

COMBINED DEMAND STUDY REPORT **VANUATU**

Climate Disaster Risk
Financing and Insurance



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Unlocking Public and Private
Finance for the Poor

This publication is brought to you by the Pacific Insurance and Climate Adaptation Programme which is jointly administered by the United Nations Capital Development Fund (UNCDF) and United Nations Development Programme (UNDP), and The United Nations University Institute for Environment and Human Security (UNU-EHS). The programme receives financial support from the Governments of Australia, India and New Zealand.

The Pacific Insurance and Climate Adaptation Programme aims to improve the financial preparedness and resilience of Pacific Islanders towards climate change and natural hazards through the development and implementation of market-based meso- and microinsurance schemes. The programme will offer an option for the national and sub-national governments to consider subscribing to a 'macro to micro' scheme, where a government level insurance policy pays out to individuals, to support the most vulnerable segments. Fiji, Vanuatu, Tonga, Samoa, the Solomon Islands, Papua New Guinea, and other Pacific Small Island Developing States will be covered under the multi-year programme.

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1. Background

The agriculture sector plays an important role in the lives of the people of Vanuatu as approximately 80 percent of the population and 71 percent of the rural population depend on it for the livelihood, food, and nutrition security. The agriculture sector contributes to approximately 18 percent of the country's real Gross Domestic Product (GDP) based on the most recent estimates. The biggest contributor of the sector to Vanuatu's real GDP is crop production, constituting close to 14.5 percent of the country's GDP, this is followed by forestry with 1.4 percent, cattle production with 1.3 percent, and lastly fisheries with 0.85 percent of the country's GDP¹. The main crops grown are cash crops like coconut, cocoa, coffee, and other crops like vegetables².

The services industry, on the other hand, is the highest contributor of Vanuatu's real GDP constituting about 63 percent. The retail trade subsector contributes the highest portion (22 percent) to the services sector. Within this sector lie most of the private businesses, the majority of which are micro, small, and medium-sized enterprises (MSMEs). Also, as an island state, tourism is an important sector for Vanuatu as it is a strong contributor to the country's GDP and greatly affects how well the other sectors of the economy perform³.

The agricultural sector accounts for about 57 percent of total employment in Vanuatu whereas the services and industry sectors contribute 29 percent and 14 percent respectively⁴.

All the above-mentioned sectors are heavily impacted by natural hazards like tropical cyclones, drought, flooding, and volcanic activities when they occur. Therefore, there is a need for disaster risk financing instruments to provide relief to farmers, retailers, and MSMEs who suffer financial losses from these events. The damage and loss figures for the agricultural sector after Tropical Cyclone (TC) Pam (March 2015) was estimated to be about VT 6.1 billion (approximately USD 55.3 million), whereas the commerce and industry sectors are estimated to have lost around VT 1.2 billion (approximately USD 10.9 million) in economic loss.

This demand study aims to give an overview of farmers, fishermen, and MSMEs affected in the above-mentioned sectors which are important to the economy of Vanuatu and heavily impacted by natural hazards. This report includes the impact of natural hazards on these groups, their current coping mechanisms, and the demand for disaster risk financing instruments.

1 Vanuatu National Statistics Office. (2019). Statistics Release: Gross Domestic Product 2018 Highlights. Vanuatu National Statistics Office.
https://vnso.gov.vu/images/Public_Documents/Statistics_by_Topic/Economics/Gross_Domestic_Product/2018/Gross_Domestic_Product_2018_Preliminary_Report.pdf

2 Government of Vanuatu. (2015b). Vanuatu Post-Disaster Needs Assessment: Tropical Cyclone Pam, March 2015. Government of Vanuatu. <https://www.dfat.gov.au/sites/default/files/post-disaster-needs-assessment-cyclone-pam.pdf>

3 Vanuatu National Statistics Office. (2019). Statistics Release: Gross Domestic Product 2018 Highlights. Vanuatu National Statistics Office.
https://vnso.gov.vu/images/Public_Documents/Statistics_by_Topic/Economics/Gross_Domestic_Product/2018/Gross_Domestic_Product_2018_Preliminary_Report.pdf

4 World Bank. (2021). The World Bank Data, Employment in agriculture (% of total employment (modelled ILO estimate) – Vanuatu
<https://data.worldbank.org/indicator/SL.AGR.EMPL.ZS?locations=VU>

It is to be noted that the demand study was conducted in a pandemic year (2020) and although Vanuatu has not been impacted by a health crisis, the economic fall-out of the border closures and the consequent cascading effects on livelihoods of people could have conditioned their responses.

