

DISABILITY AND CLIMATE CHANGE IN THE PACIFIC

Findings from Kiribati, Solomon Islands,
and Tuvalu

August 2022





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DISCLAIMER

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ABBREVIATIONS

AHP	Australian Humanitarian Partnership
APCP	Australia Pacific Climate Partnership
BAU	Business-as-usual
CCA	Climate change adaptation
COVID-19	Coronavirus disease of 2019w
DFAT	Department of Foreign Affairs and Trade [Australian Government]
FAA	Fusi Alofa Association [Tuvalu]
FGD	Focus group discussion
IPCC	Intergovernmental Panel on Climate Change
KCCP	<i>Kiribati Climate Change Policy</i>
KJIP	<i>Kiribati Joint Implementation Plan for Climate Change and Disaster Risk Management (KJIP) 2019–2028</i>
NAPA	<i>National Adaptation Programmes of Action</i> [Solomon Islands]
NCCP	<i>National Climate Change Policy 2012–2017</i> [Solomon Islands]
NDC	Nationally Determined Contribution
NGO	Non-government organisation
NSAP	<i>National Strategic Action Plan for Climate Change and Disaster Risk Management 2012–2016</i> [Tuvalu]
OPD	Organisation of persons with disabilities
PDF	Pacific Disability Forum
PWDSI	People with Disabilities Solomon Islands
TC	Tropical cyclone
TCCP	<i>Te Kaniva: Tuvalu's Climate Change Policy 2012</i>
TTM	Te Toa Matoa [Kiribati]
USA	United States of America
UNCRPD	United Nations Convention on the Rights of Persons with Disabilities
UNHRC	United Nations Human Rights Council
UNICEF	United Nations Children's Fund
WGQ	Washington Group Questions on Functioning
WHO	World Health Organization
WMO	World Meteorological Organization

EXECUTIVE SUMMARY

This report presents findings from research conducted by the Pacific Disability Forum (PDF) on the impacts of climate change on persons with disabilities. Despite the risk that Pacific island nations are facing from climate change, there has been little research into the impacts of climate change on persons with disabilities.

The research was exploratory and included participants with disabilities from Kiribati, Solomon Islands, and Tuvalu. Data was collected from focus group discussions (FGDs) in the three countries between 2020 and 2021. The research was supported by the Australia Pacific Climate Partnership (APCP) with funding from the Australian Government Department of Foreign Affairs and Trade (DFAT).

The research findings show that climate change is already negatively impacting on persons with disabilities in the areas of agriculture and fishing, food security, access to water, and health. The increasing frequency and intensity of sudden onset disasters, such as tropical storms, and persisting issues in disaster risk management are noted as a concern. Emerging issues of, and exclusion from, climate-related migration and mobility are also highlighted.

The research shows that climate change is amplifying the risks and exclusion that persons with disabilities already experience in their daily lives. Additionally, climate change is introducing new risks and creating new barriers. This is of particular concern in terms of the barriers persons with disabilities already face in securing livelihoods and ensuring household food security.

On the basis of our findings, PDF presents a call to action to all agencies and organisations working on climate-related policy and programming in the Pacific. Crucially, disability-inclusive climate action needs to better address existing and emerging risks and respond to the differential impacts of climate change on persons with disabilities. Disability-inclusive climate action can only be achieved by ensuring the meaningful participation of persons with disabilities in climate preparedness, adaptation, and mitigation.

01 INTRODUCTION

This report presents findings from research on climate change and disability coordinated by the Pacific Disability Forum. From July 2020 to October 2021, researchers from PDF, together with in-country resource teams in three Pacific countries, undertook a study to capture the impacts of climate change on persons with disabilities.

This research provides important insights on how climate change is affecting persons with disabilities in the Pacific. Findings and recommendations from the study will be used by PDF to build its future programming on the needs of persons with disabilities in relation to climate change impacts, adaptation, and policy mainstreaming.

The research was funded by the Australian Government Department of Foreign Affairs and Trade, through the Australia Pacific Climate Partnership. PDF led the research design, planning, and data analysis and reporting, while in-country resource teams in Kiribati, Solomon Islands, and Tuvalu took the lead role in data collection and data verification.

The research was based on participatory and rights-based approaches to ensure full engagement and involvement of persons with disabilities.



Fusi'Alofa Association Climate Change Officer, Mr. Molomolo Touaisi

02

BACKGROUND

a. Climate change

The Intergovernmental Panel on Climate Change (IPCC) advises that:

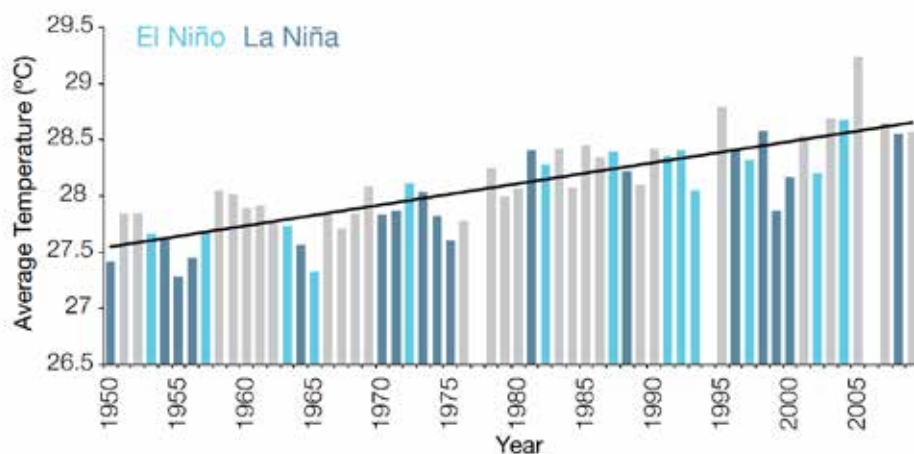
Climate change is a long-term shift in global or regional climate patterns leading to severe or more frequent disaster. IPCC, 2018

The World Meteorological Organization (2019) notes measures of climate commonly include temperature, precipitation, wind, ozone, cloud properties, greenhouse gases, and air pressure. According to Letta and Tol (2018), the changes in average temperatures and other climate measures are a demonstration of an 'expansion of the greenhouse effect'. The greenhouse effect describes the way the earth's atmosphere keeps the planet warm. However, the strength of the greenhouse effect has resulted in temperatures rising at a concerning rate due to increased carbon dioxide emissions (Oppenheimer and Anttila-Hughes, 2016).

