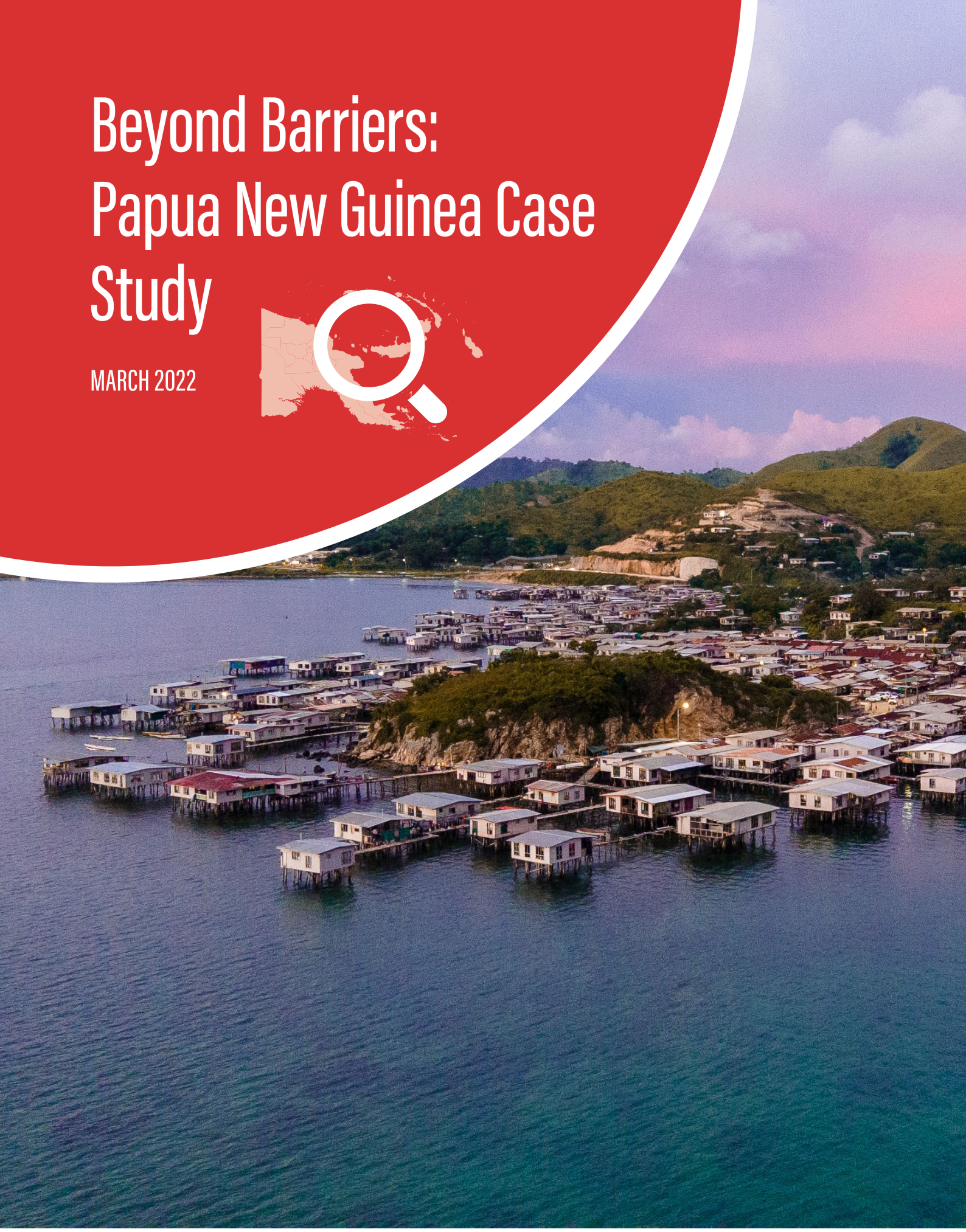
Beyond Barriers: Papua New Guinea Case Study

MARCH 2022



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Cover photo: Sun setting at Hanuabada still village in Port Moresby, Papua New Guinea. RGAPhoto86 / Shutterstock.

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About the research

This research project explores opportunities for integrating climate change adaptation (CCA) and disaster risk reduction (DRR) programming, focusing primarily on local practice and implications at the community level, while recognising that these are shaped by national and regional policy frameworks. It seeks to capture local evidence of best practices and identify opportunities to strengthen and build on these models.

Phase 1 of this research focuses on case studies across the AHP Disaster READY program, including Fiji, Solomon Islands, Vanuatu, Timor-Leste and Papua New Guinea (PNG). Phase 2 will extend data collection outside of AHP programming to ensure findings are widely applicable across the region; this will include case studies in Tonga and Kiribati. This data is being collected through desk review,[1] key informant interviews at the global, regional, and national levels, and community focus group discussions in case study countries. Recommendations from this work will inform future AHP programming and supplement ongoing discussions at the national and regional levels in the Pacific.

The research is being undertaken by Humanitarian Advisory Group (HAG) and supported by World Vision Australia through the AHP Disaster READY and Partnership and Performance Funds 2. These funding streams are managed by the Alinea Whitelum Group on behalf of the Australian Government Department of Foreign Affairs and Trade (DFAT).

About Humanitarian Advisory Group

Humanitarian Advisory Group was founded in 2012 to elevate the profile of humanitarian action in Asia and the Pacific. Set up as a social enterprise, HAG provides a unique space for thinking, research, technical advice and training that contributes to excellence in humanitarian practice. As an ethically driven business, we combine humanitarian passion with entrepreneurial agility to think and do things differently.

About Disaster READY

The Disaster READY initiative is part of the AHP, a five-year (2017–2022), $50 million partnership between DFAT and Australian non-governmental organisations (NGOs) to improve humanitarian response. Disaster READY was designed to strengthen disaster preparedness and management across the Pacific and Timor-Leste.

Disaster READY serves to strengthen local humanitarian capability in Fiji, Vanuatu, Solomon Islands, PNG and Timor-Leste so that communities are better prepared for and able to manage and respond to rapid and slow-onset disasters. This includes ensuring that women, people with disabilities, youth and children's rights and needs are being met in disaster preparedness and response at all levels. Additionally, it assists governments, NGOs, the private sector, and communities to coordinate more effectively for inclusive disaster preparedness. Response and national NGOs and churches have more influence and capacity in the country's humanitarian system.

1 A literature review from this research was published in July 2020: Beyond Barriers: Integrating Disaster Risk Reduction and Climate Change Adaptation in the Pacific.

Acronyms

ADB	Asian Development Bank
AHP	Australian Humanitarian Partnership
ATWG	Adaptation Technical Working Group
CCA	Climate Change Adaptation
CCDA	Climate Change and Development Authority
CSO	Civil Society Organisation
DFAT	Department of Foreign Affairs and Trade
DRR	Disaster Risk Reduction
FGD	Focus Group Discussion
HAG	Humanitarian Advisory Group
IOM	International Organisation for Migration
KII	Key Informant Interview
NAP	National Adaptation Plan
NDC	National Disaster Centre
NEC	National Executive Council
NGO	non-governmental organisation
NDRRF	National Disaster Risk Reduction Framework 2017-2030
PNG	Papua New Guinea
SDG	Sustainable Development Goal
UN	United Nations
UNDP	United Nations Development Programme
UNFCCC	United Nations Framework Convention on Climate Change

Introduction

Papua New Guinea (PNG) faces significant risk of increasingly severe and frequent disasters, many associated with the changing climate. It ranks 9th on the World Risk Index 2021 due to its high exposure, vulnerability and low coping capacity.[2] PNG currently maintains separate governance and institutional arrangements for disaster risk reduction (DRR) and climate change, with most stakeholders agreeing that DRR and climate change adaptation (CCA) activities continue to operate largely in silos. This is reflected in financing and coordination mechanisms, creating multi-layered challenges for integrated approaches at the community level. Despite these macro challenges, high-quality integrated approaches at local and provincial levels can be replicated and scaled. This case study explores PNG's progress in integration of DRR and CCA, identifying key themes and opportunities for stakeholders to advance approaches that reduce risk and enhance resilience in communities in PNG.

