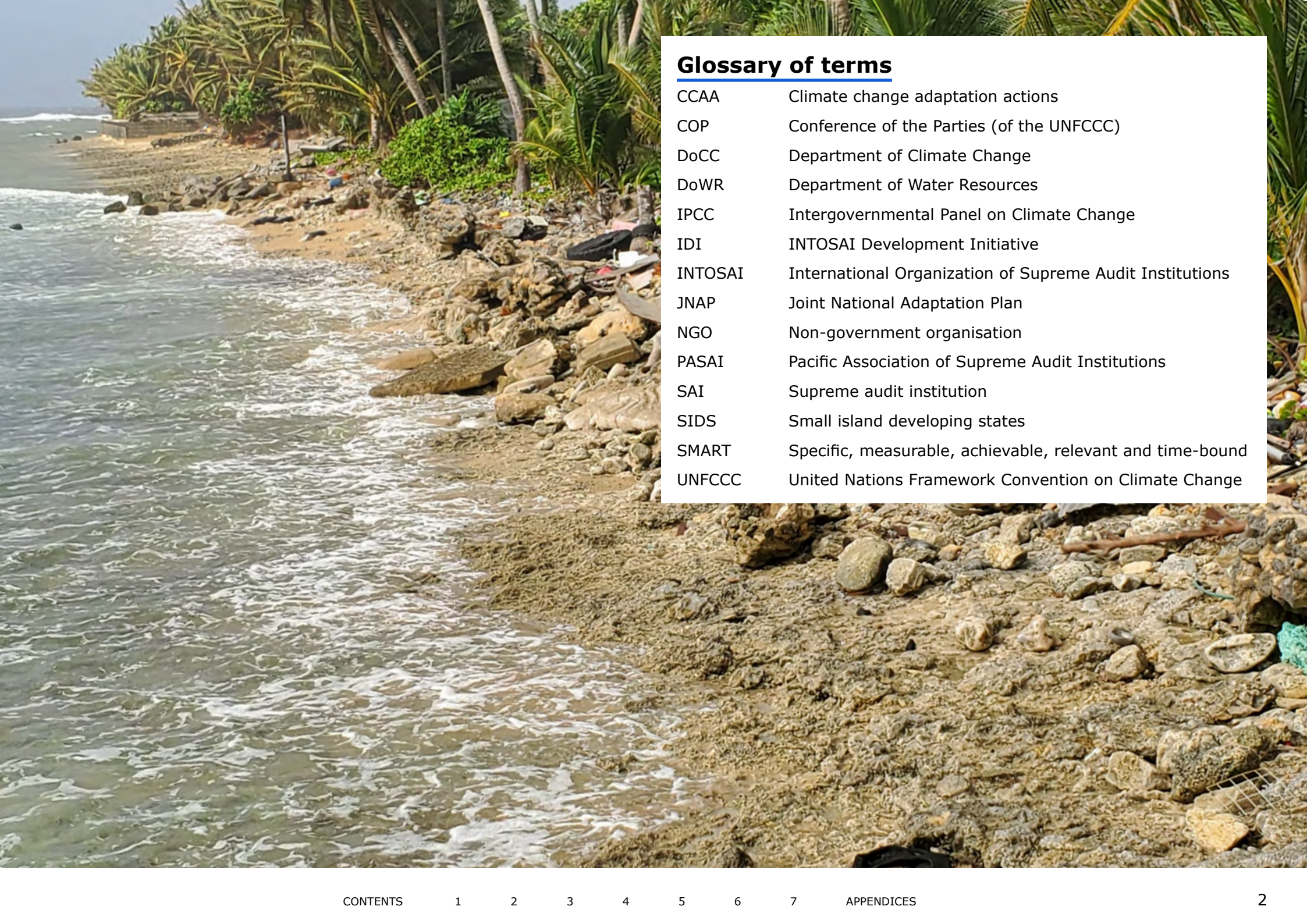


# ADAPTING TO CLIMATE CHANGE: BUILDING THE PACIFIC'S FUTURE







**Glossary of terms**

|         |                                                           |
|---------|-----------------------------------------------------------|
| CCAA    | Climate change adaptation actions                         |
| COP     | Conference of the Parties (of the UNFCCC)                 |
| DoCC    | Department of Climate Change                              |
| DoWR    | Department of Water Resources                             |
| IPCC    | Intergovernmental Panel on Climate Change                 |
| IDI     | INTOSAI Development Initiative                            |
| INTOSAI | International Organization of Supreme Audit Institutions  |
| JNAP    | Joint National Adaptation Plan                            |
| NGO     | Non-government organisation                               |
| PASAI   | Pacific Association of Supreme Audit Institutions         |
| SAI     | Supreme audit institution                                 |
| SIDS    | Small island developing states                            |
| SMART   | Specific, measurable, achievable, relevant and time-bound |
| UNFCCC  | United Nations Framework Convention on Climate Change     |



## **Preface**

The time for more concerted action to adapt to the realities of climate change for people in the Pacific is now. This was clear in the audits of the climate change adaptation actions in 9 Pacific Island states, which are brought together in this report. In the words of the audit teams:

*"The effects of climate change are real and literally at our doorsteps. We are experiencing more intense and frequent cyclones, droughts and flooding, erosion and saline intrusion, causing loss of ancestral homes, displacement of people and health risks, threatening food and water security, and endangering children's futures."*

Together, the audits tell a story of governments that, while focusing more on climate change adaptation actions, are still experiencing significant challenges in implementing effective measures. The challenges of these 9 states are not new. A 2015 cooperative audit of the climate change adaptations and disaster risk reductions, plans and strategies of participating Pacific Island states had similar findings.

Implementing climate change adaptation measures is not easy—it often involves complex and innovative solutions, depends on multiple parties coming together with common purpose and requires substantial funding. Nonetheless, governments need to act with greater urgency and greater effect to ensure that investments are made to adapt to climate change and that these investments have significant and enduring benefits.

The messages from the audits are clear and consistent. Governments need to act now to ensure that:

- they secure available financing and expertise for long-term, sustainable solutions
- measures are better planned and targeted to where they are needed and can be most effective
- measures are implemented more effectively through more coordinated and inclusive action
- there is accountability for delivery of the intended outcomes through monitoring and reporting.

The risks and effects of climate change are significant. Governments need to be effective in the planning and response to climate change. These audits highlight areas where continued attention is needed.

This regional report was developed thanks to the input of the performance audit teams of the 9 participating Pacific Island states (the Federated States of Micronesia, Fiji, New Caledonia, the Marshall Islands, Samoa, Solomon Islands, Tonga, Tuvalu and Vanuatu).



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## Executive summary

Over 2024–25, 9 of the supreme audit institutions (SAIs) in the Pacific who are members of the Pacific Association of Supreme Audit Institutions (PASAI) took part in a global cooperative audit initiative known as the Climate Change Adaptation Actions (CCAA) audit.

The CCAA audit was coordinated by 2 organisations within the International Organization of Supreme Audit Institutions (INTOSAI): the INTOSAI Development Initiative (IDI) and the INTOSAI Working Group on Environmental Auditing (WGEA).

Collectively, the 9 Pacific Island SAIs examined the effectiveness of their governments' planning and actions to adapt to climate change. More specifically:

- Four SAIs<sup>1</sup> examined the effectiveness of actions to adapt to sea level rise and coastal erosion.
- Four SAIs<sup>2</sup> examined the effectiveness of climate change adaptation planning and actions.
- One SAI<sup>3</sup> examined the effectiveness of water resource management.

These audits are highly pertinent given the real impacts of climate change in the Pacific. As the audits have been done concurrently, together they provide a rich understanding of the challenges of adaptation action planning and implementation of measures across the Pacific and what is commonly needed for more effective implementation of CCAA. These audits also provide transparency for citizens and hold the relevant government agencies to account for the effectiveness of their actions to adapt to climate change in the Pacific.

This is not the first report on climate change adaptation in the Pacific region. In 2014–15, the IDI, Asian Development Bank and PASAI jointly supported a cooperative audit on the effectiveness of climate change adaptation and disaster risk reduction strategies, plans and financing in the region. Ten SAIs from 8 Pacific Island states participated in the audit, including 4 of the SAIs involved in the 2024–25 CCAA audit.

The regional report on the 2014–15 audit concluded that, overall, the states audited were not well placed to respond to the threats and challenges of climate change. Most of the audited states had not developed comprehensive adaptation strategies. While international funds were available, the states generally lacked the capacity to access them and there were weaknesses in coordination across government agencies. There were human resource capacity constraints, and underdeveloped plans for monitoring and managing project implementation.

There have been some improvements since that audit. The 2024–25 audits showed that while the states were at different stages of planning and acting to adapt to climate change, this had become a greater priority in the last 10 years. Many states had put policies and plans in place. Most of the states had dedicated climate change departments, divisions or units, usually located within the ministries with responsibilities for the environment, natural resources and/or disaster management. Actions to adapt to climate change were beginning to show benefits. This report includes some examples.

