



Disaster risk financing solutions for farmers and fishers in Fiji and their preferences





Published in August 2023

Authors: Haruto Honda, Simon Wagner, Sinja Buri

Acknowledgments: The team would like to extend special thanks to Dr. Viliamu Iese, Filipe Veisa as well as the rest of the University of the South Pacific – PaCE-SD research team that led the data collection as well as the initial analysis of this study. Special thanks also to Reginald Singh and Emele Lasqa from UNCDF as well as Jennifer Phillips, Mariam Parekhelashvili and Alexandra Dudley for their support in collecting the qualitative data for this survey.

Disclaimer: The views expressed in this publication are those of the author(s) and do not necessarily represent those of the United Nations, including UNCDF, UNDP, UNU-EHS, member states, and the Governments of Australia, India, Luxembourg and New Zealand.



With support from





Key Insights

- Farmers and fishers in Fiji perceive cyclones as a slightly more imminent risk than drought, and they prefer separate insurance coverage for those events.
- Most households have to rely on their savings to recover from the impacts of cyclones or droughts. Those savings are usually not intended for this purpose, and most households would not be able to support themselves with their savings for longer than three months in case of a total loss of income.
- Existing disaster risk financing options do not match the need of farming and fishing communities to cope with the magnitude and frequency of climate-induced disasters.
- Impacts of natural hazards have gender dimensions. Men are more affected in their income-generating activities. Women are more likely to have to cope with an increase in community, household and unpaid care work and are also more likely to receive non-financial support when affected by extreme weather events.
- A high preference for a cyclone insurance product further underscores that cyclones are perceived as a higher risk than droughts. Households need substantial financial resources to re-establish their livelihood after being affected by natural hazards.
- Households are interested in an affordable insurance product that is easy to understand.

Natural hazards affecting farming and fishing communities in Fiji

In 2016, Fiji was hit by a Category 5 tropical cyclone which impacted about 63 per cent of the country's total population with an estimated loss and damage of USD 1.3 billion (Government of Fiji, 2016). Specifically, the Northern Division is one of the most disaster-prone regions of the Fiji Islands. In addition to the event in 2016, it was severely hit by two tropical cyclones between December 2020 and January 2021. Drought events occur less frequently than cyclones in Fiji. However, they still tend to affect 20 to 30 per cent of the land area in Fiji when they occur (Government of Fiji, 2017).

About 60 to 80 per cent of Pacific Island countries like Fiji rely on agriculture and fisheries for their income and food security (Georgeou et al., 2022), and therefore, the farming and fishing-dependent communities are often the most affected by extreme weather events such as storms or heavy rainfall. Farmers and fishers have little or no access to disaster risk financing options to deal with the effects of climate-related disasters.

Under the Pacific Insurance and Climate Adaptation Programme (PICAP), implementation partners conducted a study with the University of the South Pacific to understand farmers' and fishers' perspectives such as: (1) which climate risks farmers and fishers in Fiji are facing; (2) their exposure to cyclones and drought; (3) what coping and adaptation measures they are taking; (4) their individual needs for and access to financial and institutional support after being affected by natural hazards; (5) their preferences for disaster risk financing solutions, such as climate risk insurance. This evidence note showcases the first insights and findings from this study.

The study applied a mixed-method approach. This includes a survey with 488 fishers and farmers from 28 villages and 21 settlements across the island of Vanua Levu in Fiji in April 2022, a discrete choice experiment about the survey participants' preferences for different climate risk insurance features as well as 22 focus group discussions within the same communities in May 2022.



Farmers and fishers' perceptions of climate-related risks and impacts

Farmers and fishers in Fiji perceive cyclones as a more imminent risk than droughts. About 90 per cent of all interviewed farmers and fishers considered reducing the risks for cyclones a high or very high priority for their household, whereas 80 per cent felt this way for the risk of

droughts (Figure 1). The difference could be explained by the suddenness and intensity of cyclones, and the higher frequency in which cyclones occur in the country, in comparison to droughts.

