and host communities to restore safe services after climate disruption.	Short to medium term	638,400	DoT
NAP-TOU-03	Climate and ecosystem change threaten tourism-dependent incomes and natural and cultural assets, increasing vulnerability where communities rely on a narrow range of products.	Develop locally led, climate-resilient tourism products, community enterprises and diversified livelihoods through partnerships between operators and tourism-dependent communities, while protecting the natural and cultural assets on which tourism depends. Support equitable access to initiatives, including for women-led, informal and community-based tourism enterprises.	Short to medium term	3,181,200	DoT

5.8.5 Adaptation Limits

Adaptation limits are reached when unacceptable risks can no longer be avoided through adaptation. Hard limits arise where no adaptation options can avoid these risks while soft limits arise where options may exist but are not currently available, for example because of financial, institutional or technological constraints. Limits need to be assessed for particular systems, locations and objectives.

Potential soft adaptation limits that may affect the effectiveness of adaptation measures in the tourism sector include:

- limited access to finance,
- the cost of retrofitting or relocating facilities,
- shortages of technical expertise,
- dependence on climate-sensitive natural assets, and
- challenges associated with infrastructure and water supply management

Possible hard adaptation limits include:

- the permanent loss of beaches and coastal tourism assets,
- degradation of coral reefs and other tourism-dependent ecosystems,
- salinisation of freshwater resources, and
- increasing climate hazards that exceed the design capacity of tourism infrastructure

Permanent loss of a particular natural attraction may impose a hard limit on retaining that attraction. The scope to maintain tourism livelihoods through different locations or activities requires separate assessment. As climate hazards intensify, risks may remain despite adaptation measures and can result in loss and damage. These residual risks may include reduced visitor numbers, loss of tourism revenue and employment, increased operating costs, damage to tourism assets, reduced water availability, and degradation of natural attractions that support the sector.

Monitoring should be undertaken to identify whether the tourism sector is approaching irreversible damage. Monitoring should focus on the condition of tourism assets, freshwater availability, ecosystem health, coastal erosion, and climate-related disruptions affecting visitor experiences and business viability. Findings should inform business continuity measures, alternative sites and livelihood diversification, with communities involved in identifying cultural and natural assets whose loss cannot be replaced.

5.9 Water, Sanitation and Hygiene (WASH)

5.9.1 Sector Overview

WASH is essential to community wellbeing and is recognised as a basic human right and key development indicator. WASH infrastructure, services and practices provide safe drinking water, support hygiene and manage sanitation. In 2024, approximately 26% of Vanuatu's population had access to basic hygiene services and 25% to basic sanitation services (WHO & UNICEF, 2025).

Water Supply

Vanuatu's water services combine urban piped systems with rural community-managed schemes. In urban areas, 23.3% of properties have piped water into the dwelling and 50.1% into the yard, compared with 3.2% and 28.3% respectively in rural areas. Rural populations also rely on community piped supply (7%), protected and unprotected rainwater harvesting (33% and 10%), protected and unprotected wells (5.8% and 1.9%), protected and unprotected springs (1% and 5.2%), and surface water (3.7%) (Vanuatu Bureau of Statistics, 2024).

In 2023, drinking water was available in sufficient quantities when needed to 68.5% of the household population (Vanuatu Bureau of Statistics, 2024). It is noteworthy however that water availability does not necessarily indicate that water is safe to drink. WHO guidelines specify that E. coli should not be detectable in a 100 mL drinking-water sample; microbial testing forms one part of drinking-water safety assessment (World Health Organization, 2023). Unimproved sources do not adequately protect water from contamination, particularly faecal matter.[19]

[19] World Health Organization (2026), Guidelines for drinking-water quality, fourth edition incorporating the third addenda, Microbial aspects, Table 7.10, p. 161. The E. coli criterion is non-detection in any 100 mL sample; this is a microbial criterion and does not establish safety against all contaminants. https://cdn.who.int/media/docs/default-source/wash-documents/water-safety-and-quality/dwq-guidelines-4/gdwq_4ed_with_third-addenda_microbial-aspects.pdf

Water access and reliability challenges are more pronounced in rural areas. In 2023, rural households spent significantly more time collecting water than urban households, with 1.5% spending more than three hours per day, 6.2% more than one hour, and 6.9% more than 30 minutes collecting water (Vanuatu Bureau of Statistics, 2024). Rural water supply is further constrained by limited staffing within Ministry of Lands and Natural Resources (MLNR) Rural Water Supply Section and by non-enforceable standards. Water quality and reliability vary across islands and is influenced by volcanic activity, migration, and prolonged dry periods, creating significant challenges particularly on islands such as Aniwa and Ambae.

Sanitation and Hygiene

Sanitation and hygiene access remain significant challenges. About one-third of the rural population has access to basic sanitation facilities, while 4.4% of the total population practises open defecation (Vanuatu Bureau of Statistics, 2024). In 2023, 46% of rural and 18.5% of urban households had no handwashing facility. WASH service gaps also affect broader public services. In 2024, 28% of healthcare facilities lacked basic water services, compromising patient safety and infection control (UNICEF Pacific, 2024). Wastewater treatment remains limited and is largely confined to urban septic tanks, with most effluent discharged untreated (ResearchGate, 2023).

Solid Waste Management

Although solid waste management is generally considered part of the infrastructure sector, it has important linkages to WASH because poor waste management can affect water quality, sanitation outcomes, public health, and the safety of drinking water supplies. At a national scale the solid waste management systems in Vanuatu are underdeveloped. Urban areas generally operate municipal waste collection systems, but these services are not extended to most rural or peri-urban communities (SPREP, 2020). There is no national landfill strategy, and most waste is either burned or dumped, raising environmental and public health concerns (SPREP, 2020).

5.9.2 Policy Linkages

The Department of Water Resources (DoWR), under the Ministry of Lands and Natural Resources (MLNR), leads water-resource management. Water-supply operation and sanitation responsibilities differ by system and location, while MoET and MoH are responsible for WASH in education and healthcare facilities. Coordination between water-resource managers, service operators, facility owners and MoCC is needed to align climate-risk information, investments and service continuity.

WASH implementation is also guided by water, sanitation and hygiene policies, Drinking Water Safety and Security Plan (DWSSP) arrangements, WASH in Schools Policy, and provincial and local delivery mechanisms. Provincial governments implement urban WASH services while UNELCO operates Port Vila's water services and the national PWD manages Luganville, Isangel and Lakatoro. Smaller urban centres often rely on limited, untreated systems, and informal settlements are frequently underserved.

The Water Resources Management Act [CAP 281] provides the legal basis for water-resource management. The Act provides for the sustainable protection, management and regulation of Vanuatu's water resources, including allocation, quality control and catchment conservation.

Other key policy documents related to the WASH sector include:

- Vanuatu National Water Policy (2017–2030).
- National Water Strategy (2018c).
- Vanuatu National Water Strategy (2018–2030).
- Vanuatu Sanitation and Hygiene Policy (2017–2030).
- Water Supply Act [CAP 24].
- Water Supply Apparatus Act [CAP 87].
- Meteorology Act No. 4 of 1989 [CAP 204].
- National Disaster Act [CAP 267].
- Vanuatu National Implementation Plan for Safe and Secure Community Drinking Water.
- Vanuatu Meteorology and Geo-Hazards Department (VMGD) National Strategy Framework for Weather, Climate, Hydrological, Ocean and Seismological Services (NSFWCHOS), 2024–2029.

The policy interconnections for the WASH sector are presented in Figure 17.

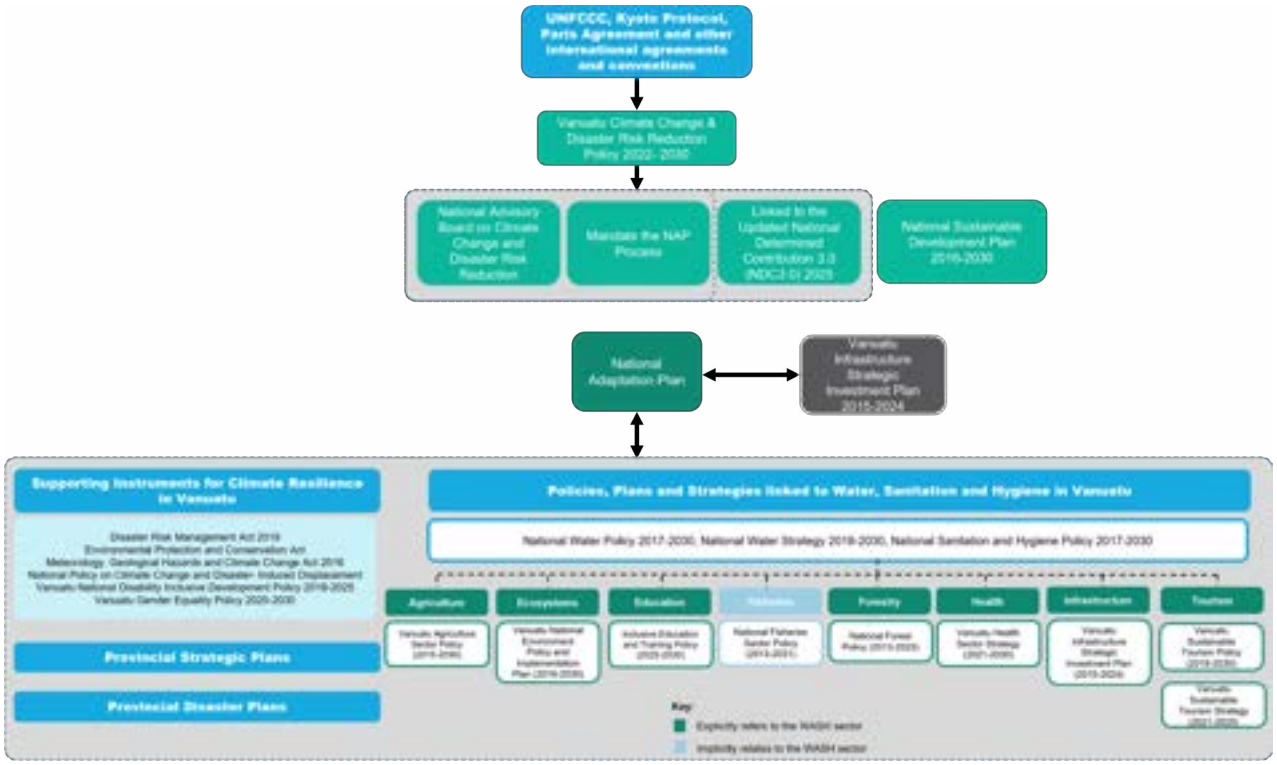


Figure 17Key Policy documents and interlinkages for WASH

5.9.3 Climate Risks and Vulnerabilities

The WASH sector is particularly vulnerable to climate change impacts related to rainfall, as changes in water availability can cause cascading impacts felt throughout society. Drought can result in poor water quality and food and water shortages, and flooding can damage assets and contribute to water contamination. Catastrophic events such as flooding and tropical cyclones can cause contamination or infrastructure damage.

Damage to WASH infrastructure from tropical cyclones, storms and flooding can disrupt water supply and wastewater management systems and increase pressure on remaining services, including those in schools and health clinics. Extreme rainfall, flooding and tropical cyclones can damage above-ground pipes, storage tanks, water pumps, toilets, power systems and other supporting infrastructure. Flooding can also overwhelm sanitation containment and interrupt the safe emptying, transport and treatment of wastewater and faecal sludge, increasing contamination risks. Above-ground, informal and poorly maintained infrastructure is particularly vulnerable. The CRVA identifies exposure of 87 of 250 mapped water-infrastructure units (35%) to a 1% AEP coastal flood event under 1.5 m sea-level rise, and 78 of 250 units (31%) to the assessed present-day 1% AEP fluvial and pluvial flood event. These estimates reflect the available asset data and model coverage. Where access to safe water is reduced, travel distance can become an increasing burden on persons with disabilities, older adults, women, children and adolescent girls, and other marginalised groups, particularly in rural or remote communities where existing access to safe WASH is generally lower.

Declining drinking-water quantity and quality during prolonged droughts can undermine water security, particularly for rural communities reliant on rainfall-fed systems. Coastal flooding and saltwater intrusion can reduce the usability of some groundwater sources, with risk depending on local aquifer conditions, sea-level rise and abstraction (Sharan, Singh, & Birrell, 2024). Floodwater and runoff can carry faecal matter and other contaminants into sources and storage systems. Low water availability can concentrate contaminants and limit hygiene, while warmer water can favour some microbial and algal growth. These pressures increase the need for source protection, monitoring, treatment and safe-water practices.

Communities often face multiple pressures on WASH services at once, further reducing their capacity to respond or adapt to service limitations. Contaminated water and poor hygiene and sanitation conditions can contribute to diarrhoeal disease, typhoid, leptospirosis, respiratory infections, and skin infections. Flooding and drought may also affect maternal health and menstrual hygiene management. Existing behaviours and access to WASH are strong indicators of vulnerability with practices such as open defecation, practiced in an estimated 2.9% of urban households and 4.8% of rural households, linked to increased vulnerability (Vanuatu Bureau of Statistics, 2024).

Solid waste disposal in water catchments can result in increased flood risk due to accumulation in drains and waterways leading to blockages, increasing the risk of vector borne diseases due to standing and stagnant water collecting in discarded items within the community. Additionally, the location of municipal waste dump sites can impact water quality with resulting leachate causing contamination of water sources. Rainfall runoff from waste poses a particular threat to communities causing potential contamination issues for drinking water. The CRVA identifies contamination of water sources and waterways, including through poor sanitation systems and polluted runoff, as important pathways through which climate-related hazards can affect community health and wellbeing.

Public health risks are likely to increase, especially for children, due to poor water quality and damaged WASH infrastructure. Furthermore, crowding and the use of shared or inadequate facilities due to post-event displacement (e.g. in evacuation centres) can create conditions of unsafe hygiene and sanitation, including the spread of diseases and an increased risk of violence towards women and children.

The scarcity of clean water and interrupted supply can also strain social cohesion and may evolve into competition and conflict. Inequitable distribution of resources further deepens social tensions, while essential services such as education and healthcare suffer from WASH-related disruptions, compounding societal stress, undermining community resilience, and adversely affecting child development outcomes.

Existing WASH service gaps increase vulnerability to climate hazards and associated health impacts, particularly in rural communities where water sources are often unimproved and sanitation facilities are inadequate (Department of Geology, Mines & Water Resources, 2014). The Technology Needs Assessment (TNA) identified adaptation technologies for Vanuatu's agriculture and water sectors. Water-sector technologies reflected in the NAP include rooftop rainwater harvesting, water safety plans and flood hazard mapping. Their effectiveness depends on sustained operation and maintenance, water-quality monitoring and the capacity to apply risk information to service planning.

5.9.3.1 Compounding, Cascading Risks and Interdependences

Climate-related changes to the WASH sector can trigger compounding and cascading impacts across multiple sectors due to their strong interconnections with natural and human systems. Examples include:

- Agriculture: Contamination of crops due to infiltration by flood water that contaminates the soil (e.g. with sewage, chemicals), with flow-on effects for food safety
- Education: Reduced schooling opportunities during occasions when WASH infrastructure is insufficient for educational needs, particularly after drought conditions
- Ecosystems: Damage to wastewater infrastructure can release contaminated water into freshwater and nearshore ecosystems, affecting habitat quality
- Fisheries: Wastewater releases can degrade freshwater and nearshore habitats and affect fisheries resources and seafood safety
- Health, Protection and Nutrition: System failures can have severe health and social consequences. Contaminated water and food, reduced capacity to maintain hygiene and crowding in inadequate facilities can increase illness, while water scarcity can cause dehydration
- Infrastructure: Loss of reliable water and sanitation services can disrupt the operation of public buildings and evacuation centres. Power failures and damaged access routes can, in turn, delay WASH service restoration
- Tourism: Competition for limited water supplies can strain relations between tourism operators and surrounding communities, particularly during drought.

Disrupted water and sanitation services can also interrupt tourism operations.

5.9.3.2 People and Locations Most at Risk

Central Malekula, Port Vila and Mele contain concentrations of water infrastructure exposed to the flood conditions assessed in the CRVA. Under the modelled present-day 1% AEP fluvial and pluvial flood event, 78 of 250 mapped water-infrastructure units are exposed (31%). The proportions exposed are approximately 42% in or near Port Vila and Mele (15 of 36 units), 41% in Central Malekula between Norsup, Lakatoro and Litslits (45 of 109 units), and 32% along the western coast of Tanna near Isangel (18 of 57 units). The models cover Malekula, Tanna and catchments near Port Vila and Luganville, and do not include a climate-change component. No reported water infrastructure is exposed around Luganville, but incomplete Santo data mean this cannot be interpreted as low risk. Communities relying on surface-exposed spring sources may face greater contamination risks during floods, particularly where sanitation is inadequate or open defecation is practised (DoCC, 2026).

Rural and remote communities are likely to be more vulnerable due to lower existing access to safe WASH infrastructure and difficulties obtaining the materials required to repair or replace damaged infrastructure. Infrastructure already in poor condition, including informal septic tanks and damaged pipes, may be particularly vulnerable to physical damage and contamination from fluvial and pluvial flooding.

While disruptions to WASH services affect the entire population, children, adolescents, older people, women, persons with disabilities and people with low incomes face compounded vulnerabilities when WASH facilities are lost, damaged or inaccessible. Persons with disabilities face additional challenges in accessing WASH facilities, particularly where facilities in evacuation centres do not meet their accessibility needs. Children may also be exposed to contaminated water while playing in floodwater and mud, increasing the risk of waterborne illnesses and skin infections.

WASH related vulnerabilities can disproportionately affect women and girls where they carry greater responsibilities for water collection and household care, and where menstrual hygiene needs are not met. Women and girls are particularly vulnerable where safe WASH infrastructure is inaccessible or unavailable following an extreme weather event. Menstruation, postpartum care and caregiving can increase requirements for water, privacy and safe sanitation. In addition, women, girls and children may face heightened risks of violence and sexual assault when required to travel to access water or sanitation facilities, particularly when displaced from their homes. These risks can increase where WASH facilities have inadequate lighting, privacy and security.

5.9.4 Adaptation Actions

The risks affecting water, sanitation and hygiene require coordinated action to maintain reliable, safe and accessible water, sanitation and hygiene services during drought, flooding and other climate-related disruption. Diversified water sources and storage help maintain supplies. Resilient, inclusive facilities, safe sanitation management and effective operation and maintenance, supported by community training, help sustain services. Drinking Water Safety and Security Plans, backed by monitoring, testing, treatment, local source protection and hygiene practices, address contamination risks. Water-source development therefore needs to consider yield, salinity and changing climate conditions. Delivery will be coordinated with catchment protection and the sectors responsible for schools, health facilities and other essential services. Table 23 presents the three consolidated priority adaptation actions for the WASH sector.

Table 23. Top Three Consolidated Adaptation Actions for the WASH Sector

ID	Risk statement	Adaptation action	Timeframe	Indicative costs (USD)	Responsible agency
NAP-WASH-01	Drought, flooding, saltwater intrusion and climate variability reduce water-supply reliability and availability, particularly for exposed and water-stressed communities and essential services.	Improve reliable and diversified water supplies in high-risk and drought-prone areas through water-resource assessment, groundwater exploration and monitoring, suitable new or rehabilitated sources and networks, and rainwater harvesting and storage.	Short to medium term	39,848,500	DoWR
NAP-WASH-02	Flooding, cyclones and coastal inundation damage WASH assets and interrupt water, sanitation and hygiene services, disproportionately affecting people with limited access and users of public facilities.	Provide, upgrade and maintain climate-resilient water, sanitation and hygiene services that meet the needs of women, girls and persons with disabilities. Use risk mapping, technical standards, community maintenance, training, preparedness and safer rebuilding to sustain services in priority communities and shared public facilities.	Short to medium term	12,034,500	DoWR; MoH
NAP-WASH-03	Flooding can contaminate water sources, while drought can reduce safe-water availability and concentrate pollutants. Where source protection, testing, treatment, safe-water planning and hygiene practices are insufficient, communities face greater risks of unsafe water and associated illness.	Implement Drinking Water Safety and Security Plans through water-quality monitoring, testing, treatment, filtration and local source protection. Strengthen hygiene education and safe-water practices to reduce contamination and illness during climate-induced disruption to WASH.	Short to medium term	6,582,000	DoWR

5.9.5 Adaptation Limits

Adaptation limits are reached when unacceptable risks can no longer be avoided through adaptation. Hard limits arise where no adaptation options can avoid these risks while soft limits arise where options may exist but are not currently available, for example because of financial, institutional or technological constraints. Limits need to be assessed for particular systems, locations and objectives.

Potential soft adaptation limits that may affect the effectiveness of adaptation measures in the WASH sector include:

- limited financial resources,
- shortages of technical expertise,
- institutional coordination challenges,
- limited monitoring and data availability, and
- difficulties maintaining and upgrading infrastructure across dispersed communities

Possible hard adaptation limits include:

- permanent salinisation of groundwater resources,
- irreversible loss of freshwater sources,
- contamination of water supplies,
- inundation of critical infrastructure, and
- climate extremes that exceed the design capacity of water and sanitation systems

Permanent loss of a particular freshwater source may prevent its continued use. A hard limit to safe water and sanitation services requires assessment of alternative sources, treatment, storage and delivery arrangements. As climate hazards intensify, risks may remain despite adaptation measures and can result in loss and damage. These residual risks may include reduced water availability and quality, sanitation system failures, increased waterborne disease risks, damage to WASH infrastructure, and broader impacts on health, education, livelihoods and wellbeing.

Monitoring should be undertaken to identify whether WASH systems are approaching irreversible change. Monitoring should assess freshwater availability, groundwater salinity, water quality, sanitation, system performance, and infrastructure condition to identify areas where climate impacts are approaching or exceeding existing adaptation capacity. Repeated shortages, unsafe water or sanitation failures should prompt review of source protection, treatment, storage, maintenance and alternative supply arrangements before service continuity is lost.





CHAPTER

06

NAP Implementation

6.1 Implementation

Many NAP actions involve more than one sector because climate impacts affect connected services, livelihoods and ecosystems. Cross-sector programmes can coordinate these actions where they share outcomes and delivery needs, while retaining a clear lead agency and responsibility for each component. For example, climate-resilient WASH supports health, education and infrastructure services and depends on functioning catchments and ecosystems. The NAP covers 2026–2035, with a review in 2030 to assess implementation, update risk information and guide the next phase.

6.2 Institutional Coordination

The institutional arrangements in Chapter 1 apply to delivery of the Plan. DoCC coordinates NAP implementation and consolidated reporting to the NAB, while line ministries and sector agencies retain responsibility for actions within their mandates. DSPPAC and MFEM connect priorities with national planning, public investment and finance processes. Provincial governments, municipal councils and Area Councils connect delivery with local priorities and provide feedback through the existing planning and technical arrangements. For each cross-sector programme, the lead agency coordinates the agreed scope and supporting agencies remain accountable for their components, including maintenance and reporting. These arrangements provide a clear route for resolving overlaps, gaps and constraints without establishing a separate implementation structure.

6.3 Communication

Communication and engagement support implementation and two-way information flow across national, provincial and community levels. National priorities are translated through sector planning and PAP processes, while community priorities and provincial experience inform national decisions. Sector and provincial agencies use appropriate languages, accessible formats and existing community networks to explain actions, participation opportunities, progress and decisions. Engagement includes customary institutions, women's and youth organisations, organisations of persons with disabilities, civil society, service providers, the private sector and development partners. Feedback and complaints are recorded through the relevant programme arrangements and referred to the responsible agency. Sensitive personal information is protected. The MERL framework connects these discussions with implementation review and the communication of decisions back to communities.

6.4 Overview of MERL Framework

Overview

The NAP's monitoring, evaluation, reporting and learning (MERL) framework (Appendix D) supports implementation and helps agencies understand what is working and what needs to change. Evaluation forms part of the framework and examines who benefits, under what conditions and why. The findings inform work programmes, budgets and decisions about implementation.

Over 2026–2035, the framework links the 27 national priority adaptation actions, enabling actions and implementation of the Provincial Adaptation Plans (PAPs) to national adaptation outcomes. It follows the Government's results-based management approach, distinguishing resources, activities, outputs and outcomes. A completed water supply system is an output; reliable access to safe water during drought is an adaptation outcome. These results support the National Sustainable Development Plan and relevant Nationally Determined Contribution (NDC) adaptation commitments. Appendix D sets out the detailed MERL framework, reporting responsibilities and measurement rules.

Provincial monitoring starts with the PAP action tables, following the intended result, scope and lead agency for each action. Common Action Groups (CAGs) link related PAP actions with NAP actions and help agencies use consistent measures where the work is comparable. CAGs do not create another level of results or extra reporting totals. The PAP and NAP share a results chain and measurement rules, with evidence appropriate to each level. National policy, standards, finance and technical services also contribute directly to national outcomes.

Community evidence follows the PAP reporting pathway through implementing agencies and sector Community Liaison Officers (CLOs) to the provincial sector point of contact. Reports then go to the national Climate Change Thematic Officer and onwards to the Director General of MoCC. Technical officers check the evidence within their areas of responsibility. The Department of Climate Change (DoCC) coordinates NAP monitoring and brings provincial and direct national results together for consideration by the National Advisory Board (NAB). The provincial administration, technical and climate committees, and Council retain their responsibilities under the PAP governance arrangements. Appendix E explains how they support reporting and decisions. Existing sector records are used wherever they meet the reporting needs.

On a quarterly basis, provincial sector information is compiled through the PAP reporting pathway and consolidated into one sector MERL report, which the DoCC uses to prepare the national synthesis. Provincial sector information follows the PAP pathway, while national agencies report directly on their own actions. Measurements are taken at the times required by each indicator. NAB meetings every two months use the latest checked findings. Reports explain progress, differences between places and population groups, gaps in the evidence, delivery constraints and remaining risks. MERL costs form part of programme planning and budgeting.

Table 24 summarises how NAP and PAP actions are expected to contribute to the outcomes stated in those plans. For easy comprehension of the table, the results chain needs to be read from activities and resources at the bottom of the table towards longer-term results at the top. Each "if-then" relationship depends on assumptions that monitoring and evaluation will test. Provincial results and direct national actions both contribute to national adaptation outcomes. National actions need not first produce a provincial outcome. The link to the NDC identifies the relevant adaptation commitments against which contributions can be assessed; it does not add a further stage of change.

Table 24. MERL Framework for the NAP & PAPs

Level and intended result	What to monitor	How the results connect	What needs to be in place	Evidence and review
Development goals and NDC contributions	Development gains are protected. Relevant results support national adaptation commitments.	If adaptation benefits persist, they help protect wellbeing and development. Checked results also inform assessment of NDC contributions.	Other development drivers are considered. NDC definitions, coverage and target dates apply; contribution does not prove target achievement.	Development evidence and NDC measures; national reporting and evaluation.
National adaptation outcomes	Reduced vulnerability and more reliable services, livelihoods and ecosystem and cultural functions, with equitable benefits.	If provincial benefits are sustained at the necessary scale, alongside effective national action, they contribute to national outcomes.	Coverage and quality are sufficient. Sectors work together. Changing risks and unintended harm are addressed.	Compatible provincial and national results; annual review and 2030/2035 evaluations.
Provincial and local adaptation outcomes	People, services, livelihoods and ecosystems better withstand climate disruption and recover, supporting PAP strategic outcomes and provincial development objectives.	If working services and applied measures address local vulnerability, then communities, livelihoods and ecosystems can better withstand disruption and recover.	Measures suit local risks. Maintenance and support continue. Intended people and places benefit without new inequalities.	Action measures, service and ecosystem records, and community experience; seasonal and post-event review.
Immediate outcomes	People use the outputs. Services work as intended; plans, skills and standards are applied.	If suitable outputs are accessible and people can use them, then services and decision-making improve.	Users have the resources, skills and authority needed. Access barriers and operating responsibilities are addressed.	Inspections, service records and observed use; relevant measurement periods and annual review.
Outputs	The specified assets, services, plans, training and other products are delivered.	If agreed activities are completed to the required standard, then they produce the specified outputs.	Designs are suitable, dependencies are managed and quality requirements are met.	Completed work, acceptance records and location; during delivery and quarterly MERL reports.
Actions, activities and resources	PAP, national and enabling actions have clear tasks, responsibilities, finance and support.	If agreed priorities are translated into funded, sequenced tasks with clear responsibilities, then implementation can proceed.	Finance, staff, permissions and technical support are available. Participation, rights and safeguards guide delivery.	Action and finance records, milestones and constraints; quarterly reporting and annual planning.

Indicators are practical measures of progress or results and are selected for the climate risk being addressed, the intended result and the decisions they will inform. Each indicator record states the method, unit, people or assets covered, source of information and measurement period. While baselines and targets are kept with their reference dates and supporting evidence, a checked observation can still be reported where a comparable baseline or target is unavailable. Progress against that baseline or target is then recorded as “not assessed”. Importantly, missing observations are distinguished from verified zero results. Findings draw on community experience and local and traditional knowledge. Results are broken down by sex, age, disability and location where useful and safe, while sensitive personal records remain with those authorised to hold them.

Annual reviews assess implementation, emerging outcomes and how well the MERL arrangements are working. They consider the quality of evidence, staff capacity, the effort involved in reporting and how findings are used. The 2030 mid-term and 2035 end-of-period evaluations examine effectiveness, relevance, coherence, efficiency and sustainability, as well as who benefits and how benefits are shared. DoCC coordinates these evaluations with the Department of Strategic Policy, Planning and Aid Coordination (DSPPAC), sector agencies and provincial authorities, using reviewers sufficiently independent of the activities assessed. Evaluation takes account of changing hazards and exposure, other programmes and activities, and the time needed for adaptation benefits to emerge. It examines whether actions reduce vulnerability without transferring risk or creating new inequalities.

Major climate impacts, repeated service failures or signs that an adaptation approach may no longer provide adequate protection prompt a focused review. Economic and non-economic loss and damage is recorded without assuming that an adaptation limit has been reached. Reviews record what should continue, change, pause or stop, who is responsible and when the agreed response is due. The next relevant review checks whether the response was carried out and whether it helped. Findings and decisions are shared with communities through the PAP reporting contacts and existing communication arrangements, so they can question results and help shape the next steps. Urgent health, protection and safety concerns are referred immediately through existing response arrangements and do not wait for routine reporting.

The NDC tracking tool remains the principal tool for tracking contributions to NDC adaptation commitments. Results are combined only where their definitions, units, scope and reporting periods are compatible and overlaps have been removed. An action's alignment with a commitment does not establish that a national target has been met. The framework draws on the UNFCCC NAP Technical Guidelines and the UAE Framework for Global Climate Resilience. Relevant Belém Adaptation Indicators inform national measures as appropriate; their use is voluntary and creates no additional reporting obligation or condition for accessing finance. Appendix E explains how the same checked evidence can support national planning and international reporting.

6.5 Overview of NAP Financing Strategy and Roadmap

The Finance Strategy and Roadmap (Appendix E) outlines Vanuatu's approach to mobilising finance for the implementation of the NAP. It was developed through an assessment of potential financing sources aligned to the scope, scale, and nature of the 27 National Priority Adaptation Actions. This included a desk-based review of domestic, bilateral, multilateral, climate, private, and philanthropic financing mechanisms, followed by an appraisal of the priority adaptation actions to identify suitable financing routes, potential implementation partners and project-preparation requirements. The detailed assessment is presented in the accompanying Financing Strategy and Roadmap Report, which should be read as the operational companion document to this NAP.

Access to finance is a key enabler of implementation and is closely linked to programme packaging, concept development, feasibility assessment, safeguards requirements, and investment readiness. The Financing Strategy and Roadmap therefore identifies not only potential financing sources, but also practical actions to support project preparation, financing engagement and resource mobilisation across the nine priority sectors. Priority financing sources identified include domestic public finance, bilateral development assistance, multilateral development banks, dedicated climate and environmental funds, technical-assistance facilities, philanthropic organisations and, where appropriate, private-sector and blended-finance mechanisms.

Implementation of the Financing Strategy and Roadmap is intended to strengthen existing national climate-finance mechanisms and reinforce the role of the Ministry of Finance and Economic Management (MFEM) as Vanuatu's national accredited entity for climate finance. As the Government's lead institution for coordinating

development and climate finance, MFEM works closely with line ministries, provincial governments, communities and development partners to support climate-resilient development pathways. Through its accreditation to the Green Climate Fund, MFEM is able to directly access eligible climate-finance opportunities within its accreditation scope while continuing to work with regional and international accredited entities to mobilise larger or more complex investments.

The implementation of the Financing Strategy and Roadmap also seeks to promote inclusive and equitable access to adaptation finance while enabling the meaningful participation of women, men, persons with disabilities, youth and other underrepresented groups in shaping and delivering adaptation action. Consistent with the requirements of key climate finance partners, including the Green Climate Fund (GCF), financing proposals developed under the NAP should consider the different needs, priorities and capacities of different population groups and seek opportunities to strengthen their agency, leadership and contributions to climate resilience. Where appropriate, investment design and budgeting processes should support inclusive decision-making, build local capability, and recognise the value of traditional, community and lived-experience knowledge in the development of adaptation solutions. Building on existing government budgeting, monitoring and reporting systems, MFEM and sector agencies will encourage consideration of gender equality, disability and social inclusion outcomes in the development and implementation of climate finance initiatives. GEDSI considerations have been incorporated into the financing assessment to support equitable and inclusive adaptation outcomes and should continue to be strengthened during future project development and implementation.