Successful implementation of CCAA is not easy. Challenges highlighted in the 2014–15 audits were still evident in the 2024–25 audits. Many states were still facing significant challenges in planning, implementing, monitoring and reporting on adaptation actions, including ensuring there is enough internal resourcing and an ability to secure external financing. These challenges were limiting the scale, progress and effectiveness of adaptation actions.

These 2024–25 audits identify clear and urgent calls to action for governments. It is crucial that actions are targeted to where they are most needed and can be most effective, that financing for long-term solutions is secured and there is effort to ensure that benefits can be sustained over time. Governments also need to ensure that actions are better coordinated and more inclusive of communities, and that there is accountability for successful implementation of actions through monitoring and reporting on progress and outcomes.

This will ensure that adaptation actions are more successfully implemented, so that they have greater and lasting impact in providing benefits for Pacific Island states and their communities.

1 Those of the Marshall Islands, New Caledonia, Solomon Islands and Tuvalu.

2 Those of the Federated States of Micronesia, Fiji, Samoa and Tonga.

3 That of Vanuatu.



There are 4 calls for action:

- 1. Funding and expertise need to be secured for long-term, sustainable solutions.** Governments need to more proactively seek and secure available financing and ensure that skilled staff are in place to use funding effectively. They need to put in place the staff and requirements needed to secure and use funding, such as skilled people and designations for their finance and implementation ministries. There needs to be enough funding to ensure project outcomes can be sustained after projects are completed. The benefits of adaptation projects take some time to be realised, and the pace of climate change means that solutions that address current needs may not be enough to address future needs. Securing funding and expertise with greater urgency will enable governments to address current and future needs.
- 2. Adaptation measures need to be better planned and targeted at vulnerable areas.** Plans need to be based on a thorough understanding of state and community vulnerabilities to climate change. They need to incorporate a range of measures relevant to the circumstances and fit for the future, including solutions that use the natural environment, where appropriate. Without this planning there is a risk that actions are not directed where they are most needed and solutions do not match community and national needs.
- 3. Adaptation measures need to be implemented more effectively** through coordinated action across relevant agencies and between local and central government. Action needs to extend to how the measures will be maintained, and it needs to include the people and communities affected. Long-term responsibilities, funding and ongoing community involvement need to be built into the planning and implementation of measures if they are to have enduring value and impact.
- 4. Better monitoring and reporting on national plans and individual projects are needed.** This would enable any difficulties with implementation to be identified and resolved early, where necessary, and provide accountability for achieving benefits from adaptation measures. This includes better monitoring and evaluation frameworks with SMART (specific, measurable, achievable, relevant and time-bound) objectives, targets and performance measures, and more regular monitoring and reporting on strategies, plans and actions.

By responding effectively to these calls for action, the governments and responsible ministries of the 9 states will ensure that investments being made to adapt to climate change have significant and enduring benefits.



# "Climate change in the Pacific is real and at our doorsteps ..."



The Samoa State of the Environment Report 2023 noted that Samoa is extremely vulnerable to the impacts of climate change, primarily because about 70% of the population and the key infrastructure are located along the low-lying coastal plains.

King tides, floods, tropical cyclones, storms, tsunamis and increasingly, sea level rise, are threatening people's homes. Furthermore, most people rely on primary industries such as agriculture and fishing, which are vulnerable to natural and climate-induced hazards.

**Samoa Audit Office**



The Federated States of Micronesia are made up of 607 islands and islets of the Caroline Islands Archipelago in the North Pacific, covering a combined land area of 702 km<sup>2</sup>. Communities in Pohnpei, Kosrae, Chuuk, Yap and other smaller islands are already suffering from hotter temperatures, stronger typhoons and sea level rise threatening housing, drinking water and transportation, as well as agroforestry, ecosystems, cultural sites and the economy.

**Federated States of Micronesia Office of the National Public Auditor**



The Marshall Islands is a collection of 29 geographically dispersed coral atolls and 5 islands with a total land area of 182 km<sup>2</sup>, spread across over 2 million km<sup>2</sup> of ocean. All the islands are flat and about 2 metres above the water mark. As a low-lying atoll nation, the Marshall Islands is facing an existential threat from climate change impacts and sea level rise.

**Republic of the Marshall Islands Office of the Auditor-General**



New Caledonia faces rising sea levels and rapid coastal erosion, which threatens its population, economic activities and infrastructure. It has 5,900 km of coastline, 71% of which is exposed to erosion and coastal retreat. The rate of sea level rise along the Caledonian coast is higher than the global average. Coastal retreat threatens homes, public and private infrastructure, notably roads and developed areas. Pollution of freshwater and saltwater intrusion impact water consumption and agriculture, particularly on the Loyalty Islands.

**Territorial Chamber of Accounts of New Caledonia**



Recognised by the United Nations as one of its most disaster-exposed member nations, Vanuatu, an archipelago of more than 80 islands in the southwestern Pacific, faces numerous climate hazards (from cyclones, flooding, storm surges and sea level rise) as well as volcanic eruptions and earthquakes. These threaten the country's food and water security, infrastructure, economy and the well-being of its citizens. This exposure was starkly demonstrated on 17 December 2024, when a powerful earthquake struck 30 kms off the west coast of Efate, the main island.

**Vanuatu National Audit Office**



Fiji is highly exposed and vulnerable to the impacts of climate change as indicated in Fiji's recent formalised National Development Plan 2025–2029 and Vision 2050. Climate change, among other priorities, has been mainstreamed across the various sectors of the economy.

**Office of the Auditor-General Republic of Fiji**



The Vulnerability and Adaptation Assessments in Tonga's Third National Communication on Climate Change outlines sectors in Tonga that are vulnerable to climate change, which include: agriculture, fisheries, coastal areas, water resources, lands and geospatial information, infrastructure, biodiversity and health.

**Tonga Office of the Auditor General**



Tuvalu is the fourth-smallest nation in the world with 9 inhabited islands, a population of about 11,000 and a total land area of 26 km<sup>2</sup>. With extremely low elevations above sea level (half a metre, on average), Tuvalu is one of the most vulnerable countries in the world to sea level rise, inundation and extreme weather events. NASA predicts that by 2050, half the land area of the capital, Funafuti, will be flooded by daily tidal waters, and by 2100, 95 per cent of the land area will be flooded by routine high tides.

**Office of the Auditor General of Tuvalu**



Solomon Islands is composed of about 1,000 islands and is the third-largest island country in the Pacific, with 9,880 km of coastline. Most Solomon Islands communities live along the coastline, including in isolated low-lying atolls and artificial islands that are vulnerable to sea level rise and coastal erosion, affecting agriculture and food security, water supply and sanitation, housing security, infrastructure and human health. The sea level has risen by about 8 mm per year since 1993, more than the global average of 2.8–3.6 mm.

**Solomon Islands Office of the Auditor-General**



# Part 1: Introduction

## Climate change globally

- 1.1 The world is facing an unprecedented global climate crisis. The Intergovernmental Panel on Climate Change (IPCC) has warned that without immediate emissions reductions, it will not be possible to limit global warming.

*The rise in weather and climate extremes has led to some irreversible impacts as natural and human systems are pushed beyond their ability to adapt.*

### Intergovernmental Panel on Climate Change

- 1.2 IPCC data shows that approximately 3.3 to 3.6 billion people live in places that are highly vulnerable to climate change.<sup>4</sup> Many people in developing countries, and especially small island developing states (SIDS), are among those vulnerable populations.<sup>5</sup> Several SIDS are already facing critical problems due to climate change, such as coastal erosion and flooding, leading to suffering and irreversible changes to the local biodiversity and ecosystems.
- 1.3 All countries need to have adaptation measures based on their local contexts and existing and anticipated climate-related problems. A government's role in adopting adaptation measures is crucial as droughts, flooding, water resource depletion and coastal erosion become more common.

## Climate change in the Pacific is real and at our doorsteps

- 1.4 A recent report from the World Meteorological Organization<sup>6</sup> noted that unprecedented ocean warming engulfed the South-West Pacific in 2024, harming ecosystems and economies. The report highlighted how sea-level rise is threatening islands in a region where more than half the population lives close to the coast.
- 1.5 The report warns that unprecedented ocean warming, sea level rise and extreme weather are endangering lives, ecosystems and economies across the region—especially in coastal and island communities.

<sup>4</sup> [CLIMATE CHANGE 2023 Synthesis Report Summary for Policymakers](#)

<sup>5</sup> UNFCCC (2005) [climate change, small island developing States](#)

<sup>6</sup> [State of the Climate in South-West Pacific 2024](#)

- 1.6 The report also notes that 2024 saw record sea-surface temperatures and near-record ocean heat content, with marine heatwaves affecting more than 10% of the global ocean. On land, extreme heat, intense rainfall and a historic cyclone season had devastating effects.
- 1.7 The island states in the Pacific are among the most vulnerable to climate change. Without appropriate action, the effects of climate change could include loss of life as well as damage to property and infrastructure. The reports on climate change adaptation actions by all 9 of the SAIs highlight that the states concerned face real impacts from climate change to differing extents and in different ways.
- 1.8 These impacts include:
- rising sea levels, increased frequency of extreme weather events, intense flooding and resource degradation
  - food insecurity, water scarcity, poor sanitation and health risks
  - pollution of freshwater and saltwater intrusion
  - homes and infrastructure being open to damage
  - loss of ancestral homes and cultural sites
  - damage to local ecosystems, including coral reefs, affecting biodiversity and fishing resources
  - damage to local economies.