Purpose of the case study

This case study was conducted to understand country-specific approaches to CCA and DRR integration and inform approaches to strengthening community-level outcomes. The study focused on Australian Humanitarian Partnership (AHP) programming in PNG, though its results are intended for a wider range of stakeholders.

This case study will complement six other country case studies and additional Pacific-wide datasets. Findings across the entire dataset will be presented in a final report that responds to the overarching questions below.

1. What are the existing challenges and opportunities in the implementation of integrated DRR and CCA programming?

2. How can AHP programs strengthen the integration of DRR and CCA at the community level in case study countries?

Definitions

Disaster risk reduction (DRR): Disaster risk reduction is aimed at preventing new and reducing existing disaster risk and managing residual risk, all of which contribute to strengthening resilience and therefore to the achievement of sustainable development.[3]

Climate change adaptation (CCA): The process of adjustment to actual or expected climate change and its effects. In human systems, adaptation seeks to moderate or avoid harm or exploit beneficial opportunities. In some natural systems, human intervention may facilitate adjustment to expected climate and its effects.[4]

Integration: In this report, 'integration' refers to the integration of DRR and CCA, meaning, the combination of interventions that address CCA and DRR with the intention of improving humanitarian and development outcomes for at-risk and crisis-affected populations.[5]

2 World Risk Report 2021 2021 World Risk Report
3 IPCC 2019 Glossary
4 Ibid.
5 This is a working definition adapted from the Global Nutrition Cluster and will be explored further and refined in this research. Available at https://fscluster.org/sites/default/files/documents/icnwg_developing_an_integrated_response_approach_gfsc_20191128.pdf

Methodology

Data collection in each country was led by national researchers, overseen by a senior researcher based in Suva, Fiji and supported by Humanitarian Advisory Group (HAG), World Vision Australia and AHP agencies and partners. The research used a mixed methods approach, including desk review of 20+ documents, key informant interviews (KIIs) with eight critical stakeholders and community focus group discussions (FGDs) in four communities with 167 representatives (groups were organised by gender and age, including men, women, children, elders and people with disabilities). National researchers contextualised research tools for each country.

Limitations

COVID-19 context and restrictions: COVID-19 restrictions hindered field travel in PNG, as well as the ability to interview some stakeholders due to competing priorities.

Representativeness: Eight stakeholders participated in in-depth KIIs, and 167 people took part in 12 FGDs in four communities. These methods elicited a range of perspectives, but the small number of participants relative to the population of PNG means the generalisability of the results is uncertain and they should be interpreted cautiously.

Applicability of findings: This study was intended to present findings and opportunities that are relevant not only to AHP agencies, but other agencies operating in PNG. However, research participants focused on AHP agencies and programs, therefore the results may not be fully applicable to other agencies.

Structure of this report

This report presents a brief snapshot of findings from data collection in three main sections.

i. The first section provides an **overview of the disaster and climate context** in PNG.

ii. The second section provides an **overview of policy and practices** that influence DRR and CCA interventions and approaches.

iii. The third section presents the **key findings and opportunities for stakeholders** in PNG.

Section 1: Setting the scene – the disaster and climate context in Papua New Guinea

This section provides a brief overview of PNG's climate and disaster risk and the institutional arrangements that structure climate and disaster risk reduction efforts.

Climate and disaster risk profile

PNG is situated in the active Pacific Ring of Fire. It is the largest Pacific Island state located in Oceania. The country is made up of the eastern half of the island of New Guinea, alongside four additional islands and over 600 islets and atolls.[6] The country is highly susceptible to natural hazards, including earthquakes, volcanic eruptions, tsunamis, cyclones, river and coastal flooding, landslides and droughts.[7] Evidence suggests that without significant global mitigation and local adaptation action, PNG's communities face significant increases in disaster risk as a result of climate change. These risks are likely to disproportionately burden the poorest communities.[8]

Some of the existing and forecast contextual challenges facing PNG are listed below.

Warming projections for PNG are similar to the global average; however, minimum and maximum temperatures are expected to rise faster than average temperatures, amplifying risks to human health and ecosystems.[9]

Hazards such as flash flooding, landslides and coastal flooding are likely to intensify.[10]

The population affected by river flooding, and its economic damage, are both projected to double by 2030.[11]

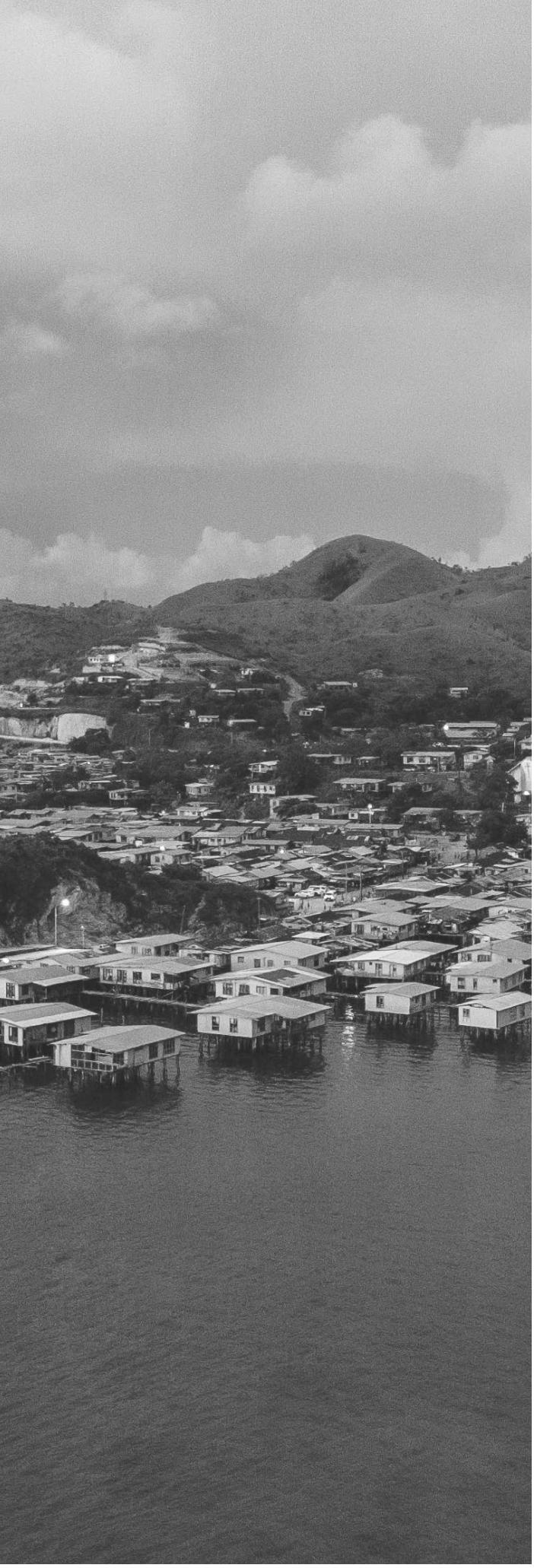
The degradation of natural resources is increasing, including changes in viable plant and animal species, declining ecosystems and reductions in agricultural yields.[12]

