



Beyond Barriers: Integrating disaster risk reduction and climate change adaptation in the Pacific

July 2021

HUMANITARIAN
ADVISORY GROUP



AHP

Australian Humanitarian Partnership

World Vision



ACKNOWLEDGMENTS

Research team: Jessica McCommon, Jessica Lees (Humanitarian Advisory Group), Cedric Hoebreck (World Vision Australia), Linda Vaike (Independent Consultant)

Graphic design: Jenny Moody, A&J Moody Design

Editor: Campbell Aitken

Cover photo: Photo by Ethan Daniels on Shutterstock

The research team would like to thank the members of the Steering Committee, including Liam Sharp (AHP Support Unit), Jess Kenway (AHP Support Unit), Rhonda Robinson (SPC), Jeong Park (Australia-Pacific Climate Partnership Support Unit), Sione Fulivai (SPREP), Filomena Nelson (SPREP), Moseses Sikivou (PIFS) and Karen Alexander (CBM) for their strategic oversight of this project. We would also like to thank the members of the Reference Group, including Josh Hallwright (Oxfam), Anais Rouveyrol (SPC), Annette Salkeld (CARE), Suzi Chinnery (CARE), Scott Power (Monash University), Thu Ba Huynh (Melbourne University), Bethany Boyer Rechlin (World Vision), Jessica Smith (World Vision New Zealand), Mark Mitchell (World Vision New Zealand), Jimmy Nadapdap (World Vision), Simon Daly (World Vision), Nick Ireland (Save the Children), Frank Thomalla (Independent Consultant), Darryn McEvoy (RMIT University), Sainimili Tawake (Pacific Disability Forum), Katabwena Tawaka (Pacific Disability Forum), JC Gaillard (University of Auckland), Meg Keen (Australia Pacific Security College), Kira Osborne (Australia Pacific Security College), Fernanda Soares (RMIT University) and Yo Kuneida (UNDRR) for providing peer review and technical feedback on this paper.

This research has been made possible through funding from the Australian Department of Foreign Affairs and Trade through the Australian Humanitarian Partnership Disaster READY program.



ABBREVIATIONS

AHP	Australian Humanitarian Partnership
CBA	Community-based adaptation
CBDRM	Community-based disaster risk management
CCA	Climate change adaptation
CSDRM	Climate Smart Disaster Risk Management
DRM	Disaster risk management
DRR	Disaster risk reduction
EbA	Ecosystem-based approaches
FRDP	Framework for Resilient Development in the Pacific
HFA	Hyogo Framework for Action
IPCC	Intergovernmental Panel on Climate Change
JNAP	Joint National Action Plan
NGO	Non-governmental organisation
PIC	Pacific island country
PNG	Papua New Guinea
PRP	Pacific Resilience Partnership
UN	United Nations
UNFCCC	United Nations Framework Convention on Climate Change

Vanuatu CDCCC (Save the Children)



CONTENTS

Acknowledgments	2
Abbreviations	3
Introduction	5
Section 1: Background	6
Section 2: Framing DRR and CCA	10
Section 3: Integration in action	13
Section 4: Challenges and opportunities	18
Section 5: Conclusions and next steps	22
Annex I: Examples of integrated approaches	24
Annex II: Chronological development of policies related to DRR and CCA in the Pacific	27
Annex III: Overview of research approach	29
References	30

INTRODUCTION

The case for integrating disaster risk reduction (DRR) and climate change adaptation (CCA) to minimise loss and damage, reduce vulnerability and enhance resilience continues to grow. This is against a backdrop of increasing frequency and severity of disasters worldwide and the recognition that, at the community level, the distinction between DRR and CCA is artificial. Linkages between the two policy fields, coming belatedly to communities' holistic understandings of what is driving their exposure to risk and how to manage it, have driven researchers, policymakers and practitioners to consider how to more closely align approaches to produce better outcomes for crisis-affected populations. The case has been made in academic and practitioner literature, agency reports and emerging policies, yet what it means from a community perspective to integrate DRR and CCA has received little research attention.

This paper is the first step in a research initiative that seeks to identify the barriers to and opportunities for enhanced DRR and CCA implementation. It responds to recent calls for more evidence to explore opportunities for enhancing integration, particularly with specific geographical areas of focus (Islam et al., 2020). This paper examines why efforts to integrate CCA and DRR should start from perspectives and implications at the community level, and explores the challenges and opportunities in doing so articulated in the literature.

This research initiative focuses on the Pacific region, recognising not only its unique disaster and climate vulnerability profile, but also the seminal Framework for Regional Development in the Pacific (FRDP) and the complementary multi-stakeholder Pacific Resilience Partnership (PRP). Pacific island countries (PICs) are

among those most vulnerable to natural hazards and other effects of climate change, and are experiencing diverse, interlinking and intensifying impacts (IPCC 2014, 2019).

This paper finds that the main challenges facing further integration of DRR and CCA stem from a history of siloed approaches that have filtered down from the international level over many years to perpetuate siloes at the community level. Therefore, approaches that build resilience rather than perpetuating siloed programs must be developed. This is particularly important in the Pacific context to align with the regional priorities identified in the FRDP.

Various challenges are preventing or hampering the DRR and CCA integration, but there are also opportunities to strengthen integrated approaches in communities in ways that could improve outcomes for at-risk populations. This paper identifies some of these challenges and opportunities for exploration in subsequent stages of this research.

REPORT STRUCTURE

This report has five sections. Section 1 provides the background to this paper, including clarifying scope and definitions. Section 2 provides an overview of DRR and CCA across theory, policy and practice. Section 3 discusses the discourse around integration and how it approached at the community level. Section 4 summarises the challenges and opportunities in progressing integration at the community level. Section 5 provides concluding observations and summarises the questions that will be focus of subsequent phases of this research.

SECTION 1: BACKGROUND

This literature review is the first output of a larger research initiative being undertaken by World Vision Australia and Humanitarian Advisory Group. It aims to explore challenges to and opportunities for the integration of DRR and CCA in community-based programming in the Pacific. The research is funded by the Australian Humanitarian Partnership (AHP). Box 1 provides more information about the broader research collaboration.

Box 1: About the research

This research project is exploring opportunities for integration of CCA and DRR, 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 practice and identify opportunities to strengthen and build on these models. This data is being collected through desk review (this paper, supported by country-specific desk reviews), key informant interviews at the global, regional and national levels, and community focus group discussions. Recommendations from this work will inform future AHP programming, with the intention that they will be applicable to a wider audience in the Pacific.

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

SCOPE

Geographic focus

The geographic focus of the broader research initiative within which this review sits is the Pacific, with a particular focus on five case-study countries in which the AHP mechanism operates – Timor-Leste, PNG, Vanuatu, Fiji and the Solomon Islands. However, this literature review considers a broader spectrum of countries to take advantage of the opportunity for learning.

This review acknowledges the differences between Melanesia, Micronesia and Polynesia, although Pacific territories are not the focus of this review.

The regional focus of this review is particularly significant given the Pacific is a global leader in progressing DRR and CCA integration. Box 2 provides an overview of the FRDP, the seminal regional framework framing integration discussions in the Pacific, and a critical backdrop to this research.



Box 2: The Framework for Resilient Development in the Pacific

The FRDP¹ is the world's first integrated regional framework for building and strengthening resilience to disasters and climate change. It has been hailed as an extensive and far-reaching framework for its strategic guidance and inclusiveness (Natoli, 2020).

The FRDP was created in response to regional recognition that climate change and disaster risks are cross-cutting and interrelated (SPC et al. 2016). The drafting process of the framework was commended for its inclusivity and incorporation of representatives from governments, the private sector and civil society, and development partners and academia (Natoli, 2020). It provides strategic guidance to stakeholders on how best to respond to climate change and disaster risk, and does this through specifying three interrelated goals:

GOAL 1: Strengthened Integrated Adaptation and Risk Reduction to Enhance Resilience to Climate Change and Disasters

GOAL 2: Low-carbon development

GOAL 3: Strengthened disaster preparedness and response.

The FRDP is a voluntary, non-political framework, and provides holistic guidance for the development of communities to build resilience. It represents a shift towards improving resilience in the Pacific in a way that encourages collaboration between communities and regions, and recognises that all genders, as well as vulnerable members of society are significant and powerful agents of change (SPC et al. 2016). The FRDP remains the most significant regional framework in the Pacific, and continues to provide holistic and progressive guidance and assistance to Pacific island countries and territories. Annex II provides a chronological overview of what preceded the FRDP.

Community focus

Much scholarship exists on the case for DRR and CCA integration in frameworks and policies (Begum et al. 2014; Birkmann et al. 2009; Birkmann and von Teichman 2010; de Leon and Pittcock 2016; Forino, von Meding and Brewer 2015; Gero et al. 2011; Mall et al. 2019; Turnbull, Sterrett and Hilleboe 2013). However, the literature includes calls for greater emphasis on and evidence about bottom-up community-based approaches (Islam et al. 2020; Nalau et al. 2016; Natoli 2020; SPC 2016; UNISDR and UNDP 2012). This research seeks to answer those calls and contribute to filling the evidence gap in the current discourse by focusing on practical implementation at the community level. This research also acknowledges that communities are not homogenous and that different

community members are impacted differently, particularly vulnerable groups including women, sexually and gender diverse groups and persons living with disabilities.

Timeframe

This research initiative began in November 2019 and will run until April 2022. The timeframe for this literature review was March–June 2021. Case study data collection in five countries will follow the desk review, and be completed between July and September 2021. Through the subsequent phases of this initiative, efforts will be made to test and, where necessary, contextualise and refine definitions and concepts (see Box 3).

¹ See <http://gsd.spc.int/frdp/>; <http://www.resilientpacific.org/documents/>

BOX 3: DEFINITIONS

This paper employs the Intergovernmental Panel on Climate Change (IPCC) and the United Nations (UN) definitions of key terms outlined below.² A working definition of integration is proposed in Section 2 below, because no useful definition was identified in the literature.