## Adaptation action is not easy

- 1.9 Implementing actions to respond to climate change is challenging. It requires having both the funding and the necessary skills and resources in the relevant government agencies. Staff often need to be able to navigate complex and innovative solutions, and bring multiple parties together around a common purpose, with sustained focus over time. Active engagement with communities is essential to the success of adaptation actions. These can have fundamental impacts on the communities' livelihoods.



- 1.10 Management of adaptation actions requires strong coordination across government agencies, including those responsible for climate change, finance, construction, water, transport and other infrastructure. Adapting to climate change also requires unified action across levels of government, the public and private sectors and donors.

### Adaptation challenges in the Pacific were identified 10 years ago

- 1.11 This is not the first report on climate change adaptation in the Pacific region. In 2014–15, the IDI, Asian Development Bank and PASAI jointly supported a cooperative audit on the effectiveness of climate change adaptation and disaster risk reduction strategies, plans and financing in the region.
- 1.12 The audit was the fourth in a program of cooperative performance audits within the region. Ten SAIs from 8 Pacific Island states participated (including 4 of the SAIs that participated in the 2024–25 CCAA audit).
- 1.13 In April 2015, PASAI published a regional report<sup>7</sup> that combined the findings from the published audit reports of the 10 SAIs. Overall, the regional report concluded that the 8 states were not well placed to respond effectively to the threats and challenges of climate change.
- 1.14 There were 3 key themes observable in the audit findings:
- **Governance of climate change adaptation and disaster risk reduction**
- Most of the audited states had not developed comprehensive adaptation strategies. Progress was uneven and some were working towards integrating climate change and disaster risk management through Joint National Action Plans. There were weaknesses in coordination across government agencies responsible for climate change adaptation policies and actions, and the necessary cross-sectoral management was not yet taking place.

- **Project implementation**

There were multiple constraints in human resource capacity, and better project management skills were needed for the adaptation programs and projects funded by development partners to be successfully implemented. The financing of adaptation measures in the Pacific was problematic. While international funds were available through various global agencies, the individual Pacific Island states generally lacked the capacity to access and appropriately manage these funds through their national public financial management systems.

- **Monitoring and reporting**

There were limitations in the capacity of Pacific Island states to report progress against climate change adaptation priorities. Project monitoring arrangements across the states audited were underdeveloped. In most cases, there was limited capacity to monitor outcomes against national climate change policies or strategies.



7 [Climate Change Adaptation and Disaster Risk Reduction Strategies and Management April 2015](#)

Part 2: Priority is being given to climate change adaptation

The Paris Agreement gave priority to action<sup>8</sup>

- 2.1 The United Nations Framework Convention on Climate Change (UNFCCC) enables countries to collectively consider how to mitigate climate change and cope with its impacts. It was adopted by more than 185 countries at the Rio Earth Summit in 1992 and entered into force on 21 March 1994. UNFCCC now has a near-universal membership of 197 countries.
- 2.2 The international community recognised that more urgent action, with more powerful and legally binding measures than what was required under UNFCCC, was needed. A subsidiary agreement, known as the Kyoto Protocol, came into force in 2005 after 55 countries ratified it (including those responsible for 55% of global emissions). The Kyoto Protocol committed developed countries to greenhouse gas emission reduction targets.
- 2.3 The Conference of Parties (COP) is the supreme decision-making body of UNFCCC and meets annually to review the implementation of UNFCCC. The 21st session of the COP (COP21) took place in late 2015 in Paris, France.
- 2.4 A legally binding treaty on climate change, known as the Paris Agreement, was adopted by 195 parties at COP21 on 12 December 2015. The overarching goal of the Paris Agreement is to hold “the increase in the global average temperature to well below 2°C above pre-industrial levels” and pursue efforts “to limit the temperature increase to 1.5°C above pre-industrial levels.” It entered into force on 4 November 2016. The Federated States of Micronesia was among the first 20 countries in the world to ratify the Paris Agreement.

Adaptation planning and action in the Pacific is being given more priority

- 2.5 The audits of climate change adaptation actions across the 9 states found that more priority was being given to adaptation planning and actions over the last 10 years. Table 1 on this page shows a

snapshot of the status of adaptation planning and action across the 9 states. While the states were at different stages of planning and acting to adapt to climate change, this has become a greater priority in the last 10 years. Many states now have national climate change policies and adaptation plans in place.

- 2.6 Some of the states that have had national climate change programs of action, policies and plans for many years have refreshed them recently. For example, Tonga developed its first Joint National Action Plan on Climate Change Adaptation and Disaster Risk Management in 2010. This plan has been updated providing a detailed plan of action for Tonga’s climate change adaptation work for the period 2018–2028.

Table 1: Summary of key climate change policies and plans in place in the 9 states

| State                              | Policy or Plan                                                                                                                                               | Date                                   |
|------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------|
| Samoa                              | National Adaptation Program of Action<br>Samoa Climate Change Policy                                                                                         | 2005<br>2020–2030                      |
| Solomon Islands                    | National Adaptation Programme of Action<br>National Climate Change Policy<br>Solomon Islands National Development Strategy<br>National Climate Change Policy | 2008<br><br>2012<br>2016–35<br>2023–32 |
| The Federated States of Micronesia | Nationwide Climate Change Policy<br>Nationwide Integrated Disaster Risk Management and Climate Change Policy, and Joint State Action Plans                   | 2009<br>2013                           |
| Tonga                              | First Joint National Action Plan (JNAP) on Climate Change Adaptation and Disaster Risk Management<br>Second JNAP                                             | 2010<br><br>2018–2028                  |
| Fiji                               | National Climate Change Policy<br>National Adaptation Plan                                                                                                   | 2018–2030<br>2018                      |
| Tuvalu                             | Tuvalu Long-Term Adaptation Plan<br>National Climate Change Policy                                                                                           | 2020–2030<br>2021–2030                 |
| Vanuatu                            | Vanuatu Climate Change and Disaster Risk Reduction Policy                                                                                                    | 2022–2030                              |
| The Marshall Islands               | Sea level Rise Adaptation policy<br>National Adaptation Plan                                                                                                 | June 2023<br>October 2023              |
| New Caledonia                      | Territorial adaptation plan                                                                                                                                  | In development                         |

8 Mostly from the UNFCCC website and the New Zealand Ministry for the Environment website.



- 2.7 Other states have put climate change programs of action, policies and plans in place in recent years or have them in development. For example, the Marshall Islands government adopted a Sea Level Rise Adaptation policy with urgency in June 2023. The policy aided the development of the National Adaptation Plan, which was adopted in October 2023. The Federated States of Micronesia National Government is in the process of developing a National Adaptation Plan after beginning a project in October 2023 funded by the Green Climate Fund.

### Most states have government ministries focusing on climate change adaptation

- 2.8 Most of the 9 states have set up dedicated climate change departments, divisions or units. These are usually located within their relevant ministry with responsibilities for the environment, natural resources and/or disaster management. For example, in Fiji, the Climate Change Division, formerly under the Ministry of Finance portfolio, is now a standalone department within the Ministry of Environment and Climate Change.
- 2.9 Some of the departments, divisions or units have wide responsibilities. For example, in Solomon Islands, the Ministry of Environment, Climate Change, Disaster Management and Meteorology is the leading agency that oversees environmental impacts relating to climate change. It is responsible for:
- monitoring vulnerability to the effects of climate change
  - mobilising resources for adaptation and mitigation initiatives
  - research and information dissemination activities
  - leading the delivery of international obligations and commitments under the United Nations Framework Convention on Climate Change and the Pacific Islands Climate Change Framework.

### The benefits of adaptation actions are being limited by implementation challenges

- 2.10 During their work, the audit teams found examples of benefits from adaptation actions. These are discussed in Part 3.
- 2.11 The audit teams also found challenges with agencies'

implementation of adaptation measures which are affecting the realisation of greater benefits. These challenges are discussed in Parts 4 to 7.

- 2.12 Many issues identified in the cooperative audit 10 years ago still need to be addressed if adaptation measures are to have greater and enduring benefits for people and communities.

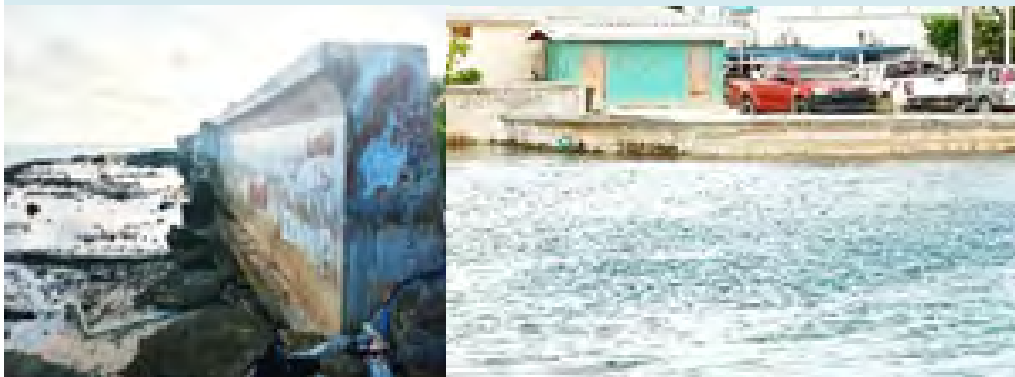


## Part 3: Benefits are starting to be seen from adaptation measures

- 3.1 Examples of tangible outcomes from actions that have been taken so far were included in the 9 audit reports.
- 3.2 For example, in the Marshall Islands, seawalls had been constructed to protect against storms and flooding.