In December 2021, parts of PNG experienced a surge in king tides that flooded communities and displaced approximately 53,000 people.[13]

PNG is facing more than double the global average annual sea level rise.[14]

The Carteret Islands, located northeast of Bougainville, have lost 50% of their land since 1994. Carteret Islanders were named the world's first climate refugees.[15]

6 ADPC and UNDRR, 2019, Disaster Risk Reduction in Papua New Guinea: Status Report
7 National Disaster Centre PNG, Emergency and Disaster Management and Disaster Risk Reduction in Papua New Guinea
8 World Bank, 2021, Climate Risk Country Profile – Papua New Guinea
9 Ibid.
10 Ibid.
11 Ibid.
12 Ibid.
13 McLennan and LaFortune, 2018, Papua New Guinea's Rapid Tides Expose Climate Risks: Coastal communities bear brunt of climate inaction, *Human Rights Watch*
14 Ibid.
15 Munoz, 2019, Understand the human side of climate change relocation, *The Conversation*



Box 1: Spotlight on Kegesuglo Community

One of the communities visited for this research was Kegesuglo, located in Kundiawa-Gembog district in Chimbu province. The village is near the base of Mount Wilhelm, which creates difficult conditions for agricultural production. On 10 April 2020 a flash flood struck the community, causing a large landslide that claimed 10 lives and caused significant damage and disruption to livelihoods in Kegesuglo.[16] Homes, gardens, livestock and fish farms in the village were destroyed. The landslide also damaged trade stores, hydropower stations and churches, and disrupted the water supply. PNG authorities provided relief supplies and the Mount Wilhelm Secondary School provided shelter and food to those displaced.[17] Additionally, neighbouring communities mobilised and brought food and other livelihood necessities and donated to families affected by the flood.[18] Participants in the focus group also reflected on the impacts of flash flooding in 2019 and significant drought in 2015–16.[19]

Overview of governance

Two separate government entities are responsible for DRR and climate change in PNG. Disaster management and DRR are governed by the National Disaster Centre (NDC), while climate change related issues and policies are governed by the Climate Change and Development Authority (CCDA). DRR and climate change impacts are both explicitly identified in national strategies and development plans, but have separate agendas.[20]

In 2019, the Center for Excellence in Disaster Management and Humanitarian Affairs identified major gaps in comprehensive and integrated risk assessment and information sharing to support planning and decision-making by government and non-government agencies.[21] Siloed governance structures continue to present challenges for effective integrated programming.

16 FGDs 4–6
17 Celestial, 2020, Major landslide hits Kundiawa-Gembogl, Papua New Guinea, *The Watchers*
18 FGD 8
19 FGDs 4–6
20 Our Vision 2050; National Strategy for Responsible Sustainable Development; Government's Mid-term Development Plan
21 CFE-DM, 2019, Papua New Guinea Disaster Management Reference Handbook

Key governing bodies

Disaster management

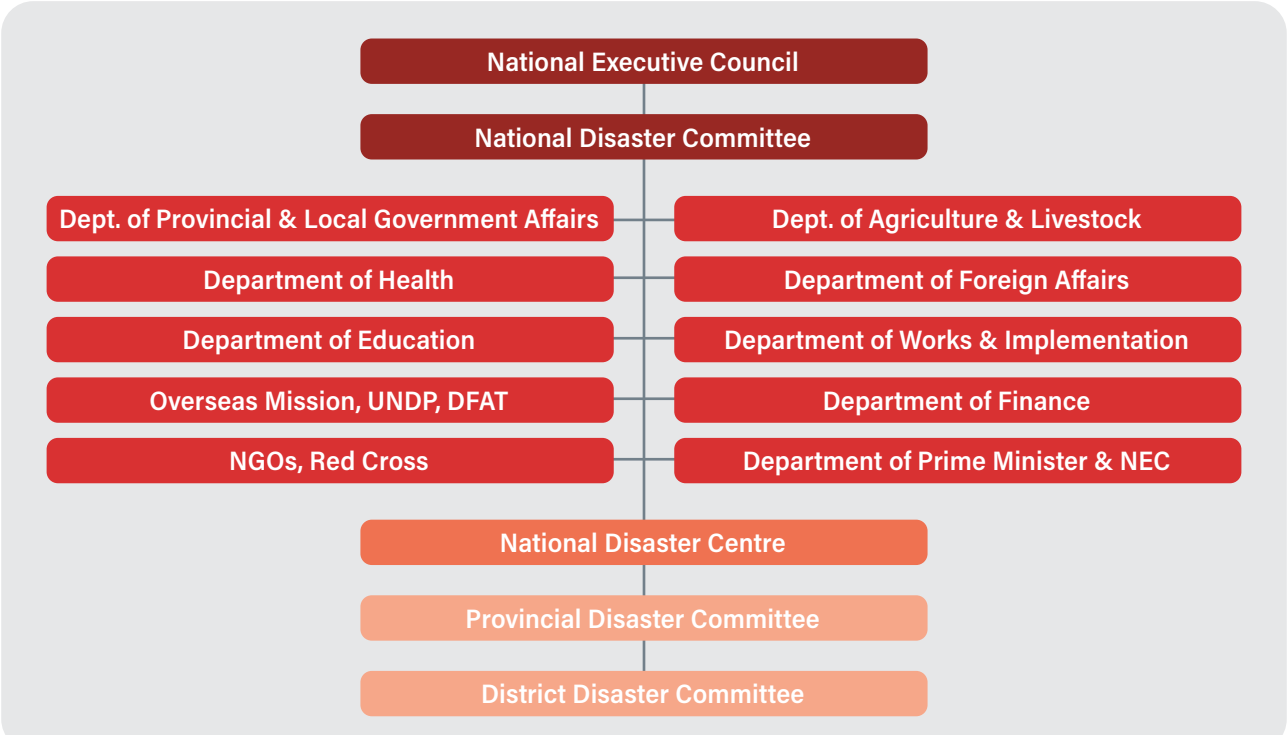
The NDC is the lead agency for disaster management and DRR in PNG. At the national level, the NDC operates alongside the National Executive Council and the National Disaster Committee. There are also provincial, district and local-level disaster committees. Each level of government is responsible for developing and maintaining a disaster risk management plan appropriate for its risk profile, resources and capacity.[22]

The National Executive Council (NEC) is made up of members of the National Parliament and oversees decisions for disaster policy. It is guided by the **National Disaster Committee**, which is comprised of the heads of key national government agencies. The National Disaster Committee is responsible for supervising and reporting on the national state of preparedness, supporting planning and public awareness and advising the NEC.[23]

The **National Disaster Centre (NDC)** is responsible for coordination of preparedness and response activities, including information sharing, national training and planning and financial management.[24] Responsibility for the NDC was transitioned from the Ministry of Inter-Government Relations to the Ministry of Defense in 2020.[25]

Provincial Disaster Committees have also been established to develop and coordinate preparedness and emergency plans for the provinces.