Disaster risk reduction

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

Disaster risk management

Processes for designing, implementing, and evaluating strategies, policies and measures to improve the understanding of disaster risk, foster disaster risk reduction and transfer, and promote continuous improvement in disaster preparedness, response, and recovery practices, with the explicit purpose of increasing human security, well-being, quality of life, and sustainable development.⁴

Community-based disaster risk management

Inclusive, active and community-driven and owned processes aimed at addressing the drivers of disaster risk creation, DRR, and societal resilience building, within the context of local and indigenous knowledge and wisdom (Van Niekerk et al. 2017).

Climate change adaptation

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.⁵

Vulnerability

The conditions determined by physical, social, economic and environmental factors or processes which increase the susceptibility of an individual, a community, assets or systems to the impacts of hazards.⁶

2 Definitions sourced from the UNDRR Online Glossary, available at <https://www.undrr.org/terminology>. This research recognises that there are other working definitions of these terms (i.e. IPCC definitions) but has chosen to draw on UNDRR definitions where appropriate

3 IPCC 2019 Glossary, available at https://www.ipcc.ch/site/assets/uploads/2019/01/SYRAR5-Glossary_en.pdf

4 Ibid.

5 Ibid.

6 UN General Assembly. Report of the open-ended intergovernmental expert working group on indicators and terminology relation to disaster risk reduction. 2016. https://www.preventionweb.net/files/50683_oiewgreportenglish.pdf

Resilience

The ability of a system, community or society exposed to hazards to resist, absorb, accommodate, adapt to, transform and recover from the effects of a hazard in a timely and efficient manner, including through the preservation and restoration of its essential basic structures and functions through risk management.⁷

Risk

The potential for consequences where something of value is at stake and where the outcome is uncertain, recognising the diversity of values. Risk is often represented as probability or *likelihood* of occurrence of hazardous events or trends multiplied by the *impacts* if these events or trends occur.⁸

Mainstreaming

Mainstreaming generally means ensuring that a particular issue is constantly taken into account, reflected in and integrated into broader decision-making processes and activities, with the result that this issue becomes broadly accepted and is viewed as a normal aspect of processes and activities.⁹

Mitigation

The lessening or minimising of the adverse impacts of a hazardous event. The adverse impacts of hazards, in particular natural hazards, often cannot be prevented fully, but their scale or severity can be reduced by various strategies and actions. Mitigation measures include engineering techniques and hazard-resistant construction, as well as improved environmental and social policies and public awareness. (It should be noted that, in climate change policy, “mitigation” is the term used for the reduction of greenhouse gas emissions that are the source of climate change.¹⁰)

7 UNDRR Online Glossary, available at <https://www.undrr.org/terminology>.

8 IPCC 2019 Glossary, available at https://www.ipcc.ch/site/assets/uploads/2019/01/SYRAR5-Glossary_en.pdf

9 Climate Policy Info Hub Glossary, available at <https://climatepolicyinfohub.eu/glossary/4#Mainstreaming>

10 UNDRR Online Glossary, available at <https://www.undrr.org/terminology>

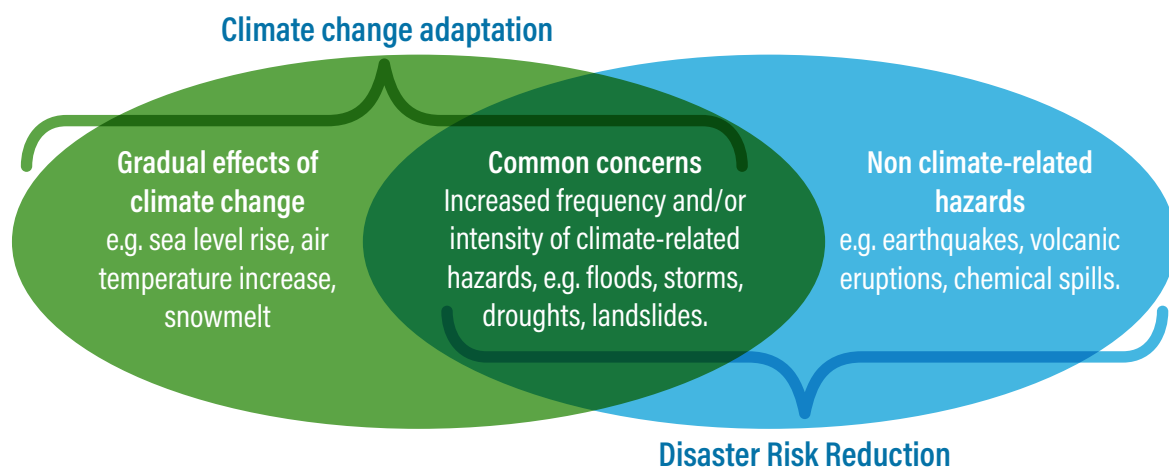
SECTION 2: FRAMING DRR AND CCA

This section unpacks the relationship between DRR and CCA across theory, policy and practice. This section focuses on areas of overlap rather than differences, because overlaps are the basis of calls for greater integration.

The literature includes debate about the differences and similarities of DRR and CCA but recent scholarship increasingly focuses on the areas of convergence between the two fields (Begum et al. 2014; Birkmann et al. 2009; Birkmann and von Teichman 2010; de Leon and Pittock 2016; Forino, von Meding and Brewer 2015; Gero et al. 2011; Mall et al. 2019; Turnbull et al. 2013; Islam et al. 2020; Nalau et al. 2016; Natoli 2020; SPC 2016; UNISDR and UNDP 2012). As demonstrated in Figure 1, the commonalities shared by DRR and CCA are based on the increased frequency and/or intensity of climate-related hazards (Turnbull et al. 2013). Further, they include a common conceptual

understanding of risk as the product of exposure, vulnerability and hazards, and the need to address these factors to strengthen outcomes for at-risk communities. In order to reduce disaster and climate risk, exposure must be minimised, vulnerability reduced, and capacities strengthened for recovery and resilience across economic, social, cultural, environmental, institutional and political sectors (Turnbull et al. 2013). Dialogue is progressing, moving towards risk-informed development – a decision-making approach that endeavours to make development more sustainable and resilient through acknowledgement of the relationships between various risks (Opitz-Stapleton et al. 2019).

Figure 1: Overlap of common concerns of climate change adaptation and disaster risk reduction.
Source: Turnbull et al. (2013) in FRDP 2016



Despite progress, insistent calls for integrated approaches across all levels highlight that DRR and CCA are not yet sufficiently harmonised. While focusing on the largest differences runs

the risk of oversimplifying, it important to be aware of these differences because they structure policy and practice at various scales.

Broadly speaking, DRR aims to reduce the exposure to, and damage and loss caused by, sudden and slow-onset disasters through improving preparedness and prevention. It responds to a broad spectrum of risks, including climate change and damaging weather. It also encompasses geophysical, technological, economic and biological hazards, and any other threats to life and livelihoods. DRR policies and strategies are built on the practical concept of disaster risk management (DRM) alongside preparedness and risk assessment, they originate in humanitarian assistance and have direct links to sustainable development (Turnbull et al. 2013). In order for development gains to be sustainable, they must also reduce disaster risk, which involves cross-sectoral planning and action across a range of actors (Natoli 2020; UNDRR 2021) and significant consideration of climate-related factors. Factors such as health impacts, property damage and social and economic disruption are also considered (UN-SPIDER, 2021).

Climate change adaptation is a process of adapting to not only climate extremes and extreme weather, but the evolving threat posed by long-term trends such as sea level rise and increasing average temperatures (Natoli 2020). As a field of policy and practice, CCA is newer than DRR (climate change science having emerged more recently) and typically relies on long-range climate forecasts (Turnbull et al. 2013; Ireland 2010). Historically, communities have always adapted to climate variability; however, current impacts and projections are far beyond any natural climate variability and change experienced in the past, and are pushing at-risk populations beyond their capability to cope and adapt. It is becoming apparent that sustainable development will largely depend on the mainstreaming of CCA strategies across all sectors, from governance to community-level awareness and implementation (Turnbull et al. 2013).

The two fields seek to address distinct issues. CCA deals with risks associated with changes in climate rather than the broader risk focus

of DRR (which includes, for example, industrial accidents and non-climate-related natural hazards). While climate change is global in impact, specific hazards affect a limited and precise geography and their impacts have traditionally been studied at the national and local level, emphasising responses relating to short-term and sudden-onset risks (Birkmann and von Teichman 2010). The temporal scales of each are also a point of divergence, with DRR generally relating to shorter timeframes than CCA activities, which are designed in response to long-range forecasts (*ibid*; Lei & Wang 2014).

DRR and CCA are often planned and implemented by different government agencies, institutions and sectors and receive funding from different sources (Birkmann et al. 2009; Mitchell et al. 2010; Schipper, 2009; Venton and La Trobe 2008, in Islam et al. 2020). DRR is founded in development and increasingly present in humanitarian work in response and recovery, which is often characterised by short-term funding and planning processes, reinforcing separate funding structures and temporal gaps between DRR and CCA (Lei and Wang 2014; Natoli 2020).

Nonetheless, the overlap between the two fields and growing evidence around the benefits of integration have led to some critical advances, despite the concept of integration being defined inconsistently in the literature (see Box 4). The 2005–2015 Hyogo Framework for Action (HFA) promoted integration of CCA and DRR strategies. The successor to the HFA, the Sendai Framework for Disaster Risk Reduction, recognises that:

“Addressing climate change as one of the drivers of disaster risk, while respecting the mandate of the United Nations Framework Convention on Climate Change (UNFCCC) presents an opportunity to reduce disaster risk in a meaningful and coherent manner throughout the interrelated governmental processes.”