Increases in global temperature are one of the most easily measured and frequently cited indicators of climate change. Notably, each of the past 40 years has been warmer than the 20th century average, with the 12 warmest years on record all occurring since 1998 (Arnell et al., 2019).

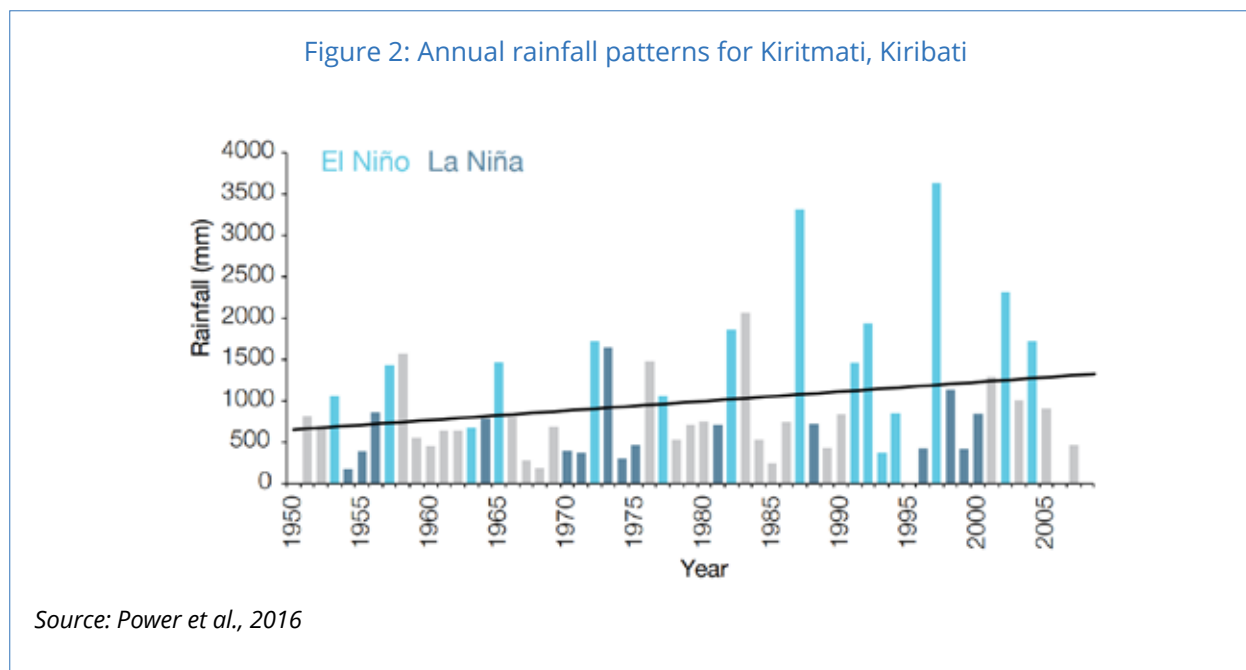
Climate change projections for the Pacific vary from country to country; however, the regional trends include increases in sea level, ocean acidification, average annual sea surface and air temperatures (more extreme hot days and warm nights), as well as changes in rainfall patterns, wind-driven waves, and intensity of tropical cyclones (CSIRO, BOM and SPREP, 2015). Data from the Pacific shows significant changes are already occurring, for example, in relation to sea level, ocean acidification, average temperatures, and rainfall. The annual average temperatures for Tarawai, Papua New Guinea, from 1950 to 2005 are shown in Figure 1 below. The light blue bars indicate wetter El Niño years, dark blue bars indicate drier La Niña years, and the grey bars indicate neutral years. Maximum air temperatures for Tarawai have increased at a rate of 0.18°C per decade.

Figure 1: Annual average temperature for Tarawai, Papua New Guinea



Source: Power et al., 2016

Figure 2 below shows the change in annual rainfall patterns for Kiritmati, Kiribati, from 1950 to 2005. Light blue bars indicate El Niño years, dark blue bars indicate La Niña years, and the grey bars indicate neutral years.



Climate change has caused widespread adverse impacts and related losses and damages to nature and people, beyond natural climate variability (IPCC, 2022), such as floods, droughts, storm surges, tropical cyclones and coastal erosion. Climate change has already had diverse adverse impacts on human systems, including on water security and food production, health and wellbeing, and cities, settlements and infrastructure (IPCC, 2022).

b. Disability

According to the *World report on disability*, 2011, approximately 15% of the global population has a disability. The disability community is diverse, including those with physical, sensory, cognitive, and psychological conditions, as well as chronic health conditions (World Health Organization, 2011).

Since the 1970s, the social model of disability has challenged the idea that people are disabled by a limitation of their bodies. Reframing our understanding of disability, the social model

highlights the barriers persons with disabilities experience, and the responsibility of society and institutions to remove barriers to improve accessibility and ensure the equitable participation of persons with disabilities in all aspects of society.

According to the United Nations Convention on the Rights of Persons with Disabilities (UNCRPD):

Persons with disabilities include those who have long-term physical, mental, intellectual or sensory impairments which in interaction with various barriers may hinder their full and effective participation in society on an equal basis with others. UNCRPD, Article 1, 2006

c. Climate change and disability

The Intergovernmental Panel on Climate Change (2022) identifies that across sectors and regions the most vulnerable people and systems are observed to be disproportionately affected.