### Case example: Construction of seawalls in the Marshall Islands

Some of the measures taken so far have provided some protection for some locations and communities. Seawall constructions in Ebeye and Santo in Kwajalein Atoll managed by the Kwajalein Atoll Development Authority appear to have been planned and executed properly. These initiatives will protect these areas and reduce future losses against storms and flooding.



- 3.3 In Tuvalu, reclaimed land was bringing benefits to the livelihoods of people in local communities and having a positive effect on the local ecosystem.

### Case example: Reclaimed land on Funafuti where half of the population of Tuvalu lives

A survey conducted during the audit among residents living along the coastline indicated overwhelming support for the reclaimed land. All respondents expressed gratitude for the reclamation efforts, citing improved coastal stability, increased property security and extra space for more activities. The reclaimed land has had a positive impact on livelihoods and local ecosystems, encouraging locals to plant trees and have their own garden, as there is more protection from wave action. The auditors also witnessed local citizens using the reclaimed land as a place for morning and evening walks, fishing, swimming, sports and other social activities.

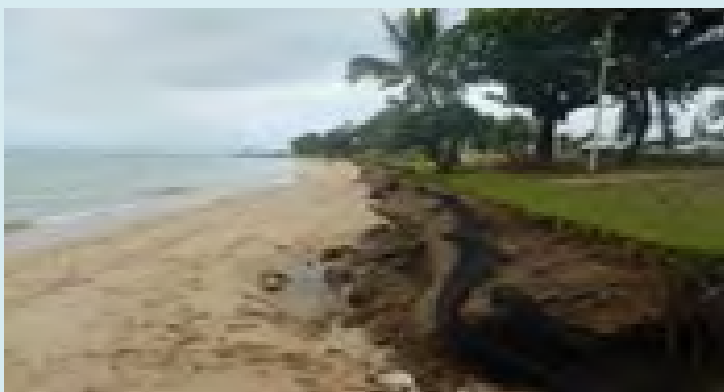


Picture credit: Tuvalu Coastal Adaptation Project



- 3.4 In New Caledonia, a damaged seafront was repaired to make it more resilient to cyclones and swells.

**Case example: Redevelopment of the bay of Anse-Vata in Nouméa, New Caledonia**



Anse-Vata Beach, February 2021, after the passage of Cyclone Lucas. The beach had been reduced by 5 to 7 metres in places.



Anse-Vata Beach, April 2024, after consolidation works involving a reinforcement structure consisting of a concrete wall in the form of steps and an enlargement of the beach by removing the earth.

A second phase is expected with the installation of 3 breakwaters (pebble walls) off the beach to limit the effects of the swell and protect the seafront. According to the municipality, these structures will become artificial reefs.

- 3.5 Equipment provided to communities in Vanuatu has been used to improve water security.

**Case example: Roll out of solar water pumps to communities in Vanuatu**

A collaborative arrangement between the Department of Water Resources, the Global Green Growth Institute and the Department of Energy resulted in the phased roll out of solar water pumps to communities.



## Part 4: Funding and expertise need to be secured for sustained adaptation

- 4.1 The audits identified challenges to get enough funding for adaptation measures, and that there is a need for government agencies responsible for climate change adaptation to have enough, knowledgeable and sustained staffing to carry out adaptation work.

### Governments need to more proactively seek and secure available financing

#### Skilled people and requirements to secure funding are needed

- 4.2 Audit teams heard that there is limited government funding available to implement adaptation measures. Governments are highly reliant on donor funding for climate change adaptation and sometimes face challenges in accessing funding.
- 4.3 Some of the 9 states have not yet successfully accessed the international funding that is available. Some lack the capacity to access and appropriately manage these funds through their national public financial management systems. They face challenges such as not having skilled people and designations for their finance ministries in place to meet the funding requirements.
- 4.4 For example, the Marshall Islands faces significant challenges in financing its adaptation measures and accessing available international financing. The audit recommended that the government scale up its efforts to secure climate financing to implement adaptation measures, including the Ministry of Finance giving priority to strengthening its institutional and operational capacity to meet the donor requirements and receive the funds.
- 4.5 In the Federated States of Micronesia there is currently no established and centralised financing structural system for donor-funded climate change projects. There is an uncoordinated approach to implementing climate change actions funded by various donors, which means it risks missing opportunities to secure financing for climate actions. More specifically, the Department of Environment, Climate Change and Emergency Management needs a grant writer to assist it in accessing relevant funds to address identified needs.

### Ongoing funding is needed

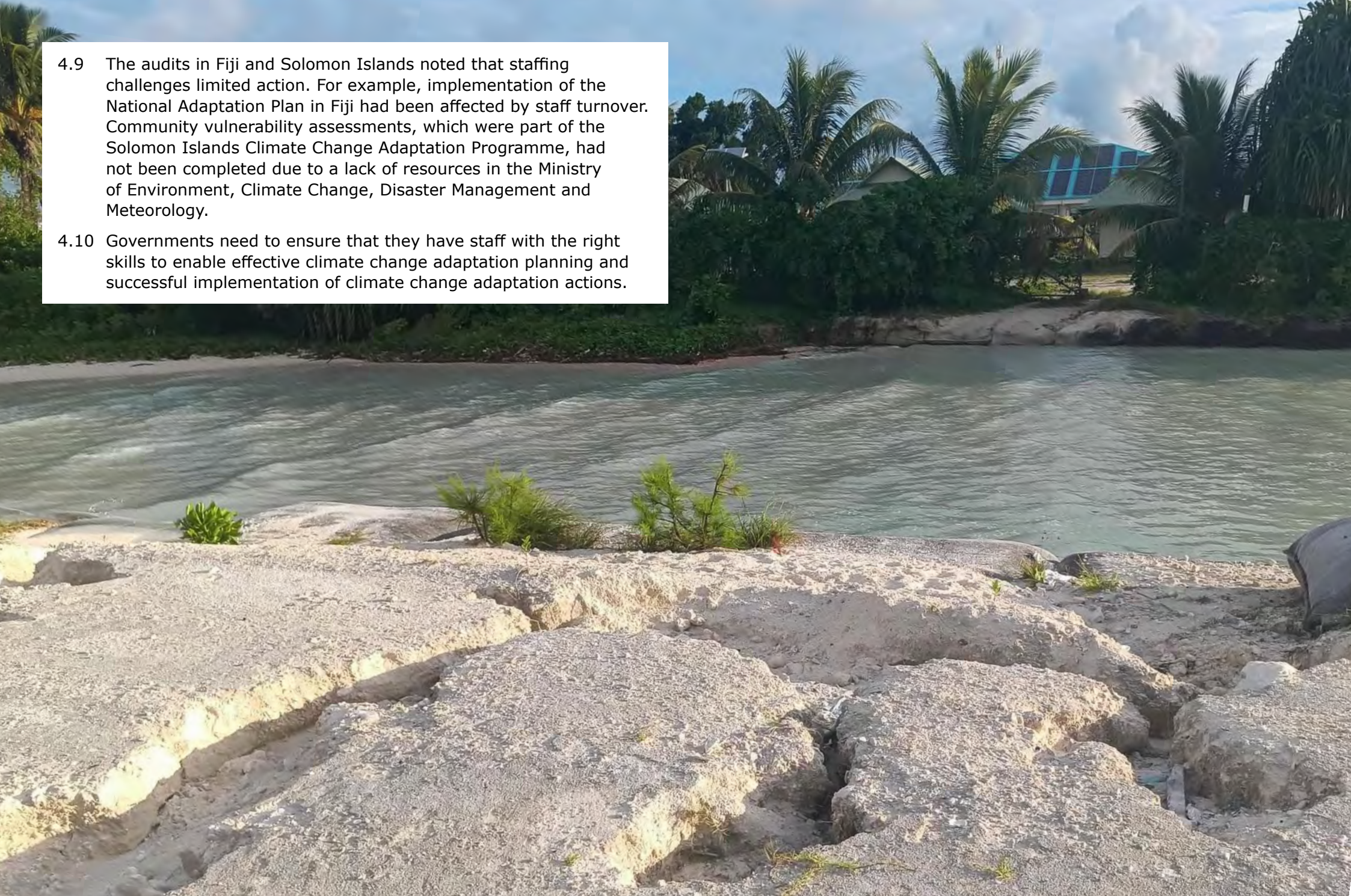
- 4.6 The lack of access to funding is problematic for states. Without funding, particularly in the long term, the states will not be able to respond to climate change and implement sustainable solutions that meet future needs. In Solomon Islands, for example, the Ministry of Environment, Climate Change, Disaster Management and Meteorology has not developed a clear plan for sustained action to address the risks from sea-level rise and coastal erosion. There is no further funding for the Solomon Islands Climate Change Adaptation Programme, leaving some communities exposed to unabated safety hazards and the loss of their livelihoods.
- 4.7 The benefits of adaptation projects take time to be realised. The longer it takes to secure funding, the longer that climate change risks—and the effects of climate change—will remain unaddressed for Pacific Islands and their communities. Governments are beginning to put provisions in place for long-term funding of sustainable action. For example, the New Caledonian Government proposed 2 draft resolutions in September 2024: in the first they declared climate emergency and in the second they established a resilience fund. In Tonga, the National Climate Change Roundtable between the Government of Tonga and donors seeks to attract financial support from donors to help fund climate resilience activities and ensure that there is sustainable funding.