The Sendai Framework demonstrates the need for coherent approaches, but has received some criticism for not going far enough in its focus on climate risks. In contrast, the 2030 Agenda for Sustainable Development recognises the growing link between DRR, CCA and sustainable development. Elements of the Sustainable Development Goals have been incorporated throughout CCA and DRR activities in efforts to build resilience, promote justice and equity and ensure links to development. Integration across UN agreements has bolstered efforts to strengthen livelihoods, improve food and water security, and build resilience (Hallwright and Handmer 2021).

Box 4. Defining integration

This literature review did not find a widely used definition of integration specific to CCA and DRR. Therefore, this paper provides a working definition that will be refined through this research, specific to the Pacific context.

Integration: The combination of interventions that address climate change adaptation and disaster risk reduction with the intention of improving humanitarian and development outcomes for at-risk and crisis-affected populations.¹¹

This paper also recognises that the term “coherence” is often used in place of integration. **Coherence** has been defined as a means to integrate the pursuit of DRR and CCA in sustainable development (Daze, Terton and Maas 2018, in OECD 2020). However, this term is not mentioned in many important Pacific frameworks and policies, and therefore is not used in this research.

Alongside moves towards more integration at the international policy level, there has been significant progress at the national level. In the Pacific, countries have been progressive in their approaches to Joint National Action Plans (JNAPs),

which take an integrated view on CCA and DRM. The first JNAP in the Pacific was adopted by Tonga in 2010, with 13 of 14 PICs pledging to integrate DRM and CCA in some form in forthcoming plans (UNISDR 2013). However, in many countries progress has been slow, and whilst there have been explicit moves within global and national policy frameworks to bring the two areas together, what this means when translated into community-level action remains opaque (Natoli, 2019).

Evidence has shown that at the community level, there is very little distinction between DRR and CCA (Hay 2010, in Hay and Mimura 2013; UNCC Secretariat 2017, in GIDRM 2019; UNISDR and UNDP 2012). For example, in a study of community-based DRR and CCA activities in the Pacific, Gero et al. (2010) found that many activities are claimed by both DRR and CCA practitioners, including programs for food and water security, shoreline erosion, agricultural innovation, infrastructure improvement, education, and sharing information on sustainable livelihoods. Further, there are examples of both communities of practice using similar tools and approaches, such as vulnerability capacity assessments, and the fields draw upon similar sources of traditional knowledge for coping and adaptation (Gero et al. 2010). Areas of alignment have thus led to overlapping goals, objectives and activities at the community level, despite some of the physical and political distinctions between the two fields (Gero et al. 2011; Schipper and Pelling 2006; Venton and La Trobe 2008).

The discourse around the relationship between CCA and DRR has evolved significantly. Evidence increasingly acknowledges that whilst they have points of difference, their areas of overlap and common objectives to reduce community vulnerability and increasing resilience are drawing policies, frameworks and approaches from the two areas together. The following section outlines the arguments for integration and what integration looks like in practice at the community level.

¹¹ This is a working definition adapted from the Global Nutrition Cluster and will be further refined and explored through this research. Available at https://fscluster.org/sites/default/files/documents/icnwg_developing_an_integrated_response_approach_gfsc_20191128.pdf

SECTION 3: INTEGRATION IN ACTION

Arguments for integration significantly outweigh those that seek to retain siloed structures (Banwell et al. 2018; Coninx et al. 2016, in OECD 2020; Glantz et al. 2014; Kelman, Gaillard and Mercer 2015; Shaw, Pulhin and Pereira 2010; Tanner, Wilkinson and Mitchell 2006; Thomalla et al. 2006). However, there is still little understanding of how integration of different policy and practice frameworks can be led by the views of affected communities, what this form of integration can offer from the perspective of different groups within communities, and whether competing interests among these groups may influence their appetite for greater alignment of CCA and DRR activities within their communities.

WHY INTEGRATE?

Calls for integration echo through academic and grey literature, policy and guidance manuals, funding mechanisms and practitioner toolkits. For example, the IPCC Special Report on Managing the Risks of Extreme Events and Disasters to Advance Climate Change Adaptation (SREX; IPCC 2012) found that:

“Closer integration of disaster risk management and climate change adaptation, along with the incorporation of both into local, sub-national, national, and international development policies and practices, could provide benefits at all scales.”

This critical finding in an influential report highlights the importance of integrated approaches, including at the local (community) level.

The literature clearly presents a range of reasons as to why integration should be prioritised, including:

- ▶ Reducing vulnerability of communities, boosting resilience and reducing climate-related losses (Gero et al. 2011)
- ▶ Decreasing overlap of programs and duplication of efforts (Nalau et al. 2016)
- ▶ Maximising available resources (Birkmann & Pardoe 2014; Ghozali et al. 2016, in Islam et al. 2020)
- ▶ Maximising the knowledge base across both sectors (Solecki et al. 2011, in Islam et al. 2020)
- ▶ Accelerating the implementation of prevention and risk reduction strategies (Begum et al. 2014)
- ▶ Enhancing the effectiveness and sustainability of CCA and DRR approaches (Venton and La Trobe 2008)
- ▶ Concurrently addressing both extreme events and long-term changes (Nalau et al. 2016).
- ▶ Increasing coordination, minimising duplication of effort and redundancies (NAP Global Network 2018; UNCC Secretariat 2017 in GIDRM 2019)
- ▶ Promoting systemic engagement and change (Turnbull 2012)
- ▶ Instilling flexibility and responsiveness (Turnbull et al. 2013).

In the absence of greater integration, there is increased risk of duplication, wasted resources and inefficient programming. Practitioners are missing opportunities to learn from and enhance both fields in unison rather than isolation (Islam et al. 2020). It is also argued that international and national progress towards integrated policies and frameworks helps to ensure the removal of artificial distinctions at the community level (UNISDR and UNDP 2012; Islam et al. 2020).

Although the literature is much more vocal on why integration should be progressed, one of

the arguments for caution is that too much policy integration may undermine policy-making processes for each framework (UNCC Secretariat 2017, in GIDRM 2019). However, this is limited to the level of international frameworks and posed as a consideration for integration, rather than suggesting progress towards integration should not continue. The long-term costs of fragmentation are considered to be far greater than the risks posed to separate policy agendas (OECD 2020).

In the Pacific, in addition to the aforementioned reasons, a greater emphasis DRR and CCA activities would support regional priorities as articulated through the FRDP, which outlines the regional prioritisation of approaches that build resilience. The importance of pursuing

integration is articulated through the FRDPs first strategic outcome, which states that: “*stronger and more resilient communities where efficiencies are achieved by pursuing a more integrated approach to climate change adaptation and disaster risk reduction*” (FRDP 2016, p. 14). Specific priority actions are identified for stakeholders, including national and subnational governments and administrations, civil society and communities, and the private sector to work towards the desired outcome. Therefore, supporting integrated approaches in the Pacific is critical for stakeholders to align with regionally identified priorities, particularly as external funding support contributes significantly to the economies of many countries in the region (Gero et al. 2011).

INTEGRATED COMMUNITY-BASED APPROACHES

The concept of community-level integration relates directly to the overlap between CCA and DRR in reducing vulnerability and enhancing resilience and capacity (Turnbull et al. 2013) and the acknowledgement that isolated

conceptualisation of risk is at odds with how Pacific communities understand and address hazards. The translation of this concept into practice can take different forms. One such example is provided in Box 5 below.

Box 5. Case study: Adapting to sudden sea level rise

The *Assessing Vulnerability and Adaptation to Sea-Level Rise; Lifuka Island, Ha’apai, Tonga – Pacific Adaptation Strategy Assistance Program* directly responded to a request from the Government of Tonga. The community of Lifuka was being disproportionately affected by both the impacts of climate change through sudden sea level rise, and subsidence caused by seismic events. The project aimed to provide evidence for communities to make informed decisions about adapting to sea level rise and coastal erosion. The project used participatory approaches with the community to understand their experience of inundation and water use and their views of potential adaptation options. The project used a range of scientific information and disaster scenario modelling.

The project team identified a range of possible options, and recommended that a managed retreat be undertaken. This recommendation was rejected by the community as being costly and requiring complex land negotiations. The final outcome of the project was the development of hazard zones identifying their degree of risk with respect to coastal erosion, sea level rise and flooding.