In July 2020, the United Nations Human Rights Council adopted a historic resolution (A/HRC/RES/41/21) on climate change and the rights of persons with disabilities. This resolution calls on governments to adopt a disability-inclusive approach to addressing climate change (United Nations Human Rights Council, 2019). This was the first time the council directly addressed the rights of persons with disabilities in relation to climate change.

While women, Indigenous peoples, and youths have successfully become part of discussions around climate action, persons with disabilities have largely been absent. As a related consequence, disability has not been highlighted in climate change policy. However, the IPCC states the following with clear relevance to persons with disabilities:

Persons who are socially, economically, culturally, politically, institutionally, or otherwise marginalized are especially vulnerable to climate change and also to some adaptation and mitigation responses. IPCC, 2014

d. Potential impacts

According to Wolbring (2009), climate change will cause increasing hardship and likely deteriorate the quality of life and wellbeing for persons with disabilities and other marginalised groups. The ability to adapt to the available livelihood opportunities, and maintain resilience, are all expected to decline.

Hydrometeorological hazards such as cyclones, floods, droughts, fires, and heat waves have negative consequences for societies. Yohe et al. (2007) note that 'the impacts of climate change are intersecting with all key current concepts and priority areas of

international development and poverty alleviation'. These include displacement and forced evacuation, inadequate evacuation spaces following disasters, inadequate housing resources, lack of clean water, decreased agricultural yields, damage to ecosystems, and adverse health impacts. These consequences and others are changing the health, economic, and physical landscape of societies and especially among the least prepared and most marginalised (Kossin, 2018).

Climate change is also likely to cause an increase in the incidence and prevalence of disabling impairments due to increased exposure to severe climatic conditions and disasters resulting in people acquiring impairments, such as through injury, and disabling health conditions through increased incidences of disease. For example, climate change is considered to have increased the intensity of Hurricane Harvey in the United States of America (USA) by 15% to 38% and, in turn, the hurricane's impact and subsequent devastation (Emanuel, 2017; van Oldenborgh et al., 2017; Miller, 2018).

Climate change will severely challenge many rural communities and impact on where and when particular economic activities can be conducted. Changes in the timing of seasons, temperatures, and precipitation will alter where commodities, crops, and recreational activities are best suited. As many rural communities have less diverse economic activities compared with communities in urban areas, changes in the viability of a traditional economic sector can place disproportionate stresses on community stability (Heslin et al., 2019).

Despite a broad understanding of the potential impacts of climate change, little is known about the impacts of climate change on persons with disabilities in the Pacific.

02

RESEARCH
DESIGN

a. Research objective and questions

The main research objective was as follows:

- To understand the **impacts** of climate change on persons with disabilities in the Pacific.

The following research questions were explored:

- What **changes** are persons with disabilities and their families **experiencing** that may be caused by climate change?

While persons with disabilities may be experiencing changes over time, they may or may not attribute these to climate change. The main aim of this question was to identify observed changes, including climate patterns and socio-economic change.

- How are these changes **impacting** persons with disabilities and their households?

This included exploring what may be direct impacts and indirect impacts, and how persons with disabilities are responding to these changes and impacts.

b. Selected countries

The three countries selected for this research were Kiribati, Solomon Islands, and Tuvalu. These countries were agreed by the research partners, based on the following criteria:

- Range of geographic settings that experience different effects of climate change and geological hazards.
- Polynesian, Melanesian, and Micronesian cultural settings.
- Existing relationships and priorities between PDF and in-country organisations of persons with disabilities (OPDs).
- Linkages with other DFAT-funded programs including the Australian Humanitarian Partnership (AHP) and bilateral programs.

c. Data collection

Data was collected via focus group discussions. Two FGDs were conducted in each of the three countries. The first FGDs were with persons with disabilities recruited by the in-country OPDs. The second FGDs were conducted with staff of the in-country OPDs and provided an opportunity to cross-check and validate findings.

Due to COVID-19 travel restrictions, a resource team was established in partner OPDs in each country. The resource team consisted of a Climate Change Officer and Research Assistant. A two-day online capacity building workshop was completed for the resource teams in the three countries. Other supporting OPD members also attended the capacity building workshops. The capacity building included an introduction to climate change; introduction of the research approach and FGD guide; a detailed run-through and practice using the FGD guide; and the collection of participant data, including use of the questions in the Washington Group Short Set on Functioning.

The resource team in each country was responsible for recruiting participants (see below) in close coordination with PDF, and for conducting the FGDs in the local language. PDF researchers participated in and oversaw the FGDs remotely. The resource teams documented the FGDs and reported back to the PDF researchers. This documentation formed the basis of analysis by PDF and the findings presented in this report.

d. Recruitment

Convenience sampling was used to recruit FGD participants. Participants were persons with disabilities known to the in-country OPD partner.

The following selection criteria were provided by PDF to guide the recruitment of participants:

- At least 50% representation of women.
- Include different age ranges including young adults (youths over 18 years old) and older persons above 60 years old.
- Include a diverse range of persons with disabilities and impairment types.

e. Participants

A total of 60 participants participated in FGDs, with 20 participants per country. Participant data is summarised in Table 1 below by age range; gender; functional difficulty, based on the questions in the Washington Group Short Set on Functioning; and by country.

In Tuvalu, the second FGD with OPD staff was also attended by two government officials. Each FGD comprised of both female and male participants with disabilities.