### Governments need to ensure that they have skilled staff to use funding effectively

- 4.8 Audit teams heard that government agencies often work with limited staffing capacity. Many government agencies were facing significant challenges in planning, implementing, monitoring and reporting on adaptation actions because they did not have the staff, and high staff turnover led to a loss of institutional knowledge. For example, one of the barriers to adaptation in the Federated States of Micronesia is the lack of capacity (including expertise, skillsets, systems, policies, technology and processes) at national and state levels to carry out effective planning and action.



- 4.9 The audits in Fiji and Solomon Islands noted that staffing challenges limited action. For example, implementation of the National Adaptation Plan in Fiji had been affected by staff turnover. Community vulnerability assessments, which were part of the Solomon Islands Climate Change Adaptation Programme, had not been completed due to a lack of resources in the Ministry of Environment, Climate Change, Disaster Management and Meteorology.
- 4.10 Governments need to ensure that they have staff with the right skills to enable effective climate change adaptation planning and successful implementation of climate change adaptation actions.





## Part 5: Adaptation measures need to be better targeted at vulnerable areas

- 5.1 It was clear from the audits that the risks of climate change and areas of vulnerability need to be better understood so that adaptation measures can be better planned and targeted. The audits also identified that the measures should be sustainable and based on long-term needs.

### Robust evidence should underpin adaptation plans to prioritise actions for greater impact

- 5.2 There were examples in the audits of adaptation measures that were not prioritised according to what was the most crucial risk or vulnerability for a community or to the areas most vulnerable to climate change. In Vanuatu, this was due to a lack of risk-based assessments and data deficiencies. In Solomon Islands, this was due to community vulnerability assessments not being completed.

#### Case example: Targeting action on communities whose water resources are most at risk in Vanuatu

The national Drinking Water Supply and Security Plan does not provide a mechanism to identify those communities whose water resources are most at risk. The lack of effective risk-based assessments can affect the Department of Water Resource's overall ability to prioritise high-risk communities and direct adaptation resources where they are most needed, reducing overall resilience in some areas. The department can enhance implementation by assisting communities to identify and respond to risks associated with localised climate change impacts, thereby strengthening community resilience for a viable and sustainable water future.

In addition, the Water Information Management System serves as the primary platform for storing and analysing water resource data. It has major deficiencies and lacks the necessary predictive data functionality to assess and identify climate risks related to water resources. This compromises well-informed and efficient allocation of water resources at a national and community level.

#### Case example: Identifying communities most vulnerable to climate change in Solomon Islands

Under the Solomon Islands Climate Change Adaptation Programme, funding was provided for conducting community vulnerability assessments. The Ministry of Environment, Climate Change, Disaster Management and Meteorology was yet to assess many communities for vulnerability to sea level rise and coastal erosion. Some communities that had not had a vulnerability assessment were requesting government assistance as their homes are sinking, their livelihoods are disrupted and community infrastructure is being damaged due to climate change and sea level rise.

- 5.3 In the Marshall Islands, the audit found that construction of seawalls was largely reactive, responding to events, damage and harm rather than being planned and prioritised for the areas where seawalls were needed most.

#### Case study: Piecemeal construction of seawalls in the Marshall Islands

Insufficient planning has meant that the government's efforts to address the impacts of sea level rise and coastal erosion have been largely reactive. Seawall construction projects in Majuro and Ebeye were initiated in response to Typhoon Nangka, which severely affected these areas and neighbouring atolls in 2015. In other instances, constructions of seawalls were based on citizens' claims of damaged properties. This had resulted in seawalls being constructed on a piecemeal basis around Majuro.

Construction of seawalls is not prioritised based on assessment of the vulnerability of areas to sea level rise and coastal erosion. For example, the road by Amata Kabua International Airport, the nation's international airport in Majuro, has not been protected despite often being flooded during high tides, nor has the lagoon side of the airport which is vulnerable to inundation caused by sea level rise and king tides. By contrast, the audit team noted certain areas in Majuro where seawalls have been constructed but these locations do not appear to be as vulnerable.



The road by Amata Kabua International Airport in Majuro was down to a single lane as heavy equipment operators moved up and down the long roadway clearing rocks and debris that block the road from intruding tidal water.



Picture credit: Giff Johnson, Editor, Marshall Islands Journal/RNZ Pacific Correspondence (2021)

The Auditor-General recommended that a holistic plan and approach is taken to protect the whole island considering the vulnerability of areas to future events, and construction of seawalls gives priority to coastal areas that are most vulnerable to the impacts of sea level rise to make the optimal use of seawall resources.

- 5.4 Adaptation plans, and the implementation of them, need to be better informed. This means having more robust and reliable information about the areas and locations most vulnerable to climate change, including predictive data about the risks and future impacts of climate change. Without better information, adaptation actions may not be well targeted or prioritised to mitigate the effects of climate change on places and people that are most vulnerable to it.

### Case example: Understanding coastal systems and erosion of the coastline in New Caledonia

Knowledge of the erosion of the coastline is insufficient and scattered because data is fragmented and difficult to trace and share. The Coastal Observatory, established in 2013, plays a key role in monitoring changes and providing data. The Chamber recommends enhancing its capacity to better coordinate research and management efforts.

It is essential to improve our understanding of coastal systems. This is a first step in being able to plan and anticipate the short-, medium- and long-term impacts of the risk of coastline retreat. Carrying out a prospective study of the location of the coastline will make it possible to define an exposure zone affected by this retreat, in which it will be necessary to regulate the installation of new homes or infrastructure. It is crucial that the provinces, in collaboration with the municipalities, carry out an inventory of coastal issues and the state of infrastructure to better anticipate the impacts of the retreat of the coastline.

### Planning and solutions for the longer term are needed

- 5.5 Climate change and its effects are enduring but also dynamic, which makes adapting to them complex. A range of solutions are needed that are fit for purpose for the different contexts and circumstances of different states. An understanding of what is needed for specific locations and communities must underpin the solutions to mitigate the future challenges of a changing climate.
- 5.6 For example, the audit in Vanuatu found that government agencies needed to address emerging climate risks for there to be long-term success for climate change adaptation in the water sector. In Tuvalu, the audit found that the government was aware of the need to invest in its long-term resilience by strengthening the capacity of each of the 9 islands to identify, plan for and implement locally relevant adaptation actions.
- 5.7 States need to plan for the long term and implement solutions that work for their land and people, including using solutions that use the natural environment (nature-based solutions) where appropriate. This may help ensure that longer-term needs are met so impacts can be enduring.



### **Case example: Building seawalls to cope with projected sea levels and using nature-based solutions in the Marshall Islands**

Protection of the islands should also consider the immediate and long-term needs of the country. Technical studies have recommended seawall designs with large foundations initially to allow future modifications to cope with the rising sea level. The Marshall Islands has not adopted this recommendation in planning and constructing of seawalls. The Auditor-General recommended that the Ministry of Works, Infrastructure & Utilities designs and builds seawall structures that allow future modification to cope with the projected sea level rise and changing conditions.

Additionally, the ministry has not used nature-based solutions as an alternative to seawalls, such as planting mangroves to protect coastal areas or constructing revetments (sloping structures).





## Part 6: Adaptation measures need to be implemented more effectively

- 6.1 The audits identified several projects where adaptation measures had not been practically implemented. This meant the full benefits of the measures had not yet been realised. Auditors also saw situations where measures were delayed and unfinished.
- 6.2 Adaptation measures need to be implemented through coordinated action across agencies. Action needs to include the people and communities affected, and consideration needs to be given to how the measures will be maintained.

### Case example: Unusable water tanks in Tonga

Based on priorities identified in Community Development Plans, the Ministry of Meteorology, Energy, Information, Disaster Management, Environment, Climate Change and Communications and the Prime Minister's Office implemented a program to install water tanks throughout the islands of Tonga. The expected impact of the program was to ensure sustainable supply of sufficient and good quality water for Tonga.

Water tanks were installed throughout Tonga. There were delays in implementation and the water tanks program was observed to not achieve its intended objective of providing water to recipient households as many recipient households still had no guttering installed, for months or years, and therefore had not been able to collect and supply water to the recipient households.