The Financing Strategy and Roadmap aligns sectoral adaptation priorities with existing initiatives within the National Climate Finance Country Programme (NCFCP), relevant adaptation commitments under Vanuatu's NDC 3.0, and potential domestic and international financing sources. These alignments provide opportunities to integrate NAP priorities into existing programmes, support project preparation and identify co-financing opportunities. However, thematic alignment does not imply that financing has already been secured or that a NAP action is fully covered by an existing programme. Further engagement with implementing agencies, accredited entities and development partners will be required to confirm financing opportunities and project coverage.

Based on the indicative Class 5 cost estimates currently available from the Provincial Adaptation Plans, the indicative financing requirement for implementation of the 27 National Priority Adaptation Actions is estimated at approximately **USD 630 million**. Table 25 summarises the key elements of the Financing Strategy and Roadmap and highlights the overarching approach to adaptation finance mobilisation under the NAP.

Table 25. Financing Strategy at a Glance

Financing strategy element	Summary
Adaptation portfolio	27 National Priority Adaptation Actions across nine (9) sectors
Indicative financing requirement	USD 630 million
Financing approach	Mobilise domestic, bilateral, multilateral, climate, philanthropic, and private-sector finance
Key climate finance routes	GCF, GEF, AF, MDBs, bilateral partners and existing national programmes
National coordination	MFEM as Vanuatu's GCF Direct Access Accredited Entity
Investment readiness	Prioritise concept development, feasibility studies, safeguards, and project preparation
GEDSI approach	Integrate gender-responsive budgeting and GEDSI considerations into project preparation, implementation, and monitoring

Table 26 provides a sector-level overview of the indicative investment requirement and the principal financing sources that may support implementation across the nine (9) priority sectors. This summary is intended to guide resource mobilisation and financing engagement and should be read together with the detailed financing roadmap and implementation actions presented in the accompanying Financing Strategy and Roadmap Report.

Table 26. Indicative Financing Sources by Sector

Sector	Indicative Cost (USD)	Share (%) of total sectoral financing cost	Potential Financing Sources
Agriculture	26,776,000	4.3%	Australian Centre for International Agricultural Research (ACIAR), AF, ADB, Bilateral Partners (Australian Department of Foreign Affairs and Trade (DFAT), China, EU), GCF, GEF, International Fund for Agricultural Development (IFAD), Global Agriculture and Food Security Program (GAFSP), Pacific Community (SPC), FAO, UNDP (implementing), Domestic government budget
Ecosystems	21,774,900	3.5%	AF, GEF, GCF, FAO / UNDP / SPREP / SPC / (implementing), Bilateral partners (EU, France, Australia DFAT, New Zealand, Ministry of Foreign Affairs and Trade (MFAT), Kiwa Initiative, Philanthropic (e.g. Bezos Earth Fund, Oceans 5, Ocean Resilience and Climate Alliance), Domestic government budget
Education	77,461,000	12.3%	ADB (technical assistance), World Bank, Global Partnership for Education (GPE), UNICEF, Bilateral partners (Australia DFAT, New Zealand MFAT, Japan International Cooperation Agency (JICA), Domestic government budget, Philanthropy Organisations (e.g. MasterCard Foundation, Rockefeller Foundation, Bill & Melinda Gates Foundation, Save the Children Australia), Pacific Resilience Facility (PRF), United Nations Office for Disaster Risk Reduction (UNDRR)
Fisheries	43,296,000	6.9%	GEF (Coastal Fisheries Initiative), GEF (Pacific Reef and Ridge-to-Reef Programmes), GCF, FAO / UNDP / SPC (Implementing), ADB (Pacific Climate-Resilient Ocean Economy), World Bank PROBLUE economy program, Bilateral Partners (Australia, EU, China & Japan), Philanthropy Organisations (e.g. Oceans 5, Ocean Resilience and Climate Alliance), Domestic government budget
Forestry	11,633,000	1.8%	AF, Australian Centre for International Agricultural Research (ACIAR), Forest Carbon Partnership Facility (FCPF) / Vanuatu's REDD+ program, GEF, GCF Special Climate Change Fund (SCCF), Kiwa Initiative, Philanthropy Organisations (e.g. Conservation International, The Nature Conservancy), Domestic government budget, FAO / SPC (implementing)
Health & Nutrition	21,593,600	3.4%	AF, ADB, World Bank, GEF, GCF, World Health Organisation (WHO) / UNDP (implementing), Bilateral Partners (Australia DFAT, New Zealand), UNICEF & United Nations Population Fund (UNFPA), Philanthropy organisations (e.g. Wellcome Trust, Bill & Melinda Gates Foundation), Domestic fund: VNPF, Domestic government budget
Infrastructure	352,135,200	55.9%	World Bank's Vanuatu Infrastructure Reconstruction and Investment Program (VIRIP), AF, ADB, GCF, GEF, CIF, Bilateral Partners (Australia DFAT, New Zealand MFAT, JICA), Private/blended finance, Domestic: VNPF, Pacific Region Infrastructure Facility (PRIF), SREP, SPC (implementing)
Tourism	16,875,900	2.7%	GCF Readiness, GEF-5 Ecotourism, ADB, SREP (technical support), Bilateral Partners (Australia, New Zealand, EU), Domestic government budget
WASH	58,465,000	9.3%	AF, ADB, World Bank, Bilateral Partners (Australia DFAT, New Zealand MFAT, JICA), GCF, GEF, UNICEF, Philanthropy Organisations (e.g. Bill & Melinda Gates Foundation, Water Aid, Water.org, Pacific Water, Sanitation and Hygiene Coalition), Domestic government budget

The Financing Strategy and Roadmap therefore provides a practical route for Vanuatu to package priority adaptation investments, strengthen project readiness, engage financing partners and progressively mobilise resources across the short, medium and long term in support of the National Adaptation Plan and broader national climate commitments.





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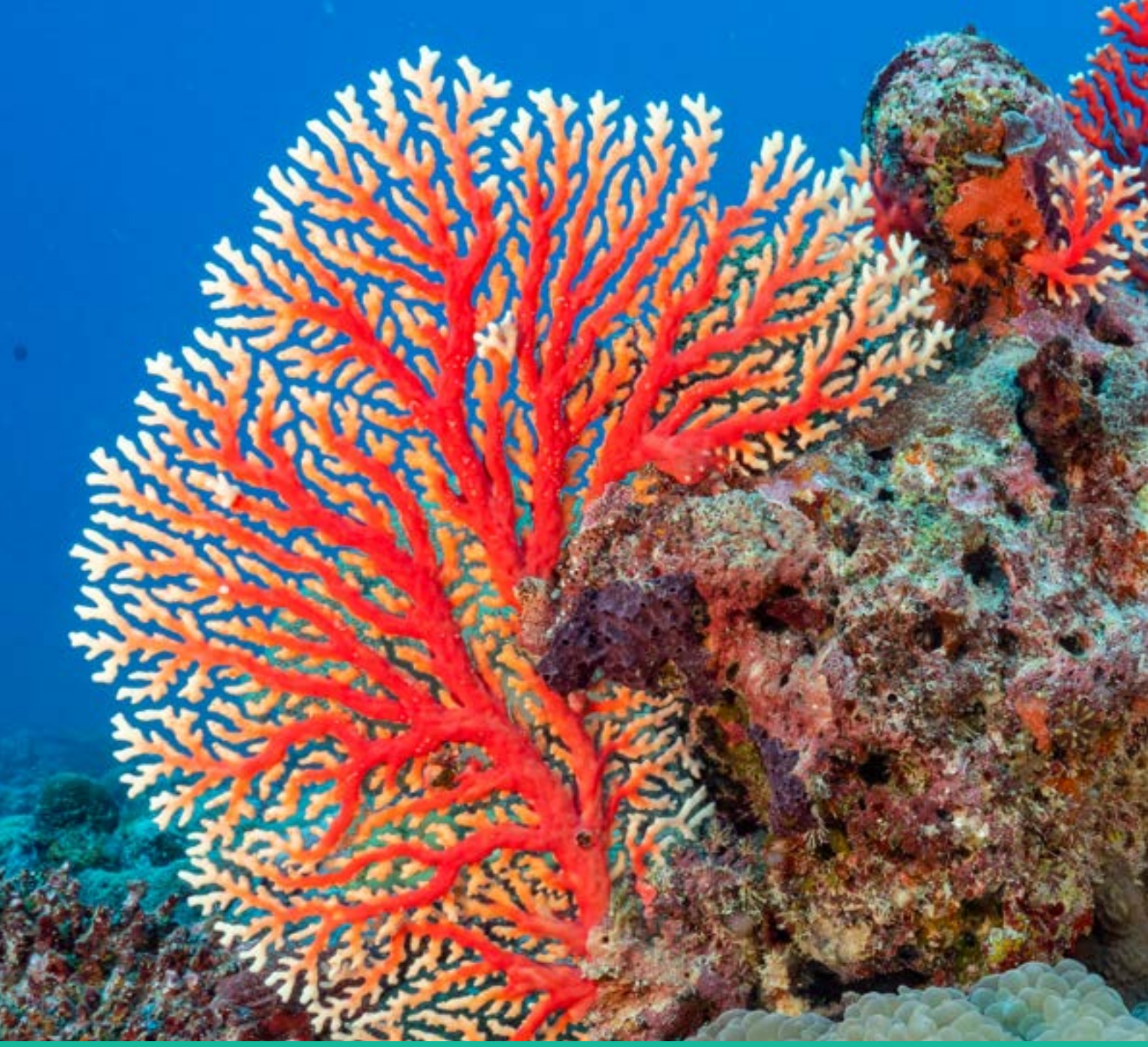
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Appendices

Appendix A: Technical Foundations and Methodology for the Vanuatu NAP

A.1 Overview of the NAP Development Process

This section summarises the methodology used to identify, screen, and prioritise adaptation actions for inclusion in Vanuatu's National Adaptation Plan. The approach is informed by and aligned with the Pacific National Adaptation Plan Guidelines (SPREP, 2022) and the UNFCCC NAP Technical Guidelines (Least Developed Countries Expert Group, 2025). It is grounded in the Climate Risk and Vulnerability Assessment (CRVA) and associated Van-KIRAP / CSIRO climate and ocean-hazards products as the primary evidence base.

The NAP development process followed a transparent, participatory progression:

- **Evidence:** the CRVA and supporting sector information identified key current and future climate risks.
- **Stocktake:** existing and planned actions were reviewed with stakeholders to establish the baseline of current activity.
- **Prioritisation:** a structured screening and ranking process identified urgent adaptation gaps to be addressed.
- **Planning:** additional actions and enabling measures were proposed to address evidenced gaps and delivery constraints.

Detailed methods, evidence sources, assessment, consultation outputs and prioritisation process results are documented in the Consultation Report for the Vanuatu NAP (2026). The four stages of the NAP development process are elaborated in Figure A.1.

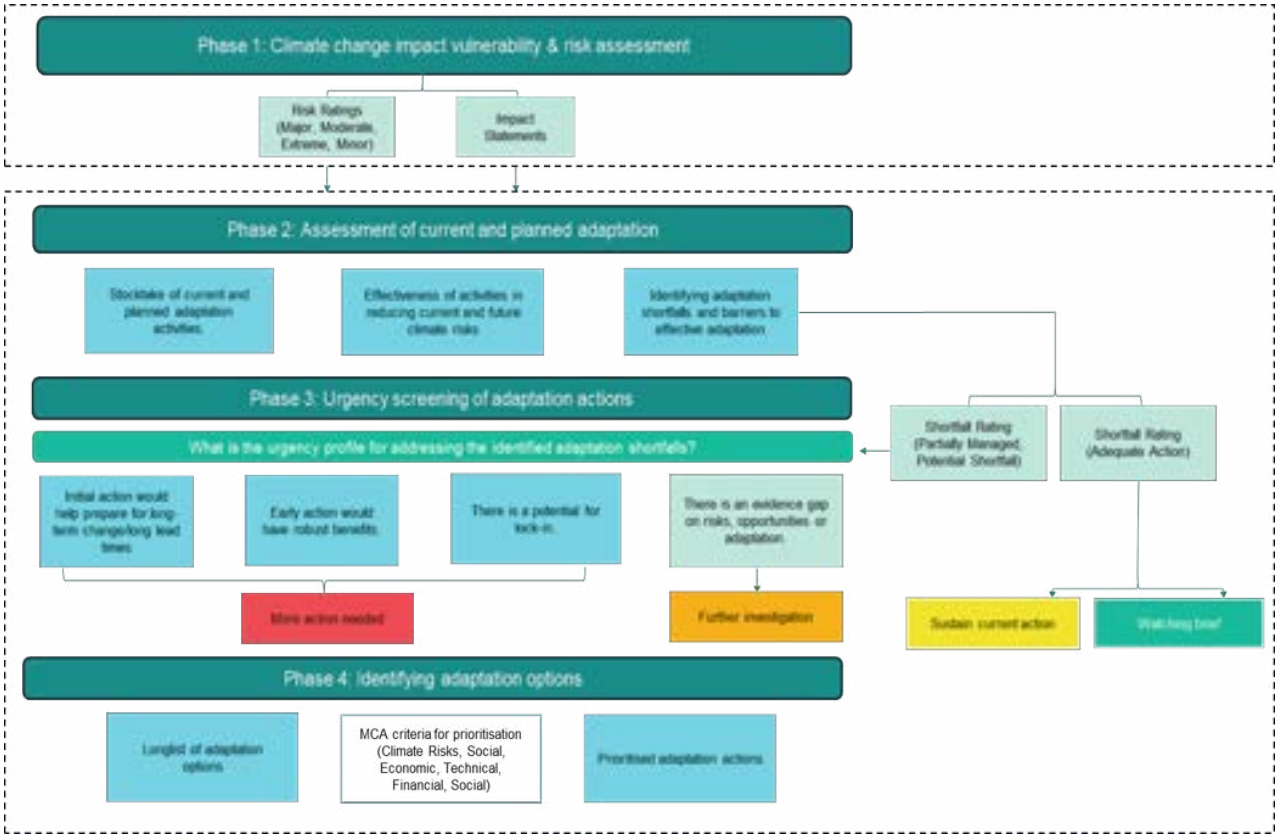


Figure A.1. Flow Diagram of Climate Adaptation Planning Assessment

A.1.1 Phase 1: CRVA

The CRVA was used to identify current and projected climate impacts, risks, and vulnerabilities across all NAP sectors and provinces. This phase produced sector and geographic risk narratives, supported by hazard and exposure information, to provide a consistent evidence base for adaptation planning.

The CRVA considered gender equality, disability and social inclusion through its literature review, stakeholder consultations and qualitative assessment of vulnerability. This included consideration of livelihood roles, access to resources and services, unpaid care and recovery responsibilities, safety and gender-based violence risks, disability inclusion, age, income and remoteness. These considerations informed sector risk narratives, identification of priority groups, and implementation considerations throughout the NAP.

However, the availability and consistency of sex-, age- and disability-disaggregated data varied across sectors and locations, limiting the depth of analysis in some areas. Strengthening this evidence base remains a priority for future CRVA updates, Provincial Adaptation Plans (PAPs) and NAP monitoring, evaluation, reporting and learning.

A.1.2 Phase 2: Assessment of Adaptation Options

A stocktake of current and planned adaptation actions was completed through document review and structured stakeholder engagement. Actions were assessed against CRVA findings to confirm relevance to material risks, likely effectiveness, and whether current activity is sufficient considering the risk profile.

Stakeholder Engagement

Stakeholder engagement supported an inclusive and context-specific planning process. Two rounds of in-person sector workshops were held in Port Vila: a sectoral workshop in May 2025 and Validation and Prioritisation Workshop in February 2026. These were supplemented by focus group discussions (FGDs) and key informant interviews (KIIs) with representatives from government, the private sector, non-government organisations, and development partners.

The objectives of the stakeholder engagement exercise were to:

- confirm the purpose and requirements of the NAP with key stakeholders;
- understand current and planned policies, strategies, plans, and strategic priorities relevant to climate adaptation;
- understand past, current, and planned projects and programmes, including lessons on what has worked; and
- identify key adaptation gaps and capacity needs, including cross-sector enabling requirements.

Sector workshop groups reviewed adaptation options identified through document review, previous consultations and input from sector specialists. Participants considered these options against the climate hazards and risks presented for their respective sectors. Options relevant to more than one hazard were considered in the context of the hazards identified as priorities within that sector.

Where participants identified a gap, they developed new options or refined and merged existing ones. The SMART approach (specific, measurable, achievable, relevant and time-bound) informed the description of options. Sector groups developed shortlists of approximately 8–12 actions for urgency and feasibility scoring. This process supported the initial priorities while retaining the wider options inventory for longer-term planning.

Participants presented the responses on A0 sheets of paper to refer to throughout the remainder of the prioritisation workshop where required.

A.1.3 Phase 3: Urgency Screening of Adaptation Actions

A structured screening was applied to distinguish actions that:

- are being managed through existing programmes (**continue**),
- require acceleration or strengthening (**scale/accelerate**), or
- represent a material adaptation shortfall (**new or significantly scaled action**).

Shortlisted actions were then prioritised using a qualitative **Multi-Criteria Analysis (MCA)**. The MCA applied an agreed set of criteria and recorded the scoring rationale for transparency and traceability. The criteria included:

- **Urgency (U1 – U5):** importance of the action in reducing material climate risks and impacts;
- **Feasibility (F6 – F10):** institutional, social, technical, and financial delivery constraints

The 8 – 12 adaptation options were then further prioritised based on five urgency and five feasibility criteria with each criteria given a rating between 0 and 3 (inclusive) where 0 indicated no alignment with the criteria and 3 indicated strong alignment with the criterion. Adaptation options were prioritised based on the scored value from a total out of 30.

Criteria	Rating score			
	0	1	2	3
U1 Risk importance (necessity)	Not needed to address a material risk.	Helpful but marginal.	Important contributor to risk reduction.	Necessary to avoid major / likely impacts (especially in hotspots/ critical services).
U2 Urgency / decision window (hazard-agnostic)	Can wait >10 years with little consequence.	Useful now but delay is acceptable (no lock-in).	Should start within ~3–5 years (lead times, rising disruption).	Must start within ~1–3 years (lock-in, repeated damage, thresholds, long lead time).
U3 Capacity uplift (people / services / systems)	No capacity improvement.	Small/localised capacity gain.	Clear capacity gain in priority areas/services	Major uplift in coping/recovery/ continuity (especially for vulnerable groups/remote areas).
U4 Co-benefits (multi-sector development gains)	Negative spillovers or trade-offs dominate.	Neutral/limited co-benefits.	Clear co-benefits to other sectors/systems.	Strong multi-sector co-benefits (e.g., health–WASH–education; catchment–agriculture–ecosystems).

Criteria	Rating score			
U5 No-regret value (works across futures)	Only works under a narrow scenario / high regret risk.	Some value but uncertain robustness.	Likely valuable across plausible futures.	Strong value regardless of timing uncertainty (still worthwhile if impacts arrive earlier/later).
F6 Flexibility (can be staged / adjusted?)	Fixed/stranded risk if conditions change.	Limited ability to adjust.	Some staging/modularity.	Designed to be adjusted and scaled over time.
F7 Operational feasibility / O&M	Not feasible or not maintainable in Vanuatu context.	Major O&M issues likely to cause failure.	Manageable O&M issues with clear mitigation.	Feasible and maintainable with existing / plausible capacity.
F8 Planning / budgeting fit	No fit with plans / budgets / mandates.	Weak fit; would require major reform to start.	Can be embedded with some adjustments.	Strong fit with existing sector plans / budget lines / mandates.
F9 Finance pathway clarity	No plausible pathway identified.	Possible but unclear / high barriers.	Plausible pathway (domestic + partner) with known steps.	Clear packaging potential (e.g., concept note-ready, scalable, funder-aligned).
F10 Social/political acceptability	Likely unacceptable / high conflict risk.	Low acceptability; difficult to shift.	Moderate; can improve with engagement / safeguards.	Broadly acceptable now.

Quantitative cost–benefit analysis was not applied at this stage because data availability was inconsistent across sectors. Cost and affordability were considered qualitatively within the feasibility assessment. The scores support initial sequencing; they do not measure the full long-term value of an action. Actions that are harder to deliver, including potentially transformational responses, can remain important where they address severe or increasing risks. The NAP review considers these risks and options alongside implementation experience, rather than treating a lower feasibility score as evidence of low adaptation need.

A.1.4 Phase 4: Identification of Additional Adaptation Actions

Where the stocktake (Phase 2) and screening/prioritisation (Phase 3) confirmed that current activities were unlikely to meet adaptation needs – particularly for major or extreme risks – additional adaptation actions and enabling measures were proposed to address evidenced gaps. Actions were developed by sector specialists based on the CRVA and stocktake findings and validated with sector focal points and relevant coordination mechanisms. This included structured enquiry regarding indicative timing (e.g., immediate vs next five years), lead delivery responsibility, required resources, and key enabling conditions.

Drafting the National Adaptation Plan

Following completion of Phases 1 to 4, results were consolidated and the NAP was drafted, including a proposed Adaptation Pathway for Vanuatu. The pathway was formulated based on identified major and extreme climate risks and associated adaptation actions and considered implications for loss and damage.

Documentation, Validation, and Quality Assurance

Key inputs and decisions were documented to ensure transparency and traceability, including the stocktake evidence base, consultation outputs, MCA and scoring rationale, and the basis for inclusion of additional actions. Draft priorities and content were reviewed with relevant stakeholders to validate interpretation and ensure feasibility in the Vanuatu delivery context.

Appendix B: Summary of Participatory Engagement

The NAP was informed by sector workshops, focus group discussions and interviews, bringing together government, technical agencies, development partners, civil society and sector representatives. Sector engagement in May 2025 informed the initial assessment of adaptation needs. The validation and prioritisation workshops held in Port Vila from 16 to 20 February 2026 reviewed the draft risks and adaptation actions across all nine sectors and examined how priority actions could be delivered through cross-sector programmes.

Participants reviewed climate risk statements drawn from the CRVA, refined the proposed actions, identified gaps and prioritised shortlisted actions using the agreed urgency and feasibility criteria. The final session considered programme design, policy alignment, financing, responsibilities and the links between national, provincial and community delivery. These discussions informed the sector priorities and the implementation arrangements described in this NAP.

Table B.1. February 2026 Validation and Prioritisation Workshops

Date and venue	Sectors or session	Purpose and recorded outputs
16 February 2026; Vanuatu Meteorology and Geo-Hazards Department, Port Vila	Education; health and nutrition; water, sanitation and hygiene	Review and refinement of sector risks and adaptation actions; prioritisation using the agreed urgency and feasibility criteria.
17 February 2026; Vanuatu Meteorology and Geo-Hazards Department, Port Vila	Agriculture; forestry	Review and refinement of sector risks and adaptation actions; prioritisation using the agreed urgency and feasibility criteria.
18 February 2026; Vanuatu Meteorology and Geo-Hazards Department, Port Vila	Ecosystems; fisheries	Review and refinement of sector risks and adaptation actions; prioritisation using the agreed urgency and feasibility criteria.
19 February 2026; Vanuatu Meteorology and Geo-Hazards Department, Port Vila	Infrastructure; tourism	Review and refinement of sector risks and adaptation actions; prioritisation using the agreed urgency and feasibility criteria.
20 February 2026; Melanesian Hotel, Port Vila	Cross-sector validation	Development of cross-sector programme packages and review of policy alignment, financing and delivery pathways, institutional responsibilities, and monitoring and learning needs.

Workshop notes, flipcharts, clustered action lists and prioritisation tables provide a record of the February consultations. The consultation report documents these sources and the synthesis of overlapping actions. Participation varied between sectors and sessions. Workshop validation records stakeholder contributions to the NAP and is distinct from formal institutional endorsement.

Source: GHD (2026), Vanuatu NAP prioritisation and validation consultation report, February workshops, Sections 1–3 and Appendix A, Tables A2 and A3; supplied review copy dated 7 May 2026. The May 2025 engagement is recorded in Appendix A of this NAP.

Appendix C: Unprioritised Adaptation Activities

This appendix elaborates the supplementary adaptation activities and consultation inputs that inform implementation and longer-term review for all nine priority sectors. The 27 consolidated national priority adaptation actions are presented in Chapter 5, with their source priorities identified in the sector alignment notes. Inclusion here does not confer an additional national priority or a workshop score. The revised MoET education measures provide implementation detail for NAP-EDU-01 to NAP-EDU-03 and retain their stated sector ownership.

Table C.1. Key Adaptation Actions for the Agriculture Sector

Element	Risk	Adaptation Actions / Responses
Subsistence and Cash Crops	Crop yield and crop health suffer due to direct effects of: • Increased temperature • Drought • Salinisation due to sea-level rise • Storm and tropical cyclone damage Crop yield and crop health suffers due to indirect effects of: • Pests • Diseases	Enable the uptake and application of climate-resilient crop species and varieties through research programmes. Training and awareness for farmers on resilient plants and sustainable horticulture methods (including extension efforts for smallholders). Enhance monitoring and evaluation practices across extension structures that will also facilitate improved knowledge transfer. Provide agribusiness training to farmers and ensure that they understand how to access climate financing (including subsidies, risk sharing and insurance services) by 2035, including at least 500 kava farmers, 400 coconut farmers, 1000 cacao farmers, 300 coffee farmers, 500 spice farmers, 1000 fruit tree farmers, 1420 root crop farmers and 480 vegetable farmers.
Livestock	Animal welfare suffers due to direct effects of: • Increased temperature • Drought • Storms and tropical cyclones • Animal death and injury from storms and tropical cyclones	Enable the uptake and application of climate-resilient livestock breeds through research programmes. Training and awareness of new breeds and sustainable farming methods for livestock farmers (including extension efforts for smallholders). Education to include practical measures to protect livestock during tropical cyclones (e.g. shelter belts and open ground "cyclone pasture" areas to avoid tree fall injury). Enhance monitoring and evaluation practices across extension structures that will also facilitate improved knowledge transfer. Provide agribusiness training to livestock farmers and ensure that they understand how to access climate financing (including subsidies, risk sharing and insurance services) by 2035, including at least 1000 cattle farmers, 60 bee farmers, 100 small ruminant farmers, 100 poultry farmers, and 100 pig farmers.
Storage and Transport networks for plant and animal products	Damage to roads and ports following storms and tropical cyclones exacerbates produce losses and economic impacts. Storm conditions impair the ability to transport food to remote island communities.	Per Infrastructure Sector adaptation actions. Develop a Master Plan and implement strategic investments in infrastructure for food preservation (e.g. refrigeration) and transportation networks.

Element	Risk	Adaptation Actions / Responses
Limited water availability	Water security for agriculture systems (cropping and animals) impacted by: • water-related disasters • areas suffering from water stress; and • poor water quality.	Capacity building at the national and provincial levels to support climate-resilient water management planning for Agriculture. Support to the Department of Water Resources during prioritisation and funding applications to construct resilient water infrastructure systems, including for groundwater resources.
Natural Ecosystems	The resilience of productive agricultural land is compromised by anthropogenic development methods, such as deforestation, land clearance and monocropping.	Implement catchment scale nature-based solutions which will enhance the resilience of natural resources and improve water security. Examples include soil conservation planting for erosion protection, riparian planting, wetland restoration, intercropping, crop rotation and the use of cover crops to enhance soil organic matter levels and improve soil structure, water and nutrient retention.
Land Tenure	Poorly defined or insecure land tenure may impede the adoption of local land-use plans and prevent people from adopting certain resilience building strategies (GoV 2011).	Land use planning, with the allocation of communal land for long-term community gardens and livestock enclosures.
Local Communities	Multiple climate risks to vulnerable, remote and rural communities, including risks to nutrition and health, social cohesion, and those in vulnerable groups.	Development of Community Based Adaptation Plans, with improved local governance and access to climate information and early warning.

Table C.2. Key Adaptation Actions for the Ecosystem Sector

Element	Risk	Adaptation Actions / Responses
Planning	Ecosystem change is likely to be widespread from all climate stressors (temperature, rainfall, ocean acidification) but appropriate planning is not in place to allow for prompt implementation of adaptation actions as they arise causing ecosystem damage.	Prioritise development actions that minimise threats and incorporate climate solutions from the 'ridge to the reef' of island communities (National CCDRR Policy 7.4.5), by strengthening local authorities and municipal planning authorities to enact and enforce land use planning laws and regulations (NEPIP PO2.2). Reduce major threats to native forest and inland water ecosystems such as unsustainable logging, agriculture, mining and human settlements. By 2030 there are at least 10 new designated green spaces in urban areas (from 2016 baseline) Actions could expand to link land use planning with coastal zone management and nature-based solutions such as mangrove restoration to combat rising sea levels Implement nature-based solutions (NbS) and ecosystem-based adaptation (EbA) as core strategies to reduce climate risk, enhance ecosystem resilience and deliver co-benefits for communities.
Funding	Key adaptation projects cannot be undertaken due to lack of access to funding leading to decline of key ecosystems	Develop more streamlined processes to identify and access available funding for projects that would result in ecosystem benefit in 'at risk' ecosystems (including mangrove forests as mentioned in this NAP) particularly during exacerbated climate conditions. Keep an up-to-date register of funding sources and complete regular access to websites and portals where funding opportunities are publicised.
Expanding protections	Damage to existing food source locations (agricultural land and fishing resources) creates requirement to access untouched areas to retrieve natural resources.	Vanuatu commits to prioritising adaptation and risk reduction actions that build on, incorporate and protect tabu areas (traditional / sacred areas) and conservation areas (National CCDRR Policy 7.4.5), including by officially registered 20 Community Conservation Areas (CCAs) by 2030 (NEPIP 1.2.1). Establishment of marine protected areas using cultural approaches and methods (Tabu area) Vanuatu commits to conserve at least 17% of important biodiversity areas, at least 30% of natural forest, at least 10% of wetland areas, and 10% of marine areas through effective community and government management measures by 2030. Consider a collaboration strategy for transboundary ecosystem management or protection in marine and coastal areas, especially in shared ecosystems with neighbouring villages or islands Include incentives for private landowners and communities to protect ecosystem corridors (linking protected areas) and to enhance biodiversity conservation Encourage 'ridge to reef' management approaches
Additional assessment in development	Investments are developed without consideration of climate change exacerbating existing risks to the environment causing damage after significant storm events.	Vanuatu commits to identifying and minimising negative impacts on the environment from proposed adaptation and risk reduction activities (National CCDRR Policy 7.4.5), ensuring that 90% of development projects comply with EIA requirements by 2030 (NEPIP 1.5.5) Support and facilitate undertaking of climate risk profiling to include and carry-out vulnerability assessments and Climate Change Impact assessments and include nature-based solutions assessments Support the development of systems and service products for vulnerability and impact assessment tailored to user/stakeholder needs. Early warning systems can be introduced for key ecosystems, (e.g. coral reefs) that could be vulnerable to rapid climate impacts
Targeted research projects	Interventions are ineffective or culturally inappropriate because they are not informed by targeted research	Undertake targeted research on best practice of coral reef restoration and best cultural practices for food security. Integrate NbS principles in project design for coastal protection and forestry sectors

Element	Risk	Adaptation Actions / Responses
Capacity building	The type and extent of climate impacts on ecosystems exceeds financial or technical capacity within Vanuatu to assess the impacts and put in place effective actions to minimise ecosystem change/loss.	Identify individuals and develop a register to document nationally/regionally available expertise for vulnerability and impact assessments. Assess the adequacy of the initial list and if required creating and funding a programme to train more technical experts. Build capability and capacity of local teams in the preparation of effective funding applications/bids. Run grant writing training sessions to enable financial support to be provided for undertaking climate related projects. Capacity building and training at the grassroots level to enable foundational understanding within communities and empower them to document local changes and participate in the risk management process.
Value	The value of Ecosystems is not truly recognised due to lack of understanding of ecosystem services and how these services are essential for both the ecosystem and to support human activity.	Vanuatu commits to quantifying the value and benefit of ecosystem services for resilience and mainstreaming this into planning and budgeting (National CCDRR Policy 7.4.5), including adding questions about ecosystem services in national surveys (NEPIP 5.1.12).
Whole of society engagement	Climate change impacts on various causing loss of ecosystem resources causes conflict disengagement between government, private sector, and the community causing further damage to ecosystems	Develop innovative partnerships with relevant stakeholders (Government, private, civil society, private etc.) to integrate climate change approaches and actions. Foster collaborations with research institutions and international environmental organisations to bring new climate-smart approaches to ecosystem management. Support relevant stakeholders to develop guidelines and training to ensure appropriate standards and consistency when integrating climate change into subnational planning and budgeting processes. Ensure that ecosystem governance includes participatory mechanisms from landowners and local communities.
Education	Climate change impacts on various parts of the ecosystem cause disengagement with adaptation actions being undertaken in their community.	Developing advocacy and educational programmes around the value of ecosystem-based adaptation (National CCDRR Policy 7.4.5), including at least one model school in each province implementing environmental resilience programmes by 2030 (NSDP SMART Indicator ENV 5.5.1). Programmes can be expanded to community-driven education programmes which focus on coastal communities' resilience through EbA or NbS approaches.
Disaster Risk Management	Increasing severity or frequency of tropical cyclones and significant storm events cause significant damage to ecosystems.	Integrate ecosystem-based disaster risk reduction (Eco-DRR) approaches such as coastal restoration into disaster plans.
Water protection	Loss of species, degradation of aquatic habitat, ecotoxicology impacts of contamination following damage to the land from tropical cyclones, intense rainfall events or drought	Improve catchment planning and protection, for example through Catchment Management Plans, soil conservation and riparian protection measures
Traditional knowledge	Traditional knowledge in relation to ecosystem form and function is lost or not prioritised in adaptation options	Incorporate traditional knowledge for increasing climate change resilience (e.g. to support rotational cropping and mixed crop systems) of ecosystems
Data management	Data deficiencies do not allow for optimal use of adaptation actions due to lack of available data.	Build a national biodiversity spatial system that can be used to map areas with high biodiversity for protection and locations of areas affected during climate related events

Table C.3. Key Adaptation Actions for the Education Sector

Element	Risk	Adaptation Actions / Responses
Equitable access to education	Repeated climate-related disasters may create or worsen disparities in children's education.	Apply an equity-based approach to the planning and implementation of Education sector adaptation measures so that investments address disparities in access and prioritise schools and learners experiencing the greatest climate risks. Planning should consider learners affected by poverty, learners with disabilities, out-of-school children and communities in remote or highly exposed locations.
Child protection and psychosocial support	Climate-related disasters can increase child protection risks and psychological distress, particularly for children and young people.	Develop or strengthen school-level safeguarding protocols, referral pathways and age-appropriate psychosocial support arrangements as part of climate adaptation, disaster preparedness and education continuity planning. Measures should be inclusive of girls, children with disabilities and other learners who may face heightened protection risks during and after emergencies.
Climate-resilient workforce pathways	Inclusion of climate change in educational curriculum may be considered worthless if it does not lead to future opportunities beyond DRR.	Complement relevant tertiary and TVET qualifications with targeted internships, mentoring and partnerships with employers. Link these pathways to identified national workforce and staffing needs in fields such as climate-smart agriculture, sustainable tourism, resilient construction, disaster management and environmental management.
Monitoring education disruption and adaptation outcomes	Lack of sector specific data could make it difficult to evaluate the success of adaptation measures for education.	Develop and apply a monitoring framework for school-level climate adaptation and disaster risk reduction. This should track implementation, identify remaining gaps and measure progress in reducing the number of days of schooling lost due to climate- and disaster-related events. Findings should inform School Improvement Plans, national guidance and future NAP cycles.
Climate and disaster risk information	Education planning may not consistently draw on sufficiently detailed and up-to-date information about the different hazards affecting individual schools.	Strengthen collection, management and analysis of school-level climate and disaster risk information, including multi-hazard vulnerability assessments and school-specific risk mapping. Ensure that relevant findings inform investment decisions, School Improvement Plans, adaptation measures, continuity planning and the prioritisation of support to highly exposed schools.
Education sector coordination and contingency planning	Climate and emergency arrangements may become fragmented if responsibilities, coordination mechanisms and contingency plans are not regularly reviewed and maintained.	Strengthen MoET leadership and coordination of Education Cluster and Education in responding to emergencies. Establish a regular review of the Ministry's contingency plans, relevant policies and coordination procedures with provincial offices, line ministries, NDMO and other partners to ensure that they remain fit for purpose and reflect emerging climate risks.
Coordination between schools and communities	Climate adaptation measures may be less effective when school planning is disconnected from community capacities, local knowledge and existing community resilience structures.	Include representatives from school disaster management committees into disaster and climate committees at community and Area Council levels. Ensure that all community planning for climate change is conducted with the involvement of school representatives.
MoET institutional capacity	Growing climate risks may place increasing demands on MoET's capacity to coordinate and implement adaptation measures across the Education sector.	Establish or designate a small MoET climate and resilience function, supported by clear terms of reference, appropriate human resources and defined reporting arrangements. Ensure that the function can coordinate implementation across the three prioritised Education actions and engage effectively with national and provincial climate, disaster risk reduction, loss and damage, and climate finance processes.