2. Survey Methodology and Participants

In the case of farmers in Vanuatu, a total of 95 farmers participated in this survey out of which 88 were men and 7⁵ were women. The survey had a total of 18 groups ranging from 3 farmers per group up to 14. More than half (53 farmers) of the participating farmers came from Santo island, whereas 42 farmers came from Tanna. A majority (75 percent) of all participants were farm owners. The farmers were engaged in farming cash crops like cocoa, coffee, copra, and kava, while others were engaged in cattle rearing and farming other crops like taro and yam.

An informal approach was used in focused group discussions to ensure the farmers felt comfortable and gave the best answers. The UNCDF team was accompanied by a dedicated staff from the Reserve Bank of Vanuatu (RBV), who had informed the farming communities in Vanuatu of the team's arrival date and time. The farmers were then gathered at either community halls or at one of the farmers' house where they were given a brief introduction on the Pacific Insurance and Climate Adaptation Programme, the objective of this study and the intended outcomes in the form of appropriate parametric insurance product to be developed for Vanuatu.

Regarding fisherfolk in Vanuatu, 21 fisherfolk participated in the survey comprising 1 group of 3 fisherfolk, 2 groups of 4 fisherfolk, and 1 large group of 10 fisherfolk. Men formed two-thirds of all participants whereas the remaining third were women. Their ages ranged between 30 and 60 years old. All the fisherfolk owned their own boats and indicated that fishing was their main source of income. Their boats usually carried 2-3 crew members or 3-4 crew members depending on the size of the boat. Just as in the farmers survey, the fisherfolk survey involved informal focus group discussions which was coordinated by UNCDF team with the assistance of RBV and the fisherfolk cooperatives found within the fishing communities in Santo and Tanna.

The third group of surveys involved employees of MSMEs who live and work in Vanuatu. A total of 7 employees participated in this survey. The discussions involved 2 one on one discussions, 1 discussion involving 2 employees and the last group involving 3 employees. There were more women than men in a proportion of 4 to 3. Their ages ranged between 18 and 39. Their length of services varied between 3 employees each having worked for about 2 and 5 years and the remaining employee having worked for more than 10 years. A minority (43 percent) of the employees indicated that their places of work had 4 full-time workers and 1 part-time worker. In terms of how busy their work is, 71 percent alluded that they had stable work schedules while 29 percent mentioned that they had fluctuating work schedules which occurred in July and Christmas period. Most of the employees get paid based on hourly rate. This employee survey, like that of farmers and fisherfolk groups, was coordinated by the UNCDF team.

5 Although many women participated in the group discussions, responses were mostly provided by men and this could be due to societal hierarchy in Vanuatu.

The last group of surveys involved 3 MSMEs namely Lanekel fuel station, shop and accommodation, MRS store and Nakel Store. All the MSMEs have been duly registered and have their main offices in Lanekel, branches in other locations. All 3 MSMEs are engaged in retail business with 1 having a fuel station and accommodation for rent in addition to the retail shop. The years of establishment were 2000, 2014, and 2020 respectively. 1 of the MSMEs had 5 full-time employees, another had 2 full-time employees, and the last had 8 part-time employees. Regarding gender constitution, 1 of the MSMEs had 4 women employees, another had 5 women employees, and the last MSMEs had no women employed. The ages of the employees ranged between 20 and 36. The employees of 2 of the MSMEs lived in Tafea province whereas 1 MSME has employees living in both Tafea and Malampa. All the MSMEs had a 2-person management team. 1 of the MSMEs has an all-male management team, and another had a male and female management team being a husband and wife. All MSMEs indicated that they held their staff meetings once a month at the main branches. All MSMEs also indicated that they communicate with their employees verbally and by cell phones whereas 1 MSME indicated communicating with the employees via WhatsApp and emails. The surveys were conducted by UNCDF and the RBV team during late September 2020.