Tropical cyclones

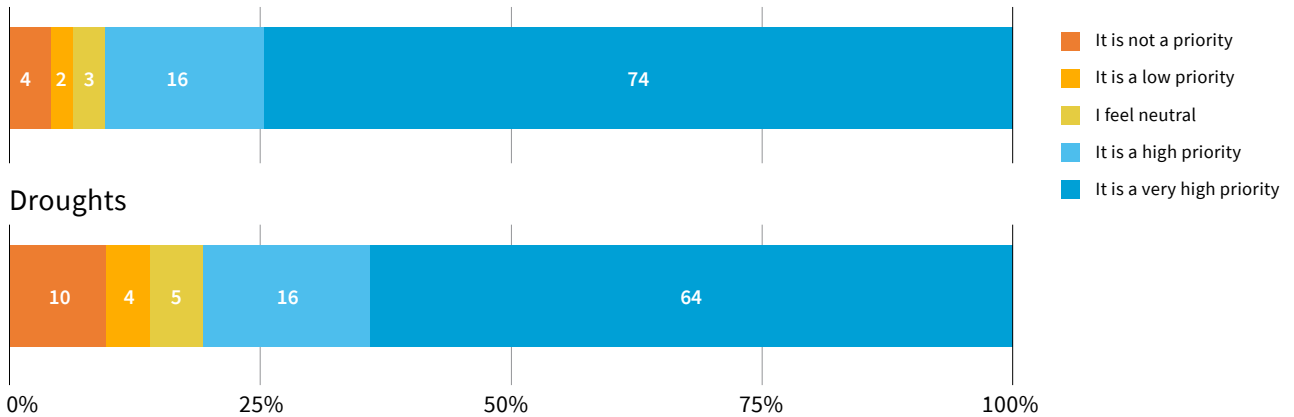


Figure 1: Priority to reduce risks of drought and tropical cyclones in day-to-day life (Single response, n=488)

Survey participants were asked about the impacts and consequences of cyclones, and whether women or men were more likely to experience them (Figure 2). Large gender differences were evident. For example, men were found to have a higher likelihood of experiencing an increased workload of their income-generating activities and that their jobs were impacted after tropical cyclones.

In contrast, women were not only more likely to receive non-financial support (such as childcare or food) after being impacted by cyclones, but also their workload in community and unpaid care work increased. Similar patterns in gender differences were evident when looking at the effects of droughts.

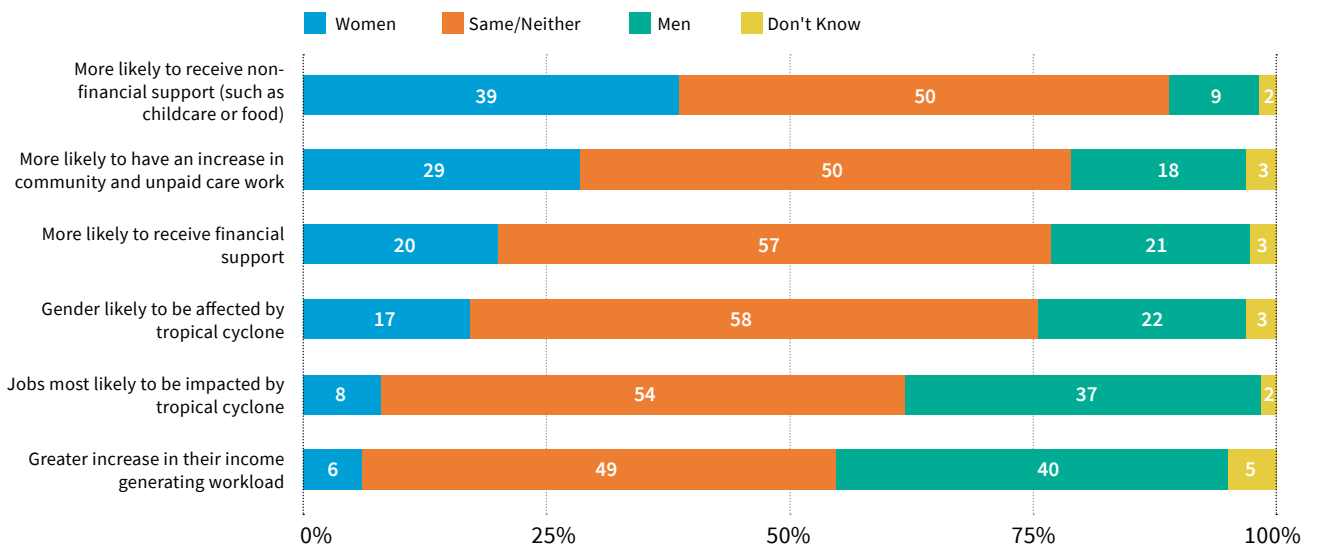


Figure 2: Different impacts and consequences for women and men from tropical cyclones (Single response, n=488)