Table C.4. Key Adaptation Actions for the Fisheries Sector

Element	Risk	Adaptation Actions / Responses
Coral Reef Distribution (nationwide)	Sea-level rise, coastal flooding, tropical storm damage, excessive freshwater runoff Heatwaves, temperature shifts, ocean acidification Decline or loss of fisheries	Grassroots and wide-ranging monitoring efforts to map extent, condition and changes in distribution of coral reefs and key fisheries species. Control of crown of thorns starfish Reduce or divert excess runoff and sedimentation of water (land and sea connection) Create coral nurseries.
Fisheries: Area fished, derived from one week sample of industrial fishing vessel locations.	Sea-level rise, coastal flooding, storm damage Habitat connectivity lost Marine heatwaves, temperature shifts, Collapse of fisheries	Establish/strengthen early warning system to predict temperature changes and fisheries shifting distributions Explore alternate fisheries and methods Stock assessment and accurate quota Establishment of fish aggregating devices (Fish Aggregating Devices (FADs)- Vanuatu commits to improve access to appropriate adaptation technology, knowledge and skills in fisheries food production (NSDP ENV 1.4), and ensuring that by 2030, there are 100 FADs distributed throughout Vanuatu (NSDP SMART Indicator ENV 1.4.1). Explore new markets for fish export Continued utilisation of observer data from fishing boats to provide long term records with fishing data averaged over a monthly or 3-monthly period.
Megafauna loss	Loss of megafauna such as turtles, sharks, and marine birds due to changing climate impacting the species lifecycle and/or changing prey distribution causes irreversible ecosystem changes due to loss of ecosystem services and impacts on food web from key species.	Monitoring of key species health indicators in line with existing literature: • Vanuatu National Plan of Action for Seabirds, Sharks and Marine Turtles 2024–2028 (Secretariat of the Pacific Regional Environment Programme, 2024) • Sea Turtle Monitoring Manual (Pilcher, 2023) • Pacific seabirds survey and monitoring manual (Gaskin, Lukies, Whitehead, & Raine, 2025) • Shark and identification manual for observers and crew of the Western and Central Pacific tuna fisheries (Park, Marshall, Desurmont, Colas, & and Smith, 2019) • Rapid Assessment Toolkit for Sharks and Rays (Rigby, 2019)
Mangrove Distribution (Existing habitats)	Mangrove ecosystems are lost due to climate impacts from sea-level rise, changes in climate and events causing loss/reduction of habitat	Replanting of mangrove habitat after a significant climate event where mangrove trees are damaged/lost. Monitoring of mangrove health in line with the Manual for Mangrove Monitoring in the Pacific Islands Region (Ellison, Jungblut, Anderson, & Slaven, 2012).
Seagrass Distribution (Nationwide)	Tropical cyclone damage, freshwater intrusion, coastal flooding, Decline or loss of fisheries, ecosystem effects, loss of megafauna, fisheries and ecosystem stability	Grassroots and wide-ranging monitoring efforts to map extent, condition and changes of seagrass and distribution of key fisheries species. Actions to reduce or divert excess runoff and sedimentation of water (land and sea connection). Consider creation of mangrove buffers as a nature-based solution for land-sea interface stability, capture of land-based sediment and provision of fish habitat Consider creation of nurseries for reseeding of seagrass.

Element	Risk	Adaptation Actions / Responses
Lack of fisheries management planning	Lack of fisheries management planning results in lack of understanding of fisheries stock and potential reduction in stocks.	Vanuatu commits to strengthen community-based fisheries management and climate adaptation, including preserving traditional resource management and fishing practices (National Fisheries Policy SA 25), ensuring that 40 integrated coastal management plans developed and implemented by 2030 (NSDP SMART Indicator ENV 4.4.2) By 2030, more than 50% of all designated fisheries will have an approved Fisheries Management Plan. By 2030, 20 communities involved in community-based fisheries management. By 2030, 40% of all designated fisheries will have allocated a TAC. Vanuatu commits to improve fish production and fish-based (wild capture) livelihoods and innovate new sustainable income activities, including building on locally emerging practices, in response to climate change
Lack of understanding of fish habitat patterns	Loss of fish species availability due to lack of climate management resources in areas key to fish lifecycles.	Vanuatu commits to regularly monitor and evaluate the state of coastal fisheries including to develop and implement procedures for climate change monitoring and impact assessment protocols. Conduct stock assessment to monitor fish stock behaviour, fishing patterns and catch composition as a measure of climate change
Changes in species composition	Change in species distribution results in increase in pest species.	Develop standard operating procedure for responding to a climate change disaster such as fish kill, crown-of-thorns starfish outbreak
Data management	Lack of comprehensive understanding of localised climate impacts.	Work with research institutions to establish a long-term climate change monitoring programme Establish data management and reporting procedures for climate change monitoring Undertake an environmental impact assessment and baseline study to assess climate change impacts in line with SPO5: Environmental management, climate change adaptation and disaster risk reduction (Strategic action 24) Develop mapping system to assess scale of climate change impacts on marine environment
Disaster Risk Reduction	Potential increase in disaster events related to climatic change.	Implement mitigation and adaptation activities in readiness for disasters in line with SPO5: Environmental management, climate change adaptation and disaster risk reduction (Strategic action 25).
Key fish stock management	Reliance on potentially vulnerable key fish stocks may result in loss of food and economic source.	Consider the expected impact of climate change on tuna stocks when estimating future national fisheries sector revenue. Adapting Tuna-Dependent Pacific Island Communities and Economies to Climate Change through a) developing an Advanced Warning System (AWS) based on improved modelling to reduce uncertainty in the impact of ocean warming on tuna and key oceanic species distribution, and thereby b) increasing access to oceanic fisheries to fill the gap in fish supply
Community engagement	Resilience to potential climate related changes require a whole-of-society response.	Promote community-based management and climate change adaptation in line with SPO5: Environmental management, climate change adaptation and disaster risk reduction (Strategic action 26) Strengthen community-based management and climate change adaptation through community-based ecosystem plans Develop processes for involvement of diverse perspectives into community-based management initiatives i.e. women, youth, etc.

Table C.5. Key Adaptation Actions for the Forestry Sector

Element	Risk	Adaptation Actions / Responses
Food security	Reduction in food security related to loss of key food resources.	Maintain and enhance food security through agroforestry systems (in line with the Nationally Determined Contribution).
Maintain or increase biodiversity	Biodiversity loss in key sensitive environments including water catchments and coastal areas and of key species such as coastal trees suitable for traditional canoe building. Exotic weeds smother natural vegetation and other climate related stressors. Loss of coastal trees contributes to accelerated coastal erosion Tropical cyclone damage causes removal or foliage and branches causing erosion, water quality issues and closures of transport networks. Worsening climate events cause additional strain on infrastructure through damage.	Enable and promote farmer and community-based agroforestry systems and afforestation and reforestation programmes (in line with the Nationally Determined Contribution and Technology Needs Assessment). Establish and manage buffer zones around climate sensitive ecosystems, and undertake enrichment planting within these areas (DoF, NGOs, landowners) including planting vetiver grass or other coastal species along coastal zones, water catchment restoration and restoration tree planting (in line with the Vanuatu Forest Policy and the Nationally Determined Contribution, collaboration between Departments of Forestry, Water Resources, Climate Change, NGOs and DEPC). Conserve, protect and sustainably manage mangrove forests and mangrove ecosystems, wetlands, and shoreline trees especially as a measure to enhance resilience to the impacts of climate change (in line with the Nationally Determined Contribution). Introduce and promote climate change resilient tree species and varieties. Vanuatu commits to support its foresters with local and improved tree varieties, including with research, by 2035, including 300 Commercial Timber Tree (CTT) foresters, 200 Non-Timber Forest Products (NTFP) foresters and 300 sandalwood foresters (in line with the Nationally Determined Contribution and in collaboration with DoF, DARD, regional organisations, NGOs). Including updating the herbarium database to document existing vegetative biodiversity that may yield resilience to climate impacts (DoF, DARD) Plant local, endemic and long- tropical cyclone resistant species
Climate forestry sector planning	Multiple key agencies involved in sector planning causes delays in planning. Drought and tropical cyclone damage can remove tree canopy, exposing soils to erosion that depletes nutrients essential for regeneration, forest degradation in turn affects water regulation services.	Liaise, collaborate and share expertise with relevant government and non-government organisations (national, regional and international) to assist local efforts to adapt to climate change (DoF, NAB, NGOs, regional organisations) and integrate climate change adaptation issues into forestry sector planning and activities.
Financial ecosystem analysis	Institutional support for fiscal prioritisation for forestry limited under current data availability.	Undertake cost benefit analyses and studies to better understand degradation dynamics and forest landscape restoration needs (in line with the Nationally Determined Contribution). Vanuatu commits to develop a sustainable funding strategy for forest landscape restoration (in line with the Nationally Determined Contribution).
Climate data analysis	Poor understanding of the local impacts of climate change on forestry presents a significant risk, as it limits the ability to develop effective adaptation strategies and may hinder timely responses to emerging threats.	Vanuatu commits to systematically assess and continuously monitor the impacts of climate change on forest systems through permanent sample plots in line with the Nationally Determined Contribution conducted in collaboration with the DoF, NAB.
Mapping	Poor forestry data management hampers effective climate change adaptation, as it limits the ability to assess risks, monitor impacts, and respond to threats like droughts and forest degradation, weakening forest resilience and livelihoods.	Vanuatu commits to develop updated maps of potential forest restoration sites, and by 2035 restore 25,000 hectares of degraded natural forest areas and restore 1,000 hectares of degraded mangrove forest areas (in line with the Nationally Determined Contribution).

Element	Risk	Adaptation Actions / Responses
Monitoring	Vulnerable and sensitive ecosystems face heightened risks as shifts in temperature, rainfall, and extreme weather events may disrupt the specific conditions required for their optimal growth and survival.	Assessing soil, climate and environment conditions of the site before site replanting.
Stakeholder engagement and collaboration	Insufficient stakeholder engagement weakens climate adaptation and resilience efforts in forestry.	Train stakeholders on recognising opportunities for forestry climate change adaptation and impact assessment (NAB) through developing related materials (DoF, NAB, NGOs). Assist local efforts to adapt to climate change (DoF, NAB, NGOs, regional organisations)
Community engagement and Training	Forestry farmers experience loss of business due to climatic changes impacting water availability, soil erosion and species abundance which prevent regeneration of target tree species, driving farmers to expand into remaining forests. Increased frequency and duration of droughts, temperature increases, and tropical cyclones are likely to compound and interact, degrading forest ecosystems and disrupting forest-dependent livelihoods.	Vanuatu commits to provide agribusiness training to local foresters and ensure that they understand how to access climate financing (including subsidies, risk sharing and insurance services) by 2035, including at least 100 Commercial Timber Tree farmers, 100 non-Timber Forest Products farmers, and 100 Sandalwood farmers (in line with the Nationally Determined Contribution). Vanuatu commits to train foresters in sustainable production, including plant health & protection, climate smart forestry practices and resilience building approaches by 2035, including at least 300 Commercial Timber Tree farmers, 200 Non timber Forest Products farmers and 300 sandalwood farmers (in line with the Nationally Determined Contribution).
Greenhouse Gas management	Loss of forested ecosystems lead to increased greenhouse gas release.	Vanuatu commits to apply sustainable forest management concepts to reduce forest degradation and thus GHG emissions and to maintain healthy forest ecosystems to enhance resilience against the negative impacts of climate change (in line with the Nationally Determined Contribution).
Irrigation	Drought conditions cause tree loss in semi-urban areas.	Implement irrigation systems at commercial properties

Table C.6. Key Adaptation Actions for the Health and Nutrition Sector - including actions from the Health National Adaptation Plan (Ministry of Health, 2025)

Element	Risk	Adaptation Actions / Responses
Waste management	Food and medical waste not cared for appropriately causing environmental damage which exacerbate climatic strain.	Vanuatu commits to establish an Environmental Health Authority that will develop standards for all Vanuatu in the areas of clinical waste, food, water, solid waste management, housing, pollution, sanitation and poor health, which considers sex and age-specific impacts of climate-sensitive health risks, including of children.
Prioritising resources	Strain on communities is worsened by climate change impacts	Conduct climate change and health vulnerability and adaptation assessments, identifying and mapping vulnerable populations and high-risk areas at national and provincial levels, disaggregating for sex and age. Perform seasonal and post-disaster nutritional screening in high-risk communities Integrate sex- and age-disaggregated Vulnerability and Adaptation Assessment (VAA) results into health system planning and key climate change processes (e.g., Health National Adaptation Plan - HNAP) Maintain progress towards eliminating climate-sensitive diseases such as malaria, including gaining continuous funding support, improving treatment, improving health surveillance (including during disasters), and increasing training opportunities for healthcare staff.
Enhanced detection	Changes of prevalence in diseases worsened by climate change impacts is unknown	Build on progress to enhance detection, diagnosis, and management of communicable diseases, including tropical diseases and vector-borne diseases, incorporating climate change considerations
Infrastructure planning	Projects not suitably designed to withstand significant climate change impacts.	Vanuatu commits to a redesign of our health system to be more resilient to health shocks caused by disease outbreaks, disasters and climate change while we better prevent, detect and manage communicable diseases. Developed through specifications for siting and construction of health facilities, energy, water, waste management and sanitation provisions to improve existing infrastructure and develop future facilities that are climate-resilient. (Component 6: Climate Resilient Environmentally Sustainable Healthcare Facilities)
MERL	Projects not suitably designed to withstand significant climate change impacts.	Finalise a national research agenda on the impact of disasters on health with the budget allocated and establish a mechanism for researchers to inform planning, policy, and stakeholder groups and disseminate findings to develop key health plans, policies and strategies. Finalise a national research agenda on climate change and health with an allocated budget utilising qualitative and quantitative knowledge to strengthen decision-making (Component 5), including the participation of children and youth as possible. Monitoring the impact of the main climate-related determinants of health (e.g., water availability and quality, air quality, food) using tools such as WASH FiT and WinHK tools) at health facility level.
WASH	Projects not suitably designed to withstand significant climate change impacts.	Ensure health facility design incorporates safety, accessibility, and gender-sensitive spaces to reduce GBV risks during emergencies (e.g., private consultation areas, secure WASH facilities) which provide suitable health services minimise on going health impacts related to climate change. Design systems that are more resilience to climate impacts to minimise health impacts during emergencies, including reducing GBV risks.
Food security	Projects not suitably designed to withstand significant climate change impacts which impact food security.	Improve supply networks for nutrition including improved storage facilities and dispersion of resources. Including methods to diversify supplies and increase commodity stockpiles throughout the country.
Renewables	Development and additional energy use as a response to climate impacts increase running costs.	Develop specifications and enable frameworks for funding of renewable energy and sustainable technologies for use at the facility level in health care facilities as an adaptation and low-carbon, sustainable measure.

Element	Risk	Adaptation Actions / Responses
Capacity building within operations	Infrastructure unable to be effectively used under climate change.	Vanuatu commits to ensuring vaccine storage and cold chain management to address vaccine security and efficiency for climate-resilient disease management and response to climate disasters through improvement of equipment and medication supply management and development of recommendations for the prescription of pharmaceuticals during extreme heat.
Capacity development	Lack of local resources results in infrastructure planning being undertaken out of country and not considering local climatic knowledge.	Vanuatu commits to achieve 100% of healthcare facilities to have support plans available to communities for coordination, planning, response and recovery. Improve health information management capacity at all levels. Assess health workers' knowledge on disasters, climate, and health to develop a training package (Component 3: To build a climate-resilient health system) Training of health workers at the community level including strengthening of diagnostic capacity Build a climate-responsive health workforce by strengthening capacity, training, professional development, resourcing and management.
Community engagement and education	Lack of local resources results in infrastructure planning being undertaken out of country and not considering local climatic knowledge.	Vanuatu commits to improving the well-being of children, adolescents, families, and communities by providing mental health and psychosocial support services. These services will foster resilience and help children and adolescents (who are often the most vulnerable) cope with the psychological impacts of climate-related events and the wider effects of a changing climate. Promote Health & WASH initiative A communication plan or strategy on climate risks to health (both extreme . rapid on-set shocks and stresses) should be developed and implemented, with child-friendly and youth-inclusive versions of the communication products developed and effectively disseminated.
Data management	Resources are not utilised to support communities with most requirement under climatic change	Strengthen health information systems including data collection, analysis, developing an EWS and digitising health records. Improve communication technologies within the health system, ensuring privacy and confidentiality standards are met. Establish data-sharing agreements within and outside the health sector to support climate-sensitive disease surveillance and monitoring research. Assess and monitor climate-sensitive disease trends and share findings with relevant stakeholders using various tools including an Early Warning System (EWS) that predict the risk of outbreaks of priority infectious diseases (e.g., malaria, dengue). Continued hazard mapping, based on a national cross-agency quantitative data stocktake and evaluation, to increase understanding of the risk to health-related infrastructure, allowing for targeted priority adaptation planning. This should include increased mapping for fluvial and pluvial flooding, including extended geographic coverage of fluvial and pluvial flood modelling, modelling of additional AEP scenarios, modelling under future scenarios, and modelling of groundwater emergence.
Financing	Climate change response projects cannot be undertaken due to lack of funding.	Develop and submit climate change and health projects and programmes to the main international climate change funding mechanisms (e.g. GCF, the Global Environment Facility (GEF), Global Green Growth Institute (GGGI) and bilateral donors) in collaboration with the NAB. (Component 10: To identify and secure sustainable financing to support climate and health interventions). Conduct a scoping exercise to Review how the health sector can access existing domestic resources for climate change.

Element	Risk	Adaptation Actions / Responses
Women, children and persons with disabilities	Access to resources is not designed with consideration of GEDSI factors making systems unsuitable for members of the population.	• Create processes to support women's leadership and involvement in climate response planning and decision-making • Vanuatu commits to climate-related child protection by ensuring an effective response from the health sector to identify, manage, and refer child protection cases, including those involving violence against children and sexual abuse, including through the establishment of systematic protocols and resources for receiving and supporting survivors, especially as climatic shocks increase the risk of abuse among children and integrate climate, health, and violence prevention aspects into the One Health Technical Working Groups. • Continue to build on measures to increase education around mental health and increase funding and training for the provision of specialised mental health services, including for children and youth. • Incorporate GBV and human rights considerations into risk and vulnerability assessments, ensuring that planning and responses address the specific needs and risks faced by women, girls, and marginalised groups during climate-related events. • Complete a gender assessment for the sector, including providing a plan to improve female involvement in decision-making and leadership capacity ensuring that disaggregated data for vulnerable populations, such as Persons with Disabilities (PwD), is included.
Disaster Risk Reduction	Communities are unable to access resources after event.	• Vanuatu commits to develop and refine public health emergency procedures. • Vanuatu commits to improve system level preparedness and response capabilities for the provision of timely nutrition interventions in response to and recovery from disasters as well as enhancing systems of surveillance to monitor trends and provide timely and coordinated food and nutrition security interventions in response to disasters and manage risks. • Improvement and contingency planning for ensuring health service delivery and implementation of planned activities within the health sector during extreme weather events. Ensure communities are communicated to regarding appropriate access of medical treatment in emergency situations. • Establish structures and plans to ensure continuity of essential health functions (including infrastructure, technologies, supply chains) during disasters and in the face of climate change. • Explicitly integrate disasters and climate change into all future health policies, programmes and corporate plans. With potential to establish a Disaster, Climate Change, and Health Unit. • Prepare infrastructure for significant events including tropical cyclone-proof hospital buildings and infrastructure, preparing short-term back up facilities (e.g., equip key evacuation centres with critical medical equipment and supplies), deploy more early-warning systems particularly for high-risk areas • Prepare healthcare workers for significant events through strengthening emergency response teams in the health sector • Prepare essential equipment kits for the emergency response teams, having supply contingency plans, improving outreach services and emergency support. Use climate and weather information to assess the risk of outbreaks of climate-sensitive diseases (i.e., integrated health and climate surveillance systems). • Enhance health system and community disaster preparedness and response capacity, with a particular emphasis on proactive risk reduction, early warning systems, and community empowerment.

Element	Risk	Adaptation Actions / Responses
Governance	Pathway for health is uncertain causing lack of certainty in climate actions	Appoint a climate and health focal point at the director level to enhance governance and leadership in climate and health initiatives (Component 1) Adopt an integrated, cross-sector approach that involves collaboration between sectors and consideration of health and nutrition impacts in all other sector planning, and vice versa. Meaningful engagement with development of key documents ensuring the incorporation of climate and health in future iterations of the NDC and Public Health Act and NAB. Assign a health delegation to attend the UNFCCC COP negotiations and include youth representation where appropriate Develop and strengthen multisectoral coordination mechanisms with other sectors. Establish a Framework of Coordination (FoC) between the Ministry of Health and key stakeholders at the national level, including specific roles and responsibilities related to protecting human health from climate change. Strengthen the relationship with CDCCC and NDMO.
Governmental Planning	Planning for climate mitigation and adaptation is uncertain	Vanuatu commits to ensure nutrition security remains central to multisectoral efforts to enhance food security and food system resilience to climate change, natural hazards and other system shocks. Department of Health to advocate for nutrition-sensitive food security policies and programmes and develop and enforce related policies in the health sector e.g., a relocation plan for health services
Governance and leadership	Inefficient leadership, coordination and institutional ownership limit the effective implementation, monitoring and mainstreaming of climate and health actions across the health sector.	Appoint a Climate and Health Focal Point at the Director level. Establish a Disaster, Climate Change and Health Unit with a focal point responsible for coordinating implementation and monitoring progress. Integrate climate, health and violence prevention aspects into the One Health Technical Working Group. Ensure meaningful health sector participation in the NAB. Facilitate the Government of Vanuatu to join the Alliance for Transformative Action on Climate and Health Provide input into the next round of NDCs and the upcoming National Adaptation Plan. Assign a health delegation to attend the negotiations at the Conference of the Parties to the United Nations Framework Convention on Climate Change, which will be approved under the appropriate MOH structures, such as the Executive Committee. Strengthen the relationship with Community Disaster and Climate Change Committee and NDMO
Policy development	Climate change and disaster risks are not systematically incorporated into health policies, legislation and planning frameworks, resulting in ineffective health interventions.	Explicitly integrate disasters and climate change into all future health policies, programmes and corporate plans. Integrate the health into the National Adaptation Plan, which is currently being developed. Ensure the incorporation of climate and health into the next version of the Public Health Act.
Cross-sectoral collaboration	Poor coordination between government agencies, development partners and stakeholders reduces the effectiveness of climate and health responses and leads to duplication or gaps in implementation.	Establish a Framework of Coordination between the MOH and key stakeholders at the national level, including specific roles and responsibilities related to protecting human health from climate change. Set up a mechanism to manage and coordinate development partners working on climate and health, as well as OneHealth. Develop and strengthen multisectoral coordination mechanisms with other sectors.

Element	Risk	Adaptation Actions / Responses
Health workforce capacity	Health workers, particularly in high turnover or rural roles, may lack the knowledge, skills and resources required to anticipate, manage and respond to climate-related health risks and emergencies.	Develop a climate change, health and nutrition curriculum that covers resilience and low-carbon sustainability issues using various training methods, such as on-the-job training, developed for health workers, including data analysis and interpreting health information. The curriculum should be aligned with other government ministry climate curriculum. Integrate training on MISP for SRH, GBV prevention, identification and survivor-centred response into health worker education, particularly for use during and after climate-related disasters. Develop a mechanism to support health workers welfare during and after a disaster. Training health workers on disasters, climate and health. Ensuring there is an understanding of the interlinkages between specific health outcomes and climate variability and change. Training of managers and health workers in sentinel sites on nutrition surveillance.
Organisational capacity development	Capacity constraints limit the health sector's ability to plan for, respond to and recover from climate-related health impacts.	Identify human resources and institutional capacity gaps that need to be addressed to build a climate-resilient health system. Ensure that a contingency plan for the deployment of sufficient health personnel for acute shocks has been developed at the relevant level, including at the area council level.
Information, awareness and communication	Inconsistent communication of climate-related health risks reduces preparedness and hinder informed decision-making	Train health professionals, the media and community leaders on consistent climate change risk communication, including communication of uncertainty using guidance; such guidance will be available in the Multi-Hazard Risk Communication Strategy, which is being developed. Develop an external health communication plan consistent with the messages from the climate and health curriculum, including risk communication with a focus on raising awareness of climate change risks and health outcomes. Include information on preventing and responding to GBV in all health and climate risk communication strategies, especially targeting evacuation centres and high-risk communities.
Health and nutrition risks	Climate-sensitive health and nutrition risks are inadequately understood, monitored and incorporated into planning, resulting in increased vulnerability of at-risk populations.	Assess health workers' knowledge on disasters, climate and health to develop a training package using various tools such as questionnaires. Conduct climate change and health vulnerability and adaptation assessments, identifying and mapping people and communities facing barriers to accessing quality health care and/or residing in high-risk areas at national and provincial levels. Integrate VAA results into health system planning and key climate change processes (for example, HNAP). Strengthen data collection and analysis at all levels. Assess and monitor climate-sensitive disease trends and share findings with relevant stakeholders using various tools including an early warning system (EWS). Assess and monitor the nutrition situation in the country as well as measure climate-induced malnutrition through the establishment of a nutrition surveillance system. Ensure that disaggregated data for vulnerable populations, such as persons with disabilities, is included. Incorporate GBV and human rights considerations into risk and vulnerability assessments, ensuring that planning and responses address the specific needs and risks faced by women, girls and marginalized groups during climate-related events.

Element	Risk	Adaptation Actions / Responses
Integrated disease surveillance and early warning	Climate-sensitive disease outbreaks are not detected early enough to support timely prevention, preparedness and response measures.	Develop and implement an integrated climate and health surveillance system for specific climate-sensitive and other notifiable diseases. Develop and implement a climate-informed EWS that predict the risk of outbreaks of priority infectious diseases (for example, malaria and dengue). Use climate and weather information to assess the risk of outbreaks of climate-sensitive diseases (that is, integrated health and climate surveillance systems).
Nutrition surveillance system	Climate-related malnutrition trends and food insecurity are not adequately monitored, resulting in delayed responses and worsening health outcomes among vulnerable populations.	Establish a nutrition surveillance system to assess and monitor the nutrition situation of people and communities facing barriers to accessing quality health care in the country, including measuring climate-induced malnutrition.
Monitoring and progress tracking	Insufficient monitoring of climate-sensitive health determinants limits risk evaluation, and outcome and interventions tracking.	Monitoring the impact of the main climate-related determinants of health, for example, water availability and quality, air quality and food, using tools such as the Water and Sanitation for Health Facility Improvement Tool (WASH FIT) at the health-facility level.
Communication	Communities, health workers and decision-makers do not receive timely, accurate and accessible information reducing preparedness and adaptive capacity	A communication plan or strategy on climate risks to health (both extreme / rapid on-set shocks and stresses) should be developed and implemented. It should outline the scope of information for diverse audiences (for example, media, public, health personnel and other sectors) and events, including who should communicate and the means of communication.
Community engagement	Reduced uptake of interventions and lower resilience due to lack of meaningful community engagement in climate and health planning and response activities.	Community engagement and feedback mechanisms were established to empower affected populations to respond to warnings and to guide future development of monitoring and warning systems, including regarding the environmental impacts on health care.
Adaptation of current and future infrastructure and supply chain	Health infrastructure, utilities, equipment and supply chains are vulnerable to climate hazards, resulting in service disruption, infrastructure damage and reduced access to healthcare during emergencies.	Develop and implement climate-resilient environmentally sustainable health-care facilities (CRESHF) Develop specifications for siting and construction of health facilities, energy, water, waste management and sanitation provisions to improve existing infrastructure and develop future facilities that are climate-resilient. Ensure facility design incorporates safety, accessibility, and gender-sensitive spaces (for example, private consultation areas, secure WASH facilities) to reduce GBV risks during emergencies. Development and/or amendment of existing medical equipment and devices list and specifications to consider use of sustainable materials and technologies especially at primary health-care level (for example, solar-powered anthropometric equipment) Improvement plan for ensuring health-service delivery during extreme weather events Development of recommendations for the prescription of pharmaceuticals during extreme heat Fund renewable energy in health-care facilities as an adaptation and low-carbon, sustainable measure Develop a plan to diversify supplies and increase stockpile of commodities
Promotion of new technologies	Failure to adopt resilient and sustainable technologies limits the effectiveness, efficiency and long-term sustainability of health system adaptation measures.	Develop specifications for renewable energy and sustainable technologies for use at the facility level Improve communication technologies within the health system, ensuring privacy and confidentiality standards are met Strengthen health information systems including data collection, analysis, developing an EWS and digitizing health records

Element	Risk	Adaptation Actions / Responses
Climate-informed health programmes	Health programmes do not adequately account for current and future climate risks, reducing their effectiveness in protecting vulnerable populations and addressing emerging health threats.	Enforce the standard for food distributed during emergencies and vulnerable groups, such as persons with disabilities Address the needs on intimate partner violence; GBV, mental health and psychosocial support; and maternal, newborn and child health by developing emergency preparedness and response plans for extreme weather events and disasters Scale up of high-impact nutrition interventions including treatment of severe extreme / rapid on-set malnutrition, prioritizing communities with high food insecurity, disease incidence and undernutrition Redefine a community outreach service package and schedule to integrate critical health and nutrition services, making it more comprehensive especially in hard-to-reach areas and areas frequently affected by climate-related events Strengthen village health worker capacity on climate change, health and nutrition through improved pre-service and in-service training, and structured supervision, mentoring, coaching and monitoring by supervising health workers to improve quality of care Implement and monitor water and foodborne and skin disease surveillance systems during high-risk periods (drought, floods and extreme heat) Integrate climate change into all new major policies and programmes and refreshers, including climate change and health Establish a risk communication plan for disasters and extreme weather events
Disaster preparedness and management	Health systems and communities lack preparedness for climate-related disasters, leading to increased morbidity, mortality and disruption of essential health services.	• Review and improve protocols and SOPs for DRM through the integration of climate-sensitive health risks and weather and climate information • Use data from the geographical and seasonal distribution of climate health risks and outcomes to inform emergency and disaster response plans • Develop and implement climate change-related emergency and disaster response plans for individual health facilities • Ensure that space is allocated for the EOC and that it is fully equipped • Ensure disaster response financing is readily available when needed for clear response for public health, including for clinicians during disaster response • Develop clear response plans and protocols, for example, SOPs for different types of emergencies for all levels of the health system and the entire health workforce during disaster response, ensuring the integration of GBV risk mitigation and response • Develop multidisciplinary psychosocial support teams in place for staff, families of staff and patients available during emergency and disaster situations
Sustainable climate and health financing	Insufficient, fragmented or unsustainable financing causes limitations for implementation and long-term maintenance of climate and health adaptation actions.	• Develop and implement an evidence-informed health financing strategy which also covers financing for climate-related health and nutrition response • Develop and submit climate change and health projects and programmes to the main international climate change funding mechanisms (for example, Green Climate Fund, the Global Environment Facility, Global Green Growth Institute and bilateral donors) in collaboration with NAB • Conduct a scoping exercise to review how the health sector can access existing domestic resources for climate change

Table C.7. Key Adaptation Actions for the Infrastructure Sector

Element	Risk	Adaptation Actions / Responses
New Public and Private Buildings	Extreme heat, sea-level rise, coastal flooding, storm damage. Facilities may become intermittently submerged and/or be damaged from storm making them unusable. Negative impact to delivery of essential services, community connectivity and disaster response	Develop building code provisions for new public and private buildings that address climate change risks, including the following actions: • Require evidence of climate risk-informed design as part of the building consent and approval process. • Upskill building inspectors to effectively implement and enforce the building code, including any proposed updates related to climate resilience. • Deliver these changes through an update to either the Development of a National Framework for Durable Solutions in Vanuatu or the National Building Code Review. • Monitor and review ongoing building code development to ensure it adequately addresses both current and future climate hazards.
Public Infrastructure	Sea-level rise and coastal flooding, extreme rainfall, storms & tropical cyclones, increased temperature	Develop and implement a detailed, prioritised, and costed national masterplan for climate-proofing public infrastructure, aligned with longer-term adaptation priorities and planned relocation strategies. Key actions include: • Conduct a comprehensive survey and assessment of public infrastructure to evaluate current condition, materials used, existing damage, and the level of intervention required to climate proof assets under defined climate scenarios. • Undertake a feasibility study to identify risks and constraints, including material supply, construction challenges, workforce capacity, and implementation barriers. This should include a cost–benefit analysis of proposed interventions. • Identify and prioritise critical infrastructure for climate-proofing based on function and importance, service capacity, vulnerability, feasibility, and scale of required works. • Develop investment proposals to secure funding for implementation of priority interventions. • Develop mechanisms to involve women, persons with disability, youth and representatives of other marginalised groups in the planning and co-design of infrastructure to ensure inclusion of GEDSI considerations in all public infrastructure, including in evacuation centres. This work could be delivered as an update or extension to existing initiatives such as the Greater Port Vila Urban Resilience Project or the Adaptation to Climate Change in the Coastal Zone in Vanuatu (VCAP Phases I and II).