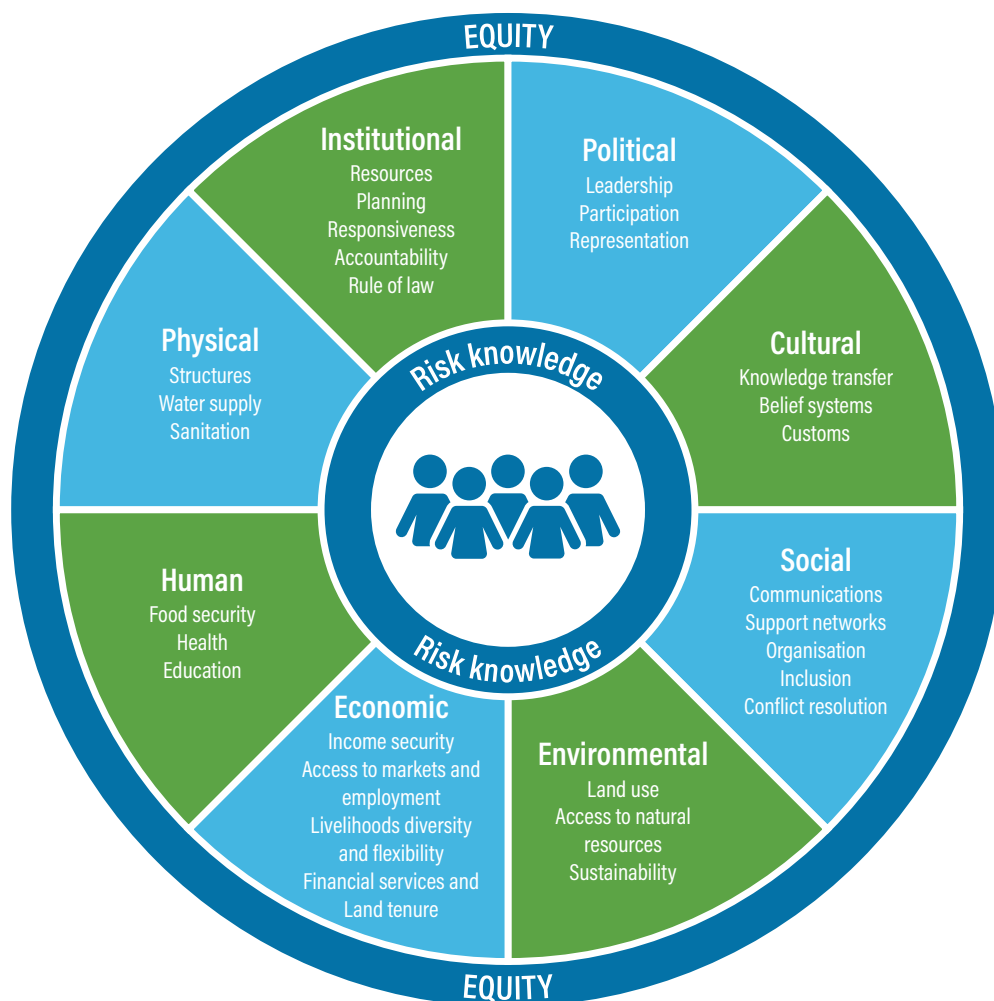
The project concluded that evidence based adaptation strategies are a useful input to disaster planning, recovery and long term risk reduction. The use of multi-disciplinary teams was also found to deliver benefits including pragmatic and people-centred approaches and improved understanding of the cross-sectoral impacts of climate change (FRDP Compendium of Case Studies on Climate and Disaster Resilient Development in the Pacific, pp 62-63).

It is argued that the greatest potential for harmonising DRR and CCA efforts in the Pacific lies at the community level (UNISDR and UNDP 2012). When it comes to addressing the scope of vulnerability of Pacific communities, *“no one approach will address all needs and accommodate all capacities”* (Hay and Mimura, 2013). As such, there are a wide range of approaches to programming that identify commonalities across activities and show good practice in optimising outcomes for communities. Annex I summarises some of the existing approaches, though is not exhaustive.

Resilience has been widely used as a unifying term in international discourse around integration, being cited as a *“useful umbrella under which to address the range of hazards*

and risks that a community might face” (Peters et al. 2016)¹². Resilience approaches do not distinguish between DRR and CCA. Building resilience requires not only effectively managing disaster shocks and climate impacts, but safeguarding and improving well-being in the face of ongoing risk. The framing of resilience resonates in the region, aligning with how the regional architecture has been structured in the FRDP and how some national governments, such as Vanuatu’s, are allocating funding tagged as “resilience” (Hallwright and Handmer, 2021). The FRDP highlights that to build resilience effectively, responses to climate change and disasters must consider a range of factors, as articulated in Figure 2.

Figure 2: Factors influencing resilience¹³



¹² <https://cdn.odi.org/media/documents/11085.pdf>

¹³ Turnbull et al. in FRDP

Some community-level programs in the Pacific have explicitly sought to build resilience, while seeking to manage risks associated with both DRR and CCA approaches. Box 6 below provides one such example.

Box 6: Case Study: Network approach to community-based adaptation

The Vanuatu NGO Climate Change Adaptation Program works with over 5000 men, women and children across four provinces in Vanuatu. The program sought to strengthen existing governance structures for reducing disaster risk and managing uncertainty. The program was developed using a consortium model and found success through the collaboration it fostered between government, non-governmental organisations (NGOs) and communities. It also created the Vanuatu Community Resilience Framework, which succeeded in providing overall coherence and ensuring agencies were working towards a common understanding of resilience and concept of impact. Partners supported communities to use traditional and external knowledge to plan and implement CCA actions. The program was also instrumental in establishing the Vanuatu Climate Action Network, which facilitates the sharing of lessons and good practices among over 20 community service organisations and the Government of Vanuatu and brings community priorities into critical decision-making forums. The Vanuatu Community Resilience Framework has the potential to promote greater integration of CCA, DRR and development.

Vanuatu's CCA Program highlights the value of a network model in maximising collaboration across a range of stakeholders. The Program also found that supporting communities to increase their own resilience leads to more sustainable outcomes than solutions that are technologically focused or externally driven (FRDP Compendium of Case Studies on Climate and Disaster Resilient Development in the Pacific, pp. 44-45).

Figure 3 depicts the Vanuatu Community Resilience Framework.

Figure 3: Vanuatu Community Resilience Framework



An alternative conceptualisation of how to put integration into practice with the outcome of increased resilience was put forward by Turnbull et al. (2013), and involved a principles-based framework to enable integration. Applying principles to different contexts enables a flexible approach to integration that recognises the unique context of each community. The 10 principles are:

1. Increase understanding of the hazard and climate context
2. Increase understanding of exposure, vulnerability and capacity
3. Recognise rights and responsibilities
4. Strengthen participation of, and action by, the population at risk
5. Promote systemic engagement and change

6. Foster synergy between multiple levels
7. Draw on and build diverse sources of knowledge
8. Instil flexibility and responsiveness
9. Address different timescales
10. Do No Harm.

This literature review shows that the case for integration is strong and there are examples of good practice available in the Pacific and beyond. There is also an important opportunity to ensure that in identifying good practice approaches there is alignment with regional priorities. However, further research is needed to fully understand the practice and potential of more integrated CCA and DRR activities from the perspective of communities and in response to their priorities.

WVSI COVID-19 awareness community reach



SECTION 4: CHALLENGES AND OPPORTUNITIES

This section explores some of the challenges and opportunities in progressing community-level integration of DRR and CCA in the Pacific.

CHALLENGES

A common theme in the literature is that, despite what appears to be an artificial divide between CCA and DRR from the perspective of local concerns and responses, a lack of consistent approaches, policies and frameworks across siloed policy frameworks can hinder support for community-level efforts related to both. The literature shows that global frameworks influence regional and national developments.



Integrated frameworks do not translate

between scales: Whilst communities do not make distinctions between DRR and CCA, agencies implementing programs in communities often align with existing frameworks and structures, therefore perpetuating siloed approaches when no integrated frameworks are in place (Gero et al. 2011). Initiatives to promote integration in higher-level frameworks may not be carried through into strategy and implementation at national or sub-national levels (Islam et al. 2020; Sperling and Szekely 2005; Thomalla et al. 2006). In the Pacific, there has been significant progress regionally and at national levels, but this is not replicated at the local level. Community interventions often align with these structures, preventing integration and duplicating efforts. Within a siloed framework and government structures, programs struggle to respond in a way that bridges the divide (Bhatt et al. 2015).



Siloed funding mechanisms: Funding mechanisms that perpetuate the historical siloes directly limit the capacities of implementing agencies to progress integration in Pacific communities (Birkmann & von Teichman 2010; Gero et al. 2010; Islam 2020; Mawdsley et al. 2014 in Nalau et al. 2015). Funding criteria and compliance requirements of international financing mechanisms, such as the Green Climate Fund, contribute towards these challenges.



Multiple methodologies: The number of different approaches that address disaster and climate-related vulnerabilities has caused considerable methodological confusion for both practitioners and communities (Hay and Mimura 2013; Nalau et al. 2015). Diverse implementers, such as communities, local government, and NGOs, follow different plans and processes, which leads to problems in coherence, coordination and monitoring (de Leon and Pittock 2016; Djalante and Thomalla 2012; Islam et al. 2020). The review found no agreed approach to implementing integrated programming at the community level. Given the diversity of settings and needs in different locations, trying to identify a single approach may not be desirable, but there are opportunities to identify shared elements of good practice.



Inconsistent approaches to inclusion:

Historical differences in DRR and CCA have led to inconsistent approaches to participation and inclusion in programs, hindering integration (Natoli 2019; SPC 2017). Vulnerabilities may be identified through different lenses, notably time frames, or participation may be conceived differently (Birkmann and von Teichman 2010; Mall et al. 2019; Natoli 2020). Inclusion efforts in both areas are still lacking. For example, evidence shows that people living with disabilities are often overlooked and marginalised in disaster preparedness planning (Elisala et al 2020). These gaps are also evident during responses. During Tropical Cyclone Pam in Vanuatu, 74% of women reported that they could not get to or access evacuation centres (Power et al., 2019).



Coordination: Coordination and collaboration across sectors, stakeholders and institutions is regarded as essential for successful integration (Begum et al. 2014; Schipper et al. 2016), but coordination of CCA and DRR actors is a prevailing challenge (Natoli 2019; SPC 2017; Turnbull et al. 2013). The increasing the number of stakeholders operating across DRR and/or CCA exacerbates this challenge, particularly where exists an absence of a common language between the two as *“effective communication is a prerequisite to coordination and harmonisation”* (Hay 2009). A review of community approaches to integration in the Pacific in 2011 found that in two country contexts over 60 actors were involved in CCA and DRR work (Gero et al. 2011). The increasing number of actors in the Pacific has been matched by an increasing number of programs

that align with donor priorities rather than community-identified priorities or integrated approaches (Natoli 2019; SPC 2017). If no integrated framework and implementation arrangements exist, formal coordination across the two fields is more difficult, but the Pacific provides strong examples of integrated frameworks that can support in surmounting this challenge, such as Vanuatu’s NGO CCA Program (Hallwright and Handmer 2021). The ongoing question for this research is how the presence of integrated frameworks supports coordination at the operational level in a way that enhances community outcomes.