Climate adaptation measures and coping with weather-related disasters

Interviewed farmers and fishers shared how they prepared for cyclones and droughts. An overwhelming majority (more than 90 per cent) of survey respondents indicated that they attempt to secure their houses before cyclones to avoid severe impacts. More than three quarters of respondents save food and stock drinking water before cyclones or in anticipation of droughts. Additionally, around 15 per cent of the respondents store their boats and fishing gear in a safe place in case of cyclone warnings.

farmers change the planting time of their crops, plant different crops or raise livestock that is less likely to be affected by hazards. Fishers change their fishing practices. Respondents who have taken adaptation measures have mentioned in focus group discussions that it helps them experience less damage and protects a portion of their income from extreme weather events. A large number of households also adapt by changing their livelihood or income-generating activities to reduce the impacts of cyclones (58 per cent) or droughts (52 per cent). Reasons given for the change in livelihood are the increasing price of fuel and supporting the needs of a family. Insurance still plays only an insignificant role with around 1 per cent of households purchasing policies that address impacts from weather hazards.

Figure 3 shows that farmers and fishers both take similar adaptation measures for droughts as they do for cyclones. Many households adapt within the scope of their main livelihood activities. For example, the large majority of

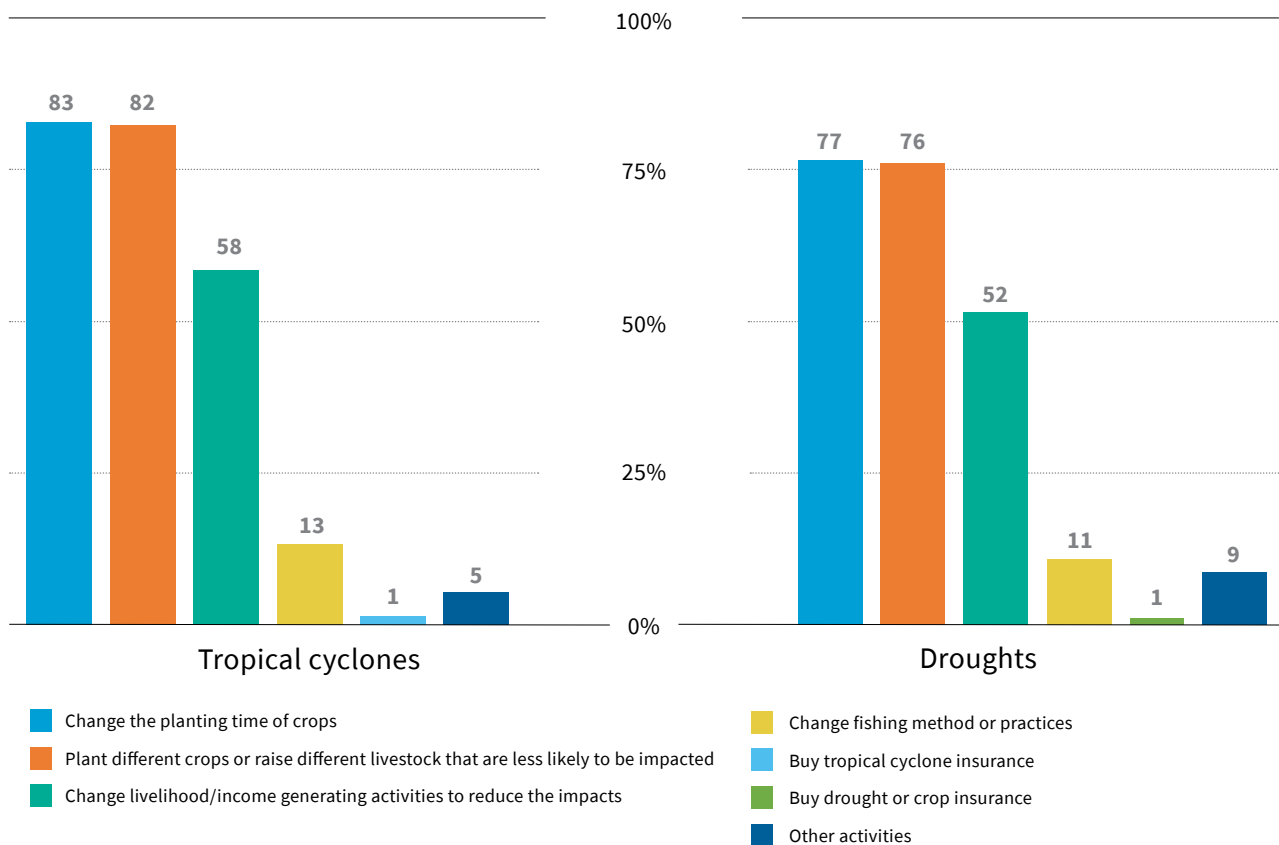


Figure 3: Adaptation activities (Multiple response, n=488)

The study also identified the financial coping mechanisms to recover after cyclones or droughts.

The biggest proportion of interviewed households use and rely on their savings (Figure 4). Households do not usually save with the intention of making up for disaster losses. However, in the survey, 70 per cent of the respondents indicated that they do save in anticipation of droughts. During focus group discussions, most of the participants shared that they do not save specifically to prepare for the impacts of cyclones. Usually, they save money to feed their families, access water and

electricity, build better houses, send their children to better schools, and improve their household’s standard of living. Many of the households with savings reported that they save informally at home. The majority of households would not be able to support themselves with their savings for longer than three months after a disaster (Figure 5).

Large shares of households cultivate different crops after disasters, rely on support from relatives or friends, and almost a third of survey respondents stated that they reduce their consumption to make ends meet.

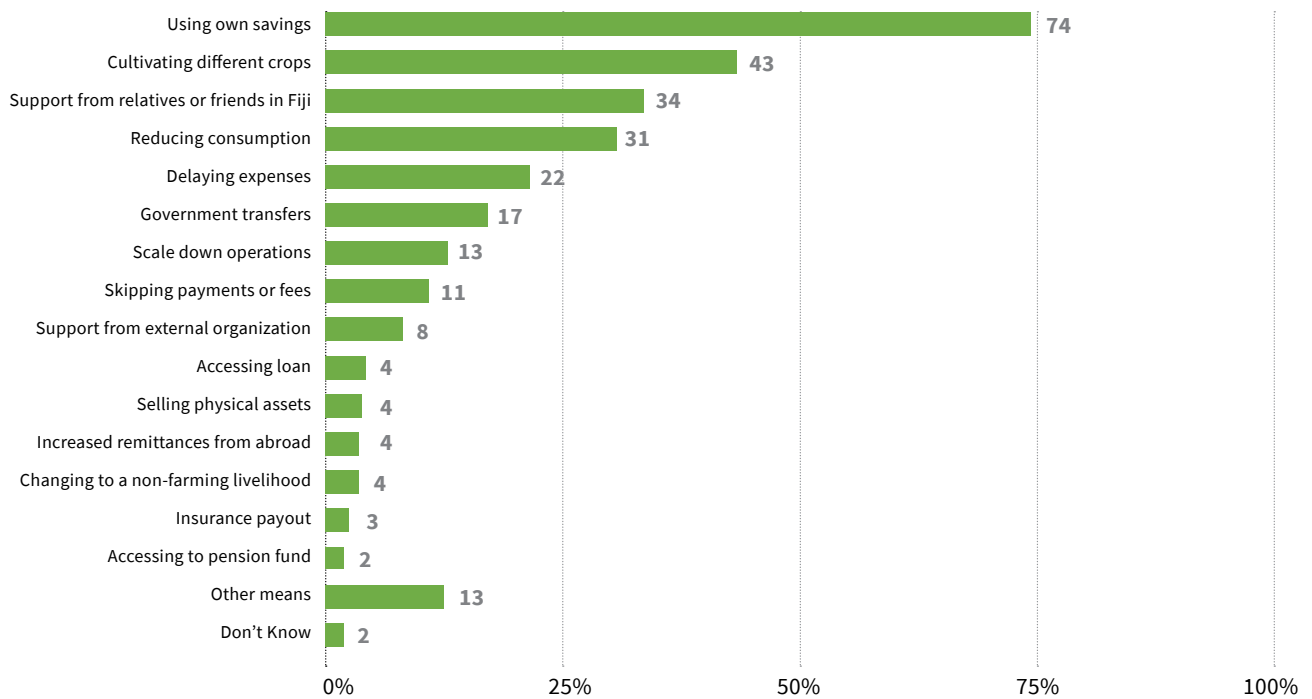


Figure 4: Financial coping mechanisms used by households to recover from tropical cyclones (Multiple response, n=488)