Figure A: Disaster Governance in PNG



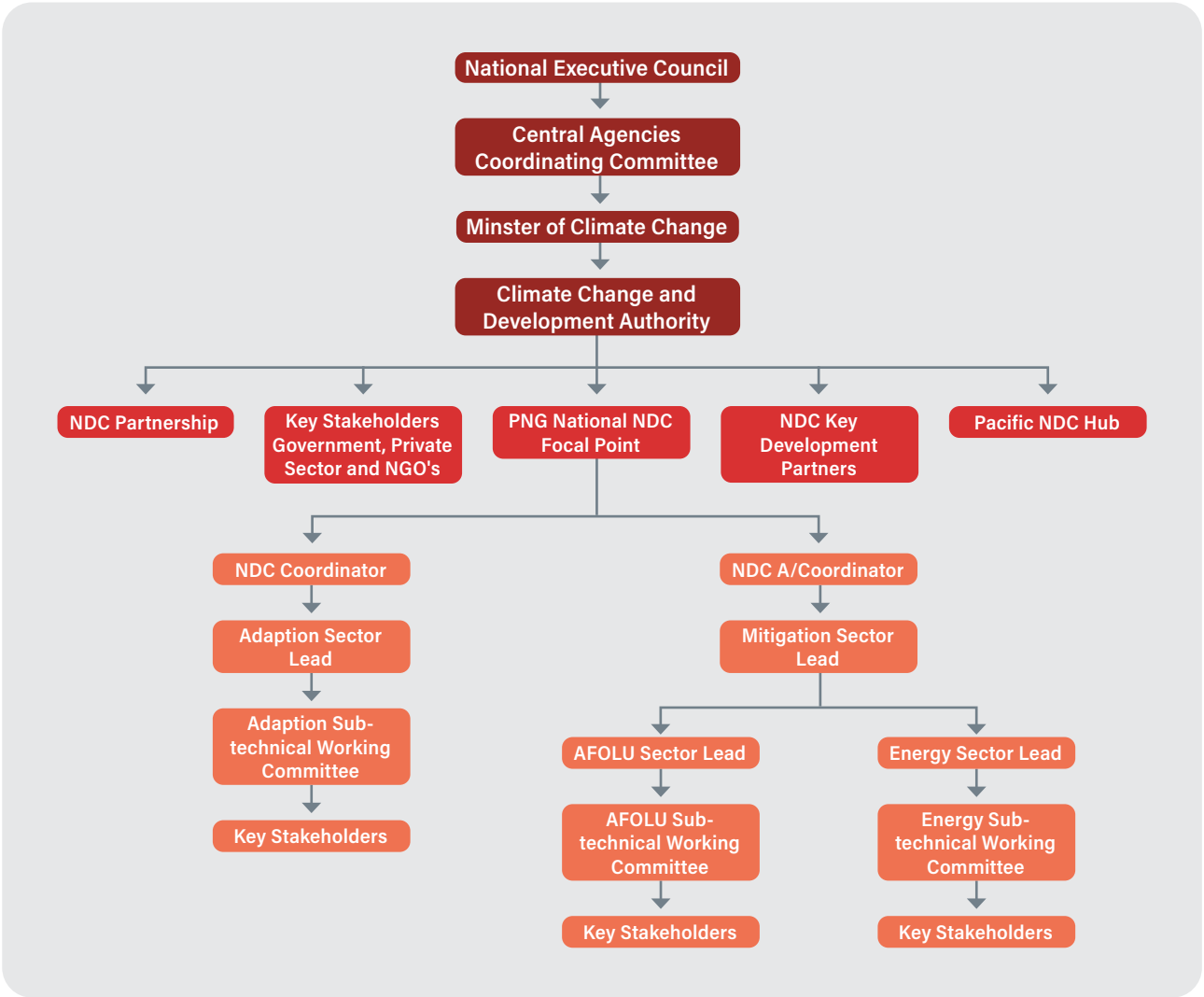
22 Ibid.
23 Ibid.
24 CFE-DM, 2019, Papua New Guinea Disaster Management Reference Handbook
25 The National PNG, 2020, Disaster roles transferred to Defence Ministry

Climate change

At the national level, climate change is governed by the **Climate Change and Development Authority (CCDA).** The CCDA was established by the Climate Change Management Act of 2015 to replace the Office of Climate Change and Development. The CCDA is responsible for facilitating and developing appropriate policies and regulatory frameworks on climate change.[26]

Provincial Climate Change Committees were established to drive the climate change agenda via provincial development budgets and plans. Additionally, an **Adaptation Technical Working Group (ATWG)** was established under the CCDA to act as the advisory body to review CCA-related projects and interventions. These committees are comprised of members from government departments, the private sector, development partners, NGOs and civil society organisations (CSOs), as well as provincial/local level representatives. Not all provinces have these committees, and they are not consistently effective.[27]

Figure B: Climate Change Governance in PNG



Source: Papua New Guinea Second NCD (2020), p. 7

26 CCDA, 2020, Papua New Guinea's Enhanced Nationally Determined Contribution 2020
27 UNDP, UNEP and GEF, 2017, National Adaptation Plan process in focus: Lessons from Papua New Guinea

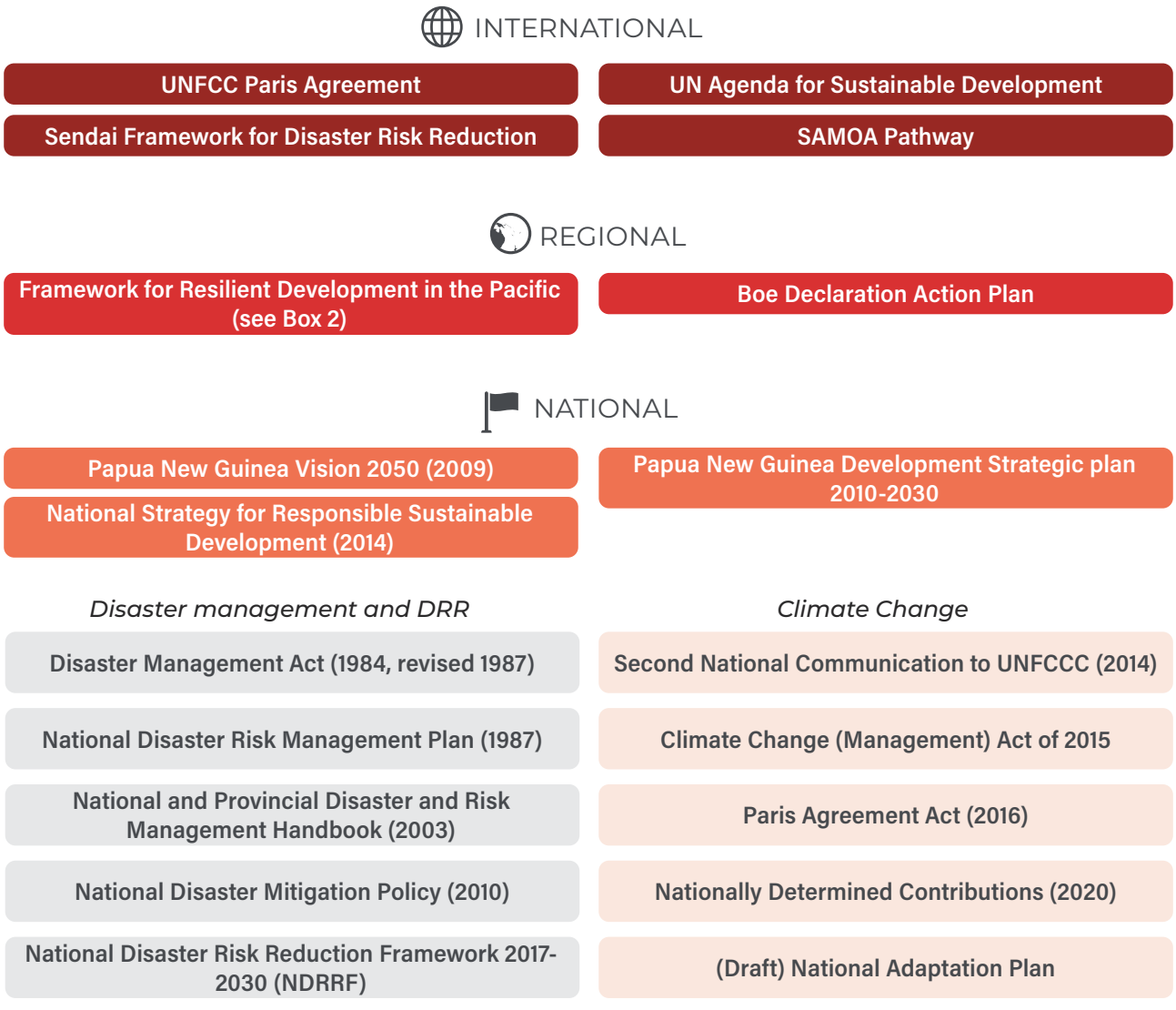
Section 2: Lay of the land – Policy and practice in PNG