Information availability and accessibility:

Availability of and access to the right information in the right way has been a challenge for integration in the Pacific. Whilst there have been investments in generation and communication of relevant information over time, such as long-range climate projections, they are not being used to the best effect in integrated approaches, particularly at the community level (Birkmann et al. 2009; Mall et al. 2019; Natoli, 2019; SPC 2017). Further, data related to vulnerability and resilience indicators is often collected and reported in a way such that datasets are siloed. Greater exchanges of information between datasets and models could yield progress towards integration (Leiter 2017, in Natoli 2019). Critical information is often communicated in a way that is difficult for community members to interpret or act upon, hindering their understanding of disaster and climate risk and their participation in forums that shape policy and practice (Natoli, 2019).

OPPORTUNITIES

The literature review revealed ways to support community-level integration and overcome or circumvent some of the impediments to progress.



Align funding: When integrated frameworks and structures exist, consistently combining funding sources and aligning with government priorities can enhance community-level integration, as can increased coordination and awareness-raising about fundraising opportunities (Natoli 2019). For example, in Vanuatu, the National Advisory Board on Climate Change and Disaster Risk Reduction (NAB) maintains a 'financing roadmap' for the country, which aims to finance resilience initiatives rather than separate streams from DRR and CCA (Hallwright and Handmer, 2021).



Foster synergy between multiple levels: Clearer delineation of responsibilities between stakeholders, especially at the institutional level, has been identified as a driver of improvement in CCA and DRR integration (Leitner et al. 2018; Amaratunga, D. et al. 2017; UNISDR EUR 2011; Natoli, 2019). Well-defined national legislation sets the stage for successful integration, but defining institutional arrangements remains a challenge (UNDRR, 2019). In the Pacific, there are strong examples of how linkages can be made between communities and sub-national and national forums (see the case study in Box 5 above for an example). There are opportunities to leverage and scale up such practices. There is also a need to continue to leverage the progress that has been made through the FRDP and ongoing support to implementation of policy into structure (Leon & Pittock, 2016).



Support inclusion and participation:

Regional analysis has previously identified that processes for resilience building that directly involve vulnerable groups and are gender sensitive should be prioritised to support climate and disaster resilience (SPC 2017). Vulnerability is a key factor of disaster, so when vulnerable populations are prioritised in DRR preparedness and CCA programming, the overall human impact and associated economic costs can decrease dramatically. Integration provides an opportunity for participatory approaches that meaningfully involve representatives across the community, including vulnerable groups and recognising power dynamics (Griffin NRM 2016; Natoli 2020).



Explore new partnerships that support locally led action:

At the local and community level, new partnerships can be leveraged to facilitate an integrated approach and diminish vulnerabilities at the community level, for example, through insurance, risk transfer and credit schemes (Griffin NRM 2016; Natoli 2019; Prabhakar et al. 2015). Private sector partnerships might enhance efficiency, innovation, access and quality improvement in integration (IPCC 2012, in Forino et al. 2015; Lemos and Argrawal 2006). Multi-stakeholder participation and collaboration could also ensure gender-sensitive and inclusive integrated responses (UNISDR and UNDP 2012). These partnerships should maintain a focus on supporting good practice integrated approaches in a way that also supports local leadership, in line with global localisation commitments.



Ensure accessibility and relevance of climate and risk information:

Provision of relevant climate and disaster risk information to vulnerable people is central to risk-informed decision-making in integrated approaches (Turnbull et al. 2013). Information about risks and prevention measures should be updated regularly and provided efficiently to affected populations, including vulnerable groups and people with disabilities (Turnbull et al. 2013). Integration of CCA and DRR not only provides an opportunity to better align information channels, but to build upon – rather than displace or duplicate – traditional knowledge, and supplement it with knowledge provided by researchers and technological innovations (Hay and Mimura 2013; Nalau et al. 2015; Turnbull et al. 2013).



Share what works: Monitoring, evaluating and – importantly – sharing integrated approaches that work will be vital to

improving practices and avoiding negative impacts (Hay and Mimura 2013; Griffin NRM 2016). The development of accessible community-focused guidance and tools will encourage stronger engagement and help data and impact to be communicated in a way that is understood and owned by communities (Mercer et al. 2014; Moser and Ekstrom 2010; Natoli 2019). The importance of regular monitoring and reporting is emphasised in the FRDP; finding ways to ensure this process is streamlined and accessible to a wide range of stakeholders will be key to improving the accountability and effectiveness of integrated programming (SPC et al. 2020). There is also a significant opportunity to harmonize data collection and reporting efforts to ensure consistency and availability of data across the fields (Hay and Mimura 2013; Natoli 2019).

Solomon Islands evacuation simulation (Oxfam)



SECTION 5: CONCLUSIONS AND NEXT STEPS

A range of different approaches can demonstrate integration, but there is a need for more evidence about the common components of good practice approaches that reduce vulnerability strengthen resilience in Pacific communities. The Pacific region has made significant progress at the regional and national levels, though evidence that connects this progress to enhanced community outcomes is not yet clear. Subsequent stages of this research will seek to fill these evidence gaps.

Multiple challenges hamper integrated practical approaches. Many of these challenges stem from a legacy of siloes and a lack of consistent approaches to integration at the institutional and policy levels that then filter down and influence practice at the community level. However, importantly it has also been argued that when it comes to implementation in Pacific communities, the distinction between DRR and CCA is irrelevant. The challenges therefore also reflect the difficulties that communities have faced in influencing the policy settings that govern risk management in their local areas. There are opportunities to bridge the divide between international theoretical discussions and local knowledge to ensure good practice approaches are consistently applied in Pacific communities to increase resilience.

The challenges and opportunities outlined in this review, in addition to questions around what constitutes best practice, will be explored further during the next phase of this research.

Possible research questions to explore

- ▶ How do Pacific stakeholders, including communities understand integration? What elements constitute integrated approaches in Pacific communities? Is integration a priority for communities? Why/why not?
- ▶ What framing and language do stakeholders prefer in progressing integration?
- ▶ How do non-climate-related disaster risks fit with integrated approaches?
- ▶ How do communities understand and prioritise risks?
- ▶ What are the potential risks or downsides of integration at the community level?
- ▶ How can stakeholders progress integrated approaches at the community level when there is an absence of an integrated framework at the national level, or gaps between national integration and sub-national rollout?
- ▶ Is there an approach to integration that is optimal for community outcomes, and for groups within communities including women, diverse and vulnerable groups?
- ▶ What coordination forums at the national and sub-national level can be used to promote integrated approaches? Who attends these forums? Who doesn't? What opportunities are there to strengthen partnerships around shared/integrated objectives? How do these link with the FRDP and PRP at the regional level?
- ▶ How can actors ensure that community participation is central to integrated approaches, and that women, diverse groups and people living with disabilities are involved throughout all stages? What elements of an integrated approach would best support women, diverse and vulnerable groups?
- ▶ How can implementing partners foster better coordination between all stakeholders to optimise sharing of accessible information and aligned approaches?
- ▶ How is disaster risk and climate information being generated and communicated, and to whom? How is traditional knowledge being used as part of risk and climate information? What opportunities are there to align information production and communication pathways to ensure information reaches those that need it and meets the needs of different parts of the community?
- ▶ What opportunities are there to generate and communicate evidence to promote good practice on integration?
- ▶ What are the enablers for integrated resilience building practices?

ANNEX I: EXAMPLES OF INTEGRATED APPROACHES

	Description	Approach to integration	Example
<p>Resilience</p>	<p>Resilience is about anticipating, planning and reducing disaster risk to effectively protect persons, communities and countries, their livelihoods, health, cultural heritage, socio-economic assets and ecosystems (UN 2015).</p>	<p>Resilience approaches do not distinguish between DRR and CCA. Building resilience requires not only effectively managing disaster shocks and climate impacts, but safeguarding and improving well-being in the face of ongoing risk.</p>	<p>For example, in Vanuatu, a consortium of national and international NGOs was established to support communities to adapt to ongoing climate and disaster risk. It allowed organisations, government and communities members to work in a more connected manner, sharing resources and strengths and addressing gaps and avoiding duplication. It worked across 12 islands and remote outer-island communities to strengthen existing governance structures and initiatives for reducing risk and managing uncertainty. The program takes a broad view of resilience as the ability of women, men and children to realise their rights and improve their well-being despite shocks, stresses and uncertainty (SPC 2015).</p>
<p>Climate Smart Disaster Risk Management (CSDRM)</p>	<p>The CSDRM approach addresses risk more broadly across the key drivers of vulnerability.</p>	<p>CSDRM is defined as <i>“an integrated social development and disaster risk management approach that aims simultaneously to tackle changing disaster risks, enhance adaptive capacity, address poverty, exposure, vulnerability and their structural causes and promote environmentally sustainable development in a changing climate”</i> (Mitchell et al., 2010). It provides a guide to strategic planning, program development and policymaking.</p>	<p>For example, in Orissa, India the Orissa State Disaster Management Authority (OSDMA) has successfully implemented a CSDRM approach to development planning and disaster management. It has conducted a hazard risk assessment and vulnerability analysis and produced a state-wide composite risk atlas to map forecasted disaster frequency by area and prepare communities for future climate impacts. OSDMA created stronger institutional coordination with NGOs, government departments and district administrations to ensure quick and efficient responses. It has also strengthened community preparedness through mock drills, training and contingency planning (Mitchell and Ibrahim 2010).</p>
<p>Community-based Adaptation (CBA)</p>	<p>CBA provides information and concrete examples on potential impacts of climate change and mitigative measures which are location specific and community managed. It provides information in a way that is accessible and accepted by communities (UNDP 2021).</p>	<p>CBA involves an integrated response which combines livelihoods and DRR strategies with building capacity and addressing the underlying causes of vulnerability. This is informed by climate knowledge, understanding of risk and uncertainty and climate-resilient development (CARE 2014).</p>	<p>For example, in Tonga, impacts of sea level rise are impacting the community of Lifuka Island. A CBA project was developed based on local community concerns of accelerated coastal erosion and flooding. The goal was to provide evidence to communities and government to make informed decisions about how to adapt to increased flooding and sea level rise. A key output of the project was the development of hazard zones defined by their degree of risk; these zones have since been used by the Government of Tonga to “build back better” after cyclones and protect the Lifuka community from future coastal risks (SPC 2015).</p>