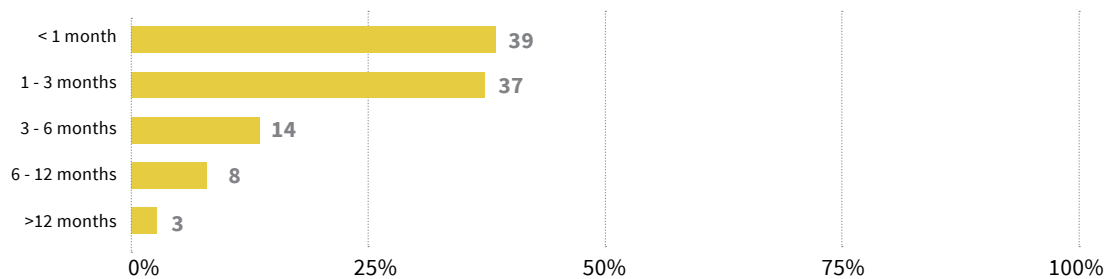


Figure 5: Number of months current savings can support households in case of total loss in income (Single response, n=488)



The use of formal financial services to cope with the effects of climate hazards is low. During focus group discussions, respondents in farming and fishing communities listed the following reasons and challenges as to why this is the case:

- **Expensive trips to the bank** - due to long distances between rural communities and the nearest financial service access points, transport can be expensive to visit the banks. Expenses can add up especially if individuals need to take more than one trip to financial institutions to create an account or when applying for a loan.
 - **Lack of awareness, knowledge and clarity** - there is a lack of financial literacy, knowledge and clarity about available financing options and how to access them. For example, most of the information from financial institutions is in English, making it difficult for iTaukei and Hindi-speaking farmers and fishers to understand the requirements and to fill out paperwork to receive financial support. Interviewees agreed that banks and insurance providers should
- invest more time to travel to the rural areas and conduct sessions to increase the awareness and level of understanding of their services among the farmers and fishers.
- **Hidden costs on paperwork and high interest rates** - Lack of awareness and knowledge among farmers and fishers as well as a lack of clarity about the full costs of loans or bank accounts from the side of financial institutions, can lead to borrowers sometimes having to pay almost double the value of a small loan. Most respondents find it challenging to understand the requirements they have to fulfill, according to the styleguide.
 - **No loan security** - when farmers are leasing land, it is a common practice for it to be done through verbal or informal agreements, leaving them without formal proof to use the land as collateral for a loan application. In addition, most farmers earn less than FJ\$250 a month, hence due to those factors, banks tend to deny them the loan.

Demand for disaster risk financing solutions

For most respondents, the cost of insurance premiums plays a significant role in purchasing a parametric insurance product (Figure 6). Other frequently highlighted factors were the product understanding (80 per cent), the simplicity of the payout/claim process, as well as the enrolment enrolment, according to the styleguide

process. Surprisingly, trust in the person/institution offering insurance (48 per cent) did not rank as highly. Similarly, the adequacy of wind and rainfall triggers for payouts (47 per cent) and the availability of alternatives to recover after a storm did not appear among the top decision factors.