This section highlights policies and funding arrangements relevant to disaster management, DRR and climate change in PNG. This provides the context in which implementing agencies operate. This section also provides a brief overview of AHP programming in the country.

Snapshot of key policies, plans and frameworks for DRR and CCA

As noted earlier, in PNG, policies for disaster management and DRR are separate from those related to climate change. This graphic provides a high-level snapshot of the key policies, plans and frameworks for DRR and CCA in PNG, including relevant policies at the regional and international level that influence national policy instruments.

Figure C: Key plans, policies and frameworks for DRR and CCA in PNG



While DRR and climate change are referenced in national development plans as key considerations, policies and frameworks for disaster and climate change remain separate in PNG. The National Disaster Risk Reduction Framework 2017-2030 explicitly references its alignment with the Framework for Resilient Development in the Pacific and its consideration of climate impacts; however, there is limited evidence of shifts towards integrated policies or frameworks.[28]

An Adaptation Fund project (2012–2016) supported the development of provincial-level adaptation strategies, focusing on riverine and coastal populations.[29] Recent collaboration between NDC and the International Organisation for Migration (IOM) has been instrumental in providing technical support to develop provincial disaster risk management strategies, standard operating procedures and Community-Based Disaster Risk Management Plans (see Box 2).[30] Not all communities in PNG have access to such plans. Where plans do exist, there is often limited awareness of them among community members, presenting challenges with implementation.[31]

Box 2: Support for community-based CCA and DRR plans

Recent collaboration between NDC and IOM has resulted in 13 provinces supported with DRR programming, 44 Community-based Disaster Risk Management Plans launched, and 12 Provincial Disaster Risk Management Strategies drafted. IOM worked directly with local communities to reduce exposure and vulnerability to natural hazards and to build resilience and facilitate CCA through community-based planning interventions on DRR.[32] This is an important step in developing sub-national and local plans for DRR and CCA, yet key informants from this research noted that the inconsistency across provinces in disaster management structures and plans continues to be a barrier for consistent integrated actions in communities in PNG.[33]

A National Adaptation Plan (NAP) is currently being developed by the CCDA with the support of the United Nations Development Programme (UNDP) and the Green Climate Fund. It is expected to support the mainstreaming of adaptation actions across all development sectors; very few sectoral development strategies currently incorporate climate adaptation. The new UNDP project, Advancing PNG's National Adaptation project (2020–2022), will continue to support the NAP's development and implementation.[34]

Relevant funding arrangements

Papua New Guinea receives funding for DRR and CCA programs through multilateral and bilateral sources as well as through domestic budgets. The Asian Development Bank (ADB) is the country's largest multilateral development partner, committing more than US$3.4 billion since beginning work in PNG in 1971.[35] The Australian Department of Foreign Affairs and Trade (DFAT) is the county's largest bilateral donor. DFAT continues to provide support in the areas of building resilience, humanitarian assistance, DRR and social protection.[36]

In February 2019, the CCDA, Department of National Planning and Monitoring, and Pacific Island Forum Secretariat published a paper entitled Options for Strengthening Climate Finance Coordination and Accessibility in PNG. The paper argues for increased national ownership, information sharing and inclusive participation of key stakeholders, including CSOs, private sector organisations, training

28 National Disaster Centre, 2017, PNG National Disaster Risk Reduction Framework 2017-2030
29 UNDP, UNEP and GEF, 2017, National Adaptation Plan process in focus: Lessons from Papua New Guinea
30 IOM, 2019, Papua New Guinea: Emergencies and Disaster Management Program
31 Interviews 2- 4
32 IOM, 2019, Papua New Guinea: Emergencies and Disaster Management Program
33 Interviews 2-4
34 UNDP, 2020, Advancing Papua New Guinea's National Adaptation Plan
35 ADB, 2022, Papua New Guinea and ADB
36 DFAT, 2022, Building Resilience: Humanitarian assistance, DRR and social protection

institutions, and donors and development partners. It also identified challenges with the current management and coordination of climate finance in PNG, including the lack of a systemic or coordinated approach to access international climate change funding, lack of information sharing across stakeholders, and limited technical capacity of the CCDA to meaningfully engage and meet reporting requirements.[37] Following the release of the Options paper, CCDA supported several initiatives designed to overcome these challenges. [38] The new NAP, which is currently being drafted, is also expected to propose a financing framework for CCA activities.[39]

Funding for disaster management and DRR is managed by the NDC. In the past, the NDC received little financial assistance from the central government, but funding has been increasing in recent years as the government has recognised disaster preparedness as critical to development outcomes.[40] There is limited evidence of coordination of funding between the NDC and CCDA. There is opportunity for numerous ongoing initiatives to strengthen climate finance, as well as information sharing and coordination with disaster funds. There is also opportunity to improve community access to funds.

> "There is funding but it hardly reaches community level. Bureaucratic bottlenecks continue to impede well-meaning initiatives from the national level [...] DRR funding seems non-existent and inaccessible to sub-national government and communities. Thus, communities find themselves having to respond to disasters with no support from government." (INGO actor)[41]

Men from Womkama community , Chimbu Province, taking part in an FGD run by Individual Rehabilitation and Restoration Movement (IRRM) in August 2021. Photo: Rose Godana Goina

37 Pacific Islands Forum Secretariat, DNPM, CCDA. 2019. Options for Strengthening Climate Finance Coordination and Accessibility in Papua New Guinea.
38 CCDA et. al., 2020, Papua New Guinea and the Green Climate Fund: Country Programme
39 UNDP, 2020, Advancing Papua New Guinea's National Adaptation Plan
40 Cook, 2011, Papua New Guinea Investment in Disaster Risk Management, Applied Geoscience and Technology Division, SPC, Suva.
41 Interview 5

AHP Disaster READY in PNG

Disaster READY in PNG is implemented by a consortium of four lead Australian NGOs and more than 20 local partners, delivering risk reduction, adaptation and emergency response programming across the country. At the community level, Disaster READY focuses on inclusive community-based DRR to ensure that people with disabilities, women and children are involved in disaster planning and that their needs are being met. Activities include supporting schools to manage hazards by building awareness of DRR and CCA, supporting community leaders to develop and test school disaster preparedness plans, establishing local early warning systems, and delivering inclusive disaster management training and planning. Disaster READY in PNG also aims to strengthen sub-national and national disaster management coordination and support response capabilities among various provincial governments.[42]

The map below shows communities visited for this research that have been receiving assistance through Disaster READY.