	Description	Approach to integration	Example
<p>Community-Based Disaster Risk Management (CBDRM)</p>	<p>CBDRM is a participatory process. Communities are actively engaged in the identification, assessment, treatment and planning for hazards and vulnerabilities of various kinds (Krummacher, 2014). It focuses on broader aspects of disaster issues, including prevention, mitigation, relief, response and recovery.</p>	<p>The CBDRM aims to enhance skills and capacities to build resilience. It has been argued as an excellent entry point for integration of CCA at the community level as CBDRM practitioners have a long history of working closely with communities with well-established tools and practices (Lei and Wang 2014; Mercer 2010; UNISDR and UNDP 2012; Van Niekerk et al. 2017). In practice, the core approach is one of CBDRM, with CCA activities then mainstreamed throughout the program.</p>	<p>For example, in Solomon Islands. CBDRM strategies have included the establishment of Village Disaster Climate Risk Committees (VDCRC). VDCRCs work with communities to build community resilience in preparedness, response and mitigation of climate-related risks. The committees are developed to accommodate local leadership structures, churches, elders and any other appropriate community mechanisms to ensure planning and preparedness is all inclusive and appropriate. VDCRC's conduct simulation exercises with community members and provide community-based disaster risk management training (Dolarii, Dolarii and Makasi, 2019).</p>
<p>Community-Based Disaster Risk Reduction (CBDRR)</p>	<p>CBDRR differs from CBDRM as it focuses more on reducing underlying risk and encouraging preventative action before a disaster (Shaw 2016).</p>	<p>The approach to integration through CBDRR is very similar to CBDRM. Many existing tools and approaches for CBDRR can also be linked to improving CCA outcomes, including upgrading local infrastructure, community risk assessment and planning, food security programs and public awareness, education and advocacy initiatives (Shaw 2016).</p>	<p>For example, in the Autonomous Region of Bougainville, PNG, CBDRR programming actively sought the inclusion of CCA approaches in planning. The program used community-led participatory approaches to provide training and ongoing mentoring to DRR groups in the villages. They were trained in agricultural practices, soil conservation, climate resilient crop varieties and nutrition in times of food insecurity and disaster. Nine gender-sensitive community DRR Action Plans were developed that represent 21 Nissan District villages. Trained DRR groups continued to work with district administration authorities on island-wide hazard reduction activities (SPC 2015).</p>
<p>Ecosystem-based approaches (EbA)</p>	<p>Ecosystem-based approaches work to preserve or restore the natural environment to reduce vulnerability to climate-related extreme events and make ecosystems more adaptable to climate change (Mori et al. 2013).</p>	<p>Ecosystem-based approaches are built on an understanding of local ecological, socio-cultural and economic conditions alongside existing hazards and technical requirements for intervention (Dowald et al. 2017). Examples of community-based programming that promotes DRR and CCA through ecosystem-based approaches include efforts to preserve bushlands, forests or coasts to reduce the impacts of climate-driven hazards such as storms, fires or droughts (Forino et al. 2019).</p>	<p>For example, the Mekong Delta Integrated Climate Resilience and Sustainable Livelihoods Project in Vietnam embedded ecosystem-based approaches to shift design away from traditional "hard" infrastructure towards solutions adapted to natural conditions in the Mekong Delta. The project has restored and expanded mangroves and rehabilitated sea dikes. This helped to protect communities from flooding and coastal erosions and offers new economic opportunities better aligned with the regions natural soil and water conditions (UNDRR 2020; Bowder et al. 2019).</p>

	Description	Approach to integration	Example
<p>Building Local Adaptive Capacities</p>	<p>Adaptive capacities are the social and technical skills and strategies of individuals and groups that are directed towards responding to environmental and socioeconomic changes.</p>	<p>Building local adaptive capacities increases the effective management of natural resources and the development of skills and resilience in communities to better prepare for and recover from natural hazards and disasters. By enhancing adapting capacities, vulnerability is reduced and is therefore a key component of both DRR and CCA at the community level.</p>	<p>For example, in Bangladesh, the Ministry of Women and Children Affairs is leading a 6-year project (2018-2024) focused on strengthening adaptive capacities of coastal communities to cope with impacts of climate-induced salinity on their livelihoods and water security. Communities have been empowered as “change agents” to plan, implement and manage resilient livelihoods and drinking water solutions. The project has promoted a shift away from a focus on short-term responses and technology-led interventions towards community-centric solutions that build ownership and capacities across multiple stakeholders (UNDP 2021).</p>
<p>Climate-smart Agriculture (CSA)</p>	<p>CSA is an approach that helps to guide actions needed to transform and reorient agricultural systems to effectively support development and ensure food security in a changing climate (FAO 2021).</p>	<p>CSA aims to boost resilience of communities by improving livelihoods, adapting to changing conditions and reducing greenhouse gas emissions where possible. Many DRR strategies can produce an enabling environment for CSA, as proven DRR technologies and practice provide a rich resource-base for promoting and scaling up CSA. For farmers, there is no distinction between risk reduction and adaptation (FAO 2015).</p>	<p>For example, in Jamaica, communities that are affected each year by hurricanes, floods and landslides use a variety of trees and crops as a risk reduction strategy to reduce impact of landslides and runoff. Water tolerant crops are planted in waterlogged areas to prevent the spread of floodwater, stabilise banks and prevent damage to more valuable crops (FAO 2015).</p>

ANNEX II: CHRONOLOGICAL DEVELOPMENT OF POLICIES RELATED TO DRR AND CCA IN THE PACIFIC

Pacific Disaster Risk Reduction and Disaster Management Framework for Action 2005-2015 (PDDFA)	<p>This framework adapted the Hyogo Framework for Action (HFA) to the Pacific region and was endorsed by Pacific leaders in October 2015. It responds to the increased national and regional commitments to disaster risk reduction and disaster management on an ‘all hazards’ basis in support of sustainable development.¹⁴</p>
Pacific Islands Framework for Action on Climate Change 2006 – 2015 (PIFACC)	<p>This framework outlines the climate change adaptation results to be achieved by implementing tangible adaptation measures, supporting governance and decision-making, improving understanding of climate change, education, training and awareness, mitigating global greenhouse gas emissions and strengthening partnerships and cooperation. It was intended to mainstream climate change into regional and national policies and plans.¹⁵</p>
Majuro Declaration for Climate Leadership (2013)	<p>This Declaration kicked off the political momentum and commitment from PIF for the region to become “climate leaders”. PICs committed to spur climate action and work towards the adoption of a universal and legally-binding treaty to strengthen commitments made to UNFCCC under the Kyoto Protocol.¹⁶</p>
SAMOA Pathway (2014)	<p>The Small Island Developing States (SIDS) Accelerated Modalities of Action (SAMOA) Pathway articulates the sustainable development goals for SIDS (including PICs) from 2014-2024. This also highlights climate change and DRR as key themes for sustainable development.¹⁷</p>
Framework for Pacific Regionalism (2014)	<p>Endorsed by the Pacific Island Forum (PIF) in 2014, this framework also identifies climate change as one of the most significant challenges for the region.¹⁸</p>
Suva Declaration on Climate Change (2015)	<p>Leaders of the Pacific Islands Development Forum emphasised their “grave distress” over climate change and global inaction to use as an advocacy tool in advance of UNFCCC COP21 and the adoption of the Paris Climate Agreement.¹⁹</p>

¹⁴ Pacific Disaster Risk Reduction and Disaster Management Framework for Action 2005-2015, https://www.preventionweb.net/files/34617_mr06131.pdf

¹⁵ Pacific Islands Framework for Action on Climate Change 2006 – 2015, <https://www.sprep.org/attachments/Publications/PIFACC-ref.pdf>

¹⁶ Majuro Declaration for Climate Leadership, 2013, <http://www.forumsec.org/wp-content/uploads/2017/11/2013-Majuro-Declaration-for-Climate-Leadership.pdf>

¹⁷ SAMOA Pathway, 2014, <https://sustainabledevelopment.un.org/samoapathway.html>

¹⁸ Framework for Pacific Regionalism, 2014, <https://www.forumsec.org/wp-content/uploads/2017/09/Framework-for-Pacific-Regionalism.pdf>

¹⁹ Suva Declaration on Climate Change, 2015, <https://environmentalmigration.iom.int/suva-declaration-climate-change>

<p>Pacific Platform for Disaster Risk Management</p>	<p>This is an annual conference jointly hosted by UNDRR and the Pacific Community (SPC), first established in 2009. In 2011, Pacific leaders endorsed the Roadmap towards an Integrated Strategy for Disaster Risk Management and Climate Change in the Pacific by 2015 (resulting in the development of the FRDP). At the most recent meeting in Suva in 2016, states reaffirmed their commitment to implementing the Sendai Framework for DRR and agreed on the priority to bridge the gap between CCA and DRR and fully integrate them into development planning and programming (Natoli, 2020).</p>
<p>Framework for Resilient Development in the Pacific (2016)</p>	<p>The Framework for Resilient Development in the Pacific: An Integrated Approach to Address Climate Change and Disaster Risk Management (FRDP) provides high-level strategic guidance to different stakeholder groups on how to enhance resilience to climate change and disasters. It advocates for the adoption of integrated approaches, wherever possible, in order to make more efficient use of resources, to rationalise multiple sources of funding which address similar needs, and for more effective mainstreaming of risks into development planning and budgets.²⁰</p>
<p>Boe Declaration on Regional Security (2018)</p>	<p>The Boe Declaration identifies climate change as the largest threat to PICs and calls for stronger regional cooperation in line with identified targets. It recognises climate change capacities as a key regional security priority and presents a rigorous framework for addressing climate change and disasters in the region.²¹</p>