Element	Risk	Adaptation Actions / Responses
Roads & bridges (Efate, Santo, Malekula focus)	Sea-level rise, coastal flooding, fluvial and pluvial flooding. coastal flooding/erosion, storms & tropical cyclones and increased temperature Roading, and associated utilities in/on roading, are at risk of intermittent flooding and submersion. Negative impact to delivery of essential services, community connectivity and disaster response.	Priority Adaptation Actions for Transport Infrastructure: • Construction and upgrading of sea walls to protect coastal road assets. • Elevation of roads in flood and surge-prone areas. • Use of climate-resilient road construction materials. • Rerouting of roads away from high-risk areas. • Upgrade or replacement of vulnerable bridges. • Legislative and regulatory updates to road design parameters to reflect current and future climate risks. Develop and implement a climate-resilient road infrastructure upgrade plan, including: • Comprehensive asset mapping and condition assessment of road and bridge infrastructure across all islands. • Stakeholder consultations with government agencies, communities, and the private sector to inform prioritisation and design of upgrades. • Development of funding proposals and investment cases to secure resources for priority upgrade works. • Preparation of climate-resilient design and upgrade reports addressing constructability challenges, material availability, and engineering solutions appropriate for island contexts. • This work could be delivered as an update or addition to existing initiatives, such as the Transport Sector Projects Preparatory Financing, Vanuatu Climate Resilient Transport Project, Vanuatu Climate Resilient Road Standards Project, or the Vanuatu Road Design Guide.
Marine ports, jetties, wharves and associated services	Sea-level rise, coastal flooding, storm surges Facilities may become intermittently submerged and/or be damaged from storm wave action making them unusable. Negative impact to delivery of essential services, community connectivity and disaster response	Sea wall construction Elevation of marine structures Upgrade/replacement of critical structures such as sheet piles Legislative changes to design parameters
Electricity generation and distribution	Tropical cyclone damage, salt intrusion, coastal flooding, fluvial and pluvial flooding. Increased temperature (load, asset fatigue) Generation is generally through renewables and fossil fuels, which require delivery of fuel, linked to port and road infrastructure. Distribution is over-land with poles at risk of damage during storm events. Flooding may impact substations, with repair requiring long-lead items.	Priority Adaptation Actions: • Elevation and flood-proofing of substations and other critical energy assets. • Prioritised strengthening of ports and road infrastructure that service power generation and fuel supply. • Legislative and regulatory updates to require disaster preparedness measures and climate-informed design parameters for energy infrastructure. Develop and implement an energy sector masterplan to meet national targets and reduce future climate vulnerabilities of the sector. This needs to include both public and private network operators: • Planning and stakeholder consultations to inform masterplan concept. • Proposal development to secure funding for master planning and implementation of priority works. • Undertake an energy sector assessment, including a condition assessment of existing infrastructure (power stations, renewable energy systems, underground cablings) and an energy demands outlook to identify priority activities. Could be an update/addition to "Disaster Resilient Renewable Energy Development Project" or "Climate Information Services for Resilient Development Planning in Vanuatu (VANKIRAP)"

Element	Risk	Adaptation Actions / Responses
Airports and Aviation infrastructure including passenger terminals, runways, lighting and cargo infrastructure, particularly in Malekula and Epi	Sea-level rise, coastal flooding, fluvial and pluvial flooding, storms and tropical cyclones Flooding will make these airports unusable, particularly during disaster response. Sea-level rise makes Lamap and Lamen Bay airports unusable in the medium to long term.	Priority Adaptation Actions: Relocate some airports Stormwater drainage Flood barrier protection Develop and implement an aviation master plan that focuses on preserving the current level of service through continuous upgrades as well as critical disaster response. The masterplan should consider the interaction between aviation and sea freight/passenger movements both in normal operations over the short, medium and long terms as well as in disaster scenarios.
Wastewater - nationwide	Sea-level rise, coastal flooding, fluvial and pluvial flooding There is a septage facility for treatment of septic tank sludge in Port Vila, however there is no central waste system in Vanuatu, lagoon water quality is poor. Flooding and sea-level rise will result in wastewater spill and overflow, increase loading to the lagoon and contaminating ground water.	Develop and implement a climate-resilient potable and wastewater masterplan that includes: Asset mapping and condition assessment across all islands for public assets. Stakeholder consultations to inform extent of future extension of public networks. Develop upgrade plans and accurately cost ongoing maintenance of new/upgraded assets. Proposal development to secure funding for upgrade, extension, and maintenance works. Could be an update/addition to "Vanuatu community-based climate resilience project" or "Community Resilience Partnership Program"
Telecommunications towers and cabling infrastructure	Sea-level rise, coastal flooding, fluvial and pluvial flooding. Storms & tropical cyclones Salt spray/corrosion	Climate-proof existing telecommunications infrastructure, including underground cabling and other-land based infrastructure against tropical cyclones, salt build up and salt intrusion. Update existing master plan for communications development: Asset mapping and conditions assessment, including an infrastructure risk assessment. Develop an asset management plan for critical telecommunications infrastructure, including maintenance requirements for protection against salt-build up from sea spray and saltwater intrusion.
Asset data & governance (all infrastructure)	Sea-level rise and coastal flooding, extreme rainfall, storms & tropical cyclones, increased temperature	Develop, acquire, and implement a national infrastructure asset management system to ensure efficient tracking, maintenance, and optimization of resources at a national level.

Table C.8. Key Adaptation Actions for the Tourism Sector

Element	Risk	Adaptation Actions / Responses
Accommodation (hotels, resorts , guesthouses, bungalows, eco-lodges)	Sea-level rise and coastal flooding, extreme rainfall (pluvial), river flooding (fluvial), storms and tropical cyclones, increased temperature and heat stress	Update and enforce tourism-specific siting and design standards (elevated floor levels, tropical cyclone-rated structures, flood-proof services, corrosion-resistant materials, passive cooling). Require climate-risk design statements as part of tourism licensing/consenting. Incentivise retrofit grants for elevating plant rooms, backup power/ water, and greywater reuse in exposed sites. Apply no-build/conditional build rules in CRVA high-exposure zones.
Airports serving tourism (Lamap, Lamen Bay, Santo-Pekoa, Bauerfield etc.)	Sea-level rise/coastal flooding; pluvial/fluvial flooding; storms and tropical cyclones.	Relocate low-elevation airfields at high SLR risk (Lamap, Lamen Bay). Install engineered drainage/bunds and harden pavements. Develop Aviation Climate Resilience Masterplan with aviation–maritime contingencies for disaster periods.
Ports, jetties & day-trip wharves (cruise & inter-island tourism)	Sea-level rise and storm surges Coastal flooding/erosion Storms and tropical cyclones	Elevate critical quay infrastructure; use marine-grade, tropical cyclone-rated components. Construct breakwaters/revetments where justified; identify phased relocation for low-lying facilities. Ensure lifeline status for tourism gateways in emergency logistics (priority repair and redundancy).
Tour transport (coastal roads/bridges; small craft)	Extreme rainfall (pluvial) and river flooding Sea-level rise and coastal flooding/erosion Storms and tropical cyclones Increased temperature (materials)	Elevate and reroute critical coastal and river-crossing sections serving tourism hubs; specify heat-/salt-resistant materials. Establish safe-harbour protocols and tropical cyclone-rated moorings for tour vessels. Publicise real-time road & marine status for operators and visitors.
Water supply for accommodation & tours	Drought Increased temperature Extreme rainfall contamination Sea-level rise (saline intrusion)	Require water security plans for licensed operators (rainwater capture, storage sizing, onsite treatment). Protect wellfields from saline intrusion; diversify sources (desalination where viable). Introduce water-efficiency standards and leak detection for tourism.
Wastewater & sanitation at tourism sites	Extreme rainfall (overflow) Coastal/groundwater flooding Sea-level rise (groundwater salinity)	Flood-seal and elevate septic systems; require secondary treatment near lagoons; establish pump-out services in high SLR zones. Prioritise WASH upgrades at high-use sites (parks, markets, jetties) to prevent contamination and health risks.
Ecosystem-based tourism assets (Forests, reefs, mangroves, seagrass, beaches)	Marine heatwaves Ocean acidification Sea-level rise and erosion Storms and tropical cyclones	Scale reef-to-ridge measures: mangrove/reef restoration, sediment/ runoff control, crown-of-thorns and invasive species management. Establish community-managed conservation areas with visitor fees to fund stewardship and monitoring. Diversify experiences (cultural/terrestrial) to hedge against marine heatwave seasons.
Tourism businesses & Micro, Small and Medium Enterprises (tours, guides, hospitality services)	All hazards via supply chain and service disruption (transport, power, water, comms)	Provide business continuity planning (BCP) toolkits: emergency SOPs, cash-flow buffers, supplier diversification, backup comms/power/water. Establish a Tourism Resilience Facility (grants/loans) for retrofits and green upgrades. Establish a Sustainable Tourism Development Fund and continue with a Tourism Business Support Program (used for Covid recovery) Expand insurance literacy and pooled Government sponsored micro-insurance pilots.

Table C.9. Key Adaptation Actions for the WASH Sector

Element	Risk	Adaptation Actions / Responses
Capacity development	Lack of local resources results in infrastructure planning being undertaken out of country and not considering local climatic knowledge.	Support the development of training programmes for; engineering professionals, engineering university students, construction workers and operators and disaster responders to improve ability to undertake work in accordance with relevant codes and sanitation guidelines at design, construction and operational stages – particularly planning for extreme scenarios. Enable national support of local delivery by local authority/ working group support of community-based management and rural water committees through education and training on how to deliver, manage and regulate decentralised services. Support community-led and youth-inclusive maintenance programmes, especially where seasonal migration reduces capacity. Provinces to work with rural water committees to embed scheme DWSSPs into Watershed Management Plans in high-risk catchment areas identified by DoWR Identify existing WASH education programmes and evaluate climate scope. Prepare and distribute key climate change behavioural information and education material for inclusion.
Women, youth, children and persons with disabilities	WASH resources are not designed with consideration of GEDSI factors making systems unsuitable for members of the population.	Create processes to support women's leadership and involvement in WASH planning and decision-making Review and incorporate climate-responsive GEDSI practice (including for women, people with a disability, youth and children) in sanitation guidelines and WASH programmes and WASH related training programmes Ensure evacuation centres have accessible, gender-sensitive, designed WASH facilities for women, persons with disabilities and child-appropriate, (e.g. lighting, privacy, menstrual hygiene). Vanuatu commits to ensuring that all people have reliable access to safe drinking water and sanitation infrastructure.
Regulatory alignment	WASH projects not suitably designed to withstand significant climate change impacts.	Vanuatu commits to achieve 100% target to develop Integrated Water Resource Management (IWRM) Plan - this involves developing the watershed management plans in the communities. The integrated plan will include Agriculture, Forestry, Environment, Livestock and Water Resources. Support regulation of WASH construction and operation to regulate alignment with Building Codes and standards, including in education and healthcare facilities with updates to account for changing environmental conditions. Establish a water security programme that supports evaluation and development of water security strategies and projects including consideration of adopting technologies such as desalination and resilient and decentralised supporting infrastructure, such as solar power Unify water rules and laws through engagement and alignment with provincial water by-laws By 2030, 90% of extraction activities are complying with EIA requirements to prevent land degradation and downstream environmental damage from mineral resource extraction
Nature-based solutions	Water quality, storm surge, flooding or erosion is worsened by climate impacts	Develop and institutionalise nature-based solutions guidelines and decentralised approaches for climate adaptation Protect and restore water-related ecosystems (e.g., wetlands, rivers, aquifers), leveraging youth engagement opportunities where possible.

Element	Risk	Adaptation Actions / Responses
Data management	Resources are not utilised to support communities with most requirement under climatic change.	Vanuatu commits to develop comprehensive databases and models combining ground, surface and rainwater resources to enable prioritising investments and consumption, identification of water risks areas and priority areas. Vanuatu commits to strengthened climate risk management through mapping water resources (ground, surface, rain) and increased storage, giving priority to rain / groundwater for drinking and surface water for agriculture and industry. Establish an online portal or centralised location for WASH sector players to self-report and register activity Survey and map water security for critical services including health clinics, schools and evacuation centres and target improving water security through infrastructure and behavioural changes. Development of comprehensive databases and models combining ground, surface and rainwater resources Foster research and data collection of groundwater resources through national science programmes and research partnerships Develop policies and strategies to manage the use and protection of groundwater resources Undertake faecal sludge management mapping to identify vulnerabilities to climate change in the collection, transport and disposal chain. Utilise this mapping to plan for more resilient faecal sludge management Map and formalise informal sewer systems through decentralised or centralised approaches In line with the National Water Policy 2017–2030 Vanuatu will strengthen water resource data management to identify priority areas to invest in the diversification, storage and regulation of water resources
Governance	Responsibility for WASH issues is uncertain causing delayed action if climatic challenges faced.	Outline clear roles and responsibilities at the national level and establish strong clear governance. It is recommended that this is centralised through the Department of Water (Or National department) with support from NGOs Vanuatu commits that 60% of communities in the six provinces have developed drinking Water Safety and Security Plans by 2035.
Stakeholder engagement	Responses to climate change do not utilise all stakeholders resulting in solutions which are not fit for purpose.	Cross disciplinary consultation and planning should be incorporated in all WASH planning through working groups and formalised communication and planning channels, enabling women, people with a disability and youth engagement. Establish regional partnerships for knowledge sharing and data collection/ research including national governments, universities, NGOs
Protected areas	Activity migration related to climate change impacts results in contamination of water sources in areas key for drinking water.	Identify and enforce six (6) water protection zones and watershed management zones by 2030 to ensure the safety and security of water catchment areas - Develop unified approach to water source risk assessment and categorisation - Establish catchment assessment tool and classifications to identify high risk catchments and areas. - Link categorisation to water responses such as minimum treatment targets or targeted removal of contamination sources. - Outline planning approach for establishing and enforcing protection zone ensuring cross linkages such as livelihoods are incorporated into risk rating. - Alignment of catchment protection activities with other infrastructure and planning programmes including relocation or upgrading of solid waste dumping or management locations which may impact water source quality.
Prioritising resources	Strain on communities is worsened by climate change impacts	Vanuatu commits to protect climate-vulnerable watersheds, catchments and freshwater resources, including community water sources (NSDP ENV 4.2), ensuring the declaration of 6 Water Protection Zones by 2030 (NDC Adaptation Target Wa2 & NSDP SMART Indicator ENV 4.2.1). Support upgrades targeting critical WASH assets in high-risk zones (e.g. western coasts, Central region) and complex areas Prioritise upgrades to rainwater harvesting systems in drought-prone areas, including for education and healthcare facilities.

Element	Risk	Adaptation Actions / Responses
Safe and available water resources	Strain on communities is worsened by climate change impacts	Target improving water security through infrastructure or behavioural changes. 100% of community water supply systems with Drinking Water Safety and Security Plans by 2030 100% of households with all year access to drinking water as per agreed standards by 2030. In line with the National Water Policy 2017–2030, Vanuatu will extend drinking water safety and security planning to all drinking water asset owners (i.e. departments, private, communities, schools, health facilities, households). In line with the National Water Policy 2017–2030 Vanuatu will expand access to drinking water testing and treatment services raising awareness on the link between faecal coliforms and slow-onset undernutrition. Target improved WASH safety practices including hygiene, basic system maintenance and solid waste management.
Disaster Risk Reduction	Communities are unable to assess risk of water resources after event.	Vanuatu commits to strengthen risk management by enhancing the capacity of rural and urban water providers to integrate Disaster Risk Reduction (DRR) into their Drinking Water Safety and Security Planning (DWSSP), collaborate with NDMO to strengthen coordination through WASH cluster and sharing lessons learned for improvement. By 2030, all sectors have integrated DRM into their plans and budgets Design and fund mobile water testing kits and training for rural communities, including regular reviews and updates of building codes based on experience Strengthen capture of lessons learned and the sharing of knowledge in disaster risk reduction to enable WASH response activities to build back better Vanuatu commits to improved climate preparedness, response and recovery for the water sector: building on local knowledge to improve the protection of water supplies, strengthen response through improved data management and sharing knowledge to build back better after climate loss and damage events. Work with NDMO through the WASH Cluster to strengthen coordination in disaster response through improved data management Use water resource prediction data to strengthen the ability of rural and urban water providers to integrate disaster risk reduction into their DWSSP

Appendix D: Monitoring, Evaluation, Reporting and Learning (MERL) Framework

Terms Used in the MERL Framework

Term	Meaning
Output	A completed asset, service, plan or other product delivered by an activity.
Immediate outcome	A change in use, practice or performance resulting from an output.
Adaptation outcome	A change in vulnerability, continuity, recovery or other benefit under the climate risks addressed.
Baseline	The reference condition used to assess change, with a stated date, scope and source.
Target	The result sought by a stated date, using a defined measure and scope.
Unknown result	A result that cannot be established from sufficient current evidence.
Theory of change	The explanation of how activities are expected to lead to benefits and the conditions on which those relationships depend.

Purpose and Scope

This National Adaptation Monitoring, Evaluation, Reporting and Learning Framework (Framework) sets out how Vanuatu will assess adaptation progress, report results and use evidence to improve implementation of the National Adaptation Plan (NAP) and Provincial Adaptation Plans (PAPs). It connects responsibilities, expected results, reporting and evaluation so that decisions on delivery, policy and funding respond to evidence.

The Department of Climate Change (DoCC) coordinates the Framework with national sector agencies and provincial authorities. The National Advisory Board on Climate Change and Disaster Risk Reduction (NAB) uses the findings for policy oversight, advice to the Government and national coordination of climate change adaptation and disaster risk reduction. Communities contribute evidence about the changes they experience and receive feedback on the decisions that follow.

The Framework covers the 27 NAP priority actions, the 120 actions in the six PAPs, and the national functions that support implementation. It includes both provincial delivery and direct national work on policy, standards, research, finance, learning and technical services. Each PAP retains its own priorities, intended outcomes and action identities.

Assumptions

Effective use of the Framework assumes that participating agencies confirm their responsibilities and reporting arrangements, name reporting contacts, and provide staff time, access to source records, technical review and resources for monitoring and feedback. It also assumes that staff have access to the Vanuatu Reporting Workbook, supporting guidance and the training needed to apply agreed methods, and that communities and service users can contribute evidence and feedback through accessible channels.

Responsible agencies must provide for these needs in work programmes and budgets. DoCC uses the annual review to check whether these conditions are in place, identify gaps and coordinate support.

What the Framework Establishes

Monitoring follows delivery and changes over time. Reporting brings checked findings to the people responsible for decisions. Evaluation examines whether adaptation is effective, for whom, under what conditions and why. Learning uses those findings to improve action. Evaluation is therefore part of the monitoring, evaluation reporting and learning (MERL) system throughout the plan period.

The Vanuatu Reporting Workbook (provided with the Vanuatu Monitoring, Evaluation, Reporting and Learning Guidelines) holds the action registers, selected indicator profiles and reporting records. This Framework sets their common policy basis. A priority's inclusion in either plan identifies the work to be pursued; implementation, expenditure and results are established through evidence.

Structure

Sections D.1 to D.3 of this Framework explain how adaptation actions are expected to achieve results, who is responsible for implementation and reporting, and which results will be assessed. Sections D.4 to D.6 set out the evidence requirements, reporting arrangements, and how evaluation and learning inform improvements. Section D.7 connects the system to national and international reporting. Schedules A to C provide supporting registers: national action results and proposed lead agencies (Schedule A), selected indicators (Schedule B), and Common Action Groups linking relevant provincial actions (Schedule C). These schedules should be read alongside the responsibilities and evidence requirements in the main text.

D.1 Theory of Change

The National Vision and National Goal (set out in the NAP), together with the strategic outcomes in NAP Section 1.2 and sector outcomes in Table 1 of the NAP Strategic Framework (Vanuatu) define the changes sought. This theory of change develops the results logic summarised in Section 6.3 of the NAP. It explains how delivery, use and adaptation benefits are expected to connect and the assumptions that MERL will test (Least Developed Countries Expert Group, 2025; Beauchamp et al., 2024).

Completing an action does not by itself establish an adaptation benefit. Outputs must suit the climate risks addressed, be accessible and be used before they can support continuity of services, livelihoods and ecosystem functions. Locally led and inclusive decision-making shapes priorities, design, delivery and learning throughout this process. Benefits are more likely to endure where skills, operating resources and maintenance are sustained, and climate risk informs plans, budgets and investment.

Table D.1 outlines the level of change, expected relationships and conditions to assess. The relationships are conditional and may operate across sectors and levels. Common Action Groups organise related actions for measurement; they are not a further stage of change.

Table D.1. Levels of change, expected relationships and conditions to assess

Level of change	Expected relationship	Conditions to assess
Development goals and NDC contributions	If adaptation benefits are sustained and reach people most at risk, they help protect wellbeing, livelihoods and national and provincial development gains.	Benefits endure as climate risks change. Other economic, social and environmental influences are considered.
National adaptation outcomes	If provincial benefits extend across relevant people and places, and direct national measures are applied, they contribute to the outcomes of the NAP.	Coverage is sufficient. National policy, standards, finance and services address the barriers to effective adaptation.
Provincial and local adaptation outcomes	If people can use effective measures and services under climate stress, disruption and losses can decline and recovery can improve, supporting PAP outcomes.	Maintenance, operating resources and local leadership continue. Benefits are accessible and risk is not transferred to others.
Immediate outcomes	If outputs are fit for purpose, accessible and supported, people and agencies use the assets, knowledge, skills, plans and services as intended.	Users have the skills, resources and authority to act. Institutions apply national outputs through their own functions.
Outputs	If planned work is resourced and completed to the required standard, it produces the specified assets, services, plans and other products.	Technical quality, permissions, safeguards and dependencies are addressed. Completion is supported by evidence.
Actions, activities and resources	Responsible agencies carry out priority activities using staff, funds, information, equipment and partnerships.	Resources are available when needed. Activities address the climate risk and the needs of the intended users.

Direct national measures can contribute to national outcomes without first producing a provincial outcome. A curriculum, national standard or financing arrangement requires evidence of its adoption, application and effects at the appropriate level. Location alone does not determine whether a result is an output or an outcome.

Reviews distinguish supported relationships, challenged assumptions and insufficient evidence. They consider hazard severity, exposure, time since implementation, maintenance and other programmes. Links to Nationally Determined Contribution (NDC 3.0) adaptation commitments (Government of Vanuatu, 2025) identify contributions for reporting; they are not another stage in the causal chain.

D.2 Governance and Responsibilities

The reporting pathway connects local evidence to national review. Figure D.1 and Table D.2 set out the reporting contacts and their responsibilities. DoCC leads NAP monitoring and consolidates findings. Lead agencies coordinate implementation and reporting for their assigned actions. Sector agencies provide technical measurements and review. Provincial sector points of contact compile MERL reports for each sector in each province, drawing on implementing-agency and community evidence. Section D.5 sets out the reporting and review cycle.

Provincial sector points of contact report through the Senior Adaptation Officer, to the Principal Monitoring and Evaluation Officer to the Director General of MoCC, as shown in Figure D.1. Responsible agencies must record the measures, evidence responsibilities, available baselines and targets, and dated actions to close gaps. The first quarterly cycle and annual review will test these arrangements and identify improvements.

Table D.2. Reporting contacts and responsibilities

Agency or reporting contact	Responsibility
Director General of MoCC	Receive checked reports through the Principal Monitoring and Evaluation Officer, provide national oversight and direction, and coordinate NDC monitoring and reporting with responsible agencies. Return direction and feedback through the same reporting contacts.
DoCC	Lead NAP MERL coordination, bring provincial and direct national findings together, prepare NAP reports for NAB and lead the annual review and learning cycle.
National sector ministries and agencies	Lead technical measurement within their mandates, keep and check source records, and confirm measures and interpretations for the components they lead. Report direct national work through sector arrangements to DoCC.
Principal Monitoring and Evaluation Officer	Receive reports from the Senior Adaptation Officer, review reporting completeness and consistency, coordinate outstanding verification with the responsible technical agencies, and submit checked findings to the Director General of MoCC. Make checked findings available for DoCC's NAP consolidation and relevant NDC reporting.
Senior Adaptation Officer	Receive checked reports from provincial sector points of contact, coordinate evidence queries with sector agencies and submit the reports to the Principal Monitoring and Evaluation Officer. Return direction and feedback through the provincial contacts.
Provincial sector point of contact	Compile the quarterly sector MERL report, check coverage and overlaps, arrange technical review and submit the checked report to the Senior Adaptation Officer.
Lead implementing agencies and sector CLOs	Lead implementing agencies coordinate implementation and reporting for assigned actions. Agencies and sector CLOs keep delivery and service records, check completeness and provide evidence to the provincial sector point of contact. Refer specialist questions to the responsible technical agency and return findings to communities.
Communities, customary leaders and service operators	Provide observations, service experience and feedback through implementing agencies and sector CLOs. Community Disaster and Climate Change Committees (CDCCCs) support participation and appropriate use of local and ***kastom*** knowledge.

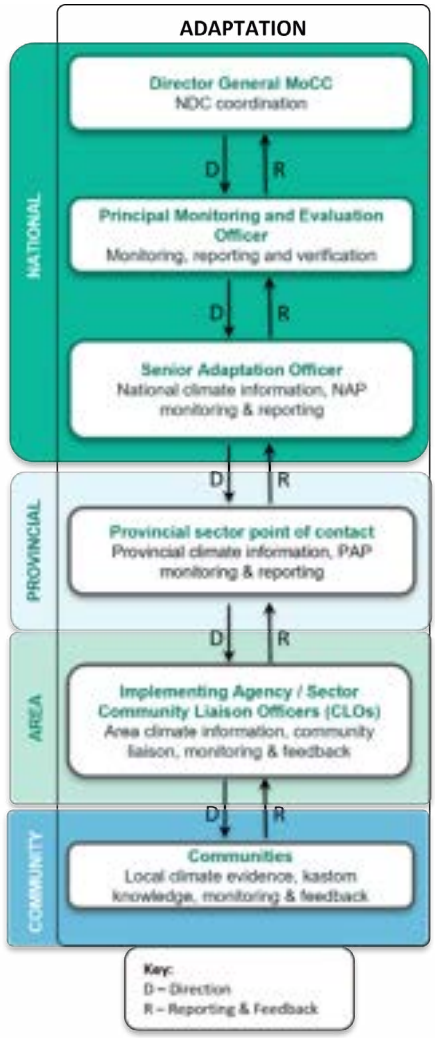


Figure D.1. Reporting Pathway

DoCC brings checked provincial and direct national evidence together for NAB within the wider governance arrangements. National agencies report national activities through their own sector arrangements to DoCC.

The Director General of MoCC and the Director of DoCC are distinct roles. DoCC's consolidation of NAP findings for NAB operates alongside the provincial reporting pathway and the Director General's coordination of NDC reporting.

Evidence moves upwards from communities and implementing agencies through provincial sector contacts to national reporting officers (Figure D.1). Direction, questions and responses return through the same contacts.

D.2.1 Governance for Planning and Decisions

Table D.3. Governance institutions and responsibilities

Institution	Responsibility
Department of Local Authorities (DLA)	Support decentralised planning and governance through the established national and provincial arrangements.
Ministry of Finance and Economic Management (MFEM)	Work with implementing agencies to check finance records and resolve differences in funding and expenditure information.
Department of Strategic Policy, Planning and Aid Coordination (DSPPAC)	Connect adaptation findings to national planning and performance review. Work with DoCC on evaluation and the use of findings in development decisions.
National Advisory Board on Climate Change and Disaster Risk Reduction (NAB)	Provide policy oversight, advice and national coordination using the findings consolidated by DoCC. Consider matters requiring a coordinated national response.
National Disaster Management Office (NDMO)	Coordinate disaster information, response and recovery through established arrangements, including PDCCC links.
Area Councils and Area Administrators	Support local coordination, participation and feedback with sector CLOs, CDCCCs, customary leaders and communities.
Provincial Government Council and municipal authorities	The Council makes provincial decisions within its mandate. Municipal authorities provide evidence and make decisions for their assets and services within their mandates.
Provincial Disaster and Climate Change Committee (PDCCC)	Coordinate PAP delivery and provincial climate monitoring with PTAC and the established disaster management arrangements.
Provincial Technical Advisory Committee (PTAC)	Review technical matters, bring sector advice together and recommend action, including relevant municipal technical advice.
Provincial administration and Secretary General	Coordinate provincial planning, budgeting and reporting, maintain the PAP implementation register through existing planning functions and report to the Provincial Government Council.

These institutions support reporting and decisions within their mandates. They are not successive approval stages for every monthly sector MERL report (Section D.5). Technical advice, planning decisions and disaster coordination retain their respective functions.

The reporting contacts in Figure D.2 work through these governance arrangements[20].

[20] CBAP means Community-Based Adaptation Plan.