Figure D: Communities visited that receive assistance through Disaster READY

42 Adapted from https://www.australianhumanitarianpartnership.org/png

Section 3: Integration in action – Findings and Opportunities

FINDING 1: The absence of integrated policy and governance structures at the national level is a barrier to integration at other levels.

National-level policy, financing and governance mechanisms for DRR and climate change in PNG are not integrated. The existing silos at these levels influence programming approaches and create challenges for integration among stakeholders. There is limited evidence of coordination or collaboration between government agencies responsible for DRR and CCA.

> "[CCDA] is mandated to coordinate issues related to climate change. DRR is seen to be the mandate for the National Disaster Centre, which is a separate entity." (National actor)[43]

This means that policies, frameworks and plans continue to remain separate and implementing agencies must work through separate coordination mechanisms, funding streams and government regulations. The recently adopted NDRRF acknowledges the importance of considering climate impacts in DRR efforts; however, as yet there is no structure for implementing or monitoring any efforts to integrate the fields.[44]

> "[Integration] means combining CCA and DRR into one policy document, which means the departments also need to merge and work together rather than working in silo as [they are] currently doing. [The] CCDA Office needs to work closely with [the] National Disaster Centre to integrate DRR and CCA." (INGO actor)[45]

The lack of momentum towards integration at the national level has contributed to challenges for integrated practice at the provincial and local levels. Findings demonstrate that current DRR and CCA policies and frameworks have not consistently translated to provincial and community-level awareness and actions. One actor argued that the lack of policy guidance on the integration of DRR and CCA and weak provincial disaster management systems are major barriers to advancing integrated community programming.[46]

> "From observation and experience, policy frameworks are written at [a] high level that tries to address SDG outcomes, priorities, plans, [and] initiatives of the government in addressing particular issues. While the people respond to an issue or problem in their own capacities without much government support. Hence their practice may not perfectly fit into the theoretical framework." (INGO actor)[47]

43 Interview 4
44 Interviews 2, 5, 7
45 Interview 7
46 Interview 5
47 Interview 5

Operationalisation and socialisation of national policies to the community level is not consistent. Most interview respondents did not demonstrate a clear understanding of national policies for DRR and climate change. When asked about a perceived relationship between policy frameworks and integrated approaches at the community level, most respondents indicated that no significant connection existed.[48]

> "From my observation there is none [no integration] and the community on the ground can prove that." (INGO actor)[49]

Stakeholders explained that several old policies, such as the Disaster Management Act of 1987, have yet to be properly reviewed and updated, and some newer policies are yet to be implemented.[50] At the community level, awareness of plans and policies is even less apparent.

> "That is why I am highlighting this at the community level. Because whatever policies, whatever decisions, or whatever approaches that the government of the day or the implementing partner is going to take has to very much understand the livelihood of a particular community the changes it is going through." (INGO actor)[51]

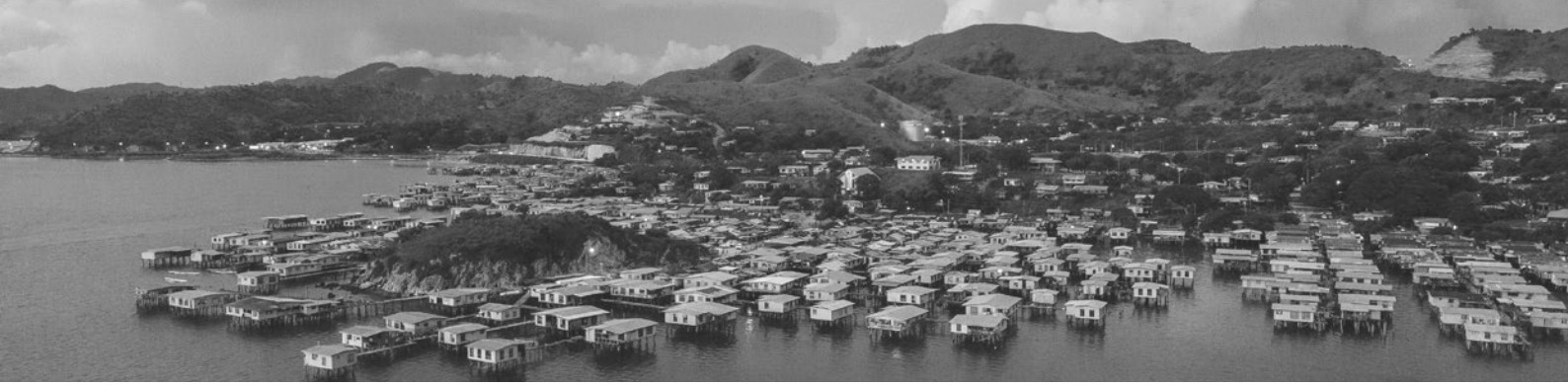
One of the main barriers identified was the inconsistency of provincial disaster management systems, structures and strategies.[52] For example, some provinces have Provincial Disaster Risk Reduction Strategies and standard operating procedures, while some do not have any form of provincial disaster management system.[53] Each province should have a Provincial Disaster Committee chaired by the Provincial Administration, as articulated in the Disaster Management Act of 1984. In many provinces these are not active, and where they are, several respondents indicated that they are ineffective, with limited alignment to national policies and plans.[54]

> "Recent consultations with provincial focal points have revealed that it varies from province to province. Some provinces have aligned their priorities with that of the policies and others have still yet to bridge that gap of policy alignment to the provincial plans." (National actor)[55]

Community members advocated for the strengthening of provincial and local disaster management systems, including through the participation of more local people in planning and decision-making.[56] There are some positive examples of AHP agencies supporting the development of inclusive community plans (see Box 3).

> "Climate change is here to stay and so will need to be organized and prepared for more disasters coming and so we need community plans to prepare and respond and recover." (Community member)[57]

48 Interviews 3, 2, 5
49 Interview 3
50 Interviews 2, 7
51 Interview 2
52 Interviews 2, 4, 5
53 Interview 2
54 Interview 2, 5
55 Interview 4
56 FGD 3, 5, 11
57 FGD 11



Box 3: Developing inclusive community plans

CARE International is currently supporting the development of disaster risk management plans for communities in PNG. This is done through a participatory process that includes extensive consultations with communities, ensuring inclusion of diverse groups to identify the specific needs of each. CARE works with communities to determine the needs the community can meet themselves and needs for which they need external support. They then jointly develop the plan to ensure it accounts for all groups in the community and that the community feels ownership.[58] Community members also noted the importance of participatory approaches and ensuring that all are included in the development of community plans.

> "Through awareness, community mobilisation and participatory approaches, all members of the community should be involved. If some disabled people cannot be involved in some physical work, they must not be excluded from any information and support during disasters and climate change impacts." (Community member)[59]

OPPORTUNITIES

Seek opportunities to support participatory engagement and development of community plans. Put strategies in place to ensure the sustainability and operationalisation of the plans, as well as linking to provincial structures where possible.

Seek opportunities to strengthen and support provincial-level disaster management structures and risk reduction strategies that incorporate climate forecast considerations.

FINDING 2: Place-based integrated coordination mechanisms can be replicated and scaled to overcome systemic coordination challenges.