The audit team visited the Lapaha district and observed that there were many water tanks in this district that still had no guttering. This situation also existed in the other districts of Tongatapu. As the team carried out field visits to the villages around Tongatapu, they saw many water tanks without guttering, including 2 community halls with one water tank each that had no guttering or down pipe installed. In times of cyclones, community halls provide shelter to those whose houses may not withstand the force of the cyclones and it is very important to have sufficient supply of water to cater for those who use the halls.



### Implementation of actions needs to be resourced and well managed

- 6.3 Some of the audits found that national plans did not extend to operational implementation plans with adequate resourcing, specific actions and clear roles, responsibilities and timeframes. Actions were not actively and purposely managed to achieve their intended objectives.
- 6.4 For example, no Annual Implementation Plan had been prepared to implement the Joint National Action Plan 2 on Climate Change and Disaster Risk Management 2018–2028 in Tonga. In the Federated States of Micronesia, 4 of the 8 departments and agencies of the national government did not prepare plans on climate change consistent with the provisions of the Climate Change Policy. The construction of seawalls in Majuro, Marshall Islands lacked a formal implementation plan that included tasks and timeframes for completion of the work.

- 6.5 These examples demonstrate the need for governments and responsible ministries to ensure that practical and feasible implementation plans are in place for adaptation measures. Plans need to include information about how implementation will be carried out, including roles and responsibilities, the resources needed and where they will come from, and milestones to be met. Governments and ministries also need to ensure that these plans are used to actively manage the implementation of measures.

### Action needs to be coordinated

- 6.6 Many of the audits found that actions to adapt to climate change were not coordinated. Different government agencies and different levels of government, national and provincial, often worked in isolation from one another, and from non-government organisations (NGOs) and local community groups. For example, the audit in Solomon Islands found that there was no effective arrangement in place for coordinating adaptation activities at the national and provincial levels.
- 6.7 Not having clear or defined roles and responsibilities between agencies, and a lack of managed stakeholder engagement, often contributed to this isolated and uncoordinated approach.
- 6.8 For example, the audit in Tonga found that the integration of the Joint National Action Plan 2 on Climate Change and Disaster Risk Management 2018–2028 actions was not always clear in the corporate plans of the responsible ministries. The audit concluded that roles and responsibilities should be implemented and reviewed to ensure they are effective, clear and without duplication.
- 6.9 The audit in New Caledonia found that in Ouvéa, as throughout the territory, aid and projects were not subject to any overall referencing, management or coordination. Each project was carried out independently and in isolation. The audit concluded that New Caledonia must strengthen its integrated coastal management capacity and improve coordination among stakeholders.
- 6.10 This disjointed and isolated approach is inefficient, missing opportunities to share resources, knowledge, skills and expertise. For example, the relevant Marshall Islands authorities had not effectively coordinated their efforts to construct seawalls, increasing the likelihood of seawall resources being used that did

not contribute to the outcome needed by the government's sea level rise adaptation strategy.

- 6.11 Better coordination is needed across government agencies and levels of government, between government and NGOs, and with local community groups. For example, better coordination is needed at a national level between relevant agencies responsible for climate change policy, and for planning, funding and managing the implementation of adaptation measures. Better coordination is also needed at a local level between agencies working to practically implement projects, including those with responsibilities for works and infrastructure, and between agencies and local community groups affected by adaptation actions.
- 6.12 Effective, multi-layered collaboration lies at the core of government actions in Vanuatu to improve and enhance community-based water management to address climate risks.

### Case example: Multi-layered collaboration, with defined roles and responsibilities, for Vanuatu's water future

Governments and their agencies can use their financial and human resources more wisely to achieve better results for the population when the roles and responsibilities of the collaborative effort are defined and the pathway to success is clear.

To date, the Department of Water Resources (DoWR) has generally worked in isolation, without the benefit of the skills, knowledge, technical expertise and resources of other agencies/players in the climate change space. DoWR's isolated approach makes it harder to develop sustainable water management solutions. Deepened collaboration between DoWR and the Department of Climate Change (DoCC) provides the opportunity to more firmly integrate climate risk awareness and adaptive strategies into local water management planning.

Reaching out and engaging with important stakeholders (such as DoCC) would enable DoWR to leverage opportunities for its clients (community water entities) to access alternative funding sources and technological opportunities to sustainably manage its water future. The DoWR already has in place a robust stakeholder collaboration model with its Water, Sanitation and Hygiene program that was successfully activated during the recent disaster. This model could provide a starting point for the development of similar stakeholder collaboration arrangements in the community-based drinking water program.



- 6.13 Ensuring the appropriate stakeholders are working together effectively might require consideration of whether relevant legislation is in place. For example, given the customary nature of land ownership in New Caledonia, to manage property and buildings in vulnerable areas the audit concluded that land management must be governed by a specific legal framework, including a regional law developed in consultation with customary authorities.

### A focus on sustaining benefits is needed

- 6.14 Implementing adaptation measures is only the start. A long-term view to ensure that assets are maintained so that the benefits are sustained and maximised is critical. This is particularly important for work that has been completed with donor funding. Long-term responsibilities for maintenance of assets and measures, funding and ongoing community involvement need to be built into the planning and implementation of measures from the start. This will ensure the measures have enduring value in helping states to adapt to climate change.
- 6.15 Some of the audits found that arrangements had not been put in place to maintain and further develop assets constructed to adapt to climate change. The audits identified issues such as unclear ownership of assets, unclear responsibilities for maintenance and ongoing funding of maintenance, and unclear roles for liaising and working with the affected communities. Clear long-term plans and arrangements are needed to sustain the benefits that come from completed projects and initial funding of adaptation measures.
- 6.16 For example, the audit in Tuvalu found that for the intended benefits of the reclaimed land to be fully realised and sustained, there needed to be active long-term management of the land. The audit concluded that responsibilities for ensuring that the land is well-managed, and that the intended benefits are achieved, needed to be clarified.

### Communities need to be involved with implementing adaptation measures

- 6.17 During many of the audits, the audit teams visited and spoke to communities to see and understand the impacts that climate change had on them and what difference adaptation actions were making. This community perspective was not visible from the limited monitoring and reporting information available from the relevant ministries. The visits helped the audit teams understand how communities were involved in and affected by different adaptation actions.
- 6.18 Some of the positive differences that adaptation actions were making for communities are discussed earlier in this report. For example, early improvements to livelihoods and local ecosystems from the reclaimed land in Tuvalu through people being able to plant trees and have gardens, and use the land for walks, fishing, swimming, sports and other social activities.
- 6.19 The audit teams also saw and heard how the home environments and livelihoods of people and communities are disrupted by climate change. In some cases, they can face the loss of their homes and land, which they may have strong cultural ties to and customary rights over. When people and communities are not adequately involved in the planning and implementation of adaptation measures, well-intended actions such as relocation can have unintentional consequences that adversely affect their livelihoods.

#### Case study: Relocation of vulnerable communities in Fiji

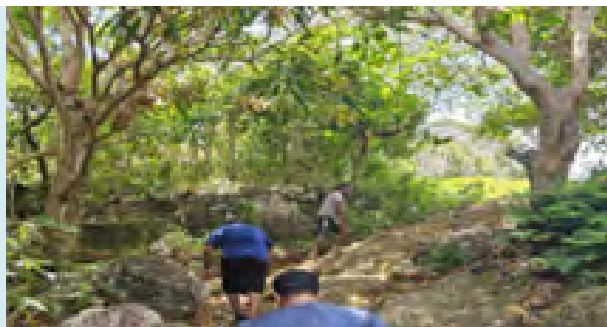
To evaluate progress with the implementation of the National Adaptation Plan, the audit focused on actions to relocate vulnerable communities and made site visits. Relocation is the voluntary, planned and coordinated movement of climate-displaced people to suitable locations, away from risk-prone areas, where they can enjoy the full spectrum of rights including housing, land and property rights and all other livelihood and related rights.

At the village of Nagasauva, 6 houses were relocated to a hill which could only be accessed by tracks through bush and slabs of rocks.

Only one of the houses was occupied.

A villager who had moved back to the old village told the audit team that, because of the accessibility issues, fishing, attending church services and village gatherings, and visiting families became a struggle over time.

Another villager whose family was among those relocated noted that lavatories, washing and cooking facilities were not part of the relocation assistance. They had to build the amenities themselves and at their own expense. The water supply at the relocated site was also said to be unstable.



In the community of Nabavatu, most families still occupied their homes at the old village site, despite warnings about the risks of living there.

Families were reluctant to relocate because of issues associated with living in tents. Approximately 37 households from the community were living in makeshift tents in a church compound. What was intended to be a temporary dwelling had been their home for the past 3 years while awaiting implementation of the relocation project.



Some of the families told the audit team that they shared communal lavatories, showers and washing facilities. Families had built sheds where they could sit to escape the heat inside the tents during the day. Plywood flooring in the tents had worn out and during wet periods the stench in the tents was difficult to endure as there was inadequate ventilation. Some of the families said that their living conditions had contributed to health issues in the community.