²⁰Framework for Resilient Development in the Pacific, 2016, http://gsd.spc.int/frdp/assets/FRDP_2016_Resilient_Dev_pacific.pdf

²¹ Boe Declaration on Regional Security, <https://www.forumsec.org/2018/09/05/boe-declaration-on-regional-security/>

ANNEX III: OVERVIEW OF RESEARCH APPROACH



FINDING ALIGNMENT BETWEEN DRR AND CCA IN THE PACIFIC: COMMUNITY PERCEPTIONS, PRACTICE AND POLICY

World Vision, Humanitarian Advisory Group and the Australian Humanitarian Partnership (AHP) are collaborating on a new research initiative exploring synergies for Disaster Risk Reduction (DRR) and Climate Change Adaptation (CCA) integration in policy and practice. The research aims to (i) promote local evidence and best practice in Fiji, Vanuatu, Solomon Islands, Papua New Guinea and Timor-Leste and (ii) provide a platform for policy makers, donor agencies and practitioners to discuss opportunities for DRR and CCA integration at community level.

Our questions: *What do we want to know?*

The research hypothesises that there are complimentary sets of expertise and policy goals between CCA and DRR, and that better integration in policy and practice would enhance efforts towards adaptation, risk reduction and sustainable development for communities in AHP countries. This will be explored through two key questions:

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?

Our approach: *How will we do this?*



Localised research:

We will work with national researchers in each country and create opportunities for them to share their experiences and lessons. Research methods will be contextualised for each country by our national researchers.



Iterative:

We are taking a phased approach that allows us to reflect on findings and adapt our research approaches accordingly. Emerging findings will be shared regularly in a way that is accessible and timely.



Participatory:

Our research processes will be participatory – engaging a variety of stakeholders to be active participants across the various phases of the research process.



In partnership:

We are looking to work across the Australian Humanitarian Partnership and beyond, including with Pacific partners, to ensure the ongoing relevance and appropriateness of our findings for a wide audience.

Our timeframe: *When will it be taking place?*

0: Inception	1: Stakeholder interviews, engagement and desk review	2: Country case-studies: Fiji, Solomon Islands, Vanuatu	3: Interim reflection	4: Country case-studies: PNG and Timor-Leste	5: Report writing
Nov 2020	Mar 2021	Jun-Sep 2021	Oct 2021	Oct-Dec 2021	Jan-Apr 2022

Our request: *What does this mean for you?*

REFERENCES

- Amaratunga, D., Haigh, R., Dias N., Malalgoda C. (2017). Synthesis report of existing legal, policy and science approaches in relation to DRR and CCA (Deliverable 2.1) in the frame of the Espresso Project.
- Banwell, N., Rutherford, S., Mackey, B. and Chu, C. (2018). Toward improved linkage of disaster risk reduction and climate change adaptation in health: A review. *International Journal of Environment Research and Public Health*, 15 (4), 793.
- Begum, R. A, Sarkar, S.K, Jaafar, A H. and Pereira J J (2014). Toward conceptual frameworks for linking disaster risk reduction and climate change adaptation. *International Journal of Disaster Risk Reduction* (10) 362-373.
- Bhatt, D., Mall, R., & Banerjee, T. (2015). Climate change, climate extremes and disaster risk reduction. *Natural Hazards*, 78(1), 775–778.
- Birkmann, J., & Pardoe, J. (2014). Climate change adaptation and disaster risk reduction: Fundamentals, synergies and mismatches, 41-56.
- Birkmann, J., Tetzlaff, G., & Zentel, K.-O. (2009). Addressing the challenge: Recommendations and quality criteria for linking disaster risk reduction and adaptation to climate change (pp. 59–59), in Birkmann, Tetzlaff & Zentel (eds.) *DKKV Publication Series 38*, Bonn. Available at www.dkkv.org
- Birkmann, J., and von Teichman, K. (2010). Integrating disaster risk reduction and climate change adaptation: key challenges—scales, knowledge, and norms. *Sustainability Science*, 5(2), 171-184.
- Browder, G., Ozment, S., Rehberger Bescos, I., Gartner, T. and Lange, G-M. (2019). Integrating green and grey: creating next generation infrastructure. Washington: World Resources Institute (WRI) and the World Bank Group.
- de Leon, E., & Pittock, J. (2016). Integrating climate change adaptation and climate-related disaster risk-reduction policy in developing countries: A case study in the Philippines. *Climate and Development*, 1-8.
- CARE. (2014). Community-based Adaptation: An empowering approach for climate resilient development and risk reduction.
- Coninx, I., Swart, R., Schwarze, R. and Michalek, G. 2016. PLACARD evolving issues brief 2016. Brussels, Belgium, PLACARD Project.
- Djalante, R., & Thomalla, F. (2012). Disaster risk reduction and climate change adaptation in Indonesia. *International Journal of Disaster Resilience in the Built Environment*, 3(2), 166–180.
- Dolarri, S., Dolarri, J. and Makasi, R. (2019). Research Report on Village Disaster Climate Risk Committees in Solomon Islands. Oxfam.
- Doswald, N., M. Estrella, and K. Sudmeier-Rieux. (2017). "Ecosystems' Role in Bridging Disaster Risk Reduction and Climate Change Adaptation." In *The Routledge Handbook of Disaster Risk Reduction Including Climate Change Adaptation*, edited by I. Kelman, J. Mercer, and J. C. Gaillard, 116–128. Abingdon: Routledge.

- Elisala N, Turagabeci A, Mohammadnezhad M, Mangum T. (2020). Exploring persons with disabilities preparedness, perceptions and experiences of disasters in Tuvalu. *PLoS ONE* 15(10): e0241180. <https://doi.org/10.1371/journal.pone.0241180>.
- FAO. (2015). Disaster Risk Reduction: Strengthening livelihood resilience. Available at: <http://www.fao.org/3/i3325e/i3325e15.pdf>.
- FAO. (2021). Climate-Smart Agriculture. Available at: <http://www.fao.org/climate-smart-agriculture/en/>.
- FMNR Hub. (2021). FMNR Projects. Available at: <https://fmnrhub.com.au/projects/>.
- Forino, G., von Meding, J., and Brewer, G. (2015). A conceptual governance framework for climate change adaptation and disaster risk reduction integration. *International Journal of Disaster Risk Science*, 6(4), 372-384.
- Forino, G., von Meding, J., and Brewer, G. (2019). Community based initiatives to mainstream climate change adaptation into disaster risk reduction: evidence from the Hunter Valley (Australia). *Local Environment*, 24(1), 52-67.
- Gero, A., Méheux, K. and Dominey-Howes, D. (2010). *Disaster risk reduction and climate change adaptation in the Pacific: The challenge of integration*. ATRC-NHRL Miscellaneous Report 4.
- Gero, A., Méheux, K., and Dominey-Howes, D. (2011). Integrating disaster risk reduction and climate change adaptation in the Pacific *Climate and Development*, 3:4, 310-327.
- Ghozali, A., Ariyaningsih, Sukmara, R. B., & Aulia, B. U. (2016). A comparative study of climate change mitigation and adaptation on flood management between Ayutthaya City (Thailand) and Samarinda City (Indonesia). *Procedia – Social and Behavioral Sciences*, 227, 424–429.
- Global Initiative Disaster Risk Management (GIDRM). (2019). Guidance Note: Coherence Concepts and Practices. Available at: https://www.preventionweb.net/files/74801_tt.pdf.
- Glantz, M., Baudoin, M., Poterie, A.T., Naranjo, L. (2014). Working with a Changing Climate, Not Against It – Hydro-meteorological disaster risk reduction: A survey of lessons learned for resilient adaptation to a changing climate. USAID.
- Griffin NRM (2016). Independent Evaluation of the Community-based Climate Change Adaptation Grants Program – main evaluation report.
- Hallwright, J., and Handmer, J. (2021). Progressing the integration of climate change adaptation and disaster risk management in Vanuatu and beyond. *Climate Risk Management*, 31, 100269, 1-10.
- Hay, J.E., Mimura, N. (2013). Vulnerability, Risk and Adaptation Assessment Methods in the Pacific Islands Region: past approaches, and considerations for the future. *Sustain Sci* 8, 391–405.
- Hay, J.E. (2009). Institutional Policy Analysis of Disaster Risk Reduction and Climate Change Adaptation in Pacific Island Countries, Final Report. UNISDR. Available at: https://www.unisdr.org/files/18869_institutionalandpolicyanalysisofdr.pdf.
- Islam, S., Chu, C., C. R. Smart, J., and Liew, L. (2020). Integrating disaster risk reduction and climate change adaptation: a systematic literature review. *Climate and Development*, 12:3, 255-267.
- IPCC. (2012). Glossary. Retrieved from: https://archive.ipcc.ch/pdf/special-reports/srex/SREX-Annex_Glossary.pdf.