Coordination continues to obstruct progress towards integrated programming in PNG. Community members identified better coordination between diverse stakeholders as key to helping them prepare for disaster more effectively.[60] One community focus group suggested the establishment of disaster networks in each province that would include the government, NGOs, CSOs, donors and community members, ensuring not only better coordination amongst implementers but with community members.[61]

58 Interview 2
59 FGD 4
60 FGDs 1, 5, 6, 11, 12
61 FGD 3

> "Everyone should work together (the government, churches, community) better coordination will lead to speedy recovery, cut down on costs etc. and communities will also know their responsibility." (Community member)[62]

Coordination mechanisms currently operate separately for DRR and CCA and in many cases on an ad hoc basis. The ATWG coordinates CCA. The group is chaired by the CCDA team, comprising stakeholders from government departments, NGOs, academia and other development partners. Some stakeholders, such as international agencies and the private sector, are still not part of the ATWG.[63] The group meets quarterly and is considered effective; however, there is little evidence of any coordination with DRR stakeholders.[64]

There was no clear mechanism identified for coordination of DRR activities; instead, several forums appear to operate on an ad hoc basis depending on location and needs. In provinces where Provincial Disaster Committees are active, these bodies typically coordinate DRR; however, respondents indicated that this can be ineffective.[65] In addition, a separate coordination mechanism, led by Caritas, includes seven mainland churches. This coordination was acknowledged to be mainly effective, but capacity limitations and weak partnerships between churches and the national government reduce efficiency.[66]

> "We need more stakeholder collaboration and government partnership with the churches because the churches exist at the most remote places. Churches are some of the emergency landing spots in an event of disaster." (INGO actor)[67]

The AHP Country Committee was also referenced as important for DRR coordination.[68] Disaster READY partners operating in Bougainville additionally coordinate through the Bougainville Disaster Directorate. This arrangement has been regarded as effective with respect to coordination of both DRR and CCA activities in the province.[69] However, it is clear that the lack of an agreed, systemic coordination mechanism for DRR, which includes CCA activities and stakeholders, is hampering integrated programming in PNG.

> "Coordination is ad hoc and not effective. It is difficult to work in the province with a weak disaster management system and where staff turnover rate is high with every new administration." (INGO actor)[70]

Community members identified the need for government and other stakeholders to increase their coordination and collaboration with communities to tap into existing initiatives initiatives, rather than attempt to bring in their own approaches. This would not only strengthen coordination and reduce duplication, but also increase community engagement and ownership of activities to boost their resilience.

62 FGD 6
63 Interview 4
64 Interviews 4, 7
65 Interviews 3, 4
66 Interview 3
67 Interview 3
68 Interviews 1-3
69 Interview 6
70 Interview 5

> "Community initiatives are [in response to] immediate[ly] felt needs, and development partners, both government and non-government organisations, could tap in to assist. Many development leaders entertain their own development agendas but [in response to] whose need? Therefore, people do not participate and do not feel the ownership of change or development that is forcefully brought to them. So, many projects are unsustainable or fail." (Community member)[71]

OPPORTUNITIES

Continue to prioritise provincial/local integrated coordination mechanisms to reduce duplication and enhance efficiency in meeting community-identified needs.

Actively share lessons of what works in terms of place-based integrated coordination mechanisms amongst stakeholders. Build upon what works in some areas and test in others.

Advocate for/support integrated national-level coordination mechanisms as part of the NAP development and implementation.

FINDING 3: Information management systems and structures do not consistently or appropriately augment existing community knowledge.

Most communities visited for this research indicated that they did not receive important information that could help them prepare for disasters more effectively.[72] Communities maintain their own methods of generating information (see Box 4), but also call for increased access to information generated by other stakeholders, particularly weather and climate information.[73] Information identified as important to communities is represented below (see Figure D), though this list is not exhaustive.

Figure D: Relevant information for communities

- ☑ Locations of evacuation centres and safe zones
- ☑ Climate science and projections
- ☑ Food preservation techniques
- ☑ Climate-smart agricultural practices
- ☑ Preparedness strategies for different types of hazards
- ☑ Outcomes from vulnerability assessments
- ☑ Early warning systems and signals
- ☑ Traditional methods of predicting and preparing for extreme weather events
- ☑ Response plans
- ☑ Situation analysis such as past, present and future climate and disaster information

71 FGD 2
72 FGDs 1, 3- 6, 8, 9, 12
73 FGDs 1, 3, 5, 6

> "We do not receive most of the required information. When we have projects, then we are lucky to have information. Other important information doesn't reach us unless we go into town and buy papers or hear from market friends. We than disseminate this information in the community to our friends and family to prepare or be aware of current issues." (Community member)[74]

Box 4: Communities generating information through use of traditional knowledge

Most community focus group participants said that they use some form of traditional knowledge to prepare for and respond to disaster. One of the most commonly noted methods was the prediction of wet and dry seasons based on the placement of the sunrise on the mountain ranges in the east. According to predictions, people prepare differently, particularly to ensure they have enough food crops during wet and dry seasons.[75] However, some noted that traditional ways of predicting weather patterns are no longer accurate due to climate change.[76]

> "In the past we observe the sun [and] the moon to predict the weather. There are certain signs we see and that will help us prepare for upcoming rainy season or dry spell. This is no longer effective and we believe [this] is a result of climate change." (Community member)[77]

Another traditional system that can be helpful in disseminating important information is the chieftains system, which entails everyone following their chief's advice during a disaster. Therefore, the chiefs should be prepared with appropriate information about DRR and climate change so that he can inform and support the community in preparation, response and recovery.[78]

Current systems of information management were reported to be largely ineffective. There is no central information management system for DRR and CCA in PNG. Information is generated separately by different stakeholders according to specific project or programming needs and is not systematically shared or accessible to all groups.[79]

> "The community-generated info will be owned by the community as they will use it to their own advantage. Such as observing weather patterns and predicting long or short wet or dry seasons and adapting their gardening practice accordingly. Those generated by the government will be owned by them and used for planning and responding to emergencies in the respective provinces. That generated by NGOs will be owned by them who then share this with the donor to influence, analyse or inform policy." (INGO actor)[80]

74 FGD 9
75 Interview 8, FGDs 2-6
76 FGDs 3, 6, 8
77 FGD 8
78 Interview 3
79 Interviews 2, 3, 5, 6, 7
80 Interview 5

The main barriers identified to more effective use of information were weak sub-national disaster management structures and a lack of trust in information sources among community members.[81] Disaster Officers (from Disaster Committees) were reported to be ineffective in communicating with community members, with several community members indicating that they did not know their Disaster Officer and advocating for increased support for these persons to improve community outreach and information dissemination.[82]

Some stakeholders argued that the Provincial Disaster Committee should take the lead in generating and disseminating information to communities, while others called for new systems and databases to be established to bring together information across all stakeholders.[83]

Despite the challenges and barriers to enhanced information pathways between communities and other stakeholders, there are several positive examples of AHP agencies supporting inclusive information generation and dissemination in PNG and in other Pacific countries (see Box 5).

Box 5: Inclusive information generation and sharing

Plan International has been piloting a program in Solomon Islands that they are planning to replicate in Bougainville in the coming months. The project is funded by the Australian NGO Cooperation Program, through DFAT. It works to provide communities with climate change and science information by translating it into plain language and local dialect. The project not only provides information but helps to guide communities in decision-making. It facilitates everyone in the community coming together to talk about the climate and disaster risks in that location and mitigation and preparation options. It is a collective process in which information is shared in a way that enables communities to make informed decisions.