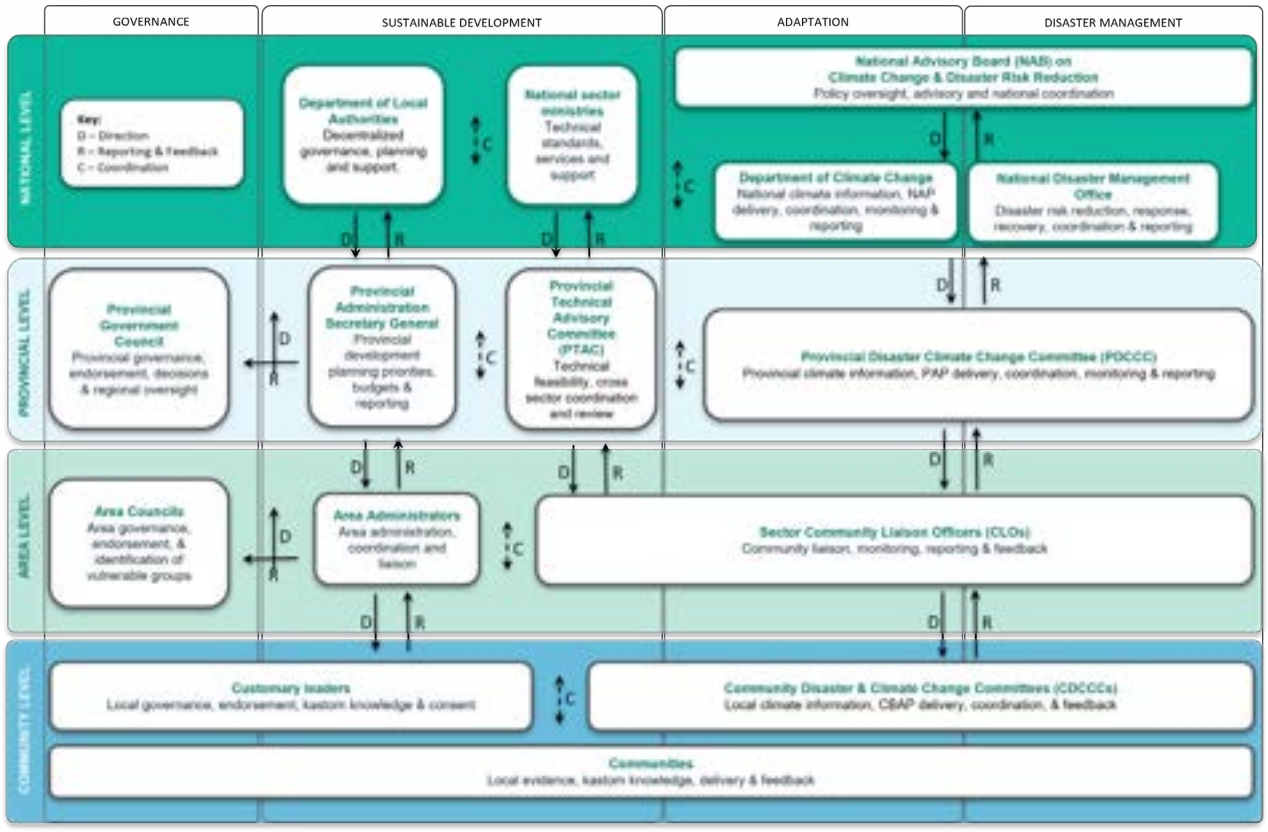


Figure D.2. NAP Roles and Responsibilities Aligned with the Existing National and Local Level Governance Structure

D.3 Results and Measurement Coverage

The 27 NAP actions cover nine sectors: Agriculture; Ecosystems; Education; Fisheries; Forestry; Health and Nutrition; Infrastructure; Tourism; and Water, Sanitation and Hygiene. The six PAPs contain 20 actions each. Their 33 Common Action Groups (CAGs) connect related provincial activities for consistent measurement. These groupings preserve the original actions and do not create additional projects or results to count.

Results must be interpreted against the National Vision and National Goal in the NAP, the strategic outcomes in NAP Section 1.2 and the sector outcomes in NAP Table 1. Section D.1 of this MERL Framework explains the expected relationships and assumptions. These links describe intended contributions; they do not demonstrate outcome achievement. Assessment also addresses locally led and inclusive decision-making, the distribution of benefits, and the capability and resources needed to sustain resilience.

The 17 selected indicator profiles provide routine measures for specified work. They do not measure every NAP component. For components outside these profiles, the responsible sector agency reports relevant measures and supporting evidence through the same quarterly MERL report. Schedule A covers all national action results, Schedule B lists the selected indicators, and Schedule C summarises the CAGs.

D.3.1 Selecting Measures and Establishing Reference Values

The lead agency for each action coordinates implementation and reporting. The Vanuatu Reporting Workbook must record the confirmed lead agency for each NAP and PAP action. The responsible sector agency has technical responsibility for the component or indicator

being measured and may be the same as the lead agency. Where the roles differ, the agencies must agree measures that reflect the activity, intended result and climate risk. Provincial sector points of contact coordinate PAP measures with the responsible sector agencies. National sector agencies and DoCC confirm the measures needed for NAP reporting.

For each measure, the responsible sector agency will confirm the intended result, unit, scope, method, measurement period and source records, and assign the evidence holder and technical reviewer. Record these details in the indicator profile and state which sector agency is responsible. Where a baseline or target is not established, the agency will record how and when the gap will be addressed. Checked observations remain reportable; unsupported comparisons are to be marked as "not assessed." For direct national actions, monitoring must distinguish delivered outputs from evidence of adoption and use, where relevant.

D.3.2 National Functions That Support Adaptation

Table D.4. National functions that support adaptation

Function	What the Framework assesses
Climate and risk information	Information is accessible, understood and used in decisions; evidence gaps and uncertainty are recognised.
Planning and regulation	Climate risk informs plans, standards, budgets and investment decisions, with fewer conflicts and gaps between agencies.
Finance and implementation support	Timely, usable support reaches priority delivery, operation and maintenance. Spending is assessed alongside delivery and results.
Institutional and practitioner capacity	Responsible people apply the skills, authority and partnerships needed to sustain adaptation functions.
Equity and local leadership	Affected people influence decisions, can access benefits and have their concerns addressed without avoidable harm.
Monitoring and learning	Evidence is reliable, reporting effort is manageable and findings lead to completed changes that improve results.

These functions are assessed through existing plan actions and institutional responsibilities. They are monitoring categories, not additional action commitments.

D.4 Evidence and Measurement Principles

D.4.1 Evidence That Supports the Claim

Reports distinguish planned work, completed outputs, their use and adaptation benefits. Technical acceptance establishes that an output meets its requirements. Evidence from service performance, relevant seasons or climate events is needed to assess benefits. For example, a planting count does not establish ecosystem recovery. Similarly, construction of an operational asset does not, by itself, establish that all intended users received a service.

D.4.2 Missing Information and Current Results

Unknown results remain separate from verified zero metrics and confirmed failure. Missing, incomplete or outdated evidence cannot establish current success. Where a measure requires several conditions, every applicable condition must be met; a verified failure is retained even if another check is missing. A later unknown result does not close an unresolved fault or safety concern.

D.4.3 Comparable and Complete Measurement

Coverage measures must use the full defined eligible group, including people, sites or systems whose results are unknown. The reports need to show those unknown results separately. No percentage value is to be reported where the size of the eligible group is unknown or zero. Sample surveys need to follow their stated design, weights and uncertainty.

Combined results must use compatible definitions, units, populations and periods. Agencies will be required to remove overlaps before combining counts and recalculating percentages. They must avoid simply averaging percentages from different groups or combining unlike measures into a single resilience score. Shared people, assets, products, land areas and expenditure are to be counted once within the same combined scope and period.

D.4.4 Time and Reference Values

Observations retain their original dates and measurement periods. Seasonal and event results are interpreted under the conditions experienced. No qualifying event means the intervention has not been tested by that event; it is not evidence of successful event performance. A baseline collected after implementation began is identified as such. Policy ambitions, measured results and projections remain distinguishable.

D.4.5 Clear Action Links and Evidence Responsibility

Records identify the action and component that produced the result, including the relevant PAP and NAP links. Shared projects retain separate component evidence where needed. A CAG link does not establish a result or justify counting it again. National totals include only contributions for which the allocation and evidence are supported.

The agency holding source evidence retains dated records and corrections. The assigned technical reviewer checks the method and findings before DoCC uses them in national reporting. Reports identify sources, gaps and material corrections so that readers can assess the evidence.

D.4.6 Inclusion and Responsible Information Use

Assessment considers differences in influence, access, benefits and burdens by location, sex, age, disability and other relevant circumstances where useful and safe. Attendance alone does not demonstrate influence. Sector CLOs support accessible participation and feedback in languages and formats communities can use.

Communities agree how local and kastom knowledge is used. Authorised record holders protect personal health, protection and complaint information. Public reporting uses appropriate summaries and avoids detail that could identify individuals in small groups.

D.5 Reporting and Use of Findings

DoCC and responsible agencies use existing sector, provincial, planning and budget arrangements to produce one connected account of adaptation progress.

NAB uses its existing meeting cycle, normally every two months, to consider the latest checked findings and matters requiring national coordination.

DoCC has proposed monthly reporting to provide updates for the NDC tracking dashboard.

On a quarterly basis, provincial sector information is compiled through the PAP reporting pathway and consolidated into one sector MERL report, which the DoCC uses to prepare the national synthesis. An annual NAP and PAP review is proposed to inform work programmes, budgets and implementation support.

A mid-term evaluation in 2030 and an end-of-period evaluation in 2035 will inform subsequent adaptation planning for the NAP's 2026–2035 period.

Table D.5. Review points, Evidence and Responsibilities

Review point	Evidence and purpose	Responsibility
Relevant season, service period or climate event	Observe delivery, use and performance at the time required by the measure. Retain the original dates when information arrives later.	Implementing agencies, service operators and responsible sector specialists, with provincial reporting contacts.
Quarterly sector and NAP reporting	Bring checked observations together with delivery progress, gaps, finance and decisions needed. Show incomplete coverage and results awaiting confirmation.	Provincial sector points of contact, the Senior Adaptation Officer and Principal Monitoring and Evaluation Officer; national agencies report direct work to Principal Monitoring and Evaluation Officer. DoCC consolidates NAP findings.
NAB meetings every two months	Use the latest checked findings to address matters requiring policy advice or national coordination.	DoCC prepares findings for NAB; responsible agencies report follow-through.
Annual NAP and PAP review	Assess emerging outcomes, distribution of benefits, continuing risks and implementation constraints. Inform work programmes, budgets and support needs.	DoCC with DSPPAC, sector agencies and provincial authorities, drawing on community evidence.
Evaluations in 2030 and 2035	Assess effectiveness, contribution, sustainability and lessons across the plans, with appropriate independence.	DoCC and DSPPAC coordinate participation by sector agencies and provincial authorities.

D.5.1 Reporting for Decisions

Reports explain what changed, the evidence supporting the finding, who benefited, what remains uncertain and what decision is needed. They distinguish delivery progress from demonstrated outcomes and state which locations, groups and periods are covered. DoCC provides a non-sensitive annual progress summary through authorised public reporting arrangements.

The provincial sector point of contact coordinates questions and corrections with the implementing agency and technical reviewer. Responses return through sector CLOs, Area Councils, Area Administrators and accessible community channels. Urgent health, protection or safety concerns use the established response arrangements immediately.

D.5.2 Resources and Finance

Sector and programme budgets provide for evidence collection, review, evaluation, accessible feedback and staff support. DoCC identifies common support needs through the annual review. Development partners coordinate evidence requirements with DoCC and the responsible lead agency so that compatible programme records can serve national reporting.

MFEM and implementing agencies distinguish budgets, commitments, receipts and expenditure by programme, period and currency. Shared costs are counted once, with the allocation stated. Finance information explains delivery constraints; expenditure alone does not establish adaptation benefits.

D.6 Evaluation and Learning

Evaluation assesses whether NAP and PAP actions are achieving their intended results, who benefits and what needs to improve. Learning uses these findings to adjust implementation and inform future planning and investment.

National Sustainable Development Plan Monitoring and Evaluation Framework. The arrangements provide appropriate independence from day-to-day delivery and meaningful community participation.

D.6.1 Evaluation across the Plan Period

The 2030 evaluation assesses progress, emerging benefits and changes needed for the remaining plan period. The 2035 evaluation assesses results and informs subsequent adaptation planning. DoCC and DSPPAC coordinate the evaluations with sector agencies and provincial authorities, aligning their scope, methods and reporting with the

Evaluations examine whether actions remain relevant to changing risks, work together across sectors, use resources efficiently, produce equitable benefits and can be sustained. The evaluations will assess both provincial contributions and direct national measures, including the policy, finance and institutional conditions on which results depend.

D.6.2 Questions That Guide Assessment

Table D.6 Questions that guide assessment

Question	Basis for judgement
Are the expected benefits occurring?	Service continuity, recovery, livelihoods, ecosystem condition and community experience under relevant climate stresses, alongside delivery and use.
How much did the actions contribute?	The theory of change, comparable observations, timing and alternative explanations, including hazard severity, exposure and other programmes.
Who benefits and who is missed?	Differences in access, influence, benefits and burdens; community accounts and evidence of unintended harm.
Will benefits continue?	Maintenance, operating resources, skills, local leadership and performance as climate risks change.
Does evidence change decisions?	Recorded decisions, responsible agencies, original deadlines, completion evidence and whether the response improved results.

D.6.3 Acting on Findings

Annual reviews and the evaluations conducted every five years lead to clear decisions to continue, change, merge, pause or stop an approach where warranted. The responsible agency records its response, the action required and the due date, then reports completion and effects at the next relevant review. A revised deadline does not erase earlier overdue work. DoCC brings matters requiring national coordination to NAB.

Focused reviews respond to repeated service failures, widening inequalities, major climate events or evidence that an approach is approaching its effective limit. Reviews consider alternative designs, additional support and longer-term options, with the people affected.

D.6.4 Remaining Risk and the MERL System

Reports distinguish economic and non-economic loss and damage from evidence about adaptation limits. Harm after an event does not by itself demonstrate a limit, and a financial or institutional barrier does not establish that adaptation is physically impossible. Relevant technical assessment and community evidence inform these judgements.

The annual review also assesses the MERL system itself: reporting coverage, evidence quality, staff capacity, burden on contributors, accessibility of feedback and use of findings. DoCC and responsible agencies address gaps while maintaining comparable records over time.

D.7 National and International Reporting

The same checked evidence supports planning, accountability and relevant national submissions where definitions and scope match. DoCC coordinates NAP reporting with DSPPAC and sector agencies. The Director General of MoCC coordinates NDC monitoring and reporting. Official submissions follow the applicable national reporting authority.

Table D.7. National and International References and their Application in this Framework

Reference	Application in this Framework
National and provincial development planning	Assess contributions to national and provincial development objectives. Use compatible evidence in the Performance Tracking Tool, government planning logframes and budget reviews, retaining each system's definitions and reporting authority.
Vanuatu NDC adaptation commitments	Use the NDC tracking tool as the principal tool for tracking contributions to commitments. Confirm definitions, coverage, units, periods and reference values before assessing national targets.
United Nations Framework Convention on Climate Change (UNFCCC) NAP Technical Guidelines 2025 (Least Developed Countries Expert Group, 2025)	Establish a theory of change, responsibilities, indicators, evaluation and learning. Connect implementation evidence to national progress reporting and relevant international reports.
United Arab Emirates (UAE) Framework for Global Climate Resilience (UNFCCC, 2023)	Connect priorities to relevant thematic targets. Support the 2030 target for an operational national monitoring, evaluation and learning system and the capacity needed to sustain it.
Belém Adaptation Indicators (UNFCCC, 2025)	Use relevant global indicators to inform national measurement choices while retaining measures suited to Vanuatu's priorities, circumstances and evidence.
Paris Agreement Enhanced Transparency Framework (UNFCCC, 2018)	Support adaptation information on priorities, implementation, effectiveness, gaps, lessons and loss and damage in relevant national submissions.
NAP monitoring evaluation and learning guidance (Beauchamp, 2024)	Combine quantitative evidence, technical assessment and community knowledge to understand what works, for whom and under what conditions, and to improve policy and practice.

An action's link to an NDC commitment identifies a contribution; it does not establish achievement of the national target. Target assessments require compatible evidence and retain the target's own reference values and deadline. The NAP's 2035 horizon does not extend another policy's target date.

Belém indicators are voluntary. They do not impose an additional reporting obligation or a condition for accessing finance. Work to improve their definitions and measurement methods is continuing. A thematic link does not make a Vanuatu indicator numerically equivalent to a global indicator (UNFCCC, 2025)

Parties should provide information on climate change impacts and adaptation, as appropriate; this information is not mandatory under the Enhanced Transparency Framework. Relevant NAP evidence can support Biennial Transparency Reports, National Communications and Adaptation Communications through national reporting arrangements (Least Developed Countries Expert Group, 2025; UNFCCC, 2018).

Schedule A: National Action Results

The NAP Action table provides full wording, scope and lead agencies.

The Vanuatu Reporting Workbook (provided with the Vanuatu Monitoring, Evaluation, Reporting and Learning Guidelines) holds matching action records and fields for lead agencies and data owners.

The summary presented in Table D.8 identifies intended outcomes and evidence.

Indicator records will retain baselines and targets where established, and identify missing reference values.

Table D.8. National action results

Action and focus	Overall sector strategic outcome	Intended specific outcome	Measurement focus	Proposed lead agency
Outcomes under the Agriculture sector				
NAP-AGR-01 Crop and local food production.	Household food security and climate-resilient production are strengthened through resilient crop varieties and livestock breeds, supported by targeted agricultural extension	Crop production, food access and farm livelihoods withstand climate stress.	Delivery and use of crop, soil, water and plant-health support; crop losses, production recovery and household food access across comparable seasons.	MALFFB (with DARD as operational lead)
NAP-AGR-02 Livestock resilience		Animal welfare and production are maintained during climate stress.	Animal-health, water, feed and shelter support; losses, welfare, production continuity and recovery during climate stress.	MALFFB (with DoL as operational lead)
NAP-AGR-03 Agricultural preparedness and recovery		Food losses and interruptions to production and markets decline.	Preparedness, seed and planting supplies, food storage and market support; availability, use and timely recovery after disruption.	MALFFB (with DARD as operational lead)

Action and focus	Overall sector strategic outcome	Intended specific outcome	Measurement focus	Proposed lead agency
Outcomes under the Ecosystems sector				
NAP-ECO-01 Ecosystem conservation, restoration and monitoring.	Terrestrial, freshwater, coastal, and marine ecosystems are protected and strengthened to sustain biodiversity and ecosystem services under a changing climate.	Priority ecosystems sustain biodiversity, services and natural protection.	Management and restoration work; current ecosystem condition, biodiversity, services and natural protection under changing risks.	DEPC
NAP-ECO-02 Community food security.		Communities retain alternative food sources during climate shocks.	Food banks, food forests and preservation systems; operating condition, access and usable food during climate disruption.	DEPC
NAP-ECO-03 Catchment and water-source protection.		Catchment condition supports reliable, better-quality community water.	Source protection and catchment management; water-source condition, quality and supply, considering other causes of change.	DEPC
Outcomes under the Education sector				
NAP-EDU-01 Resilient schools and essential services.	The education system remains safe, accessible, and resilient to climate and disaster risks, supporting continuity of learning.	Safe, accessible learning environments and essential services remain usable.	Accepted school and service improvements; safe access and continuity of education, water, sanitation, hygiene and energy services.	MoET
NAP-EDU-02 School safety and learning continuity.		Learners retain safe education and support during climate disruption.	Preparedness and continuity arrangements; safe learning, attendance, support and recovery during relevant events and school terms.	MoET
NAP-EDU-03 Climate learning and skills.		Learners and educators apply relevant climate knowledge and practical skills.	Accepted learning packages and staff support; teaching practice and application of climate knowledge and practical skills.	MoET
Outcomes under the Fisheries sector				
NAP-FIS-01 Community fisheries management and safer fishing.	Fisheries and marine biodiversity are safeguarded through climate-resilient and sustainable resource management and community-based approaches.	Fisheries sustain food, livelihoods and safer fishing practices.	Community management, safer equipment and fishing support; application, safety, fish supplies and livelihood outcomes. Stock claims need stock evidence.	MALFFB (with VFD as operational lead)
NAP-FIS-02 Fisheries production and value chains		Fish supply and livelihoods experience fewer losses and faster recovery.	Production, handling and market improvements; operating performance, losses, service continuity and recovery after disruption.	MALFFB (with VFD as operational lead)
NAP-FIS-03 Research, monitoring and advisories.		Fisheries decisions and local responses reflect changing risks.	Reviewed research, monitoring and advisory products; delivery to intended users and application in fisheries decisions.	MALFFB (with VFD as operational lead)

Action and focus	Overall sector strategic outcome	Intended specific outcome	Measurement focus	Proposed lead agency
Outcomes under the Forestry sector				
NAP-FOR-01 Forest restoration and sustainable management.	Forest ecosystems are sustainably managed to strengthen climate resilience, biodiversity, and community benefits.	Forests sustain protection, livelihoods and ecosystem services.	Forest and catchment management; maintained area, forest condition, livelihoods and ecosystem services over suitable periods.	MALFFB (with DoF as operational lead)
NAP-FOR-02 Mangroves and natural coastal buffers.		Coastal habitats retain protective and livelihood functions under changing risks.	Coastal assessment and habitat restoration; establishment, condition and protective functions, with site-specific risks and maintenance.	MALFFB (with DoF as operational lead)
NAP-FOR-03 Climate-informed forestry planning.		Forestry planning and investment respond to current evidence and risks.	Accepted forest-risk information; use in planning, investment and management decisions at the appropriate national or provincial level.	MALFFB (with DoF as operational lead)
Outcomes under the Health and Nutrition sector				
NAP-HN-01 Essential health-service continuity	Health and social wellbeing services and nutrition outcomes are strengthened to manage climate-sensitive risks and maintain essential services during shocks.	People retain essential care and safe referrals during climate disruption.	Facility, supply and referral readiness; actual continuity, access, interruptions and restoration of essential care during climate events.	MoH
NAP-HN-02 Climate-health assessment, surveillance and response.		Climate-sensitive health threats are detected and acted on promptly.	Complete and timely surveillance; detection and substantive response to qualifying alerts, assessed separately.	MoH
NAP-HN-03 Nutrition and community health.		At-risk people retain nutrition, community health and psychosocial support.	Nutrition, outreach and psychosocial support; access and continuity for people most at risk and relevant wellbeing outcomes.	MoH
Outcomes under the Infrastructure sector				
NAP-INF-01 Risk-informed planning and standards.	Infrastructure systems are climate-resilient and able to withstand current and future climate hazards, supporting safe access and economic activity	Infrastructure decisions reduce future exposure and service-failure risk.	Risk information, standards and asset plans; application in design, investment, maintenance and management decisions.	MIPU
NAP-INF-02 Resilient transport, drainage and slopes.		Communities retain safer access and reduced climate-related disruption.	Transport, drainage and slope improvements; asset performance, essential access and recovery after climate disruption.	MIPU
NAP-INF-03 Shared lifelines and public facilities.		Essential networks, warnings and shared facilities remain operational.	Network and facility improvements; working power, communications, warnings and essential services during disruption.	MIPU

Action and focus	Overall sector strategic outcome	Intended specific outcome	Measurement focus	Proposed lead agency
Outcomes under the Tourism sector				
NAP-TOU-01 Risk-informed tourism planning and assets.	The tourism sector adapts to climate risks while protecting natural and cultural assets and supporting sustainable economic recovery.	Climate risks to tourism assets and disruption to tourism services are reduced.	Risk-informed siting, design and asset management; application and observed tourism service performance under climate stress.	DoT
NAP-TOU-02 Preparedness and business continuity.		Tourism operators and communities restore safe services promptly.	Resourced and tested preparedness; actual continuity, recovery times and safe resumption of services.	DoT
NAP-TOU-03 Community tourism and diversified livelihoods.		Locally led livelihoods diversify while natural and cultural assets endure.	Locally led products and livelihood support; income reliability, distribution of benefits and condition of natural and cultural assets.	DoT
Outcomes under the Water, Sanitation and Hygiene (WASH) sector				
NAP-WASH-01 Reliable and diversified water supplies	All communities have reliable access to climate-resilient water, sanitation, and hygiene services, including under drought and extreme events.	Exposed communities and essential services retain reliable water supplies.	Accepted and working water systems; quantity, quality, continuity and access for the eligible users during climate stress.	DoWR
NAP-WASH-02 Inclusive, resilient WASH services.		Water, sanitation and hygiene remain safe, usable and accessible.	Water, sanitation and hygiene improvements; accessible, safe and working services, with each service assessed on its own evidence.	DoWR, MoH
NAP-WASH-03 Water safety and hygiene		People maintain safer water and hygiene during climate disruption.	Water safety, treatment and hygiene support; application, timely management of contamination and safer practice during disruption.	DoWR

For shared actions, confirm the coordinating lead and record the component responsibilities separately. This is particularly relevant to community food systems (ECO-02), shared networks and public facilities (INF-03), and WASH services involving water, health and education agencies.

Schedule B: Selected Indicators

The 17 indicators set out in Table D.9 provide routine measures for selected activities and system functions.

The profiles in the Vanuatu Reporting Workbook (provided in the Vanuatu Monitoring, Evaluation, Reporting and Learning Guidelines) define the coverage, timing, methods and evidence responsibilities that relate to each indicator.

The evidence and measurement principles set out in Section D.4 of this Framework apply to every measure.

Table D.9. Selected indicators

Indicator	Unit	What the measure establishes	Related sector(s)
MERL-01 People receiving the required water service during climate stress	Percentage of eligible people	Assesses verified user service during the defined climate-stress period; system counts alone do not establish coverage.	WASH Education
MERL-02 Community water systems with working resilience improvements	Number of operating systems at the reporting date	Assesses current operation of distinct accepted systems, separately from newly completed systems.	WASH
MERL-03 Priority coastal sites with a current assessment and agreed adaptation pathway	Percentage of priority sites; number at each preparation stage	Assesses readiness for coastal decisions, with preparation stages shown separately; it does not measure completed protection.	Ecosystems Infrastructure Tourism
MERL-04 Time to restore essential access after a climate disruption	Hours per route-disruption episode	Assesses recovery of defined essential access. Completed and still-open disruption episodes remain distinguishable.	Infrastructure
MERL-05 Supported farmers using their agreed resilient farming practices	Percentage of farmers due for seasonal follow-up	Assesses seasonal use of the agreed practice package, rather than attendance at training alone.	Agriculture
MERL-06 Forest, catchment and riverbank area under active management or restoration	Hectares, separately by habitat and activity	Assesses active treatment and maintenance using non-overlapping area; ecosystem recovery needs condition evidence.	Forestry Ecosystems WASH
MERL-07 Coastal restoration sites meeting their establishment and condition requirements	Percentage of sites due at the same assessment stage	Assesses sites at comparable habitat and assessment stages, retaining the original due group and unknown results.	Ecosystems Forestry
MERL-08 Fisheries systems meeting readiness and climate-event service requirements	Two separate percentages: readiness and actual-event service	Assesses readiness and actual service during a qualifying event separately; readiness is not proof of event performance.	Fisheries
MERL-09 Required climate-health reports received and complete and on time	Percentage of required reports due in the period	Assesses the reporting function against original due dates, with late and missing reports visible.	Health and Nutrition

Indicator	Unit	What the measure establishes	Related sector(s)
MERL-10 Priority schools meeting resilience, accessibility and safe-service requirements	Percentage of priority school sites, separately by site class	Assesses school-site requirements by comparable site class, including safe services and accessibility.	Education WASH
MERL-11 Tourism locations with current, resourced and successfully tested preparedness plans	Percentage of priority tourism locations	Assesses preparedness at priority locations, including resources and successful critical tests.	Tourism
MERL-12 Climate-learning packages approved and supported for delivery	Number of distinct packages, separately by product type	Assesses accepted products and delivery support; teaching and learning effects require further evidence.	Education
MERL-13 Due learning decisions completed with evidence	Percentage of decisions due, including the opening overdue backlog	Assesses follow-through on decisions, retaining overdue work and original deadlines. Timely completion is reported separately.	Cross-cutting
MERL-14 Climate-health alerts with a substantive response started on time	Percentage of qualifying alerts due for response	Assesses substantive response against the applicable protocol deadline, separately from surveillance reporting.	Health and Nutrition
MERL-15 Additional community food-security systems operationalized	Number of operational systems at the reporting date, separately by model	Assesses additional operating food systems by model; food access and benefit need further evidence.	Ecosystems Agriculture
MERL-16 Reviewed fisheries evidence and advisory products delivered to intended users	Number of qualifying products delivered during the period, separately by type	Assesses reviewed products and verified delivery to intended users; application in decisions needs further evidence.	Fisheries
MERL-17 Forest-risk products accepted for a stated planning use	Number of current accepted products, separately by type and level	Assesses accepted products for named planning purposes; actual use needs further evidence.	Forestry

Schedule C: Common Action Groups

Each of the 120 PAP actions has a primary CAG. The Vanuatu Reporting Workbook (provided with the Vanuatu Monitoring, Evaluation, Reporting and Learning Guidelines) retains the provincial action IDs, full wording and relevant national action links. A shared group supports consistent measurement while preserving each action's location, scope and responsibility.

Table D.10. Common Action Groups and related provincial priorities

CAG	Related provincial priorities
CAG-INF-01	Climate-resilient priority roads, bridges and crossings
CAG-INF-02	Flood drainage, runoff and rain-affected slope stabilisation
CAG-INF-03	Climate-resilient wharves, boat landings and coastal access
CAG-INF-04	Accessible climate-resilient evacuation and essential public facilities
CAG-INF-05	Resilient communications, backup power and essential information systems
CAG-INF-06	Climate-resilient infrastructure standards and asset management
CAG-WAT-01	Climate-resilient water, sanitation and hygiene infrastructure and service continuity
CAG-WAT-02	Reliable and diversified community water-supply systems
CAG-WAT-03	Rainwater harvesting and water storage
CAG-WAT-04	Catchment and water-source protection
CAG-WAT-05	Water quality, treatment and safe-water management
CAG-AGR-01	Climate-resilient crop production and extension
CAG-AGR-02	Climate-resilient livestock systems
CAG-AGR-03	Seed, nursery, food-storage and agricultural recovery systems
CAG-AGR-04	Integrated water-and-agriculture resilience packages
CAG-AGR-05	Climate-resilient coastal and household food production
CAG-FOR-01	Forest, catchment and riverbank restoration and management
CAG-ECO-01	Community conservation and protected-area management
CAG-ECO-02	Mangrove and coastal ecosystem restoration
CAG-ECO-03	Reef and marine ecosystem monitoring and recovery
CAG-COA-01	Integrated coastal adaptation and protection
CAG-FIS-01	Community fisheries management and resilient marine livelihoods
CAG-FIS-02	Climate-resilient fisheries production, handling and markets
CAG-HLT-01	Climate-resilient health facilities and service continuity
CAG-HLT-02	Climate-sensitive disease monitoring and public-health response
CAG-HLT-03	Climate-resilient nutrition and outreach for people most at risk
CAG-EDU-01	Climate-resilient school infrastructure and safe access
CAG-EDU-02	School preparedness and learning continuity
CAG-TOU-01	Tourism preparedness and business continuity
CAG-TOU-02	Climate-resilient tourism products and livelihoods
CAG-TOU-03	Climate-resilient tourism sites and services
CAG-COM-01	Community and tourism-site preparedness plans
CAG-PLN-01	Land-use and settlement planning for climate risk

The CAG code identifies a shared subject, not the lead agency. Actions with several components retain the evidence and supported links for each component. The six PAPs cover Torba, Sanma, Penama, Malampa, Shefa and Tafea.

Appendix E: Financing Strategy, Costing and Implementation Roadmap

Executive Summary

Context

The Republic of Vanuatu is an island nation in Melanesia comprising more than 80 islands and a population of approximately 320,409 people as of 2023. Its dispersed geography, limited resource base and high exposure to tropical cyclones, flooding, drought, sea-level rise and coastal erosion make it highly vulnerable to climate change. In response, the Government of Vanuatu (GoV), in partnership with the Global Green Growth Institute (GGGI), is advancing the country's National Adaptation Plan (NAP) process.

The NAP process supports countries in identifying and implementing their medium- and long-term climate adaptation priorities. In Vanuatu, this national process is complemented by Provincial Adaptation Plans (PAP) for Torba, Sanma, Penama, Malampa, Shefa and Tafea, which translate national priorities into locally relevant actions reflecting provincial vulnerabilities and development needs. Together, the six (6) PAPs identified 120 strategic priority adaptation actions across nine (9) sectors. These actions have been consolidated into 33 Common Action Groups (CAG) and subsequently into 27 NAP priority adaptation actions to support consistent national-level financing and implementation planning.

This document sets out the indicative costings, financing strategy and roadmap for the 27 NAP priority adaptation actions. It identifies potential financing sources and mechanisms, together with practical actions to support project preparation, financing engagement and resource mobilisation.

Approach

The NAP priority adaptation actions were identified through a prioritisation workshop undertaken in February 2026. The national financing strategy was subsequently developed by consolidating the provincial actions into CAG and NAP priority adaptation actions and assessing potential financing sources against the nature, scale and intended outcomes of each action.

The NAP financing strategy, costing and implementation plan is informed through the indicative cost estimates developed for priority adaptation actions identified for the respective PAPs, connected by the CAG.

To develop the financing strategy, a wide range of potential funding sources that align with the scope, nature and cost of the prioritised adaptation interventions have been assessed. This process involved a desktop review of domestic, bilateral, multilateral and philanthropy funding mechanisms, followed by an evaluation of suitable financing sources for each adaptation intervention.

Each finance source was mapped against each adaptation action based on the following criteria: funding objective, funding type and historical track record.

The key finance sources that have been identified include the following.