Table 1: FGD participants by nominated variables

AGE RANGE IN YEARS	NUMBER	PERCENTAGE
20–24	7	12
25–29	6	10
30–34	10	17
35–39	11	18
40–44	8	13
45–49	4	7
50–54	7	12
55–59	5	8
60+	2	3
GENDER	NUMBER	PERCENTAGE
Male	33	55
Female	27	45
COUNTRY	NUMBER	PERCENTAGE
Kiribati	20	33.3
Solomon Islands	20	33.3
Tuvalu	20	33.3
FUNCTIONAL DIFFICULTY (includes either 'a lot of difficulty' or 'cannot do at all' responses)	NUMBER	PERCENTAGE
Difficulty walking	22	37
Difficulty seeing	11	18
Difficulty hearing	9	15
Difficulty concentrating	6	10
No difficulty	12	20

f. Data analysis

FGDs were recorded and transcribed and were used for analysis. The transcripts were reviewed using the FGD interview tool as a guiding framework. Key points of relevance (including those unexpected) were given a descriptive code. These codes were then grouped into thematic areas. These thematic areas form the basis of the organisation of the findings presented below.

Analysis was conducted by the lead PDF researcher. Preliminary findings were shared and reviewed by the wider PDF research team.

g. Limitations

Border closures due to the COVID-19 pandemic meant the PDF team members were not able to travel to conduct FGDs. The FGDs, as noted, were facilitated via the establishment and training of OPD staff in the three countries. Risks were further mitigated by remote attendance and supervision of FGDs by the PDF research team.

This qualitative research is preliminary and is in response to limited evidence of the impacts of

climate change on persons with disabilities in the Pacific. As such, the findings provide an overview of impacts on persons with disabilities in the three focus countries. The research was not comparative and did not address the impacts of climate change on persons without disabilities.

While findings from each FGD supported findings from the other countries, it should be noted that the overall number of participants (sample size) was relatively small. It should also be noted that the FGDs included both women and men.

Participants in FGDs were known to and had links to OPDs or were the staff of OPDs in the focus countries. These individuals may not be representative of the majority of individuals with disabilities in the focus countries. It is assumed that persons with disabilities without these links, or equivalent networks and access to information, may have a lower awareness of climate change, and may be experiencing more or other impacts of climate change than those reported by participants.



Te Toa Matoa Climate Change Resources Team in a capacity building program leading up to the climate field study in March 2021.

04

FINDINGS

Findings from the FGDs are presented in the section below. The findings focus on impacts in the following thematic areas: observed changes attributable to climate change; food production, fishing, and food security; water availability; health; sudden onset disasters; economic impacts; and mobility and displacement.

a. Observed changes attributable to climate change

Participants reported observing changes in the climate patterns in all three countries. The main climatic changes identified were unpredictable rainfall patterns, increased flooding, increases in temperature, increased severity of tropical storms, sea level rises, and an increase in the severity of coastal erosion.

Sea level rises were noted as leading to the flooding of low coastal areas, saltwater intrusion, and the loss of islets or small islands. Coastal erosion due to storm surges, and compounded by rising sea levels, was also reported to be leading to land loss, including sand beaches and islets. The impacts of a rising sea level was noted as being worse during king tides. The rise in sea level has led to the flooding of residential areas in Tarawa and saltwater intrusion in farming areas and freshwater channels. The increased salinity of well water was also noted.

In Kiribati, participants observed there has been an rise in temperature over the last 20 years. Increasing temperatures were reported as making the heat unbearable at times and making it difficult for people to walk. This was noted as a being particularly difficult for people with a physical disability. An increase in pests on coconut plants was also noted alongside the introduction of invasive species, such as *kanava* trees.

Participants highlighted there has been an increase in rainfall during the wet season and more drought during the dry season. Both these rainfall trends have affected well water, with murkier water during the wet season due to heavy rainfall, and the drying up of wells in the dry season. Unpredictable rainfall patterns were also reported, meaning some places have received more rainfall and other areas less rainfall or more intense rainfall over a shorter duration.

Changes to the cyclone season were noted. The cyclone season is normally considered to span six months from November to April. The season now extends for eight months from October to May.

A lot has changed over the years. Compared with 35 years ago, the population has increased due to people from the outer islands moving to Tarawa for better opportunities such as education, health care, entertainment, employment, and other benefits.

Today, approximately 65% of the country's entire population lives on this small atoll. People used to live reasonably well because of strong social cohesion amongst people in the villages, abundance of shellfish and fish in the lagoon, a thriving seaweed farming program, and abundance of fruits like pandanus and breadfruit.

People used to collect shellfish and help in the seaweed farming and other family activities. These activities helped families to also earn an income. All these have changed, with seaweed farming no longer in existence, a decrease in seashell and fish abundance, and trees no longer producing fruit.

Based on information from female participant with disabilities, Kiribati



Fish at Auki market in Malaita province of Solomon Islands. Photo by Berris Suruma Olitisa

b. Agriculture, fishing, and food security

For the three countries, it was reported that most persons with disabilities are not formally employed and depend heavily on subsistence activities, including fishing, farming, and rearing pigs at home. Participants observed that changes in climate are threatening food security for persons with disabilities due to impacts on food production.

Participants from the Solomon Islands observed increasing climate variability had affected crops, resulting in highly inconsistent crop yields throughout the year. Changes in annual yield variability are making root crop and vegetables high-risk crops for farmers. Key crops, such as manioc, were reported as being particularly affected by high temperatures.

It takes more time for harvesting compared to before and manioc crops are not as productive as before.

Also, the increase in rainfall has led to frequent flooding. In the Mataniko (watershed) region there is now frequent flooding that destroys the crops from home gardens and also from commercial farms.

Based on information from male participant with disabilities, Solomon Islands

In Tuvalu, the overall yield reported by farmers with disabilities has been drastically affected by climate change. Yields were reported as being impacted by saltwater intrusion into farming areas; changes in rainfall patterns, including drought; and an increase in the severity of weather conditions. Another observation was the increase in intensity and severity of cyclones and storm surges impacting crops and resulting in the destruction of taro and root crop farms and other livelihood infrastructure; for example, from Tropical Cyclones Pam in 2015 and Tino in 2020.