> "Ultimately, [the project] leads [the community] to make decisions. And it's guiding them through their process that's important because they own the decision-making process. And they own the information." (INGO actor)[84]

Stakeholders also emphasised the importance of ensuring all groups are included in processes that develop and communicate critical messages. It is important to tailor information to audiences and ensure access for all ages and ability levels. For example, one interviewee acknowledged the importance of working with the Bougainville Disabled Persons Organisation in their planning and programming.[85]

To improve trust and uptake, information needs to be delivered in a way that is accessible and understood by communities. This could be through television, radio, billboards, digital campaigns and/or events.[86] One community suggested supporting projects to supply and design posters as a way to further engage youth and help increase awareness of DRR and CCA measures.[87]

81 Interviews 4, 5; FGDs 5, 9
82 Interview 3, FGDs 3, 6
83 Interview 2, 7
84 Interview 6
85 Interview 6
86 Interview 8; FGDs 1, 2, 7, 11
87 FGD 5

> "Projects to supply materials such as posters for awareness that would be an effective way of conveying messages to communities. Poster submissions from students through a province-wide competition would help increase awareness and promote disaster risk reduction and climate change adaptation programs, planning and activities." (Community member)[88]

OPPORTUNITIES

Support initiatives that build upon and strengthen existing community knowledge about disaster and climate hazards and trends.

- Identify community information gaps and preferences for receiving relevant information, ensuring participation from vulnerable groups. Augment existing information with external data to build a localised, holistic picture of disaster and climate hazards and trends.
- Make intentional process linkages between place-based coordination mechanisms (see Finding 2) and the generation and management of information.

Finding 4: Bottom-up initiatives coming from communities can drive integration in PNG.

Evidence gathered in other case studies for this research has demonstrated linkages between integrated policy and governance structures and integrated practice at the community level. Despite some of the barriers towards integration at the national level, there are opportunities to advance integration in communities in PNG. At the community level there is minimal differentiation between DRR and CCA activities, and community initiatives and supporting implementing agencies are able to advocate for and implement integrated programming in the absence of progress towards integration at national policy and governance level..

> "CCA and DRR integration is a bottom-up approach we are taking to work with communities who are vulnerable to disaster and climate change [...] This is the approach we are piloting for communities to identify risks and also for them to identify mitigation mechanisms to address risk." (INGO actor)[89]

For example, in efforts to empower community members to take the lead in resilience activities, community 'champions' can be used to engage with sub-national structures and raise awareness among their peers (see Box 6).

88 FGD 5
89 Interview 3

Box 6: Identifying community champions

In efforts to further motivate and support community members to engage with DRR and CCA, Plan International has been working to identify and train champions in communities. Champions can be young, old, female or male, enabling them to reach as many groups as possible. They are trained to spread information and train others to prepare for the impacts of the changing climate and increasingly frequent and severe disasters.[90]

> "We can now see skilled people in their communities who will be able to positively influence their peers to engage and become productive [...] Hence capacity building with all of the training, it needs to yield a tangible product." (INGO actor)[91]

Community members also expressed interest in these kinds of programs. They called for training, education and awareness on climate change and DRR to be delivered to retired government officials or influential people in the community so that the knowledge can be easily spread and absorbed into traditional systems and daily living.[92]

Another positive example of communities leading the way in building their own resilience in PNG is community-led financing initiatives. Many communities called for increased funding from government for DRR and CCA and increased access to funds for financial resilience.[93] However, in the absence of government funding, some communities have established their own innovative funding schemes (see Box 7).

> "Current inadequate quantity and quality of climate financing is available. We hear of money for climate change being made available to assist communities feeling the impact of climate change, but we cannot see it reaching us the vulnerable people." (Community member)[94]

Korou women from Oro Province taking part in an FGD in September 2021. Photo: Rose Godana Goina

90 Interview 6
91 Interview 6
92 FDG 8
93 FGDs 8, 9, 11, 12
94 FGD 12

Box 7: Community financing

In Danbagl village, the community established the Self Help Women's Saving Scheme in 2019. This is an informal savings group that meets every week. Members contribute five kina per week and the group gives out loans of 100–200 kina to assist mothers to get through disasters.[95] There are opportunities for external stakeholders to support these models.

Another positive example of community investment can be seen through an Oxfam project for financial resilience in Womkama. Oxfam introduced the bulb onion as a cash crop for rural farmers. Rather than just giving out money, Oxfam supported the farmers to make the crop sustainable and profitable.[96]

> "The bulb onion by OXFAM has helped us so much by [generating income enabling us to] build permanent homes with iron roofs in place of our bush material homes. The new homes are sustainable, the roof can act as a catchment to collect rainwater which can be stored. You don't have to buy us roofs, invest in something we are good at such as farming which we did well with the bulb onion [...] The point is to invest in the things a community is good at and it will be successful." (Community member)[97]

At the same time as continuing to test and scale integrated mechanisms at the community level, there is a need to use evidence to advocate for national progress. Respondents also emphasised the importance of advocating to government to prioritise DRR and CCA integration in efforts to strengthen community resilience, arguing that the lack of government motivation to integrate the two historically separate fields remains a major barrier to integrated programming.

> There is minimal government commitment to ensure this [integration] happens. The priority of the government now is on economic development. If the government can prioritise this can be done as the government can resource the process of integrating DRR and CCA." (INGO actor)[98]

OPPORTUNITIES

Continue to elevate, replicate and scale evidence-based integrated approaches at the community level, including exploring local resilience financing models.

Invest in community initiatives that will empower community members to lead resilience efforts in a way that is appropriate and sustainable.

Advocate for an integration agenda at the national level through policy dialogue and profiling evidence from other countries in the region.

95 FGD 9
96 FGDs 1, 2, 3; Oxfam, 2019, How onions are helping families to smile in Papua New Guinea
97 FGD 2
98 Interview 7

Summary: Snapshot of findings and opportunities

There is significant opportunity to build on the good practice and progress that is being made in policies and operational practices to enhance community outcomes related to CCA and DRR in PNG. Four key findings and opportunities for consideration by implementing agencies are presented below. Future phases of this research may seek to deepen the dataset and implement and assess recommendations to link evidence to impact.

KEY FINDINGS	OPPORTUNITIES
The absence of integrated policy and governance structures at the national level is a barrier to integration at other levels	▫ Seek opportunities to support participatory engagement and development of community plans. Put strategies in place to ensure the sustainability and operationalisation of the plans, as well as linking to provincial structures where possible. ▫ Seek opportunities to strengthen and support provincial-level disaster management structures and risk reduction strategies.
Localised/place-based integrated coordination mechanisms can be replicated and scaled to overcome systemic coordination challenges	▫ Continue to prioritise provincial/local integrated coordination mechanisms to reduce duplication and enhance efficiency in meeting community-identified needs. ▫ Actively share lessons of what works in terms of localised/ place-based integrated coordination mechanisms amongst stakeholders. Build upon what works in some areas and test in others. ▫ Advocate for/support integrated national-level coordination mechanisms as part of the NAP development and implementation.
Information management systems and structures do not consistently or appropriately augment existing community knowledge	▫ Support initiatives that build upon and strengthen existing community knowledge about disaster and climate hazards and trends. ▫ Identify community information gaps and preferences for receiving relevant information, ensuring participation from vulnerable groups. Augment existing information with external data to build a localised, holistic picture of disaster and climate hazards and trends. ▫ Make intentional process linkages between localised/place-based coordination mechanisms and the generation and management of information.
Bottom-up initiatives coming from communities can drive integration in PNG	▫ Continue to elevate, replicate and scale evidence-based integrated approaches at the community level, including exploring local resilience financing models. ▫ Invest in community initiatives that will empower community members to lead resilience efforts in a way that is appropriate and sustainable. ▫ Advocate for an integration agenda at the national level through policy dialogue and profiling evidence from other countries in the region.