- IPCC. (2014). Climate change 2014: Synthesis report. Summary for policymakers. Retrieved from https://www.ipcc.ch/pdf/assessment-report/ar5/syr/AR5_SYR_FINAL_SPM.pdf.
- IPCC. (2019). Glossary. Retrieved from: https://www.ipcc.ch/site/assets/uploads/2019/01/SYRAR5-Glossary_en.pdf.
- Kelman, I., Gaillard, J., & Mercer, J. (2015). Climate change's role in disaster risk reduction's future: Beyond vulnerability and resilience. *International Journal of Disaster Risk Science*, 6(1), 21–27.
- Krummacher, A. (2014). Community Based Disaster Risk Management (CBDRM). Vienna: 22nd OSCE Economic and Environmental Forum.
- Lei, Y., and Wang J. (2014). A preliminary discussion on the opportunities and challenges of linking climate change adaptation with disaster risk reduction. *Natural hazards*, 71(3), 1587-1597.
- Leitner, M., Schmidt, A., Loureco, T. C., Prutsch, A., Liehr, C., Pulquerio, M. S. and Schnipper, L. (2018). Draft guidelines to strengthen CCA and DRR institutional coordination capacities. Work Package 4, Task 4.2. PLACARD.
- Lemos, M. and Agrawal, A. (2006). Environmental Governance. *Annual Review of Environment and Resources*, 31, 297-325.
- Mall, R. K., Srivastava, R. K., Banerjee, T., Mishra, O. P., Bhatt, D., and Sonkar, G. (2019). Disaster risk reduction including climate change adaptation over south Asia: challenges and ways forward. *International Journal of Disaster Risk Science*, 10(1), 14-27.
- Mercer, J. (2010). Disaster risk reduction or climate change adaptation: are we reinventing the wheel?. *Journal of International Development. The Journal of the Development Studies Association*, 22(2), 247-264.
- Mitchell, T., Ibrahim, M., Harris, K., Hedger, M., Polack, E., Ahmed, A., Hall, N., Hawrylyshyn, K., Nightingale, K., Onyango, M., Adow, M., and Sajjad Mohammed, S. (2010). *Climate Smart Disaster Risk Management, Strengthening Climate Resilience*, Institute of Development Studies: Brighton, UK.
- Mori, A. S., T. A. Spies, K. Sudmeier-Rieux, and A. Andrade. (2013). Reframing Ecosystem Management in the Era of Climate Change: Issues and Knowledge From Forests. *Biological Conservation* 165: 115–127.
- Moser, S. and Ekstrom, J. (2010). A Framework to Diagnose Barriers to Climate Change Adaptation. *Proceedings of the National Academy of Sciences*, 107(51), 22026-31.
- Nalau, J., Handmer, J., Dalesa, M., Foster, H., Edwards, J., Kauhiona, H., Yates, L., and Welegtabit, S. (2016). The practice of integrating adaptation and disaster risk reduction in the south-west Pacific. *Climate and Development*, 8:4, 365-375.
- NAP Global Network. (2018). Supporting Global Adaptation Action: NAP Global Network 2017-18 Progress Report. Available at: <https://napglobalnetwork.org/resource/supporting-global-adaptation-action-nap-global-network-2017-18-progress-report/>.
- Natoli, T. (2019). *Literature review on aligning climate change adaptation (CCA) and disaster risk reduction (DRR)*, IFRC | UCC, Geneva.
- Natoli T. (2020). *Law and Policies that Protect the Most Vulnerable Against Climate-Related Disaster Risks: Findings and Lessons Learned from Pacific Island Countries*, IFRC | UCC, Geneva.

- OECD. (2020). Common Ground Between the Paris Agreement and the Sendai Framework: Climate change adaptation and disaster risk reduction. OECD Library. Available at: https://www.oecd-ilibrary.org/development/climate-change-adaptation-and-disaster-risk-reduction_3edc8d09-en.
- Optiz-Stapleton, S., Nadin, R., Claderone, M., Quevedo, A. Peters, K. and Mayhew L. (2019). Risk-informed development: From crisis to resilience. ODI. Available at: <https://odi.org/en/publications/risk-informed-development-from-crisis-to-resilience/>.
- Peters, K., Langston, L., Tanner, T., Bahadur, A., 2016. 'Resilience' across the Post-2015 Frameworks: Towards Coherence? Overseas Development Institute (ODI), London, UK.
- Power, S., Alexander, K. and Hoebreck, C. (2019). Early warning and response systems in the Pacific and Timor-Leste: How to make a lasting difference on the ground. Report on the 16 May 2018 Workshop, pp. 22
- Prabhakar, S.V.R.K., Ofei-Manu, P., Solomon, O., D.S., and Shivakoti, B. R., (2015). *Evidence for climate change adaptation and disaster risk reduction synergies of interventions: An inductive approach. Research Report 2015*, Bangkok, Thailand: Asia Pacific Adaptation Network and Institute for Global Environmental Strategies.
- Schipper, E. L. F. (2009). Meeting at the crossroads?: Exploring the linkages between climate change adaptation and disaster risk reduction. *Climate and Development*, 1(1), 16–30.
- Schipper, E. L. F., Thomalla, F., Vulturius, G., Davis, M., & Johnson, K. (2016). Linking disaster risk reduction, climate change and development. *International Journal of Disaster Resilience in the Built Environment*, 7(2), 216–228.
- Schipper, L., & Pelling, M. (2006). Disaster risk, climate change and international development: Scope for, and challenges to, integration. *Disasters*, 30(1), 19–38.
- Shaw, R. (2016). Community Based Disaster Risk Reduction, *Natural Hazard Science*. Available at: <https://doi.org/10.1093/acrefore/9780199389407.013.47>.
- Shaw, R., Pulhin, J. M., & Jacqueline Pereira, J. (2010). Chapter 1: Climate change adaptation and disaster risk reduction: An Asian perspective. *Climate Change Adaptation and Disaster Risk Reduction: An Asian Perspective*, 5, 1–18.
- Solecki, W., Leichenko, R., & O'Brien, K. (2011). Climate change adaptation strategies and disaster risk reduction in cities: Connections, contentions, and synergies. *Current Opinion in Environmental Sustainability*, 3(3), 135–141.
- SPC. (2015). *Compendium of Case Studies on Climate and Disaster Resilient Development in the Pacific*, SPC.
- SPC. (2017). *Regional Synthesis Report of the Implementation of the Pacific Disaster Risk Reduction and Disaster Management Framework for Action 2005–2016 (RFA)&the Pacific Islands Framework for Action on Climate Change 2006–2016 (PIFACC)*, SPC.
- SPC, SPREP, PIFS, UNDP, UNDRR and USP (2016). *Framework for resilient development in the Pacific: An integrated approach to address climate change and disaster risk management (FRDP) 2017-2030*.
- SPC, SPREP, PIFS, UNDP, UNDRR and USP. (2020). *Framework for Resilient Development in the Pacific Monitoring and Evaluation Strategy Pacific Resilience Partnership*, PRP.

- Sperling, F. and Szekely, F. (2005). Disaster Risk Management in Changing Climate. *Vulnerability and Adaptation Resource Group*.
- Tanner, T. Mitchell, T. and Wilkinson, E. (2006). Overcoming the Barriers: Mainstreaming Climate Change Adaptation in Developing Countries. Tearfund Climate Change Briefing Paper 1, Brighton: Institute of Development Studies.
- Thomalla, F., Downing, T. Spanger-Springfried, E. and Han, G. (2006). Reducing Hazard Vulnerability: Towards a Common Approach Between Disaster Risk Reduction and Climate Adaptation. *Disasters*, 30(1), p. 39-48.
- Turnbull, M. (2012). Participatory Capacity and Vulnerability Analysis: A practitioner's guide. Oxfam. Available at: <https://oxfamlibrary.openrepository.com/handle/10546/232411>.
- Turnbull, M., Sterrett, C., and Hilleboe A. (2013). *Toward Resilience. A Guide to Disaster Risk Reduction and Climate Change Adaptation*, Practical Action Publishing.
- UN. (2015). Sendai Framework for Disaster Risk Reduction 2015-2030. Available at: <https://sustainabledevelopment.un.org/frameworks/sendaiframework>.
- UNDP. (2021). Community-based Adaptation. Available at: <https://www.adaptation-undp.org/community-based-adaptation>.
- UNDRR. (2019). Global Assessment Report. Retrieved from: <https://www.undrr.org/publication/global-assessment-report-disaster-risk-reduction-2019>.
- UNDRR. (2020). Nature-based Solutions for Disaster Risk Reduction: Words into action. Available at: <https://reliefweb.int/sites/reliefweb.int/files/resources/Words%20into%20Action%20Nature-based%20solutions%20for%20disaster%20risk%20reduction.pdf>.
- UNDRR. (2021). Our Work. Retrieved from: <https://www.undrr.org/about-undrr/our-work>.
- UNISDR. (2013). The Pacific Experience in Developing Policy and Legislation on Disaster Risk Reduction and Climate Change Adaptation. UNISDR.
- UNISDR EUR. (2011). Climate change adaptation and disaster risk reduction in Europe: a review of risk governance, UNISDR and the Council of Europe.
- UNISDR, UNDP. (2012). *Disaster Risk Reduction and Climate Change Adaptation in the Pacific: An Institutional and Policy Analysis*. Suva, Fiji: UNISDR, UNDP, 76pp.
- UN General Assembly. (2016). Report of the open-ended intergovernmental expert working group on indicators and terminology relation to disaster risk reduction. https://www.preventionweb.net/files/50683_oiewgreportenglish.pdf.
- UN-SPIDER. (2021). Disaster Risk Management. Knowledge Portal: Space-based information for Disaster Management and Emergency Response. United Nations Office for Outer Space Affairs. Retrieved from: <https://www.un-spider.org/risks-and-disasters/disaster-risk-management#:~:text=Examples%20include%2C%20but%20are%20not,wisely%20environmental%20management%20or%20weak>.
- Van Niekerk, D., Nemaconde, L. D., Kruger, L., and Forbes-Genade, K. (2017). Community-based disaster risk management. In *Handbook of disaster research* (pp. 411-429). Springer, Cham.
- Venton, P., & La Trobe, S. (2008). Linking climate change adaptation and disaster risk reduction. *Linking Climate Change Adaptation and Disaster Risk Reduction*, 16.