- Domestic sources (e.g. Vanuatu National Provident Fund (VNPF) and National Green Energy Fund (NGEF)).

- Bilateral sources (e.g. Australia, China, New Zealand, Japan, and the European Union (EU)).
- Multilateral and international sources (e.g. The World Bank, Asian Development Bank (ADB), Climate Investment Funds (CIF), Green Climate Fund (GCF), Global Environment Facility (GEF), Adaptation Fund (AF), and UN agencies including United Nations Development Programme (UNDP), Food and Agriculture Organization (FAO), World Health Organization (WHO), International Fund for Agricultural Development (IFAD)).
- Private finance and philanthropic sources (e.g. philanthropic foundations, corporate and ESG finance, impact and investment funds).
- International implementing agencies: FAO, UNDP, United Nations Children's Fund (UNICEF), United Nations Capital Development Fund (UNCDF) and WHO.
- Innovative sources (e.g. emerging and non-traditional instruments including green, blue, climate and resilience bonds).

NAP Adaptation Actions and Costings

Table E.1 summarises the key climate risks and corresponding adaptation priorities addressed across the national adaptation portfolio. The NAP further maps out the climate risk across nine (9) sectors into 27 NAP priority adaptation actions each addressing a distinct climate risk at national level, outlined in Section 3.

The total indicative investment requirement for implementation of the national strategic priority adaptation actions is estimated at: **USD 630 million**.

Potential alignment of the NAP priority adaptation actions with initiatives in the National Climate Finance Country Programme (NCFCP) pipeline[21]and with adaptation commitments under Vanuatu's Nationally Determined Contribution (NDC) 3.0[22]have been outlined in Section E.4. It is noted that differences in scope, planning horizon, costing methodology and level of aggregation mean that the indicative investment requirements presented in this document differ from financing estimates contained in other national strategies. The NAP cost estimates focus on defined selective priority adaptation actions identified through the Climate Risk and Vulnerability Assessment (CRVA)[23]; PAP and NAP processes, whereas sector strategies and the NDC include broader national programmes, institutional reforms, enabling systems and sector-wide implementation requirements. The NAP cost estimates should therefore be considered complementary rather than directly comparable to the NDC budgets.

21 Government of Vanuatu. (2025). National Climate Finance Country Programme (NCFCP).
22 Government of Vanuatu. (2025). Vanuatu Nationally Determined Contribution (NDC) 3.0 (2025–2035).
23 DoCC, 2026. Vanuatu Climate Risk and Vulnerability Assessment.

Table E.1. Summary of NAP Priority Adaptation Actions

Sector	Key Climate Risks	NAP Priority Adaptation Action	Indicative NAP Costs (USD)
Agriculture	Crop losses, livestock stress, food insecurity and livelihood disruption due to drought, flooding, cyclones, heat and salinity.	Climate-resilient crop and livestock production, food security, and agricultural preparedness and recovery.	26,776,000
Ecosystems	Degradation of terrestrial, freshwater, coastal and marine ecosystems, biodiversity loss, declining ecosystem services, and reduced water security.	Ecosystem restoration and conservation, community food security, and catchment protection.	21,774,900
Education	Damage to schools, disrupted learning, reduced access to education, and limited climate literacy and preparedness.	Resilient schools, learning continuity, and climate education and skills development.	77,461,000
Fisheries	Declining fish stocks disrupted fisheries production and markets, and reduced access to climate and ocean information.	Sustainable fisheries management, resilient fisheries value chains, and climate information systems.	43,296,000
Forestry	Forest degradation, erosion, catchment damage, coastal ecosystem loss, and limited climate-risk information.	Forest and coastal ecosystem restoration, protection, and climate-informed forestry management.	11,633,000
Health and Nutrition	Disrupted health services, climate-sensitive diseases, undernutrition, and increased health risks from extreme events.	Resilient health services, disease surveillance, and nutrition and community health support.	21,593,600
Infrastructure	Damage to infrastructure, transport disruption, service failures, and increasing exposure to climate hazards.	Climate-resilient infrastructure planning, standards, transport networks and essential services.	352,135,200
Tourism	Damage to tourism assets, service disruption, reduced visitor appeal, and vulnerable tourism-dependent livelihoods.	Resilient tourism assets, business continuity, and diversified tourism livelihoods.	16,875,900
Water, Sanitation and Hygiene (WASH)	Reduced water availability, damaged WASH infrastructure, and declining water quality and safety.	Water security, resilient WASH services, and safe-water management.	58,465,000

NAP Adaptation Financing and Roadmap

Implementation of the 27 NAP priority adaptation actions will require financing from a combination of domestic resources, bilateral and multilateral development partners, dedicated climate and environmental funds, technical-assistance programmes and, where appropriate, private and philanthropic sources.

Table E.2 provides a high-level sector-level summary of the principal potential financing sources.

The financing roadmap identifies a range of resource-mobilisation pathways that build on existing programmes, climate-finance mechanisms and development-partner investments. Across all sectors, key actions to obtain financing include:

- Engaging accredited entities and implementing partners (e.g. UNDP, Secretariat of the Pacific Regional Environment Programme (SPREP)) to access climate-finance opportunities through concept note development (e.g. GCF / GEF) and support project development and delivery.

- Undertaking project-preparation activities, including feasibility studies, climate-risk assessments, technical investigations, concept development and safeguard assessments to establish investment-ready projects.
- Aligning priority adaptation investments with existing national programmes, sector initiatives and ongoing donor-funded projects where opportunities for expansion or integration exist.
- Seeking technical assistance and project-preparation support from multilateral development banks (e.g. ADB, World Bank), UN agencies, regional organisations and specialised technical partners.
- Engaging bilateral development partners to secure co-financing and implementation support through existing country, sector and regional programmes.
- Exploring opportunities with philanthropic organisations, conservation funds and private-sector partners whose objectives align with specific adaptation outcomes.

Table E.2. Financing Sources Snapshot

Sector	Potential Financing Sources
Agriculture	Australian Centre for International Agricultural Research (ACIAR), AF, ADB, Bilateral partners (Australian Department of Foreign Affairs and Trade (DFAT), China, EU), GCF, GEF, International Fund for Agricultural Development (IFAD), Global Agriculture and Food Security Program (GAFSP), Pacific Community (SPC), FAO, UNDP (implementing), Domestic government budget
Ecosystems	AF, GEF, GCF, FAO / UNDP / SPREP / SPC / (implementing), Bilateral partners (EU, France, Australia DFAT, New Zealand Ministry of Foreign Affairs and Trade (MFAT)), Kiwa Initiative, Philanthropic (e.g. Bezos Earth Fund, Oceans 5, Ocean Resilience and Climate Alliance), Domestic government budget
Education	ADB (technical assistance), World Bank, Global Partnership for Education (GPE), UNICEF, Bilateral partners (Australia DFAT, New Zealand MFAT, Japan International Cooperation Agency (JICA)), Domestic government budget, Philanthropy Organisations (e.g. MasterCard Foundation, Rockefeller Foundation, Bill and Melinda Gates Foundation, Save the Children Australia), Pacific Resilience Facility (PRF), United Nations Office for Disaster Risk Reduction (UNDRR)
Fisheries	GEF (Coastal Fisheries Initiative), GEF (Pacific Reef and Ridge-to-Reef Programmes), GCF, FAO / UNDP / SPC (Implementing), ADB (Pacific Climate-Resilient Ocean Economy), World Bank PROBLUE economy programme, Bilateral partners (Australia, EU, China and Japan), Philanthropy Organisations (e.g. Oceans 5, Ocean Resilience and Climate Alliance), Domestic government budget
Forestry	AF, Australian Centre for International Agricultural Research (ACIAR), Forest Carbon Partnership Facility (FCPF) / Vanuatu's REDD+ programme, GEF, GCF Special Climate Change Fund (SCCF), Kiwa Initiative, Philanthropy Organisations (e.g. Conservation International, The Nature Conservancy), Domestic government budget, FAO / SPC (implementing)
Health and Nutrition	AF, ADB, World Bank, GEF, GCF, World Health Organization (WHO) / UNDP (implementing), Bilateral partners (Australia DFAT, New Zealand), UNICEF and United Nations Population Fund (UNFPA), Philanthropy organisations (e.g. Wellcome Trust, Bill and Melinda Gates Foundation), Domestic fund: VNPF
Infrastructure	World Bank's Vanuatu Infrastructure Reconstruction and Improvement Project (VIRIP), AF, ADB, GCF, GEF, CIF, Bilateral partners (Australia DFAT, New Zealand MFAT, JICA), Private/blended finance, Domestic: VNPF, Pacific Region Infrastructure Facility (PRIF), SPREP, SPC (implementing)
Tourism	GCF Readiness, GEF-5 Ecotourism, ADB, SPREP (technical support), Bilateral partners (Australia, New Zealand and the EU), Domestic government budget
WASH	AF, ADB, World Bank, Bilateral partners (Australia DFAT, New Zealand MFAT, JICA), GCF, GEF, UNICEF, Philanthropy Organisations (e.g. Bill and Melinda Gates Foundation, Water Aid, Water.org, Pacific Water, Sanitation and Hygiene Coalition), Domestic government budget

E.1. Introduction

The Republic of Vanuatu is an island nation situated in the Melanesia region of Oceania. The country comprises more than 80 islands and had a population of approximately 320,409 in 2023. Vanuatu is one of the most climate-vulnerable countries in the world, due to its geographical isolation, small landmass, limited resource base, and high exposure to climate-related hazards such as cyclones, sea-level rise, and coastal erosion. In response to these growing challenges, the Government of Vanuatu (GoV) is advancing its National Adaptation Plan (NAP) process in partnership with the Global Green Growth Institute (GGGI).

The global NAP process was established under the Cancun Adaptation Framework to support countries in identifying their medium- and long-term climate adaptation priorities and implementing concrete actions. It is intended to be a continuous, progressive, and iterative process that is country-driven, participatory, inclusive, and transparent. Complementing the NAP, Vanuatu is also implementing Provincial Adaptation Plans (PAPs) to localise adaptation actions and financing strategies. These PAPs enable the six (6) provinces – Torba, Sanma, Penama, Malampa, Shefa, and Tafea – to translate national priorities into context-specific interventions that reflect local vulnerabilities and development goals.

E.1.1 Purpose

The purpose of this document is to develop indicative cost estimates for the NAP priority adaptation actions, set out the national adaptation financing strategy and roadmap for Vanuatu's NAP, and identify the financing sources and mechanisms available to support implementation of the adaptation priorities established through the six Provincial Adaptation Plans (PAPs).

The document also aligns identified financing routes with the National Climate Finance Country Programme (NCFCP) pipeline and Vanuatu's Nationally Determined Contribution (NDC) 3.0 adaptation commitments, and sets out indicative short, medium, and long-term horizons for securing financing.

Further assumptions and limitations regarding the derivation of the cost estimates and financing roadmap are provided in Subsection E.2.1.

E.2 Financing Strategy, Costing and Implementation Roadmap Approach

Section E.2 outlines the methodology for developing the financing plan, which involved a systematic review of available financing sources and their applicability to Vanuatu's adaptation priorities. This methodology is anchored in Vanuatu's own climate finance architecture, illustrated in Figure E.1, which shows the NDC Climate Finance Country Platform coordinating multiple modalities of finance in support of the NDC 3.0 and other national climate initiatives.

The financing roadmap set out in this document has been designed to align with, and operate within, this existing national platform.

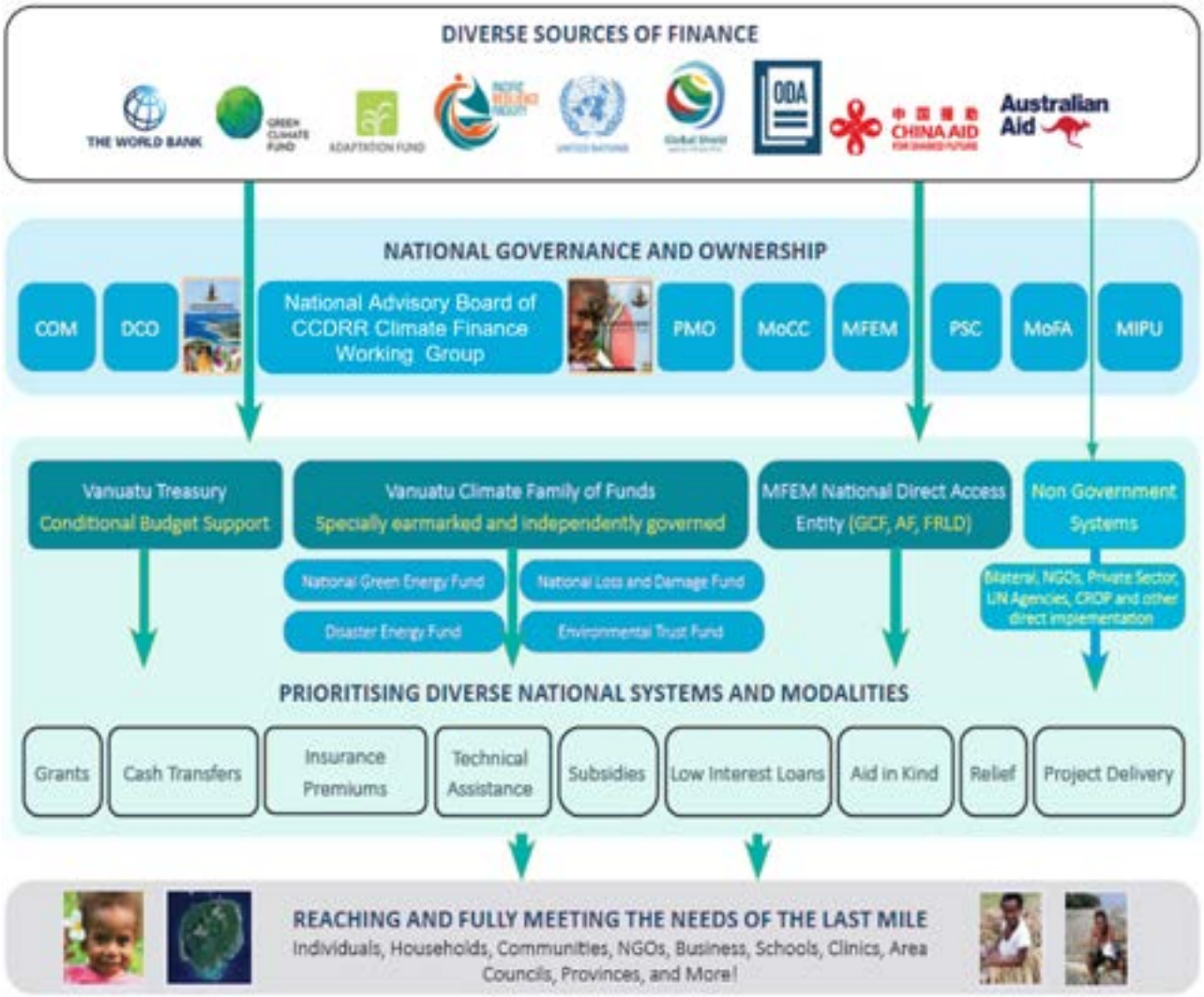


Figure E.1. Vanuatu Climate Finance Country Platform for Implementation of the NDC 3.0 and other Key Climate Initiatives[24]

Figure E.2 illustrates the approach to the financing strategy. The list of adaptation actions was shortlisted through a prioritisation workshop process undertaken in February 2026, which confirmed 20 priority adaptation actions for each of the six PAPs, giving a national portfolio of 120 prioritised actions.

[24] https://docc.gov.vu/index.php/ndc

These adaptation actions were categorised into 9 key sectors: agriculture, ecosystems, education, fisheries, forestry, health and nutrition, infrastructure, tourism, and water, sanitation and hygiene (WASH). Some adaptation actions are cross-sectoral.

The sectoral measures fall under the overarching NAP and were localised through the PAPs. As the six provinces face comparable climate risks, many of the 120 provincial actions address the same underlying adaptation need. These have been consolidated into 33 Common Action Groups (CAGs), which are outlined in Section 3.

At the national level, the portfolio has been further consolidated into three NAP priority adaptation actions (NAP-IDs) per sector, giving 27 NAP actions across the nine sectors. Each NAP action addresses a distinct climate risk and consolidates the relevant CAG(s), allowing the financing strategy to be presented consistently at national level while remaining traceable back to provincial cost and delivery detail. The full set of 27 NAP actions and their underlying CAG linkages as well as the list of CAGs for the PAPs are presented in Section 3.

Indicative Class 5 cost estimates underpinning this financing roadmap are presented as Appendix E (Financing Strategy, Costing and Implementation Roadmap).

To develop the financing strategy, a wide range of potential funding sources that align with the scope, nature and cost of the prioritised adaptation interventions have been assessed. This process involved a desktop review of domestic, bilateral, multilateral and philanthropy funding mechanisms, followed by an evaluation of suitable financing sources for each adaptation intervention.

Each finance source was mapped against each adaptation action based on the following criteria:

- Funding objective: Alignment between the objectives of the funding agency and the intended adaptation outcomes.
- Funding type: Consideration of grant-based, concessional loans, or blended finance, depending on the nature and scale of the intervention.
- Historical track record: Review of previous projects supported by each fund, to assess their relevance and likelihood of support.

Figure E.2. Overview of Financing Methodology

The key finance sources that have been identified include the following.

- Domestic sources: Primarily derived from the Vanuatu National Provident Fund (VNPF) and National Green Energy Fund (NGEF), although these remain limited relative to adaptation needs.
- Bilateral sources: Countries such as Australia, China, New Zealand, Japan, and the EU provide grants and technical assistance targeting Vanuatu sectors such as education, energy, fisheries, governance, disaster risk reduction, and climate adaptation.
- Multilateral and international sources: The World Bank, ADB, Climate Investment Funds (CIF), GCF, GEF, Adaptation Fund, and UN agencies (UNDP, FAO, WHO, IFAD) offer grants, concessional loans, and project-based assistance across Vanuatu's key sectors.
- Private finance and philanthropic sources: This spans philanthropic foundations, corporate and ESG finance, impact and investment funds, and commercial-bank funding for climate adaptation, environmental conservation and Small Island Developing States (SIDS) initiatives.
- International implementing agencies: FAO, UNDP, UNICEF, UNCDF and WHO deliver grants, in-kind support, technical assistance and programme implementation, frequently as accredited or executing entities for multilateral climate funds.
- Innovative sources: Emerging and non-traditional instruments including green, blue, climate and resilience bonds; climate risk insurance and risk transfer mechanisms.

A summary of potential finance sources is shown in Figure E-3.

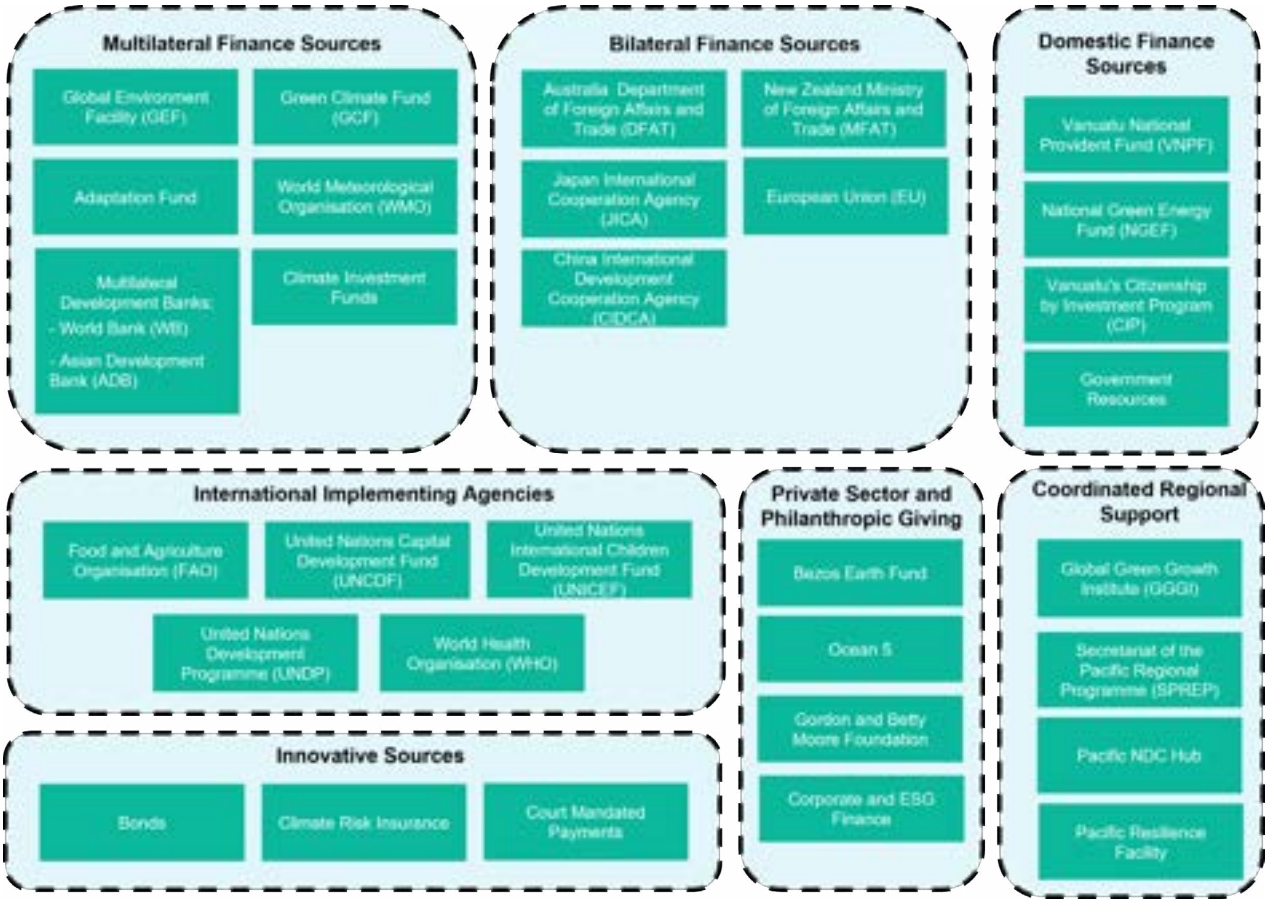


Figure E.3. Overview of Finance Sources

E.2.1 Assumptions and Limitations

The cost estimates and financing roadmap presented in this document were developed based on the following key assumptions and limitations.

Costing Basis and Methodology

All assumptions and limitations set out in the respective PAP reports in relation to the cost estimation methodology for the adaptation actions are applicable.

Financing Roadmap Methodology

The financing roadmap addresses the 120 priority adaptation actions (20 prioritised adaptation actions for each PAP) identified across the six PAPs, consolidated into 33 CAGs. These CAGs are further consolidated at national level into 27 NAP priority adaptation actions (NAP-IDs), three per sector across nine sectors. Financing routes are identified and presented at NAP-ID level.

- The financing roadmap was developed with the expectation of continued funding from mechanisms such as the GCF, AF, and bilateral donors (e.g. Australia, EU, Japan).
- The roadmap was based on Vanuatu's continued eligibility for funding from these institutions and its ability to meet fiduciary, environmental, and social safeguard requirements.
- The proposed actions to obtain financing (e.g., submission of concept notes, partnership development) are based on general guidance and past application procedures, not on confirmed donor acceptance.
- Alignment with the NCFCP pipeline and Vanuatu's NDC 3.0 adaptation commitments is based on thematic similarity in sector, intended outcome and intervention scope. Alignment does not indicate that actions are identical, that provincial investment estimates are captured within NDC finance requirements, or that financing has been committed.

Scope Exclusions

The roadmap does not include direct engagement with listed donors at this stage; recommendations are based on a desktop analysis and expert judgment rather than confirmed donor commitments.

- Detailed design of financial instruments or blended finance structures (e.g., guarantees, revolving funds, trust mechanisms) is out of scope and may require further feasibility studies.
- The roadmap does not define a detailed financing timeline (e.g., donor review periods, approval cycles, disbursement phases), as these vary across institutions and depend on future engagement outcomes.

External Risks and Uncertainties

The financing strategies do not account for severe economic shocks (e.g. global recession) that could divert domestic resources from adaptation.

Disclaimer

The financing roadmap presented in this document is indicative and intended to guide resource mobilisation efforts for the Vanuatu NAP. The information on potential funding sources, eligibility, and alignment with adaptation priorities is based on available data at the time of publication. Actual funding availability, donor priorities, and eligibility requirements may change over time and are subject to the discretion of the respective financing institutions. Stakeholders are therefore encouraged to conduct further due diligence and consult directly with financing institutions for up-to-date information.

E.3 NAP Adaptation Costing

Table E.3 presents the underlying 33 CAGs that form the national adaptation portfolio, together with the shared action statement, sector and corresponding provincial priority adaptation action indicative costings from each of the six PAPs. It is noteworthy that the estimated national adaptation cost of USD 630m **is not simply the sum of the 120 PAP actions**. CAGs can feed into more than one NAP-ID, and efficiencies may be possible if actions are implemented jointly. CAG/PAP costs should not be interpreted as a clean component breakdown of each national NAP-ID.

Table E.3. Overview of PAP Adaptation Actions Mapped Across Common Action Groups

CAG and shared action	Sector	Sanma	Shefa	Tafea	Malampa	Penama	Torba
CAG-AGR-01: Climate-resilient crop production and extension	Agriculture	SAN-09	SHE-06	TAF-10	MAL-06	PEN-06	TOR-08
Help farmers use resilient crops, better soil and water management, practical farming methods, extension services and training.		USD 0.45m	USD 0.75m	USD 0.35m	USD 0.33m	USD 0.28m	USD 0.19m
CAG-AGR-02: Climate-resilient livestock systems		SAN-10	SHE-07	TAF-11	MAL-07	PEN-08	TOR-09
Help livestock farmers secure suitable breeds, feed, water, animal-health services, shade and shelter for changing climate conditions.		USD 0.39m	USD 0.42m	USD 0.16m	USD 0.26m	USD 0.32m	USD 0.07m
CAG-AGR-03: Seed, nursery, food-storage and agricultural recovery systems		SAN-11	SHE-08	TAF-12	MAL-08	-	TOR-10
Establish and maintain seed and planting supplies, nurseries, safe food storage and agreed agricultural recovery arrangements so they are ready before climate events occur.		USD 0.67m	USD 0.67m	USD 0.67m	USD 0.67m		USD 0.67m
CAG-AGR-04: Integrated water-and-agriculture resilience packages		SAN-12	-	-	MAL-09	-	-
Combine water and agriculture resilience by supporting water supply and efficient farm-water systems for drought-affected communities, while protecting essential household water needs.		USD 1.44m			USD 1.44m		
CAG-AGR-05: Climate-resilient coastal and household food production		-	-	-	MAL-10	PEN-09	TOR-11
Help coastal and household producers adapt gardens, small livestock and local food systems to saltwater, erosion, drought and storms.					USD 3.98m	USD 3.27m	USD 1.05m
CAG-ECO-01: Community conservation and protected-area management	Ecosystems	-	SHE-10	-	MAL-11	-	TOR-14
Help communities protect and manage priority land, freshwater and coastal conservation areas under changing climate conditions.			USD 0.64m		USD 1.21m		USD 0.64m
CAG-ECO-02: Mangrove and coastal ecosystem restoration		SAN-13	SHE-11	TAF-14	MAL-12	PEN-12	-
Restore and manage mangroves, wetlands, dunes and coastal vegetation that protect shorelines and support fisheries and livelihoods.		USD 1.13m	USD 1.13m	USD 1.13m	USD 4.33m	USD 1.13m	
CAG-ECO-03: Reef and marine ecosystem monitoring and recovery		-	SHE-12	-	-	PEN-11	TOR-20
Monitor reefs and marine ecosystems affected by ocean warming, acidification and climate-related disturbance, and support technically justified recovery measures.			USD 1.37m			USD 1.37m	USD 0.64m

CAG and shared action	Sector	Sanma	Shefa	Tafea	Malampa	Penama	Torba
CAG-EDU-01: Climate-resilient school infrastructure and safe access	Education	SAN-17	SHE-17	TAF-18	MAL-18	PEN-17	TOR-18
Upgrade priority school buildings, learning spaces, teacher housing where needed, water, sanitation and hygiene, drainage and safe access to agreed safety, accessibility and climate-resilience standards.		USD 9.37m	USD 9.22m	USD 7.81m	USD 3.12m	USD 6.09m	USD 2.34m
CAG-EDU-02: School preparedness and learning continuity		-	-	TAF-19	-	-	-
Update, resource and test school plans so students remain safe and learning can continue or restart quickly after climate disruption.				USD 0.77m			
CAG-FIS-01: Community fisheries management and resilient marine livelihoods	Fisheries	SAN-15	SHE-13	TAF-15	MAL-13	PEN-15	TOR-16
Help communities manage fisheries, use climate information for safer fishing and develop sustainable marine livelihoods.		USD 1.50m	USD 1.50m	USD 1.50m	USD 1.50m	USD 1.50m	USD 1.50m
CAG-FIS-02: Climate-resilient fisheries production, handling and markets		-	SHE-14	TAF-16	MAL-14	-	-
Improve fisheries production, aquaculture, landing, handling, preservation, cold storage, market access and planned recovery from climate disruption.			USD 4.22m	USD 4.22m	USD 4.22m		
CAG-FOR-01: Forest, catchment and riverbank restoration and management	Forestry	-	SHE-09	TAF-13	-	PEN-10	TOR-12
Restore and manage priority forests, riverbanks and degraded catchments using suitable species and community forestry.			USD 0.35m	USD 0.35m		USD 0.35m	USD 0.35m
CAG-PLN-01: Land-use and settlement planning for climate risk		SAN-20	-	-	-	-	-
Use current and future climate-risk information in land-use, settlement and infrastructure decisions, including safer siting and, where necessary, voluntary relocation that protects people's rights.		USD 2.46m					
CAG-HLT-01: Climate-resilient health facilities and service continuity	Health and Nutrition	SAN-16	SHE-15	TAF-17	MAL-15	PEN-16	TOR-17
Upgrade priority health facilities and strengthen backup supplies, referrals and outreach so essential health services can continue during disruption.		USD 0.96m	USD 1.21m	USD 1.06m	USD 0.76m	USD 0.76m	USD 0.76m
CAG-HLT-02: Climate-sensitive disease monitoring and public-health response		-	SHE-16	-	MAL-16	PEN-13	-
Improve disease monitoring, early warning, public information and health action for climate-sensitive diseases and environmental health risks.			USD 2.01m		USD 0.91m	USD 0.79m	
CAG-HLT-03: Climate-resilient nutrition and outreach for people most at risk		-	-	-	MAL-17	PEN-07	-
Provide climate-informed nutrition checks, food-safety advice, outreach and referral for people most at risk during heat, drought and food disruption.					USD 0.74m	USD 0.64m	

CAG and shared action	Sector	Sanma	Shefa	Tafea	Malampa	Penama	Torba
CAG-INF-01: Climate-resilient priority roads, bridges and crossings	Infrastructure	SAN-01	SHE-01	TAF-01	-	PEN-01	TOR-01
Upgrade and maintain priority roads, bridges, culverts and crossings so people can reach markets, schools, health care and other essential services during climate events.		USD 26.26m	USD 25.61m	USD 71.10m		USD 62.60m	USD 35.94m
CAG-INF-02: Flood drainage, runoff and rain-affected slope stabilisation		SAN-03	SHE-02	TAF-02	-	-	-
Improve drainage, manage runoff and stabilise slopes where heavy rain threatens priority roads, settlements and public facilities.		USD 30.89m	USD 33.23m	USD 28.54m			
CAG-INF-03: Climate-resilient wharves, boat landings and coastal access		SAN-04	-	TAF-03	-	PEN-02	TOR-03
Upgrade, protect, redesign or, where necessary, relocate priority wharves, jetties, boat landings and public coastal access.		USD 5.21m		USD 3.70m		USD 2.88m	USD 4.97m
CAG-INF-04: Accessible climate-resilient evacuation and essential public facilities		SAN-02	-	TAF-04	-	-	-
Upgrade priority evacuation centres and essential public facilities so they remain safe, accessible and usable during and after climate events.		USD 7.41m		USD 8.75m			
CAG-INF-05: Resilient communications, backup power and essential information systems		-	-	-	-	-	TOR-02
Protect and strengthen essential communications and information systems, and provide backup power, so warnings, referrals and coordination can continue during climate disruption.							USD 1.04m
CAG-INF-06: Climate-resilient infrastructure standards and asset management		-	-	-	MAL-01	-	TOR-04
Use climate-risk checks, resilient design and maintenance standards, asset records and condition checks for new and upgraded public infrastructure.					USD 0.78m		USD 0.78m
CAG-COA-01: Integrated coastal adaptation and protection		SAN-14	-	TAF-05	-	PEN-14	TOR-15
Work with communities to assess options and agree suitable coastal protection, ecosystem restoration, safer siting or voluntary movement for places at high risk.		USD 8.41m		USD 8.41m		USD 8.41m	USD 8.41m

CAG and shared action	Sector	Sanma	Shefa	Tafea	Malampa	Penama	Torba
CAG-TOU-01: Tourism preparedness and business continuity	Tourism	-	SHE-18	TAF-20	-	PEN-18	-
Help tourism businesses, sites and host communities prepare for climate hazards, act on warnings and recover their services more quickly.			USD 0.21m	USD 0.21m		USD 0.21m	
CAG-TOU-02: Climate-resilient tourism products and livelihoods		-	SHE-19	-	MAL-19	PEN-19	TOR-19
Develop tourism products, community businesses and income sources that can operate under changing climate and environmental conditions.			USD 0.80m		USD 0.80m	USD 0.80m	USD 0.80m
CAG-TOU-03: Climate-resilient tourism sites and services		SAN-18	SHE-20	-	MAL-20	PEN-20	-
Use climate-risk information when choosing sites, designing, maintaining and protecting priority tourism buildings, services and access.		USD 3.58m	USD 5.30m		USD 0.72m	USD 1.01m	
CAG-COM-01: Community and tourism-site preparedness plans		SAN-19	-	-	-	-	-
Update, resource and test climate-hazard community and tourism-site plans in priority locations, including accessible warnings, evacuation, business and service continuity, and recovery roles.		USD 1.12m					
CAG-WAT-01: Climate-resilient water, sanitation and hygiene infrastructure and service continuity	WASH	SAN-05	SHE-03	TAF-06	MAL-02	PEN-04	TOR-05
Provide, upgrade and maintain accessible water, sanitation and hygiene systems in priority communities and public facilities.		USD 1.89m	USD 1.22m	USD 1.35m	USD 4.15m	USD 1.71m	USD 1.71m
CAG-WAT-02: Reliable and diversified community water-supply systems		SAN-06	SHE-04	TAF-07	MAL-03	-	TOR-06
Protect, repair and expand community water systems, with backup sources where drought, flooding or saltwater threaten supply.		USD 7.32m	USD 6.03m	USD 10.00m	USD 5.56m		USD 3.14m
CAG-WAT-03: Rainwater harvesting and water storage		SAN-07	-	-	-	PEN-03	-
Improve rainwater collection and storage for households, communities and essential services in places affected by drought or limited water supplies.		USD 4.71m				USD 3.09m	
CAG-WAT-04: Catchment and water-source protection		SAN-08	SHE-05	TAF-08	MAL-04	-	TOR-07
Protect and restore priority catchments, springs, riverbanks and water-source areas that supply communities and essential services.		USD 1.29m	USD 0.74m	USD 0.74m	USD 0.74m		USD 0.74m
CAG-WAT-05: Water quality, treatment and safe-water management		-	-	TAF-09	MAL-05	PEN-05	TOR-13
Improve water-quality checks, treatment, household filtration and safe-water planning for climate-related contamination and supply disruption.				USD 0.58m	USD 0.58m	USD 0.58m	USD 0.58m

Note: Entries with a "-" indicate that there is no adaptation action relating to the corresponding CAG for the province.