In Solomon Islands, the issue of relocating plantations when soil is no longer fertile was raised. While both farmers with and without disabilities are greatly impacted, farmers without disabilities are able to relocate their plantations to higher grounds or to more fertile land. This is much harder for a farmer with disabilities, due to the distance and the additional time to get to the relocated plantation. Physical barriers in the built environment also prevent farmers with disabilities from relocating their plantations.

With primary food production systems being affected, food security for persons with disabilities was reported as being under threat. In some instances, persons with disabilities were reported to face hunger and even malnourishment. Participants noted that when households face food shortages, persons without disabilities are prioritised and household members with disabilities receive less or no food.

Participants from Solomon Islands highlighted that fish catches have decreased. This was attributed to the increase in seawater temperature, rising sea level, and a loss of marine biodiversity. The impacts of coral bleaching were also noted as reducing fish stocks.

Over 20 years of living in Funafuti, there has been a decrease in the abundance of fish and water quality. The coastal waters are now full of solid waste, which reduces water flow and damages the fish habitat.

Fishing for tuna used to happen close to the shore but now fishers use global positioning systems to locate fishing grounds and travel further and fish for longer hours.

Overfishing is happening due to the use of sophisticated fishing technologies, including drift nets and outboard motors.

Based on information from female participant with disabilities, Tuvalu

Most fishers, especially from South Tarawa in Kiribati, now use boats fitted with outboard engines and boats to catch fish further out in the sea.

Persons with disabilities in Kiribati do not have the opportunity to get loans to buy this improved fishing equipment. In addition, people who are deaf are not comfortable with using outboard engines, since they are not able to hear them and there is a risk of drifting when a mechanical problem happens in open waters.

Based on information from male participant with disabilities, Kiribati



Honiara Central Market, Solomon Islands. Photo: Yvonne Green / DFAT



Fresh water in Kiribati, AusAID

c. Water availability

Participants highlighted that changes in rainfall patterns are impacting on the availability of clean water and access for persons with disabilities. Rises in sea level and storm surges have also resulted in saline intrusion and saltwater entering freshwater supplies. Participants reported this was causing an increase in water-related illnesses among persons with disabilities. Examples included diarrhoea, fever, skin diseases, tension, and stress. Some persons with disabilities face additional impairment-related health complications due to difficulty in accessing clean water and maintaining good hygiene practices.

Persons with disabilities face multiple challenges in accessing clean water during dry spells as the wells may have dried and they may need to travel further or rely on assistance to acquire water. Participants highlighted that when households ration water in response to less water availability, only children and the elderly are given priority and not household members with disabilities.

In Tuvalu, the availability of water resources is an ongoing challenge that is exacerbated by climate change, with water shortages now frequent. The Public Works Department used to regularly distribute water to households and businesses from desalination plants; however, water tanks are increasingly empty. In October 2011, severe water shortages drove Tuvalu

into declaring a state of emergency in which residents were rationed 20 litres of water a day per household.

In Funafuti, Tuvalu, some persons with disabilities reported having access to clean water through filtering systems. This option is not available for persons with disabilities in the outer islands who have to boil water for consumption.

One female participant highlighted that with the decrease in water availability, it is a challenge to stay hygienic during her monthly menstrual cycle. This was noted as being worse during long periods with no rain. In Kiribati, the challenges of women with disabilities accessing clean water was also noted. When wells run dry and accessing water from the community water source is inaccessible this can result in delays in food preparation and negatively impact on menstrual hygiene.

Participants from Solomon Islands highlighted that persons with disabilities face barriers to accessing safe drinking water. For those residing in flood-prone areas, the increase in frequency and severity of flooding has led to destruction of water supply infrastructure and water sources. For persons with disabilities, disruptions to usual sources of clean water result in very limited options, and this increases dependency on family and community members.

d. Health impacts

Participants from the three countries highlighted that persons with disabilities are more vulnerable to diseases or ill-health because of underlying conditions, such as chronic illness or unmet support needs. It was noted that persons with disabilities are more prone to health issues during climate change and disaster events. Examples of negative health impacts included an increase in waterborne diseases, anxiety, trauma, mental health conditions, and depression.

Participants from Solomon Islands noted that as the impacts of climate change increase, so is the prevalence of impairments caused by disease and injury. For example, warmer temperatures and increased humidity have led to an increase in the spread of mosquito-borne diseases, such as malaria and dengue fever, which can result in chronic conditions for persons with disabilities. It was noted that underlying health conditions can make persons with disabilities more susceptible to contracting infectious diseases.

In Kiribati, participants reported that extreme heat was negatively affecting the health of persons with disabilities, especially those that are susceptible to heat-related illness. Participants reported they were aware of a few cases resulting in the death of a person with disability. Persons with physical disabilities, particularly those with spinal cord injury, are particularly susceptible to heat-related illnesses. The concern was raised that if persons with disabilities cannot access appropriate health services, they are placed at even higher risk.

Negative health impacts were also reported for people with dementia; people dependent on others for assistance in activities of daily living; people with limited mobility, especially if confined to bed; and people without access to transportation. Health risks were also noted to increase for these groups during cyclones and severe storms. It was also noted that persons with disabilities can experience high rates of illness, injuries, or death during these disaster events.



Testing water in Solomon Islands



Tsunami, Solomon Islands 2007. Photo: AusAID

e. Sudden onset disasters

Participants highlighted that during extreme climate events that require evacuation, such as tropical cyclones, persons with disabilities face a range of barriers. This includes barriers to accessing, receiving, and acting upon emergency information or instructions and communicating their needs in an emergency or evacuation situation. Participants mentioned that messages about extreme weather or other emergency information, such as warnings to boil contaminated water, are not designed or delivered in a way that reaches individuals with disabilities, and particularly those who are deaf, blind or have a vision impairment, or intellectual or psychosocial disability.