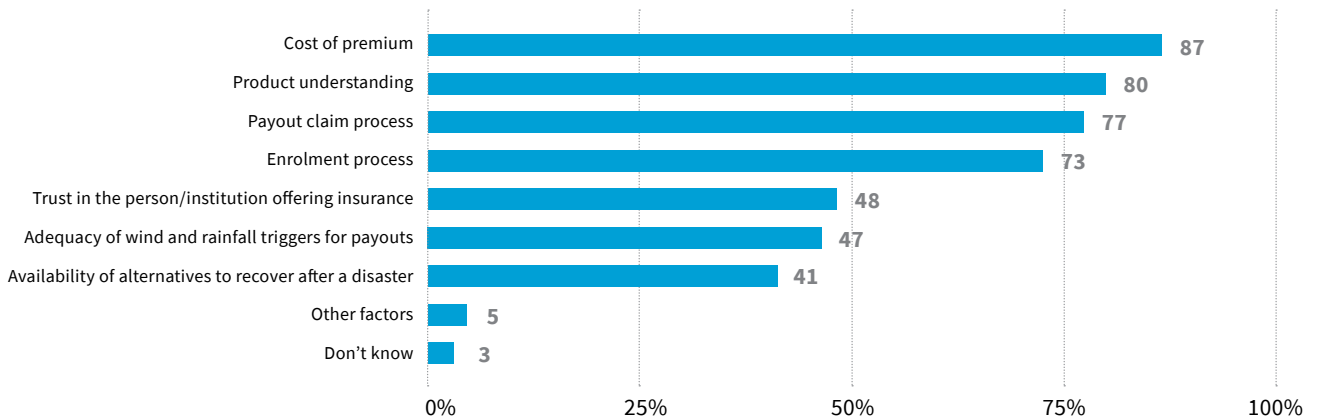


Figure 6: Purchase decision factors of parametric insurance products (Multiple response, n=488)

When survey participants were asked about their preferences for potential disaster risk financing solutions, as seen in Figure 7, it was found that the most popular product was the individual cyclone insurance product (which pays out after extreme wind and rain events). Farmers and fishers preferred this product over the pure windspeed cover based on their previous experience. The amount of rain brought by cyclones had caused severe losses before. Moreover, three other products (combined

insurance and savings products for individuals and groups, as well as an individual savings product) still generated interest for roughly 1 out of 2 interviewed households. Less popular options were the group cyclone insurance product and group savings product with 35 per cent and 33 per cent of all participants respectively. Additionally, only 15 per cent of all participants were interested in using a business loan to manage disasters, indicating relative unpopularity for this kind of financial instrument.

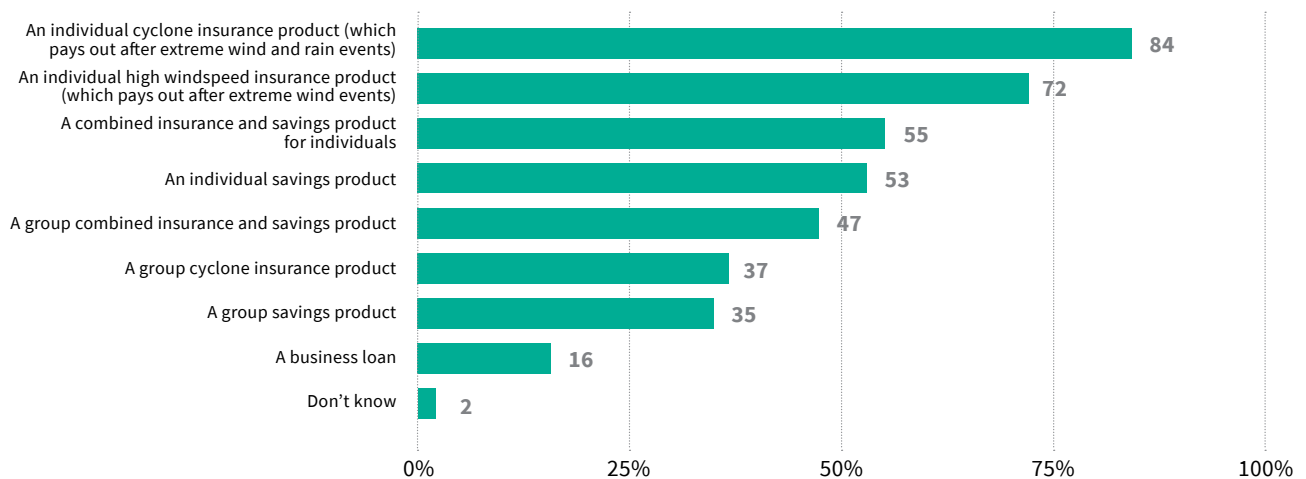


Figure 7: Interest in disaster risk financing solutions and insurance (Multiple response, n=488)

Next Steps

The presented evidence note highlights the main findings on disaster risk financing options and preferences among farmers and fishers in Fiji as part of the Pacific Insurance and Climate Adaptation Programme and demonstrates the demand for disaster risk financing solutions in the country. Analysis of the collected data provides insights on the existing coping mechanisms that rural fishing and

farming communities utilize, while providing a glimpse into the gendered dimensions of natural hazard impacts. Those insights have proved to be helpful in designing climate risk insurance instruments for Fijian communities. Nevertheless, going forward, as PICAP is expanding to other small island developing states, there is a need to conduct similar research in other countries as well.