Lack of privacy in the tents was also an issue. To allow some form of privacy, curtains had been used to partition the living area from the dressing room.



Villagers in the village of Vunisavisavi were reluctant to relocate due to cultural ties to their ancestral homes.



- 6.20 It is critical that communities are involved in the planning and implementation of adaptation actions. This helps to ensure that their needs and rights are understood and properly considered, and that their ideas for effective solutions are incorporated into adaptation measures. Communities live where the adaptation measures are being implemented and they are often needed to help sustain the benefits of the measures. In Tuvalu, the audit concluded that involving the community in decision-making would foster trust, enhance local stewardship, encourage responsible management practices and help ensure that the reclaimed land meets needs and expectations.
- 6.21 People and communities can feel excluded from and opposed to adaptation measures when they are not adequately involved. By involving communities, the actions taken are more likely to be successful in delivering the intended benefits for communities. This is being recognised by the different states. The audits found many examples where states were seeking to take a community-focused approach. For example, the Tuvalu Coastal Adaptation Project includes assistance for island councils (Kaupules) and communities to facilitate participatory consultations, identify climate change adaptation priorities, reflect on the priorities in the island investment plan, execute priority actions and monitor results.

### **Case study: Community involvement in Drinking Water Supply and Security Planning in Vanuatu**

The national Drinking Water Supply and Security Planning approach involves providing communities with the skills and technical support to adopt and sustain good water management practices suitable to their circumstances and requirements. Through this approach, the Department of Water Resources (DoWR) has laid the foundation to ensure water safety and involve communities in the sustainable management of its water resources.

DoWR has prioritised community engagement with the potential to focus on vulnerable communities. This will further enhance Vanuatu's resilience to climate change impacts on its fragile water resources and help ensure that 'no one is left behind'. DoWR's service delivery approach involves community triggering, meaning that communities identify their water needs and request assistance from DoWR.

Not all communities face the same challenges. Erakor Half Road demonstrates the benefits of effective partnerships with NGOs, which have helped establish more resilient water systems. Other communities have developed their own solutions, including protective by-laws that safeguard water sources and household water fee systems that fund ongoing maintenance. These local success stories provide valuable models that could be adapted elsewhere across Vanuatu's islands.



## Part 7: There needs to be better monitoring and reporting on adaptation measures

- 7.1 In many cases, there was limited monitoring and reporting on the progress and outcomes of adaptation plans and measures. All the audit teams reported on the need for better monitoring of and reporting on projects so that difficulties with implementation could be identified and resolved early, and to provide accountability for successful achievement of the benefits from adaptation measures.

### Regular monitoring and reporting about progress and success are needed

- 7.2 Arrangements for monitoring progress against climate change adaptation priorities and reporting on outcomes were significantly underdeveloped in many of the states. In some cases, reporting requirements had been set but were not being met, and there were delays in reporting on the progress of the implementation of national plans and adaptation programs.
- 7.3 For example, the Tonga audit found that there were delays in reporting on the progress of implementation of the Joint National Action Plan 2 on Climate Change and Disaster Risk Management 2018–2028 (JNAP 2). Although annual progress reports were required, only one progress report had been prepared 5 years into the 10-year term of JNAP 2. In Solomon Islands, the Ministry of Environment, Climate Change, Disaster Management and Meteorology has not carried out enough monitoring and reporting of the Solomon Islands Climate Change Adaptation Programme. The audit concluded that the limited reports available on the program provided an incomplete view of progress and outputs that had been achieved.
- 7.4 In other cases, there was no monitoring and reporting as performance frameworks, including indicators of success, have not been put in place. For example, in Fiji, no specific indicators of success were set during the development of the National Adaptation Plan. There was no monitoring and evaluation system in place to assess progress towards implementing the National Climate Change Policy that would enable transparent results to be open to the public. The audit concluded that improved monitoring

and reporting were essential for assessing progress and informing future National Adaptation Plan updates. A monitoring and evaluation system was being developed.

### Case study: No monitoring and evaluation of climate change adaptation in the Federated States of Micronesia

The National Government is currently without a robust monitoring and reporting mechanism in place for climate change adaptation activities. There are national laws and policies in place on climate change adaptation; however, the implementation of these laws and policies are not being centrally monitored and evaluated to ensure compliance. There is also no existing platform for reporting the implementation of the national and state plans that were established for climate change adaptation planning or actions.

The Public Auditor recommended that the Department of Environment, Climate Change and Emergency Management should:

- strengthen its efforts to effectively coordinate, monitor and report on the implementation of the Climate Change Act and the Policy
- strengthen its efforts to effectively monitor departmental requirements and actions.

- 7.5 Without regular reporting on the progress and outcomes of adaptation actions that uses relevant and reliable information, it is not possible to identify where interventions may be needed. Problems or delays that come from difficulties in implementing actions could limit their impact. Equally, without regular reporting it is not possible to identify where projects are tracking well towards their milestones and objectives or examples of good practice that could be applied more broadly.
- 7.6 For example, in Fiji, the audit found that poor quality control and project completion monitoring led to problems with establishing nature-based seawalls in some areas. Problems included unfinished seawalls and seawalls that would not prevent flooding or damage to houses.



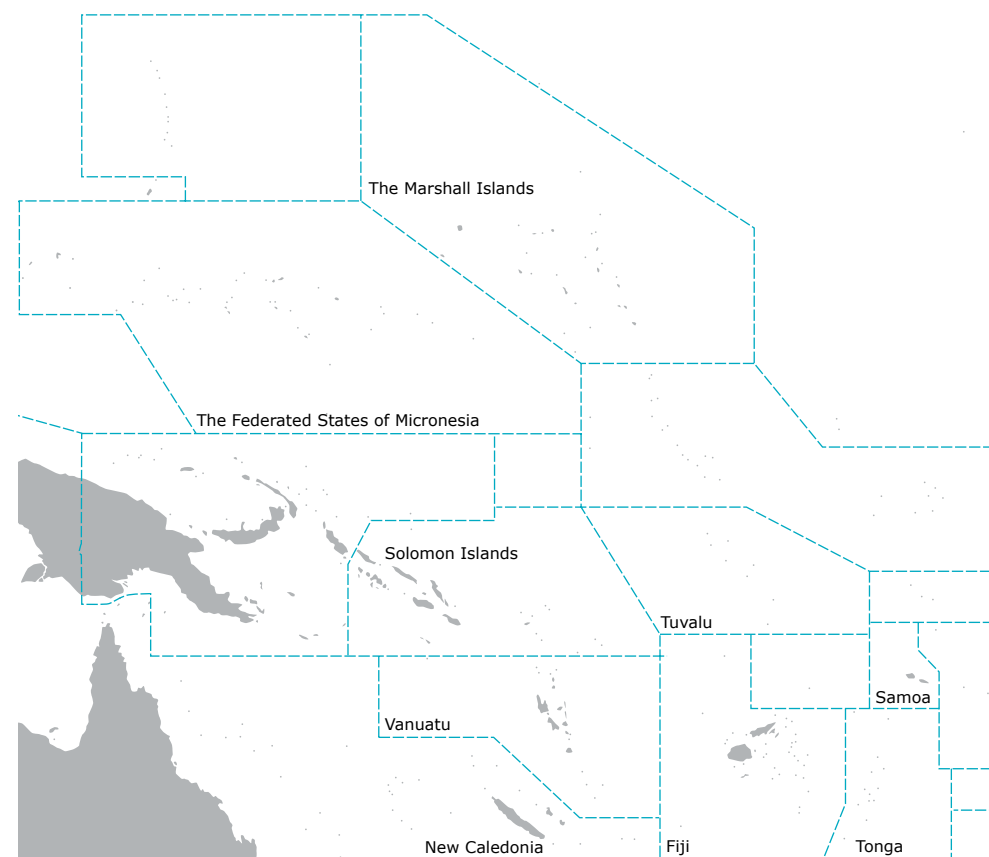
- 7.7 The absence of monitoring and reporting also means that there is no transparency for legislatures, parliaments and the public about what actions are being taken, the effects of these (both positive and negative) and whether the intended outcomes of the actions are being achieved. Without monitoring and reporting there is also no accountability for the successful implementation of actions and achievement of outcomes.
- 7.8 For example, in Tuvalu, the audit concluded that there needed to be effective reporting on the success of the reclamation process to provide accountability and transparency and ensure the potential of the land was realised. This includes reporting on any unintended consequences of the reclaimed land and how these were being addressed. The audit concluded that clear performance indicators were needed. Metrics such as land usage rates, economic returns and community satisfaction could inform future decision-making and adjustments to land management strategies.
- 7.9 Better management and oversight of climate change adaptation actions is needed through improved monitoring, reporting and evaluation at a national and project level. This includes better monitoring and evaluation frameworks with SMART objectives, targets and performance measures, and more regular monitoring and reporting on strategies, plans and actions. For example, the audit in New Caledonia recommended that New Caledonia should establish a dashboard of indicators to monitor the achievement of objectives and steer implementation of the climate change strategy.