Climate change disasters increase our risk. Persons with disabilities are often less able to escape from hazards; may lose essential medications or assistive devices, such as spectacles or hearing and mobility aids; or may be left behind when our community is forced to evacuate during a king tide or severe storms.

Persons with disabilities also have greater difficulty accessing basic needs, including food, water, shelter, latrines, and healthcare services.

Based on information from female participant with disabilities, Kiribati

Persons with disabilities may also face additional barriers associated with evacuations, particularly if local disaster management plans do not adequately anticipate and address the specific needs of persons with disabilities. Participants noted many persons with disabilities rely on assistive devices to improve functioning. During climate-related disasters, these devices are often lost or damaged, leaving people with no assistive devices when they may need them most. Replacement assistive devices are not typically included as distributed relief items.

It was raised by participants that following severe floods in Solomons Islands and tropical cyclones in Tuvalu, persons with disabilities experienced difficulty accessing necessary medical care and first aid services during the response. This was compounded by barriers to accessing to medical service sites. Access to both general and specialised medical services was reported as being difficult, or non-existent, during disaster response in all three countries.



Cyclone Pam 2015, Tuvalu

f. Economic impacts on households

Participants highlighted that climate change impacts have affected the economic stability of persons with disabilities and increased the risk of poverty. In Tuvalu and Kiribati, storms and increases in sea level have destroyed properties and assets, resulting in economic losses to persons with disabilities and their families. In Solomon Islands, storms and changes in rainfall patterns were reported to have also contributed to economic losses for households with persons with disabilities. Similarly, participants in Tuvalu noted the country had been badly affected by tropical cyclones in recent years, resulting in large economic losses.

Participants from Solomon Islands reported the loss of homes and damage to cash crops. In Kiribati, participants noted the increase in frequency and

severity of droughts was impacting crop production, leaving little for sale in markets. Copra production is one of the main sources of income in the outer islands. Droughts were reported as impacting on copra production, leading to reduction in household income. With high reliance on agriculture and fishing for food and income sources, participants highlighted that their income sources have been negatively affected. The impacts of climate change on crop yields, fish catches, and overall biodiversity were again emphasised.

Participants from the three countries also reported that heatwaves were creating further barriers to accessing work, including formal employment, fishing, and farming, and were negatively impacting on economic productivity and incomes.



Fusi'Alofa Association focus group discussion during the climate change impact study in March 2021.

g. Mobility and displacement

Participants highlighted that in disaster events, including cyclones, floods, king tides, and severe storms, persons with disabilities consistently face barriers to evacuating in all three countries. The following issues were reported as key barriers to safe and effective evacuation:

- Distance to be travelled
- Entry, exits and passageways not wide enough for those using assistive devices
- Presence of steps or other obstacles and lack of universal accessibility
- Poor lighting
- No information on toilet and hygiene in evacuation centres.

Participants noted that persons with disabilities in the three countries face barriers to relocating. Persons with disabilities often lack access to reliable and accessible transportation, have difficulty finding accessible and appropriate housing, and become disconnected from personal or social support networks.

The issue of migration due to climate impacts was raised as a concern. Persons with disabilities face additional barriers, including not being granted visas, not being allowed to cross borders, and barriers to enrolling in social protection programs or health care. Examples of families migrating and being separated from family members with disabilities were also raised.

Persons with disabilities are not able to migrate overseas due to a lack of inclusive migration laws in overseas countries, including New Zealand, where Tuvaluans have witnessed persons with disabilities' visas being declined.

Families have been separated from their family members with disabilities and forced to remain in Tuvalu. Two girls with disabilities in Fiji were left behind while their families went to New Zealand under the Pacific Access Category Scheme.

Based on information from male participant with disability, Tuvalu

h. Policy participation of persons with disabilities

Participants were asked about their awareness of climate-related policies and their level of participation in the development of community, sub-regional, or national climate change policies. Awareness of these policies is an important element in ensuring persons with disabilities are aware of their rights and are able to adapt appropriately to changes in climate. The majority of participants were not aware of community, sub-regional, and national policies on climate change.

In terms of participation in the development of community, sub-regional, and national policies, the majority of participants said they did not participate at all. However, a few participants were aware of climate-related policies. OPD staff from Tuvalu reported participating in the development of the *National Strategic Action Plan for Climate Change and Disaster Risk Management 2012–2016* (NSAP) and *Te Kaniva: Tuvalu Climate Change Policy 2012* (TCCP).

Further information on the policy context for each country is included as an appendix below.



Miss Melvina Vua, climate change officer, advocating for inclusive climate justice process in the Solomon Islands.

05

SUMMARY AND CALL TO ACTION

a. Summary discussion

Participants in the FGDs showed a good understanding of the impacts of climate change. Importantly, the impacts of climate change were reported as already happening and already negatively impacting persons with disabilities. There was a clear concern that the negative impacts of climate change on persons with disabilities may worsen in the future.

Based on our findings, climate change is impacting on persons with disabilities in two ways:

- Climate change is increasing the negative impacts of pre-existing exclusion.
- Climate change is creating new risks and new negative impacts.

Many of the impacts highlighted in this report relate to exclusionary practices that already exist. This ranges from discrimination within the household to exclusion from policy formation and policy implementation. For example, persons with disabilities may not be prioritised when a household is experiencing a shortage of food or water. Similarly, persons with disabilities are often not considered in disaster risk management, such as the design of evacuation procedures and evacuation shelters. Without concerted action, the impact of exclusion on persons with disabilities will become worse under climate change.