References

Georgeou N, Hawksley C, Wali N, Lountain S, Rowe E, West C, et al. (2022). Food security and small holder farming in Pacific Island countries and territories: A scoping review. PLOS Sustain Transform 1(4): <https://journals.plos.org/sustainabilitytransformation/article?id=10.1371/journal.pstr.0000009>

Government of Fiji. (2016). Post-Disaster Needs Assessment, Tropical Cyclone Winston. <https://reliefweb.int/report/fiji/fiji-post-disaster-needs-assessment-may-2016-tropical-cyclone-winston-february-20-2016>

Government of Fiji. (2017). Climate Vulnerability Assessment: Making Fiji Climate Resilient. Government of Fiji, World Bank, and Global Facility for Disaster Reduction and Recovery. <https://documents.worldbank.org/curated/en/163081509454340771/pdf/120756-WP-PUBLIC-nov-9-12p-WB-Report-FA01-SP.pdf>



About UNCDF: The UN Capital Development Fund makes public and private finance work for the poor in the world's 46 least developed countries (LDCs). UNCDF offers “last mile” finance models that unlock public and private resources, especially at the domestic level, to reduce poverty and support local economic development. UNCDF’s strategy ‘Leaving no one behind in the digital era’ is based on over a decade of experience in digital financial inclusion in Africa, Asia and the Pacific. UNCDF leverages digital finance in support of the Sustainable Development Goals (SDGs) to achieve the vision of promoting digital economies that leave no one behind. The goal of UNCDF is to empower millions of people by 2024 to use services daily that leverage innovation and technology and contribute to the SDGs. To achieve this vision, UNCDF uses a market development approach and continuously seeks to address underlying market dysfunctions that exclude people living in the last mile. <https://www.uncdf.org>

About UNU-EHS: The United Nations University – Institute for Environment and Human Security is based in Bonn, Germany and conducts research on risks and adaptation related to environmental hazards and global change. The institute’s research promotes policies and programmes to

reduce these risks, while taking into account the interplay between environmental and societal factors. Research areas include climate change adaptation by incorporating insurance-related approaches, environmentally induced migration and social vulnerability, ecosystem-based solutions to adaptation and disaster risk reduction and models and tools to analyse vulnerability and risks linked to natural hazards, with a focus on urban space and rural-urban interfaces. UNU-EHS also offers the joint Master of Science degree programme “Geography of Environmental Risks and Human Security” with the University of Bonn and hosts international PhD projects and courses on global issues of environmental risks and sustainable development. <http://ehs.unu.edu>

About UNDP: UNDP partners with people at all levels of society to help build nations that can withstand crises, and drive and sustain the kind of growth that improves the quality of life for everyone. The UNDP Pacific Office in Fiji serves 14 countries and territories in the Pacific, as part of the 177-country office UNDP network, and offers global perspective and local insight to help empower lives and build resilient nations. www.pacific.undp.org



For more information about the Pacific Insurance and Climate Adaptation Programme (PICAP) please contact:

Mr. Krishnan Narasimhan

Lead Specialist CDRFI (UNCDF)

krishnan.narasimhan@uncdf.org

Mr. Praneel Pritesh

PICAP Regional Technical Specialist (UNDP)

praneel.pritesh@undp.org

Ms. Sinja Buri

PICAP Project Manager (UNU-EHS)

huri@ehs.unu.edu

Ms. Ranadi Levula

PICAP Monitoring, Evaluation, Accountability, and Learning Lead (UNDP)

ranadi.levula@undp.org

PICAP homepage: <https://www.uncdf.org/pacific-insurance-and-climate-adaptation-programme>

Picture credits:

© UNCDF / John Rae:
cover page, page 3, page 8, page 10, page 11

© UNCDF in the Pacific:
page 4