# Appendices

## One: The global cooperative audit initiative

1. The 9 audits brought together in this report were carried out as part of a global cooperative audit initiative known as the Climate Change Adaptation Actions (CCAA) audit.
2. The CCAA audit was coordinated by 2 organisations within the International Organization of Supreme Audit Institutions (INTOSAI), namely the INTOSAI Development Initiative (IDI) and the INTOSAI Working Group on Environmental Auditing (WGEA).
3. Under the initiative, 48 supreme audit institutions (SAIs) undertook a CCAA audit during 2024 to 2025 in one of 4 topic areas – implementing climate change adaptation plans or actions, disaster risk recovery, water resource management, and sea level rise and coastal erosion.
4. Nine SAIs in the Pacific region took part in the CCAA project, along with SAIs from Europe, Africa, Asia, the Caribbean, South America and Canada. The IDI and WGEA supported the SAIs in conducting their audits.
5. The Pacific Association of Supreme Audit Institutions also supported the 9 Pacific SAIs together with some of their twinning partner audit offices from Australia and New Zealand. The 9 Pacific SAIs were the:
  - Federated States of Micronesia Office of the National Public Auditor
  - Office of the Auditor-General Republic of Fiji
  - Office of the Auditor General of Tuvalu
  - Republic of the Marshall Islands Office of the Auditor General
  - Samoa Audit Office
  - Solomon Islands Office of the Auditor-General
  - Territorial Chamber of Accounts of New Caledonia
  - Tonga Office of the Auditor General
  - Vanuatu National Audit Office.





## Two: The overall focus and conclusions of the 9 Pacific Island audits

### The sea level rise and coastal erosion audits

| SAI              | Audit objective and scope                                                                                                                                                                                                                                                                                     | Conclusions                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Tuvalu           | Examine the effectiveness of the new reclamation-land implemented on Funafuti as part of the Tuvalu Coastal Adaptation Project in reducing the vulnerability of key coastal infrastructure on Funafuti to wave induced damages.                                                                               | There was a well-formed plan for reclaiming the land along the Funafuti foreshore. Overall, the reclaimed plan was built to plan. There have been unexpected disadvantages for some households near the reclaimed land. Early benefits from the reclaimed land, including to livelihoods and the local ecosystem, are being experienced. For the intended benefits of the reclaimed land to be fully realised and sustained for the people of Funafuti and Tuvalu, active long-term management of the land is needed. Community involvement will be critical to conservation and sustainable use of the land to provide ongoing benefits to them, including benefits to women. |
| Marshall Islands | Determine the effectiveness of the Marshall Islands in addressing the impacts of sea level rise and coastal erosion on the most populated atolls, and whether there are opportunities available for the government to improve on these adaptation measures.                                                   | Although the Marshall Islands has taken some steps in response to storm events in recent years, until recently there has not been a plan to proactively adapt to the impacts of rising sea levels and coastal erosion. While some of the reactive measures taken so far have provided some protection for some locations and communities, the measures have generally not been implemented well and the relevant authorities have not effectively coordinated their efforts. Improvements are needed in the planning, coordination and implementation of adaptation measures to make them more effective.                                                                      |
| Solomon Islands  | Examine whether the Ministry of Environment, Climate Change Disaster Management and Meteorology's implementation of the Solomon Islands Climate Change Adaptation Programme was effective in delivering adaptation activities to support communities most vulnerable to rising sea level and coastal erosion. | The Ministry has not been effective in delivering adaptation activities to support communities most vulnerable to rising sea level and coastal erosion. It has achieved some milestones in support of climate change actions. However, it is yet to carry out vulnerability assessments for most at-risk communities and has not secured additional funding to implement measures to adapt to sea level rise and coastal erosion. It has also not planned for resettlement in response to sea level rise. More urgent, planned and sustained action is needed to protect communities vulnerable to the effects of sea level rise and coastal erosion.                          |
| New Caledonia    | Review the measures put in place by the local government and provinces to adapt to the risk of coastal retreat, the funding allowed and the effective delivery of solutions to mitigate the effects of sea level rise.                                                                                        | Although actions have been implemented, they remain insufficient and uncoordinated. New Caledonia must strengthen its integrated coastal management capacity, improve coordination among stakeholders, and develop a long-term strategic vision to address shoreline retreat. A balanced approach, combining protection, natural adaptation, and acceptance, will be key to facing these evolving challenges.                                                                                                                                                                                                                                                                  |

## The climate change climate change adaptation planning and actions audits

| SAI                                | Audit objective and scope                                                                                                                                                                                                                                                                                                                                                                                                     | Conclusions                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| The Federated States of Micronesia | Assess the extent of adaptation planning or efforts by the Federated States of Micronesia National Government to effectively address climate change issues.                                                                                                                                                                                                                                                                   | There are a lot of efforts and actions being made by the Federated States of Micronesia nationwide and significant partnerships and funding involved in climate change adaptation planning and actions. However, there is a need to strengthen planning and implementation, including coordination of climate change adaptation actions, and improve monitoring and reporting by the national government.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Fiji                               | Determine whether the Climate Change Department of the Ministry of Environment and Climate Change had effective processes and procedures in place to plan for actions to adapt to the adverse impacts of climate change, that were consistent with relevant quality framework requirements.                                                                                                                                   | The Climate Change Department under the Ministry of Environment and Climate Change has effectively planned adaptation actions at the national level, with the assistance of the National Adaptation Planning Global Network and financed by the Government of Canada. However, and lack of sufficient funding and clarity about roles and responsibilities hinders the successful implementation of the National Adaptation Plan. Post planning, with regards to implementation, monitoring, evaluation and reporting, should be thoroughly considered for improvement by the Climate Change Department in informing its new National Adaptation Plan.                                                                                                                                                                                                                                                                                                   |
| Samoa                              | Assess how effectively the Government of Samoa, through the Ministry of Natural Resources and Environment and the Ministry of Women, Community and Social Development, had ensured the sustainability of specific activities related to the protection of communities' physical assets and the promotion of resilient livelihoods, as implemented under Component 2 of the Economy-Wide Adaptation to Climate Change project. | Expected to be available later in 2025.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Tonga                              | Examine whether the Department of Climate Change was effectively managing the implementation of the Joint National Action Plan 2 on Climate Change and Disaster Risk Management 2018–2028 (JNAP 2) to achieve its objectives.                                                                                                                                                                                                 | <p>The JNAP 2 and its related documents provide a detailed plan of action for Tonga's climate change adaptation work for the period of 2018–2028. It comprises the key actions, key institutions and their roles and responsibilities, monitoring and reporting requirements.</p> <p>However, the integration of the JNAP 2 actions is not always clear in the corporate plans of implementing ministries. Implementing responsibilities need to be strengthened and reviewed to ensure their effectiveness and that there is no duplication. Appropriate and effective arrangements/mechanisms should be in place to facilitate the implementation of responsibilities. For example, the Department of Climate Change should coordinate and report on climate change activities, maintain accurate records/databases in relation to projects/programs, prepare a financial report for the JNAP 2 and prepare the JNAP 2 Annual Implementation Plan.</p> |



## The water resource management audit

| SAI     | Audit objective and scope                                                                                                                                                                          | Conclusions                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|---------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Vanuatu | Examine the extent to which Vanuatu's Department of Water Resources had put in place institutional arrangements supporting its Climate Change Adaptation Actions to secure Vanuatu's water future. | <p>Vanuatu has established a foundation for water management through basic laws and policies that acknowledge climate risks. However, this has not yet translated effectively to the community level, where only one in 10 water systems has developed specific safety and security plans. For instance, most rural communities rely on water sources without comprehensive risk assessments or protection plans, leaving them vulnerable during extreme weather events.</p> <p>Coordination between government departments presents another challenge. When emergencies strike, various agencies work together effectively, but this collaboration rarely extends to everyday planning and prevention efforts.</p> <p>Information management weaknesses further complicate efforts. The national Water Information Management System contains incomplete data and lacks the ability to predict future scenarios – both critical for effective planning. A computer attack in 2022 damaged this system, and recovery efforts are still underway, highlighting the need for both technical upgrades and better security measures. Without reliable data, officials struggle to identify vulnerable water systems before problems arise.</p> |

### Three: Identifying themes across the audits

PASAI brought together members of the 9 audit teams for in-person workshops twice during the completion of their audits to make connections across the audits and identify common themes from them. The first workshop was towards the end of audit conduct to support the audit teams distil their findings from the evidence that they had gathered and identify preliminary themes across the findings. As the audit teams were finalising their audit reports, the second workshop was to support them in identifying, refining and confirming the common themes across their findings, conclusions and recommendations. It was also to identify case examples from the audits that illustrated the themes.

The Secretary General of the INTOSAI Working Group on Environmental Auditing and the Coordinator of the PASAI Regional Working Group on Environmental Auditing both helped PASAI to facilitate the first workshop.

The Office of the Auditor-General of New Zealand supported PASAI in facilitating the second workshop and peer reviewing this regional report prepared by PASAI. The workshop facilitators had provided guidance and advice to many of the audit teams during the completion of the audits.

The themes and examples identified through the workshops were used to prepare this regional report, which has been agreed by the heads of all 9 SAIs as accurately representing the audits and presenting the themes from them.