The NAP consolidates climate risk across nine sectors into 27 NAP priority adaptation actions (NAP-ID), each addressing a distinct climate risk at national level. Table E.4 sets out the NAP action, the risk it addresses, the underlying CAGs which are linked to the six PAPs, and the estimated NAP adaptation action costings. The total estimated national adaptation cost is **USD 630 million**.

It is noted that the total estimated national adaptation cost (of the 27 NAP-IDs) is not a direct summation of the adaptation costings from the six PAPs' adaptation actions (120 provincial priority adaptation actions in total). This is because the common action groups (CAGs) that group the provincial adaptation actions, are mapped across the relevant NAP-IDs, and may be applicable in more than one NAP-ID. The total estimated national adaptation cost therefore represents the total costs of the 27 national adaptation actions, which may be implemented separately. Should some of the national adaptation action(s) be carried out in parallel or undertaken together as a whole-of-country approach, cost efficiencies may be achieved through coordinated implementation of the common adaptation actions across the provinces.



Table E.4. List of National Adaptation Actions and Costings

NAP-ID	Climate Risk	NAP Priority Adaptation Action	PAP Common Action Group (CAG)	Indicative NAP Costs (USD)
Agriculture NAP-AGR-01 Crop and local food production	Higher temperatures, drought, extreme rainfall, waterlogging, cyclones and coastal salinity damage crops and soils, reducing yields, local food security and farm incomes, particularly for subsistence producers and nutritionally vulnerable households.	Strengthen climate-resilient crop and local food production through suitable varieties, healthy planting material, soil protection, farm-water management, agroforestry and traditional practices. Provide climate advice, farmer training and plant-health and biosecurity support, including agreed moves of exposed household food production to safer sites.	CAG-AGR-01 CAG-AGR-04 CAG-AGR-05	13,512,000
Agriculture NAP-AGR-02 Livestock resilience	Heat and drought can stress livestock and reduce feed and water availability, while cyclones and flooding can injure or kill animals and damage shelter and production assets, reducing animal welfare and productivity, particularly in smallholder systems.	Improve livestock resilience through suitable breeds, reliable feed and water, pasture management, shade and shelter, animal health and biosecurity. Provide climate advice and farmer training to protect animal welfare and production during heat, drought, cyclones and flooding.	CAG-AGR-02 CAG-AGR-05	9,909,000
Agriculture NAP-AGR-03 Agricultural preparedness and recovery	Cyclones, flooding and drought disrupt planting material, nurseries, food storage, markets and recovery arrangements, prolonging production losses, food insecurity and income loss, particularly for remote producers.	Strengthen agricultural preparedness and recovery through seed reserves, nurseries, safe food storage, rapid replanting and reliable market access. Build producers' risk awareness and business skills, including training to use verified existing support services, to reduce food losses and restore production after climate shocks.	CAG-AGR-03	3,355,000
Ecosystems NAP-ECO-01 Ecosystem conservation, restoration and monitoring	Higher air and sea temperatures, marine heatwaves, ocean acidification, drought, extreme rainfall, sea-level rise and cyclones can degrade terrestrial, freshwater, coastal and marine ecosystems. These pressures compound existing habitat degradation, reducing biodiversity, ecosystem services and natural protection relied on by communities.	Conserve, restore and monitor priority terrestrial, freshwater, coastal and marine ecosystems through community-led management, suitable-species nurseries, local knowledge and technical training. Strengthen public understanding and long-term stewardship to protect biodiversity, ecosystem services and natural protection under climate change.	CAG-ECO-01 CAG-ECO-03	5,872,300

NAP-ID	Climate Risk	NAP Priority Adaptation Action	PAP Common Action Group (CAG)	Indicative NAP Costs (USD)
Ecosystems NAP-ECO-02 Community food security	Cyclones, flooding and drought can disrupt locally produced and gathered food, storage and preservation, while ecosystem degradation reduces alternative food sources, increasing food insecurity and slowing recovery, particularly in remote communities.	Strengthen community food security during climate shocks through food preservation, locally managed food banks and food forests, traditional knowledge and ecosystem-based farming. Support inclusive community management to maintain alternative food sources and speed recovery.	No dedicated Ecosystems CAG; linked to CAG-AGR-03 CAG-AGR-05	11,652,600
Ecosystems NAP-ECO-03 Catchment and water-source protection	Drought and higher temperatures can reduce water availability, while heavy rainfall and flooding can increase erosion, sediment and contamination in community water sources. Degraded catchments and riverbanks can compound these pressures, reducing the reliability and quality of water available to communities.	Protect and restore catchments, recharge areas, riverbanks and water-source ecosystems through community stewardship and monitoring to sustain water availability and quality during drought, heavy rainfall and flooding.	CAG-WAT-04	4,250,000
Education NAP-EDU-01 Resilient schools and essential services	Cyclones and flooding, including coastal inundation associated with sea-level rise, can damage school buildings, essential services and access routes. Heat and drought can make learning spaces unsafe or reduce water availability, increasing the risk of closures and unequal access to education, especially where ventilation, water storage, maintenance and alternative access are limited.	Upgrade and maintain school buildings, teacher accommodation and essential services under the Asset Master Plan and national standards, using climate-resilient, low-carbon design, reliable water, sanitation and hygiene services, renewable power and connectivity; expand Health Promoting Schools with safe, accessible water, sanitation and hygiene. Redesign or relocate schools only where risk assessment shows on-site measures are insufficient, with safe-site, land-tenure, community-participation and child-rights safeguards.	CAG-EDU-01	37,956,600
Education NAP-EDU-02 School safety and learning continuity	Climate events close schools and disrupt access and services, increasing health, safety and protection risks and causing learning loss where planning, warning and continuity arrangements are weak.	Implement climate-risk-informed School Improvement Plans, WASH improvement plans, and the School-Based Disaster Risk Reduction and Education in Emergencies policies, based on school vulnerability assessments. Train school teams and test arrangements for child-sensitive warnings, safeguarding, psychosocial support, referrals and alternative learning, linked to community and Area Council adaptation, preparedness and response.	CAG-EDU-02 CAG-EDU-01	38,730,500

NAP-ID	Climate Risk	NAP Priority Adaptation Action	PAP Common Action Group (CAG)	Indicative NAP Costs (USD)
Education NAP-EDU-03 Climate learning and skills. Includes MoET priorities	Where climate learning is not implemented consistently and teaching or technical capacity is limited, learners, teachers and the workforce may lack the knowledge and practical skills needed to prepare for changing climate risks and support adaptation.	Integrate climate change, disaster risk reduction, traditional knowledge and environmental stewardship into curricula, assessment and practical school–community learning. Strengthen pre-service and in-service teacher education, locally appropriate resources and relevant tertiary and vocational qualifications, with a designated MoET climate and resilience function supporting all three Education actions.	No dedicated CAG; linked to CAG-EDU-02	773,900
Fisheries NAP-FIS-01 Community fisheries management and safer fishing	Ocean warming, marine heatwaves, acidification and habitat degradation can reduce or redistribute fish stocks, threatening food security, incomes and customary practices in fishing-dependent communities. Cyclones and hazardous waves can also damage fishing access and equipment and make fishing unsafe.	Strengthen inclusive community fisheries management, customary stewardship and safe fishing practices that recognise the different roles and knowledge of women and men across coastal and offshore fisheries. Provide climate information, practical training and appropriate technologies, including suitable Fish Aggregating Devices, to sustain fish stocks and marine livelihoods.	CAG-FIS-01	8,976,000
Fisheries NAP-FIS-02 Resilient production and value chains	Climate hazards and ecosystem change disrupt production, landing, handling, preservation, storage and markets, increasing food losses and livelihood disruption.	Improve climate-resilient fisheries and aquaculture production, fish-handling facilities at landing sites, preservation, cold storage and market access. Support safer fishing, diverse livelihoods and planned recovery, with technical and environmental appraisal and maintenance arrangements for new technologies and assets.	CAG-FIS-02	12,672,000
Fisheries NAP-FIS-03 Research, monitoring and advisories	Climate-related changes in fish stocks, habitats and ocean conditions can undermine fisheries management, livelihoods and fishing safety. Gaps in monitoring and locally relevant information can delay detection and limit informed management, advisory and investment decisions.	Strengthen fisheries research, stock and catch monitoring, community observations, climate and ocean advisories, early warning and local response capacity. Test suitable aquaculture and hatchery options only after technical, environmental and biosecurity appraisal, using the findings to guide adaptive management and recovery.	CAG-FIS-01 CAG-FIS-02	21,648,000
Forestry NAP-FOR-01 Forest restoration and sustainable management	Cyclones, intense rainfall, drought and heat damage forests, forested catchments and riverbanks, increasing erosion and reducing protective, livelihood and ecosystem functions.	Restore and sustainably manage forests, forested catchments and riverbanks through suitable species, nurseries, inclusive community forestry, sustainable harvesting and long-term maintenance to reduce erosion and protect livelihoods and ecosystem services. Support the participation of women and other groups dependent on non-timber forest products in planning and ensure they benefit from livelihood and resource management initiatives.	CAG-FOR-01	1,386,000

NAP-ID	Climate Risk	NAP Priority Adaptation Action	PAP Common Action Group (CAG)	Indicative NAP Costs (USD)
Forestry NAP-FOR-02 Mangroves and natural coastal buffers	Cyclones, storm surge and coastal erosion can damage mangroves, wetlands and shoreline vegetation. Rising sea levels can cause further habitat loss where sediment accumulation and landward migration cannot keep pace, reducing coastal protection, habitat and livelihood benefits.	Protect, restore and sustainably manage mangroves, wetlands, shoreline vegetation and other natural coastal buffers to maintain coastal protection, habitats and livelihoods as climate risks increase.	CAG-ECO-02	8,861,000
Forestry NAP-FOR-03 Climate-informed forestry planning	Where current forest-condition and climate-risk information is not accessible, and institutional capacity is limited, the identification of vulnerable forests and the targeting, coordination and review of restoration and management measures can be delayed.	Use forest-risk assessments, monitoring, mapping, research and technical studies to guide climate-resilient forestry planning, restoration and investment preparation. Strengthen technical guidance, stakeholder awareness and partnerships so forest management responds to changing risks.	CAG-FOR-01	1,386,000
Health and Nutrition NAP-HN-01 Essential health-service continuity	Cyclones and flooding can damage health facilities and interrupt transport and utilities, while heat and drought can compromise water availability, safe working conditions and storage of medicines. Where backup systems, staffing and alternative access are limited, these disruptions can interrupt essential care, supplies, referrals and outreach as health needs increase.	Maintain essential health services during climate disruption by upgrading and maintaining facilities and protecting their water, sanitation, power, communications, medical supplies and cold chains. Strengthen contingency plans, staffing, emergency transport, referrals and outreach, including maternal, newborn, child, sexual and reproductive health services and gender-based violence and child-protection referral pathways.	CAG-HLT-01	5,504,700
Health and Nutrition NAP-HN-02 Climate-health assessment, surveillance and response	Heat, flooding, drought and climate variability increase climate-sensitive disease and environmental-health risks; gaps in assessment, surveillance, warning and communication delay action.	Strengthen climate-health risk assessment, disease and environmental-health surveillance, early warning and risk communication. Link alerts to clear responsibilities and timely public-health responses for priority climate-sensitive health risks.	CAG-HLT-02 CAG-HLT-01	9,208,000

NAP-ID	Climate Risk	NAP Priority Adaptation Action	PAP Common Action Group (CAG)	Indicative NAP Costs (USD)
Health and Nutrition NAP-HN-03 Nutrition and community health	Heat, drought, food disruption and repeated climate-related disasters increase undernutrition, food-safety, mental-health and wellbeing risks, particularly where outreach and referral access are constrained.	Strengthen nutrition and community health services for people most at risk through nutrition screening, surveillance, emergency interventions, food-safety measures, and targeted outreach. Provide dedicated mental health and psychosocial support during prolonged climate stress and following climate-related disasters.	CAG-HLT-03 CAG-HLT-01	6,880,900
Infrastructure NAP-INF-01 Risk-informed planning and standards	Failure to integrate current and future climate risk into planning, design, regulation and asset management locks in exposure, accelerates degradation and raises lifecycle costs and service-failure risk.	Develop and implement prioritised, costed national infrastructure masterplans that address current and future climate risk, supported by asset management and development controls. Apply and enforce standards for safe siting, design, construction, operation and maintenance to reduce service disruption and avoid locking in future exposure.	CAG-INF-06 CAG-PLN-01 CAG-COA-01	4,009,300
Infrastructure NAP-INF-02 Resilient transport, drainage and slopes	Cyclones, intense rainfall, flooding, coastal inundation and rainfall-triggered slope failures can damage land, marine and aviation access and threaten settlements and public facilities, isolating communities and disrupting markets and essential services.	Upgrade and maintain priority roads, bridges, culverts, crossings, drainage, wharves, boat landings, ports and airports to climate-resilience, safety and serviceability standards. Improve stand-alone drainage and stabilise rainfall-affected slopes that threaten transport, settlements and public facilities.	CAG-INF-01 CAG-INF-02 CAG-INF-03 CAG COA-01	330,928,400
Infrastructure NAP-INF-03 Shared lifelines and public facilities	Cyclones, coastal flooding and power or communications failures disable essential networks, public facilities, warnings and coordination systems, causing cascading service failure.	Protect shared communications, information and energy systems, evacuation centres and shared public facilities through safer siting, resilient design, backup power and alternative service arrangements to maintain essential services, warnings and coordination during climate disruption.	CAG-INF-04 CAG-INF-05	17,197,500
Tourism NAP-TOU-01 Risk-informed tourism planning and assets	Cyclones, flooding, sea-level rise, drought, heat and ecosystem degradation can damage tourism assets, interrupt water and other essential services and reduce the condition of natural attractions. Concentration in exposed coastal locations and inadequate climate-informed siting and design can increase disruption and future losses.	Map climate risks and important natural and cultural assets, and apply the findings to tourism planning, siting, design, upgrading and maintenance. Protect on-site services and use environmental and social assessment to guide development and any necessary redesign or relocation.	CAG-TOU-03 CAG-PLN-01	13,056,300

NAP-ID	Climate Risk	NAP Priority Adaptation Action	PAP Common Action Group (CAG)	Indicative NAP Costs (USD)
Tourism NAP-TOU-02 Preparedness and business continuity	Climate events disrupt tourism operations, access and essential services; limited preparedness and continuity arrangements prolong interruption, livelihood loss and recovery.	Strengthen tourism preparedness, business continuity and recovery through staff training, establishment of operating procedures, climate-related licensing compliance, accessible warnings and evacuation arrangements. Resource and test plans with tourism operators and host communities to restore safe services after climate disruption.	CAG-TOU-01 CAG-COM-01	638,400
Tourism NAP-TOU-03 Community tourism and diversified livelihoods	Climate and ecosystem change threaten tourism-dependent incomes and natural and cultural assets, increasing vulnerability where communities rely on a narrow range of products.	Develop locally led, climate-resilient tourism products, community enterprises and diversified livelihoods through partnerships between operators and tourism-dependent communities, while protecting the natural and cultural assets on which tourism depends. Support equitable access to initiatives, including for women-led, informal and community-based tourism enterprises.	CAG-TOU-02	3,181,200
WASH NAP-WASH-01 Reliable and diversified water supplies	Drought, flooding, saltwater intrusion and climate variability reduce water-supply reliability and availability, particularly for exposed and water-stressed communities and essential services.	Improve reliable and diversified water supplies in high-risk and drought-prone areas through water-resource assessment, groundwater exploration and monitoring, suitable new or rehabilitated sources and networks, and rainwater harvesting and storage.	CAG-WAT-02 CAG-WAT-03	39,848,500
WASH NAP-WASH-02 Inclusive, resilient WASH services	Flooding, cyclones and coastal inundation damage WASH assets and interrupt water, sanitation and hygiene services, disproportionately affecting people with limited access and users of public facilities.	Provide, upgrade and maintain climate-resilient water, sanitation and hygiene services that meet the needs of women, girls and persons with disabilities. Use risk mapping, technical standards, community maintenance, training, preparedness and safer rebuilding to sustain services in priority communities and shared public facilities.	CAG-WAT-01	12,034,500
WASH NAP-WASH-03 Water safety and hygiene	Flooding can contaminate water sources, while drought can reduce safe-water availability and concentrate pollutants. Where source protection, testing, treatment, safe-water planning and hygiene practices are insufficient, communities face greater risks of unsafe water and illness.	Implement Drinking Water Safety and Security Plans through water-quality monitoring, testing, treatment, filtration and local source protection. Strengthen hygiene education and safe-water practices to reduce contamination and illness during climate-induced disruption to WASH.	CAG-WAT-05 CAG-WAT-04	6,582,000



E.4 Financing Roadmap

This section sets out the sector-by-sector financing roadmap for the 27 NAP priority adaptation actions (NAP-IDs) across the nine sectors, identifying potential financing sources and the practical steps required to secure financing for each.

Table E.5 indicates the indicative implementation horizon intended to support planning, prioritisation, and implementation sequencing. These timeframes are indicative only and do not represent implementation commitments.

Provincial-level implementation horizons for each underlying CAG and provincial action are further set out in Appendix E (Financing Strategy, Costing and Implementation Roadmap) of each PAP and should be referred to when sequencing delivery at the provincial level.

Funding proposals should identify responsibility for delivering GEDSI measures and provide for reporting on expenditure, participation and access to adaptation benefits through agreed monitoring, evaluation, reporting and learning (MERL) arrangements.

This section also identifies the potential alignment of the NAP priority adaptation actions with initiatives in the NCFCP pipeline and with adaptation commitments under Vanuatu's NDC 3.0 (2025–2035).

It is noted that differences in scope, planning horizon, costing methodology and level of aggregation mean that the indicative investment requirements presented in this document differ from financing estimates contained in other national strategies. The NAP cost estimates focus on defined selective priority adaptation actions identified through the Climate Risk and Vulnerability Assessment (CRVA), PAP and NAP processes, whereas sector strategies and the NDC may include broader national programmes, institutional reforms, enabling systems and sector-wide implementation requirements. The NAP cost estimates should therefore be considered complementary rather than directly comparable.

- Scope: The NAP cost estimates are based on selected priority adaptation actions identified through the CRVA, PAPs, and CAGs. By comparison, the NDC may include broader sector-wide commitments, enabling systems, policy reforms, institutional strengthening, and national programmes that extend beyond the scope of the NAP adaptation actions.
- Aggregation: The NAP consolidates adaptation investments across multiple provincial actions and sectors into national adaptation priorities. In contrast, NDC estimates may reflect broader national implementation requirements and sector-wide outcomes rather than the cost of individual adaptation packages.
- Planning horizon: The NAP cost estimates focus on adaptation investments required to implement priority adaptation actions, while the NDC reflects longer-term national adaptation ambitions and investment needs over the 2025–2035 period. As a result, NDC investment estimates may be higher where they include programme expansion, institutional development, or national-scale implementation requirements.
- Costing methodology: The NAP cost estimates and the NDC estimates have been derived using different assumptions, costing approaches or sector-planning methodologies.

Table E.5. Indicative Implementation Horizons

Horizon	Description
Short-term (Immediate to 2 Years)	Planning, assessments, concept development, preparedness activities, extension services, policy and governance initiatives, and early implementation actions.
Medium-term (3 to 5 Years)	Actions requiring project preparation, financing, design and phased implementation.
Long-term (Over 5 Years)	Large-scale, complex or transformational actions requiring extended preparation, financing and implementation arrangements.

E.4.1 Agriculture

Agriculture remains central to livelihoods in Vanuatu. In 2025, agriculture, forestry and fishing accounted for approximately 44.5% of total employment. Separately, the 2025 Labour Force Survey found that 60.3% of the working-age population was engaged in subsistence production, highlighting the sector's wider importance to household livelihoods. The sector is dominated by subsistence farming, which accounts for more than 75% of agricultural production, alongside small-scale cash cropping and livestock rearing. Key crops include root staples (taro, yam, cassava, sweet potato), coconut, kava, and seasonal fruits, while cattle farming is widespread among rural households. Despite fertile soils and abundant customary land, productivity remains low due to limited access to technology, credit and markets as well as climate-related loss and damage and geographic isolation.



Table E.6 outlines the indicative financing roadmap, potential financing sources and the practical steps required to secure financing.

Table E.6. Indicative Roadmap for Agriculture Priority Adaptation Actions

NAP Sector	Potential Financing Sources	Indicative Time Horizon	Actions to Obtain Financing	Justification
NAP-AGR-01 NAP-AGR-02 NAP-AGR-03	ACIAR AF ADB Bilateral partners (DFAT, China, EU) GCF GEF IFAD GAFSP SPC, FAO, UNDP (implementing) Domestic government budget	Short to Medium Term	Coordinate with Vanuatu's GEF Operational Focal Point to identify suitable windows under GEF-8 for agriculture adaptation. Develop and submit concept notes to AF, GCF, GEF via an accredited entity (e.g. SPC, FAO or UNDP), covering crop production, livestock, and coastal food production. Engage ACIAR to extend or replicate its existing smallholder agricultural research and extension partnerships in Vanuatu to additional PAP-prioritised communities. Engage ADB for technical assistance and project preparation support through the Vanuatu Sustainable Economic Transformation Facility. Engage bilateral partners for co-financing through existing programmes and partnerships (e.g. Australia-Pacific Climate Partnership). Engage IFAD directly to explore a new, IFAD-financed rural development project for these actions. Engage GAFSP through an eligible supervising entity (such as IFAD or FAO) to explore extending or replicating the existing AIM-N programme.	ACIAR has an established footprint in Vanuatu's livestock sector through the smallholder cattle systems programme[25]. ADB has an ongoing Vanuatu Sustainable Economic Transformation Facility with agriculture development as a priority sector[26]. GCF has funded the Establishing Climate Resilient, Regenerative Agricultural (CRRA) Systems programme across Vanuatu[27]. GEF has a long-standing Vanuatu portfolio across biodiversity, land degradation and climate change focal areas, and has historically funded agriculture-adjacent projects[2]. AF has a demonstrated track record financing agricultural and livestock resilience programmes across the Pacific[29]. Australia is Vanuatu's largest bilateral development partner overall and has funded agricultural resilience programming across the Pacific[30]. China is Vanuatu's second-largest bilateral development finance partner, with an ongoing bilateral agriculture cooperation mechanism[31]. EU, through the VaVaC II programme, funds agricultural research, advisory services and traditional food systems in Vanuatu[32]. IFAD, together with GAFSP, funded the Agricultural Investment for Markets and Nutrition (AIM-N) project in Vanuatu[33].

25 https://www.aciar.gov.au/project/ls-2018-185
26 https://www.adb.org/news/adb-approves-10-million-grant-facility-strengthen-resilience-and-economic-transformation-vanuatu
27 https://www.greenclimate.fund/portfolio/projects/fp295
28 https://www.thegef.org/projects-operations/country-profiles/vanuatu
29 https://www.adaptation-fund.org/projects-programmes/project-sectors/agriculture/
30 https://www.dfat.gov.au/development/topics/development-issues/climate-resilient-agricultural-development-initiatives
31 https://www.dailypost.vu/news/vanuatu-china-ties-grow-with-new-agriculture-base-and-scholarships/article_5bb876d2-fdc9-516d-bb86-9b30fc83adc5.html
32 https://www.eeas.europa.eu/eeas/european-union-provides-support-productive-sector-vanuatu_und_sr
33 https://www.ifad.org/en/w/news/ifad-and-vanuatu-launch-us-11-million-partnership-to-help-poor-rural-families-grow-buy-and-eat-more-nutritious-food

Table E.7 identifies potential alignment with initiatives in the NCFCP pipeline and with adaptation commitments under Vanuatu's NDC 3.0 (2025–2035).

Table E.7. Existing Agriculture Pipeline Alignment

NAP Sector	Potential NCFCP Pipeline Alignment[34]	Potential NDC 3.0 Adaptation Alignment[35]
NAP-AGR-01	A11 ROOTS; A5 Forest and Landscape Restoration initiatives, agricultural and livelihood resilience initiatives	A3 and A7–A9: resilient food production, training and traditional practices; A18: agroforestry; A4: climate advice; A125: agricultural technology.
NAP-AGR-02		A32: livestock resilience training; A33: climate-resilient breeds. Cost the livestock production package, including feed, water, shelter and animal health, from its actual scope.
NAP-AGR-03		A2: preparedness; A5: food-system recovery; A6: producer business training; A10: resilient agricultural assets and early warning. Cost seed reserves, storage, recovery and training once. Match only the relevant portions to these broader NDC commitments. A6 alignment is limited to training on verified existing services.

E.4.2 Ecosystems

Vanuatu's ecosystems including tropical forests, mangroves, seagrass beds, coral reefs, and coastal/marine zones form the backbone of the nation's natural capital, supporting biodiversity, livelihoods, and resilience. Forests covered approximately 36.3% of Vanuatu's land area in 2023, based on the FAO definition of forest area. They provide habitat for endemic flora and fauna and act as carbon sinks, water-flow regulators, and soil stabilisers[36]. Vanuatu has rich marine and coastal ecosystems with reefs hosting more than 500 fish species and 295 types of hard coral[37]. The value of Vanuatu's ecosystem services to human society estimated to be VUV 784 bn (or USD 7.3 bn) per annum[38].

34 Vanuatu_NCFCP Pipeline_26.02.01.xlsx
35 Vanuatu NDC 3.0 (2025–2035)
36 World Rainforest Movement. (n.d.) Retrieved from: https://worldrainforests.com/deforestation/forest-information-archive/Vanuatu.htm
37 Secretariat of the Pacific Regional Environment Programme (SPREP). (2022). Retrieved from: https://library.sprep.org/sites/default/files/2024-11/Vanuatu-SOE-2022.pdf
38 Griffith University. (n.d.). Retrieved from: https://www.griffith.edu.au/__data/assets/pdf_file/0023/528080/vanuatu-ecosystem-socio-economic-resilience-analysis-mapping.pdf

Table E.8 outlines the indicative financing roadmap, potential financing sources and the practical steps required to secure financing.

Table E.8. Indicative Roadmap for Ecosystems Priority Adaptation Actions

NAP Sector	Potential Financing Sources	Indicative Time Horizon	Actions to Obtain Financing	Justification
NAP-ECO-01 NAP-ECO-02 NAP-ECO-03	AF GEF GCF FAO / UNDP / SPREP / SPC (implementing) Bilateral partners (EU, DFAT, MFAT) Kiwa Initiative Philanthropic (e.g. Bezos Earth Fund, Oceans 5, Ocean Resilience and Climate Alliance) Domestic government budget	Short to Long Term	Develop and submit a concept note to AF, GEF or GCF via accredited entity (e.g. FAO / UNDP/ SPREP / SPC) focused on community conservation and ecosystem adaptation. Engage bilateral partners for co-financing through existing programmes and partnerships. Develop and submit a concept note to Kiwa Initiative. Prepare and submit a concept note aligned with each philanthropy organisation's priorities and initiate outreach through partnership channels or affiliated networks.	GEF (FAO-implemented Forestry and Protected Area Management Project in Vanuatu[39], GCF (Vanuatu Coastal Adaptation Project[40]) and the AF[41] (ROOTS) have an established track record financing biodiversity and ecosystem-based adaptation in Vanuatu. Kiwa Initiative demonstrates a proven community-led delivery model for ecosystem conservation in the Pacific region[42] Bilateral donors like France[43], Australia[44] (Australia-Pacific Coral Reef Fund), and New Zealand have active conservation programmes in the region, providing valuable funding and expertise. Philanthropic organisations increasingly fund innovative and community-inclusive reef projects[45],[46].

39 https://forestry.gov.vu/index.php/about-us/20-project-1-fao-gef-forestry-and-protected-area-management-project
40 https://docc.gov.vu/index.php/projects/view-projects/20-vanuatu-coastal-adaptation-project-vcap2
41 https://www.adaptation-fund.org/wp-content/uploads/2026/03/AFB.PPRC_.37.40_Add.1-Project-Formulation-Grant-for-LLA-Single-Country-Proposal-for-Vanuatu.pdf
42 https://kiwainitiative.org/en/projects/implementing-integrated-watershed-management-for-biodiversity-climate-resilience-and-human-health-co-benefits-into-the-pacific-communities
43 https://blue-pangolin.co.uk/ifrecor/
44 https://www.dcceew.gov.au/environment/marine/international-activities
45 https://fisheriesguinea.org/team/oceans-5/
46 https://rivianfoundation.org/grantees/ocean-resillience-climate-alliance

Table E.9 identifies potential alignment with initiatives in the NCFCP pipeline and with adaptation commitments under Vanuatu's NDC 3.0 (2025–2035).

Table E.9. Existing Ecosystems Pipeline Alignment

NAP Sector	Potential NCFCP Pipeline Alignment[47]	Potential NDC 3.0 Adaptation Alignment[48]
NAP-ECO-01	A3 Biodiversity and Nature-Based Solutions; A5 Forest and Landscape Restoration; A10 Mangrove Restoration; A12 River Buffer Zones A6 iCOAST Vanuatu; A10 Mangrove Restoration	A54: community conservation; A57: ecosystem education; A58: biodiversity protection; A61: marine nature-based adaptation.
NAP-ECO-02		A3: local food resilience; A9: traditional agricultural knowledge; A18: food security through agroforestry.
NAP-ECO-03		A37: watershed, catchment and freshwater protection; A20: vegetated buffers around sensitive ecosystems.

E.4.3 Education

Education plays a critical role in Vanuatu's national development and human capital, and yet the sector faces significant structural and access challenges. Historically, overall literacy across the population has been modest at around 64%[49]. Youth literacy, however, is much higher at approximately 97%, reflecting improvements in recent years. In 2023, education spending accounted to approximately 20.9% of total government expenditure[50]. Geographic isolation across Vanuatu's dispersed islands, limited school infrastructure, teacher shortages, and economic barriers further constrain access and learning outcomes[51].

47 Vanuatu_NCFCP Pipeline_26.02.01.xlsx
48 Vanuatu NDC 3.0 (2025–2035)
49 Nations Encyclopedia. (n.d.). Retrieved from: https://www.nationsencyclopedia.com/Asia-and-Oceania/Vanuatu-EDUCATION.html
50 TheGlobalEconomy.com. (n.d.). Retrieved from: https://www.theglobaleconomy.com/Vanuatu/Education_spending_percent_of_government_spending
51 Government of Vanuatu. (2020). Retrieved from: https://rti.gov.vu/images/PDFs/NSDP/NHRDP/NHRDP_Technical_Report.pdf?

Table E.10 outlines the indicative financing roadmap, potential financing sources and the practical steps required to secure financing.