Climate change is also introducing new risks; for example, by forcing a change in agricultural and fishing practices. On the one hand, persons with disabilities already experience barriers to engage in farming and fishing, with many reliant on marginal or subsistence agriculture. Most agricultural produce is consumed within the household, with limited surplus sold at market. Falling yields from farming

and home gardens further impact on food security and incomes. Persons with disabilities who have been able to overcome barriers and farm or work on small plantations are facing new barriers. As reported, farmers with disabilities may not be in a position to relocate their plantations and/or travel to more remote locations to farm. Similarly, new offshore fishing practices are creating new barriers to entry for persons with disabilities.

Overall, persons with disabilities have limited access to resources to secure livelihoods and fewer opportunities to ensure food security. As resources become scarcer, such as from limited land for agriculture from saltwater intrusion and rising sea levels, and competition for scarce resources increases, persons with disabilities face further exclusion and marginalisation. Our findings indicate that women with disabilities face additional barriers, such as maintaining health and wellbeing during times of water scarcity. Further research on access to resources and the current and future impacts of climate change on women with disabilities would be helpful. Additional related work is needed on understanding the impacts of climate change on persons with diverse impairments.

The participants in this research were persons with disabilities with links to established OPDs. We can assume that these participants have relatively greater access to information and engagement with government, including access to services. It is important to note that not all persons with disabilities may have access to these OPD networks, particularly those individuals with disabilities in remote areas. Our concern is that the impacts of climate change on persons with disabilities who are less connected than our sample of participants may be even more severe.

b. Call to action

Based on the findings from this research, PDF urges all government agencies and non-government organisations working on climate change in the Pacific to take the following actions to deliver disability-inclusive climate action:

1. Recognise and respond to the exponential risk that climate change is creating for persons with disabilities in the Pacific, including the magnification of prior risks and the creation of new risks.
2. Take active measures to ensure persons with disabilities and their representative organisations are consulted, and meaningfully engaged, in climate-related planning, policy and budget development, implementation, and evaluations.
3. Support and strengthen capacity building programs of persons with disabilities to participate in climate decision-making that concerns them.
4. Acknowledge that persons with disabilities can equally play the role of climate actors, can contribute effectively to decision-making processes, and must not be viewed as passive recipients of climate adaptation programs.
5. Ensure that the concept of pre-conditions to inclusion of persons with disabilities is embedded in climate mitigation and adaptation policies and programs. Pre-conditions to inclusion have six themes: accessibility, assistive devices, support services, social protection, community-based rehabilitation, and non-discrimination.
6. Address the differential impacts of climate change and identify and respond to the needs of persons with disabilities of all genders and impairment types in rural, urban, and remote locations.
7. Develop climate-related preparedness, adaptation, and mitigation strategies that not only address the current barriers and risks faced by persons with disabilities but also anticipate the emerging and future risks of climate change.
8. Recognise and draw on the capabilities, knowledge, and experiences of persons with disabilities to contribute to climate-related preparedness, adaptation, and mitigation.



Focus group discussion at the office of Fusi Alofa Association of Tuvalu, Funafuti, Tuvalu.



Focus group discussion session outside the office of People with Disabilities Solomon Islands, Honiara, Solomon Islands.

A

APPENDIX

POLICY AND RELATED BY COUNTRY

Kiribati

The *Kiribati Climate Change Policy (KCCP)*, which was launched in 2018, is the overarching strategy for the implementation of adaptation, mitigation, and disaster risk reduction actions. The KCCP includes objectives for improving food, water, energy, and health security; achieving coastal protection and building resilient infrastructure; developing environmental resilience; and improving disaster risk management. The implementation plan for the KCCP is the *Kiribati Joint Implementation Plan for Climate Change and Disaster Risk Management (KJIP) 2019–2028*, which sets out a holistic approach to integrate climate change and disaster risks into all sectors and coordinate priorities for action in accordance with *Kiribati 20-Year Vision 2016–2036 (KV20)* and the *Kiribati Development Plan 2020–2023*.

The KJIP was developed to implement the *National Framework for Climate Change and Climate Change Adaptation*. The goal of the KJIP is to increase resilience to climate change and disaster risks and promote a ‘whole-of-country’ approach by focusing on mainstreaming and coordination across sectors and levels of governance. The KJIP identifies 12 strategies and associated priority climate change and disaster risk management actions for the next nine years (2019–2028) based on existing policies and strategies (Government of Kiribati, 2019).

To build climate resilience and respond to the impacts of climate change, the KJIP’s 12 strategies include: increasing water and food security with integrated and sector-specific approaches and promoting healthy and resilient ecosystems; promoting sound and reliable infrastructure development and land management; promoting the use of sustainable renewable sources of energy and energy efficiency; and strengthening and greening the private sector, including small-scale businesses.

The *National Framework for Climate Change and Climate Change Adaptation* addresses climate change impacts, both projected and what is already being felt, and presents a broad framework within which the country’s immediate-, medium-, and long-term strategic goals and objectives will be implemented. The main climate change concerns raised by the framework include rising sea levels, increasing sea surface temperatures, and changes to weather patterns. Under the framework, five headings outline Kiribati’s actions to strengthen its capability to meet the challenge of climate change. These include mitigation, integration of climate change and climate change adaptation (CCA) into national planning and institutional capacity, external financial and technical assistance, and population and resettlement (Government of Kiribati, 2017).

One notable result from analysis of the framework is the absence of words relevant to this review, such as disability and social inclusion. However, the framework tries to address this through the use of the whole-of-country approach. In the first paragraph of Section 2, the framework highlights that:

It is clear then that a whole-of-country approach is required to mobilize against this phenomenon in a manner that is practical and effective to address the impacts we stand to face against climate change. The effects of climate change need to be seen as a challenge against our developmental efforts and our adaptation effort requires that capacity at all levels is raised to a level where we are able to take action to improve environmental, social and economic sustainability. Government of Kiribati, 2017

Kiribati has committed under its Nationally Determined Contributions (NDCs) to reduce emissions by 12.8% in 2030, compared with a business-as-usual (BAU) projection. Conditionally, with international assistance to access financial and technical resources, Kiribati can contribute a further 48.8% reduction in greenhouse gas emissions by 2025; and a 49% reduction in greenhouse gas emissions by 2030, compared with the BAU projection. Therefore, with appropriate international assistance, Kiribati can reduce its emissions by 61.8% by 2030. The NDCs of Kiribati have a focus on reducing emissions by adopting renewable energy (solar and coconut biodiesel), the use of coconut biodiesel for transport fuel, and enhancing mangrove growth. Given the climate vulnerability of Kiribati, the NDCs also have a strong adaptation component – with a focus on improving food and water security, building resilient infrastructure, and strengthening planning capacity.