Table E.10. Indicative Roadmap for Education Priority Adaptation Actions

NAP Sector	Potential Financing Sources	Indicative Time Horizon	Actions to Obtain Financing	Justification
NAP-EDU-01 NAP-EDU-02 NAP-EDU-03	ADB (technical assistance) World Bank GPE UNICEF Bilateral partners (DFAT, MFAT, JICA) Domestic government budget Philanthropy Organisations (e.g. MasterCard Foundation, Rockefeller Foundation, Bill and Melinda Gates Foundation, Save the Children Australia) PRF UNDRR	Short to Medium Term	Develop and submit concept notes to the World Bank, UNICEF, PRF and the GPE through their respective channels. Engage bilateral partners through existing country programmes and partnerships. Engage ADB on technical assistance funding for school climate vulnerability assessment and concept design. Engage each philanthropic organisation through their grant application portals or regional offices and prepare and submit concept note aligned with their funding mandates. Engage UNDRR as a technical and coordination partner.	The World Bank's VIRIP provides a direct precedent, having reconstructed and climate-proofed more than 70 schools following Tropical Cyclone Pam[52] UNICEF[53] and GPE[54] have an established track record in Pacific school WASH and safety programming. Australia is the largest bilateral education donor in Vanuatu providing multi-year support through the Vanuatu Education Support Program (VESP)[55] Japan provides occasional grants to build or renovate school facilities, especially in Vanuatu rural or remote islands[56] These philanthropy organisations have a global track record in financing inclusive, equitable, and innovative education initiatives in developing countries. UNICEF and UNDRR are UN agencies with established programming in child protection, education continuity and disaster risk reduction, both active members of the Global Alliance for Disaster Risk Reduction and Resilience in the Education Sector[57]

52 https://www.gfdrr.org/en/safer-schools
53 https://www.unicef.org/pacificislands/press-releases/vanuatus-schools-transform-safe-havens?
54 https://www.unesco.org/en/articles/regional-collaboration-strengthens-education-pacific-island-countries?
55 https://www.dfat.gov.au/development/vanuatu-education-support-program-phase-ii-mid-term-review
56 https://www.fj.emb-japan.go.jp/pr_Japan_Provides_Funds_Education_Sector_Community_Water_Supply_Projects_Vanuatu.html
57 https://preparecenter.org/story/how-gadrrres-strengthens-global-resilience-in-the-education-sector/.

Table E.11 identifies potential alignment with initiatives in the NCFCP pipeline and with adaptation commitments under Vanuatu's NDC 3.0 (2025–2035).

Table E.11. Existing Education Pipeline Alignment

NAP Sector	Potential NCFCP Pipeline Alignment[5]	Potential NDC 3.0 Adaptation Alignment[59]
NAP-EDU-01	A1 Early Warning Systems; related education-resilience and community-preparedness initiatives.	A95 and A100: resilient school infrastructure; A96: Health Promoting Schools/WASH; A97: renewable power and connectivity.
NAP-EDU-02	Education resilience investments and public infrastructure programmes	A91: learning continuity; A92: school risk plans; A93/A98: child protection and psychosocial support; A99: child-sensitive warning.
NAP-EDU-03		A94: curriculum and teacher training; A87: traditional knowledge in learning; A57: environmental resilience education.

E.4.4 Fisheries

The fisheries sector is critical to Vanuatu's social, economic, and cultural well-being, with approximately 2,528 km of coastline and 4,110 km² of coral reefs supporting coastal fisheries. Two-thirds of the population lives within one kilometre of the coast, relying heavily on marine resources for food, income, and cultural practices. According to the 2020 National Population and Housing Census, 40% of households across the country engage in fishing. Fisheries are broadly classified into subsistence, artisanal, and commercial sectors. Subsistence fisheries primarily serve home consumption, artisanal fisheries supply local markets and restaurants, and commercial fisheries target international markets. The monetary value of subsistence and artisanal fisheries is estimated at USD 6.5 million and USD 5.2 million, respectively, while the sector contributed around 0.9% of GDP in 2018–2019.

[58] Vanuatu_NCFCP Pipeline_26.02.01.xlsx
[59] Vanuatu NDC 3.0 (2025–2035)

Table E.12 outlines the indicative financing roadmap, potential financing sources and the practical steps required to secure financing.

Table E.12. Indicative Roadmap for Fisheries Priority Adaptation Actions

NAP Sector	Potential Financing Sources	Indicative Time Horizon	Actions to Obtain Financing	Justification
NAP-FIS-01 NAP-FIS-02 NAP-FIS-03	GEF (Coastal Fisheries Initiative) GEF (Pacific Reef and Ridge-to-Reef Programmes) GCF FAO / UNDP / SPC (Implementing) ADB (Pacific Climate-Resilient Ocean Economy) World Bank PROBLUE economy program Bilateral partners (Australia, EU, China and Japan) Philanthropy Organisations (e.g. Oceans 5[60], Ocean Resilience and Climate Alliance[61]) Domestic government budget	Medium to Long Term	Develop and submit a concept note to GEF or GCF via accredited entity (e.g. FAO / UNDP / SPC). Develop and submit a concept note proposal to World Bank PROBLUE. Engage bilateral partners and existing regional partnerships for co-financing on fisheries programme. Prepare and submit a concept note aligned with each philanthropy organisation's priorities and initiate outreach through partnership channels or affiliated networks. Prepare and submit a TA concept to ADB under its Pacific climate-resilient ocean economy programme.	GEF is a well-established funder of coastal fisheries transitions toward sustainable management[62], reduced overexploitation and improved livelihoods, while GCF invests in high-impact marine and coastal conservation[63]. ADB TA has supported sustainable fisheries and fishing-sector reforms regionally[64], and the World Bank PROBLUE has an established track record supporting Pacific sustainable fisheries[65]. Existing Partnerships such as Australia Pacific Sustainable Oceans and Livelihoods Partnership[66] and Pacific-European Union Marine Partnership (PEUMP)[67] aims to support the sustainable management of fisheries within the Pacific region. New Zealand has pledged nearly USD 50 million for sustainable Pacific fisheries development over four years. Japan has a track record of funding fisheries facilities[6] . These philanthropic organisations have a track record of financing marine conservation, sustainable fisheries management across the Pacific.

60 https://fisheriesguinea.org/team/oceans-5/
61 https://rivianfoundation.org/grantees/ocean-resillience-climate-alliance
62 Global Environment Facility. Retrieved from: https://www.thegef.org/projects-operations/projects/9060?
63 https://www.greenclimate.fund/portfolio/projects/fp184
64 https://www.adb.org/news/features/vanuatu-fisheries-and-food-security-after-cyclone-pam
65 World Bank Group Retrieved from: https://www.worldbank.org/en/programs/problue?
66 https://china.aiddata.org/projects/39294/?
67 https://www.eeas.europa.eu/eeas/pacific-eu-marine-partnership_und_en
68 https://www.mofa.go.jp/policy/oda/white/2023/html/honbun/b4/s3.html?

Table E.13 identifies potential alignment with initiatives in the NCFCP pipeline and with adaptation commitments under Vanuatu's NDC 3.0 (2025–2035).

Table E.13. Existing Fisheries Pipeline Alignment

NAP Sector	Potential NCFCP Pipeline Alignment[69]	Potential NDC 3.0 Adaptation Alignment[70]
NAP-FIS-01	A6 iCOAST Vanuatu and related community fisheries, coastal resilience and blue-economy initiatives.	A14: community fisheries management; A16: adaptation technology and Fish Aggregating Devices; A64: community fisheries rules.
NAP-FIS-02		A15: resilient fish production and livelihoods; A16: suitable fisheries technology and skills.
NAP-FIS-03		A17: fisheries monitoring; A63: marine research and data; A115/A116: tailored climate advice and warning.

E.4.5 Forestry

The forestry sector in Vanuatu remains a significant natural resource base. Forests covered approximately 36.3% of Vanuatu's land area in 2023, based on the FAO definition of forest area. Forests supply an important range of both timber and non-timber products that support rural livelihoods from fuel wood, building materials, and food, to traditional medicine and other community uses. Commercial forestry's direct contribution to GDP has historically been rather small. In 2000 the sector contributed roughly 0.9% of GDP, and more recently "forest rents" (roundwood harvest revenues) have been estimated at about 0.5% of GDP. Vanuatu's forests are also highly biodiverse, forming part of the East Melanesian Islands Biodiversity Hotspot and supporting numerous native and endemic plant and animal species.

[69] Vanuatu_NCFCP Pipeline_26.02.01.xlsx
[70] Vanuatu NDC 3.0 (2025–2035)

Table E.14 outlines the indicative financing roadmap, potential financing sources and the practical steps required to secure financing.

Table E.14. Indicative Roadmap for Forestry Priority Adaptation Actions

NAP Sector	Potential Financing Sources	Indicative Time Horizon	Actions to Obtain Financing	Justification
NAP-FOR-01 NAP-FOR-02 NAP-FOR-03	AF ACIAR FCPF / REDD GEF GCF SCCF Kiwa Initiative Philanthropy Organisations (e.g. Conservation International, The Nature Conservancy) Domestic government budget FAO / SPC (implementing)	Short to Medium Term	Develop and submit concept note to AF, GEF or GCF via accredited entity (e.g. FAO / SPC). Engage ACIAR to extend its Pacific forestry and agroforestry research partnerships to priority sites. Engage the Department of Forestry and the FCPF Readiness Fund to advance Vanuatu's REDD+ readiness activities. Develop and submit partnership proposals for forest conservation aligned to each philanthropy organisation's mandate.	AF finances forestry and nature-based climate resilience projects in Vanuatu (e.g. Restoring Our Original Trees and Shore Nature-Based Community-Led Forest Restoration and Management (ROOTS)[71] ACIAR has funded multiple forestry/ agroforestry projects in the Pacific (e.g. Community Forestry for Livelihoods[72] Agroforestry for Resilience in the Pacific. Vanuatu is an ongoing ACIAR partner country. FCPF has been one of Vanuatu's core development partners for forest governance reform, having already financed the country's REDD+ Readiness Programme[73] GCF prioritises forest protection, restoration and sustainable forest management. The Pacific region has been funded by GCF funding for forestry and land-use NBS pathways. GEF is one of Vanuatu's most consistent long-term funding partners for biodiversity, land degradation, and sustainable forest management, with multiple completed and ongoing projects under GEF-8[74]

71 https://www.adaptation-fund.org/project/enhancing-livelihood-resilience-in-vanuatu-through-forest-and-landscape-restoration/
72 https://www.aciar.gov.au/publication/aop2021/pacific-island-countries
73 https://docc.gov.vu/index.php/projects/view-projects/1-forest-carbon-partnership-facility-fcpf?
74 https://forestry.gov.vu/index.php/about-us/20-project-1-fao-gef-forestry-and-protected-area-management-project?

Table E.15 identifies potential alignment with initiatives in the NCFCP pipeline and with adaptation commitments under Vanuatu's NDC 3.0 (2025–2035).

Table E.15. Existing Forestry Pipeline Alignment

NAP Sector	Potential NCFCP Pipeline Alignment[75]	Potential NDC 3.0 Adaptation Alignment[76]
NAP-FOR-01	A5 Forest and Landscape Restoration; A12 River Buffer Zones. Land-use, resilience and climate-risk management initiatives.	A22: sustainable forest management; A23: community reforestation; A28: forest protection; A30: natural-forest restoration. Allocate the NAP action's forestry works and maintenance costs to these matching NDC components.
NAP-FOR-02		A21: mangroves, wetlands and shoreline trees; A30: mangrove restoration. The NAP action contributes its coastal vegetation protection, restoration and maintenance costs to these commitments.
NAP-FOR-03		A19: forest-impact assessment and monitoring; A24: restoration studies; A29: tree-variety research; A30: restoration-site mapping.

E.4.6 Health and Nutrition

The health sector in Vanuatu faces persistent structural, resource, and access challenges shaped by the country's dispersed geography and limited-service capacity. Vanuatu operates a tiered health system comprising 6 provincial hospitals, 35 health centres, and over 202 dispensaries and aid posts. However, many rural facilities remain understaffed or lack essential equipment and medicines. Communicable diseases such as dengue, diarrhoeal diseases, and tuberculosis remain significant public health concerns, while non-communicable diseases (NCDs) such as diabetes, hypertension, and cardiovascular disease now account for more than 60% of all deaths. Climate-sensitive health risks including vector-borne diseases, heat stress, waterborne illnesses, and disaster-related injuries pose increasing threats due to Vanuatu's extreme exposure to cyclones, flooding and other extreme weather events. According to WHO, public health expenditure accounted for 4.4% of Vanuatu's GDP in 2021.

[75] Vanuatu_NCFCP Pipeline_26.02.01.xlsx
[76] Vanuatu NDC 3.0 (2025–2035)

Table E.16 outlines the indicative financing roadmap, potential financing sources and the practical steps required to secure financing.

Table E.16. Indicative Roadmap for Health and Nutrition Priority Adaptation Actions

NAP Sector	Potential Financing Sources	Indicative Time Horizon	Actions to Obtain Financing	Justification
NAP-HN-01 NAP-HN-02 NAP-HN-03	AF ADB World Bank GEF GCF WHO / UNDP (implementing) Bilateral partners (Australia DFAT, New Zealand) UNICEF and UNFPA Philanthropy organisations (e.g. Wellcome Trust, Bill and Melinda Gates Foundation) Domestic fund: VNPF	Short to Medium Term	Engage Vanuatu's GEF Focal Point and WHO desk to align with the ongoing regional GEF-WHO-UNDP health resilience programme. Coordinate with the ADB Pacific Department to submit a TA request for disaster-resilient health facility planning. Develop and submit a concept note to AF / GCF, via accredited entity (e.g. UNDP or WHO) health programme. 1.	Vanuatu is already included in the regional WHO and UNDP, GEF-funded health resilience programme (2023–2027)[77] creating an immediate co-financing pathway. ADB has previously approved a USD 10 million grant to strengthen health care capacity in northern provinces of Vanuatu to expand access and improve provincial health-system capacity[7]. The World Bank has previously financed a USD 10 million grant to support disaster risk management, healthsector resilience, and disaster recovery (including healthsystem strengthening) [79] Adaptation Fund has financed climate-resilient health facilities and WASH interventions in Pacific SIDS[0]. Australia DFAT is Vanuatu's largest bilateral health donor through its multi-year Vanuatu Health Program[81] New Zealand has supported patients, consultation and training across Vanuatu through its New Zealand Medical Treatment Scheme (NZMTS)[2]. VNPF has substantial domestic assets and invests in social and infrastructure projects, making it a potential source for health sector co-financing[3] . Philanthropies including the Gates Foundation[4] and Wellcome Trust[5] have a demonstrated track record funding disease surveillance and climate-health initiatives worldwide.

77 https://www.adaptation-undp.org/projects/building-resilience-health-systems-pacific-island-least-developed-countries-climate-change
78 https://news.fundsforngos.org/2025/11/12/asian-development-bank-grants-10-million-to-strengthen-vanuatus-fight-against-noncommunicable-diseases/?
79 https://www.worldbank.org/en/news/press-release/2022/06/22/building-back-better-boost-for-health-disaster-and-debt-management-in-vanuatu
80 https://www.adaptation-fund.org/wp-content/uploads/2023/12/Press-Release_120323_Adaptation-Fund-Demonstrates-Commitment-to-Strengthening-Health-Adaptation-and-Resilience-at-COP-28-in-Dubai.pdf
81 https://www.dfat.gov.au/about-us/business-opportunities/Pages/vanuatu-health-program?
82 https://uat.pmagroup.org.nz/medical-treatment-scheme?
83 https://allaboutvanuatu.com/vnpf-and-govt-pledge-partnership-for-private-hospital/?
84 https://www.gatesfoundation.org/our-work/areas-of-impact/health
85 https://wellcome.org/our-priorities/climate-and-health

Table E.17 identifies potential alignment with initiatives in the NCFCP pipeline and with adaptation commitments under Vanuatu's NDC 3.0 (2025–2035). The three Health and Nutrition actions identified under the NAP are strongly aligned with the implementation priorities of Vanuatu's Health National Adaptation Plan (HNAP)[86]2025–2030. While the HNAP provides the overarching policy, institutional and operational framework for climate-resilient health systems, the NAP Health and Nutrition actions consolidate priorities into investment-oriented adaptation packages. Differences in the indicative costs reflect differences in scope, planning horizon, methodology and aggregation, with the NAP consolidating adaptation investments across multiple provincial actions and Common Action Groups (CAGs), whereas the HNAP focuses on a defined national health-sector implementation workplan for 2025–2030.

Table E.17. Existing Health Pipeline Alignment

NAP Sector	Potential NCFCP Pipeline Alignment[87]/ Vanuatu's HNAP	Potential NDC 3.0 Adaptation Alignment[88]
NAP-HN-01	A2 Operationalization of Vanuatu's HNAP. Component 6: Climate resilient infrastructure, technology, and supply chain – Climate-Resilient Health Care (CRESH) / Water, Sanitation and Hygiene Facility Improvement Tool (WASHFIT) – assessments, resilient facilities, utilities, communications, medical supplies, and cold chain) Component 9: Disaster preparedness and management (facility emergency plans, continuity planning, disaster response arrangements and recovery systems)	A42: healthier facilities and services; A45: essential-service continuity; A49: facility response plans; A50: vaccine cold chains; A52: child-protection referrals.
NAP-HN-02	A2 Operationalization of Vanuatu's HNAP: Component 3: Assessment of climate and health risks (climate health vulnerability and adaptation assessments, climate-sensitive disease assessments, nutrition surveillance) Component 4: Integrated risk monitoring and early warning (disease surveillance, climate-informed early warning systems, monitoring and climate-health information systems) Component 5: Disaster, health and climate research (evidence generation, climate-health risk analysis and decision support information) Component 8: Climate-informed health programmes (surveillance, risk communication and climate-sensitive disease response).	A44: public-health emergency procedures; A51: disease prevention, detection and resilient health systems.
NAP-HN-03	A2 Operationalization of Vanuatu's HNAP: Component 2: Climate-smart health workforce (training, outreach services, community and village-health-worker capacity) Component 4: Integrated risk monitoring and early warning (nutrition surveillance and monitoring systems) Component 8: Climate-informed health programmes (nutrition screening, emergency nutrition, food safety, maternal and child health, outreach services, mental health and psychosocial support, and support for vulnerable populations)	A46: emergency nutrition and surveillance; A47: nutrition security; A48: mental health and psychosocial support.

86 Vanuatu's HNAP draft August 2025
87 Vanuatu_NCFCP Pipeline_26.02.01.xlsx
88 Vanuatu NDC 3.0 (2025–2035)

E.4.7 Infrastructure

Vanuatu's infrastructure sector, comprising transport networks, ports, airports, energy systems, water and sanitation facilities, telecommunications, and public infrastructure, is fundamental to economic development and service delivery across the country's dispersed island geography. However, the sector is highly vulnerable to climate and disaster risks, including tropical cyclones, extreme rainfall, flooding, landslides, sea-level rise, coastal erosion, storm surge and drought. These hazards can damage critical assets, disrupt essential services and increase maintenance and replacement costs, with significant implications for community resilience, connectivity and long-term economic growth. Strengthening the climate resilience of infrastructure is therefore a key priority for reducing vulnerability and supporting sustainable development in Vanuatu.

Table E.18 outlines the indicative financing roadmap, potential financing sources and the practical steps required to secure financing.

Table E.18. Indicative Roadmap for Infrastructure Priority Adaptation Actions

NAP	Potential Financing Sources	Indicative Time Horizon	Actions to Obtain Financing	Justification
NAP-INF-01 NAP-INF-02 NAP-INF-03	World Bank's Vanuatu Infrastructure Reconstruction and Investment Program, AF, ADB, GCF, GEF, CIF, Bilateral partners (Australia DFAT, New Zealand MFAT, JICA), Private/blended finance, Domestic: VNPF, PRIF, SPREP, SPC (implementing)	Short to Long Term	Develop and submit concept note to AF, GEF or GCF via accredited entity (e.g. SPREP / SPC) for coastal protection. Engage the World Bank Vanuatu country office to confirm whether the ongoing Vanuatu Climate Resilient Transport Project can extend to additional priority sites. Engage ADB for technical assistance funding to support site assessment, design and safeguards work. Engage DFAT, MFAT and JICA through existing bilateral infrastructure channels for co-financing of capital works. Engage the PRIF Coordination Office to include provincial building code compliance and asset-management needs within its ongoing national programme.	VIRIP is the World Bank's flagship programme for climate-resilient transport infrastructure in Vanuatu, which integrates cyclone- and flood-resilient standards into national road and bridge upgrades[89]. ADB is a core infrastructure partner in Vanuatu, financing climate-resilient roads, ports, evacuation centres and providing technical assistance. Australia is Vanuatu's largest infrastructure partner and provides long-term support for transport and economic infrastructure, including through Australian Infrastructure Financing Facility for the Pacific[90]. CIF can be blended in World Bank or ADB finance infrastructure programmes in Vanuatu. New Zealand supports resilient infrastructure in Pacific Island countries (e.g., Vanuatu Inter Island Shipping Support Programme)[91], often co-financing projects with Australia and Multilateral development funds. JICA provides grant financing and technical assistance for infrastructure development[92]. VNPF is the largest domestic institutional investor in Vanuatu and has historically invested in domestic infrastructure-related assets[93]. PRIF is already modernising Vanuatu's national building code and training Pacific utilities on asset management[94].

89 https://gpss.worldbank.org/en/projects/vanuatu-infrastructure-reconstruction-and-improvement-project-virip
90 https://www.aiffp.gov.au/
91 https://www.mfat.govt.nz/assets/OIA/OIA-2021-22/PR-2022–0401-Vanuatu-Development-Programme-Vanuatu-Inter-island-Shipping-Support-Programme.pdf
92 https://www.jica.go.jp/english/overseas/vanuatu/index.html
93 http://www.vnpf.com.vu/our-investments.html
94 https://www.adb.org/multimedia/partnership-report2024/our-stories/future-building-with-climate-smart-infrastructure/

Table E.19 identifies potential alignment with initiatives in the NCFCP pipeline and with adaptation commitments under Vanuatu's NDC 3.0 (2025–2035).

Table E.19. Existing Infrastructure Pipeline Alignment

NAP Sector	Potential NCFCP Pipeline Alignment[95]	Potential NDC 3.0 Adaptation Alignment[96]
NAP-INF-01	A1 Early Warning Systems A3 Biodiversity and Nature-Based Solutions A4 Improved Drainage to Increase Climate Resilience of Roads; A6 iCOAST; A10 Mangrove Restoration. A7 Enhancing Maritime Inter-Island Transportation in Vanuatu. A8 Solar-Powered Radio Communications; A9 Flood and Drought Early Warning Initiative	A72: climate-risk assessment of new government infrastructure; A73: resilient design, building codes and development controls.
NAP-INF-02		A71: resilient infrastructure services; A72: risk-informed infrastructure; A73: resilient design and construction.
NAP-INF-03		A70: ICT access for climate planning and response; A72–A73: resilient public infrastructure and backup arrangements.

E.4.8 Tourism

Tourism remains a major contributor to Vanuatu's economy. The 2026 Vanuatu Tourism Value Chain Study estimates that tourism's total value-added contribution was approximately 25% of GDP in 2023 and 16% in 2024. The sector supported approximately 24,500 full-time equivalent positions in 2023 and 17,000 in 2024, with tourism-related employment estimated at around 29% of total national employment. The sector capitalises on Vanuatu's natural and cultural assets including tropical islands, coral reefs, beaches, and rich Melanesian traditions that drive demand for local services, including hospitality, transport, food, handicrafts, and cultural experiences, providing important livelihoods across urban centres and remote islands[97]. International tourism receipts reached USD 295 million in 2019, dropping to USD 67 million in 2020 due to COVID19[99]. The sector is vulnerable to external shocks such as global economic downturns, pandemics, and natural disasters (e.g. cyclones) which significantly affect visitor arrivals, investor confidence, and overall tourism revenue[98].

[95] Vanuatu_NCFCP Pipeline_26.02.01.xlsx
[96] Vanuatu NDC 3.0 (2025–2035)
[97] Vanuatu High Commission to Fiji. (2018). Retrieved from: https://vanuatuhighcomm-fj.gov.vu/index.php/trade-investment/tourism
[98] Destination Stewardship Center. (2024). Retrieved from: https://destinationcenter.org/destination-stewardship-report/autumn-2021/vanuatu-tourism-gets-a-reboot
[99] Global Economy. (n.d.) Retrieved from: https://www.theglobaleconomy.com/Vanuatu/international_tourism_revenue/
Government of the Republic of Vanuatu. (2020). Retrieved from: https://rti.gov.vu/images/PDFs/NSDP/NHRDP/NHRDP_Technical_Report.pdf

Table E.20 outlines the indicative financing roadmap, potential financing sources and the practical steps required to secure financing.

Table E.20. Indicative Roadmap for Tourism Priority Adaptation Actions

NAP Sector	Potential Financing Sources	Indicative Time Horizon	Actions to Obtain Financing	Justification
NAP-TOU-01 NAP-TOU-02 NAP-TOU-03	GCF Readiness GEF-5 Ecotourism ADB SPREP (technical support) Bilateral partners (Australia, New Zealand, EU) Domestic government budget	Short to Medium Term	Develop and submit a concept note to GEF or GCF, via accredited entity (e.g. SPREP or UNDP). Engage bilateral partners (Australia, New Zealand, EU) for co-financing through their existing tourism and resilience programmes. Engage ADB for technical assistance on market access, connectivity and private sector development linked to tourism resilience.	GEF has funded the iCOAST: Vanuatu Integrating Bioeconomy and Tourism for Sustainable Vanuatu)[100] GCF has funded Climate Information Services for Resilient Development Planning in Vanuatu (Van-CIS-RDP), which covers the tourism sector[101] ADB can provide technical assistance for market access, tourism infrastructure connectivity and private sector development. New Zealand has supported multiple phases of the Vanuatu Tourism Assistance Program (VTAP)[102] The EU, through its SWITCH-Asia programme, funds Vanuatu's tourism sector[103]

100 https://www.thegef.org/projects-operations/projects/11733
101 https://www.greenclimate.fund/portfolio/projects/fp035
102 https://aidfortrade.gov.vu/index.php/development-cooperation/vanuatu-tourism-assistance-program
103 https://www.switch-asia.eu/resource/vanuatu-country-pathway/

Table E.21 identifies potential alignment with initiatives in the NCFCP pipeline and with adaptation commitments under Vanuatu's NDC 3.0 (2025–2035).

Table E.21. Existing Tourism Pipeline Alignment

NAP Sector	Potential NCFCP Pipeline Alignment[104]	Potential NDC 3.0 Adaptation Alignment[105]
NAP-TOU-01	A1 Early warning systems and related community-preparedness, climate-information and resilience initiatives	A117: tourism planning, siting and design; A119: natural/cultural asset inventories and development restrictions; A120: environmental and social assessment.
NAP-TOU-02	A8 Solar-Powered Radio Communications A9 Flood and Drought Early Warning initiative. Confirm geographic coverage and interfaces with local plans. Tourism resilience and community-livelihood initiatives Tourism-resilience and related infrastructure initiatives; no specific NCFCP project is confirmed in the available pipeline.	A118: tourism risk awareness and adaptation; A121: climate-sensitive standards and certification, where applicable.
NAP-TOU-03		A123: operator–community adaptation partnerships; A124: tourism product diversification and rural capacity.

E.4.9 WASH

The WASH sector is a critical foundation for public health, climate resilience and sustainable development in Vanuatu. While more than 80% of the rural population has access to basic drinking water services, access to basic sanitation remains below 50%[106]In 2024, approximately 26% of Vanuatu's population had access to a basic hygiene service, defined as having a handwashing facility with soap and water available at home. Wastewater management is also underdeveloped, with only 13% of domestic wastewater safely treated and minimal treatment of industrial wastewater. These service gaps increase community vulnerability to climate-related hazards, including droughts, floods and waterborne disease outbreaks. Continued investment in climate-resilient WASH infrastructure and service delivery is therefore essential to improve health outcomes, strengthen adaptive capacity and support sustainable development across Vanuatu. Official development assistance for water and sanitation totalled USD 6.8 million in 2022 .

104 Vanuatu_NCFCP Pipeline_26.02.01.xlsx
105 Vanuatu NDC 3.0 (2025–2035)
106 United Nations. (n.d.). Retrieved from: https://www.sdg6data.org/en/country-or-area/Vanuatu

Table E.22 outlines the indicative financing roadmap, potential financing sources and the practical steps required to secure financing.

Table E.22. Indicative Roadmap for WASH Priority Adaptation Actions

NAP Sector	Potential Financing Sources	Indicative Time Horizon	Actions to Obtain Financing	Justification
NAP-WASH-01 NAP-WASH-02 NAP-WASH-03	AF ADB World Bank SPREP, SPC, UNDP (implementing) Bilateral partners (New Zealand and Australia, Japan) GCF GEF UNICEF Philanthropy Organisations (e.g Bill and Melinda Gates Foundation[107], Water Aid[108], Water.org[109], Pacific Water, Sanitation and Hygiene Coalition[110]) Domestic government budget	Short to Medium Term	Develop and submit concept note to AF, GEF or GCF via accredited entity (e.g. SPREP / SPC / UNDP). Engage bilateral partners for co-financing through existing programmes and partnerships. Submit to ADB a technical assistance request or project proposal for climate-resilient water infrastructure. Engage UNICEF through its WASH programme channels to extend school and healthcare-facility water, sanitation and hygiene upgrades to additional priority sites. Prepare and submit a concept note aligned with each philanthropy organisation's priorities and initiate outreach through partnership channels or affiliated networks.	AF has a track record of funding water security, WASH resilience, drought adaptation, and watershed management in SIDS[111]. ADB has previously funded infrastructure upgrades to enhance access to drinking water, sanitation services, water meters, refill stations, and climate-resilient distribution systems within the Pacific region[112]. The Asian Development Bank (ADB) has previously funded the Luganville Resilient Urban Water Supply and Sanitation Project[113]. GEF, through the Special Climate Change Fund and the Least Developed Countries Fund, has an established mandate to support water resource management, groundwater and watershed protection, in climate-vulnerable countries[114]. GCF's mandate aligns with Vanuatu commitments to improve WASH and strengthen water resource management. GCF has recently funded the Vanuatu Water Security Project[115]. UNICEF supports Water, Sanitation, and Hygiene (WASH) programmes in developing countries[116]. New Zealand has an existing Vanuatu Water Sector Partnership (VWSP)[117]while Australia supports climate-resilient water infrastructure and service delivery through programmes such as Renew Pacific. Japan, together with UNICEF, funded upgrades to WASH infrastructure in 10 healthcare facilities across Vanuatu.[11].

107 https://www.adb.org/what-we-do/funds/sanitation-financing-partnership-trust-fund-under-the-water-financing-partnership-facility
108 https://www.wateraid.org/where-we-work
109 https://water.org/?
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Table E.23 identifies potential alignment with initiatives in the NCFCP pipeline and with adaptation commitments under Vanuatu's NDC 3.0 (2025–2035).

Table E.23. Existing WASH Pipeline Alignment

NAP Sector	Potential NCFCP Pipeline Alignment[119]	Potential NDC 3.0 Adaptation Alignment[120]
NAP-WASH-01	Existing water-security and resilience investments in the provinces.	A34: reliable water access; A35: water-resource mapping and storage; A39: water data and models; A125: rainwater technology.
NAP-WASH-02	Existing water-security and resilience investments in the provinces.	A34: reliable water and sanitation infrastructure; A36: water-sector preparedness and safer recovery; A40: provider capacity and risk-informed planning.
NAP-WASH-03	Existing water-security and resilience investments in the provinces.	A38: community Drinking Water Safety and Security Plans; A40: risk-informed water planning; A37: local source protection; A125: water-safety technology.

E.5 Key Next Steps

The next phase should focus on moving from planning to implementation by strengthening project preparation, securing financing and integrating the adaptation priorities into government planning and development processes. The financing roadmap provides an initial framework for resource mobilisation and should be used to guide engagement with development partners, climate funds and implementing agencies.

The following key actions are recommended to support implementation of the 27 NAP priority adaptation actions:

- Finalise and endorse the six PAPs and the NAP financing roadmap to confirm priority adaptation investments and provide a coordinated framework for implementation across all provinces.
- Integrate the NAP priority adaptation actions into relevant sector strategies, provincial development plans and government budgeting processes to strengthen implementation readiness and facilitate future investment decisions.
- Identify costs and seek financing for the measures needed to deliver GEDSI commitments within the NAP priority adaptation actions, including meaningful participation and accessible infrastructure and services. These measures should be included in project-concept budgets, funding proposals and implementation budgets.
- Prioritise project preparation activities for short-term adaptation investments, including climate risk assessments, feasibility studies, technical investigations, GEDSI analysis (including safeguard assessments) and concept note development.
- Develop a pipeline of investment-ready adaptation projects by consolidating related actions into programme-scale initiatives that align with the requirements of climate funds, multilateral development banks and bilateral development partners.
- Engage accredited entities, implementing partners and development partners to identify suitable funding windows and progress priority funding opportunities identified in this roadmap.
- Align priority adaptation investments with the NCFCP pipeline and Vanuatu's NDC 3.0 implementation framework to support coordinated resource mobilisation

[119] Vanuatu_NCFCP Pipeline_26.02.01.xlsx
[120] Vanuatu NDC 3.0 (2025–2035)