Solomon Islands

The *National Climate Change Policy 2012–2017* (NCCP) is a key document for guiding Solomon Islands' national climate change related work. The NCCP was developed with the intention of integrating climate change and disaster risk reduction into one policy framework. It outlines 10 policy outcomes that are detailed with associated directives and strategies. Given this was the first such policy for Solomon Islands, it covers a comprehensive array of policy areas, including a focus on mainstreaming climate change into all development sectors and integrating it into the work of a broad range of stakeholders, including the private sector.

Principle 1.6 for Section 7 of the Solomon Islands NCCP mentions the need for involvement of people with 'special needs': 'Gender equity and involvement of youth, children and people with special needs'. The policy further explains that:

Climate change impacts will affect everyone in Solomon Islands and the future generations. The implementation of this policy shall ensure gender equity, and the involvement of men, women, youth, children, and people with special needs. Government of Solomon Islands, 2012

While outlining broad strategies that are relevant to each policy directive, the NCCP does not include specific outcomes, targets, or progress indicators, nor does it provide a process or timetable for the achievement of the strategies. Any indicators developed should also be measurable to enable an accurate picture of the progress of implementation. It also does not outline relevant costings for the stipulated directives, which could be reflected in the national budget and are important for ensuring prioritisation. Feedback from other line ministries suggests that the NCCP was not widely consulted or communicated during its development and initial operationalisation. Given the focus and importance of mainstreaming climate change as a cross-cutting issue, it is recommended that any succeeding framework undergoes comprehensive stakeholder consultation. This should include OPDs.

The development of the *National Adaptation Programmes of Action* (NAPA) in 2008 has been integral in guiding national adaptation work to date. This document identifies priority sectors for Solomon Islands, including agriculture, water resources, energy, human health, mining, fisheries and marine resources, human settlements, infrastructure, forestry, waste, education, environment, and tourism. Given the NAPA was developed in 2008, it is timely that the Solomon Islands Government is currently considering updating it. This provides an important process for identifying both the medium- and long-term adaptation needs for Solomon Islands and for developing strategies and programs to address these. The NAPA also reflects a risk resilience approach.

Of particular importance in the implementation of the NAPA will be ensuring vertical integration of adaptation priorities from national through to provincial and community/village levels, as well as in alignment with international commitments. To be effective, national adaptation planning must be informed by and supportive of local adaptation planning (Dazé et al., 2016). The inclusion of local and traditional knowledge as part of this process is critical.

Tuvalu

The *National Strategic Action Plan for Climate Change and Disaster Risk Management 2012–2016* (NSAP) is a joint strategic action plan for climate change adaptation and mitigation and disaster risk management. The NSAP is also the operational (implementation) plan for *Te Kaniva: Tuvalu Climate Change Policy 2012* (TCCP, 2011). The TCCP was created as a 10-year policy (2012–2021), with the NSAP as a five-year action plan (2012–2016). Outcome 4 of Goal 6 of the NSAP on planning for effective disaster preparedness, response, and recovery, states that the needs of the ‘most vulnerable’ groups and those with ‘special needs’ are given priority in emergency preparedness and response planning and implementation. An issue that was identified in the TCCP was the lack of targeted (to the most vulnerable groups) preparedness, response, and recovery.

In Tuvalu, World Health Organization (WHO, 2017) summarises the results of the national capacity survey conducted in 2015. It provides a baseline to inform the status of countries in the Western Pacific Region, including Tuvalu and Kiribati, against the actions and indicators outlined in the WHO *Global Disability Action Plan*.

The United Nations Children’s Fund (UNICEF, 2017) presents a comprehensive assessment and analysis of the situation of children and women in Tuvalu. It provides an evidence base to inform decision-making across sectors that are relevant to children and women and is intended to contribute to the development of programs and strategies to protect, respect, and fulfil the rights of children and women including those with disabilities. The report identifies that climate change and disaster risks are part of key barriers and bottlenecks in the realisation of children’s and women’s rights in Tuvalu, including those with disabilities. The report highlighted that: ‘Tuvalu is vulnerable to increases in the sea level, storm surges, coastal flooding and seasonal cyclones. A key finding is that climate change and disaster risks have a considerable impact on all sectors in relation to the realisation of children and women’s rights in Tuvalu, including those with disabilities’.

Tavola (2018) presents information about the experiences of persons with disabilities and their carers in relation to social development. The article used the six questions known internationally as the Washington Group Short Set on Functioning to determine whether the person being interviewed had a disability. Information from the article provides a comprehensive picture of the lives of persons with disabilities in Tuvalu and the barriers they and their caregivers face.

As an organisational example, the second objective of the strategic plan for Fusi Alofa Association (FAA), a non-government organisation for persons with disabilities, reads: ‘To advocate for full participation in the national planning and decision-making processes in all climate change related issues as well as the individual island disaster preparedness plans’ (FAA, 2018).

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About Pacific Disability Forum

A constituency of 71 organisations of & for persons with disabilities and individual members representing diverse groups of persons with disabilities and their supporters in 22 Pacific Island countries and territories.

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About Australia Pacific Climate Partnership

The Partnership addresses critical gaps in climate information services, governance, gender and social inclusion, and boosts technical capacity in Australian aid investment sectors.

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