Key Findings

Variable	Farmers	Fisherfolk	MSME Employees	MSME Employers
Women interviewees	7%	33%	57%	67%
Ownership of farm/ boat / MSME	75%	100%	N/A%	100%
Hire full-time workers	24%	48%	86%	67%
Hire part-time workers	76%	52%	N/A%	33%
Hazards and damages				
Impacted by tropical cyclones	100%	100%	100%	100%
Impacted by droughts	100%	0%	0%	33%
Impacted by flooding	21%	0%	0%	0%
Impacted by volcanic ash/acid rain/ ashfall	47%	19%	0%	0%
Recovery time less than 1 month	0%	81%	100%	100%
Financial Services and Financial Risk Management Practices				
Have a bank account	80%	100%	75%	N/A%
Member of VNPF	60%	81%	71%	67%
Access to cell phones	93%	100%	71%	100%
Access to mobile money	0%	0%	57%	N/A%

Typically rely on loans after disasters	11%	33%	86%	N/A
Typically rely on savings after disasters	100%	100%	43%	N/A
Typically rely on family/friends after disasters	59%	86%	43%	N/A
Typically rely on government support after disasters	60%	56%	43%	N/A

Product Preferences

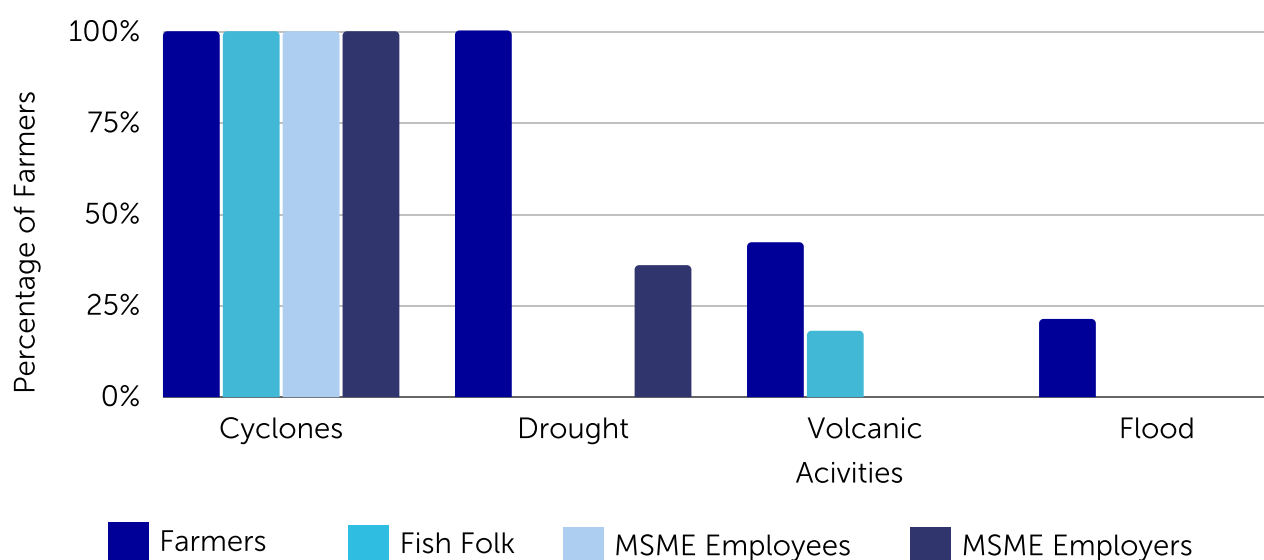
Prefers to use savings to recover after disaster occurs	100%	100%	43%	N/A
Prefers to use loans to recover after disaster occurs	71%	67%	43%	N/A
Prefers to use insurance to recover after disaster occurs	62%	33%	86%	N/A
Interested in cheaper products which cover key risks	60%	81%	100%	100%
Interested in purchasing insurance through an association/ cooperative	59%	19%	N/A	N/A
Would be able to afford insurance products that between VT 5,000 and VT 10,000 per annum (USD 45 – USD 90 per annum)	46%	46%	29%	67%

3. Hazards and Damages

The most common hazard impacting all groups is cyclones with all interviewees indicated that they were impacted. In addition to cyclones, 100 percent of all farmers and 33 percent of MSMEs interviewed were impacted by drought. 21 percent of the farmers were also impacted by flooding. Farmers and fisherfolk were also impacted by volcano-related hazard like ashfall and acid rains. It is notable that volcanic-related hazards are common with surveyed groups from Tanna region which has one of the most active volcanos in the world⁶.

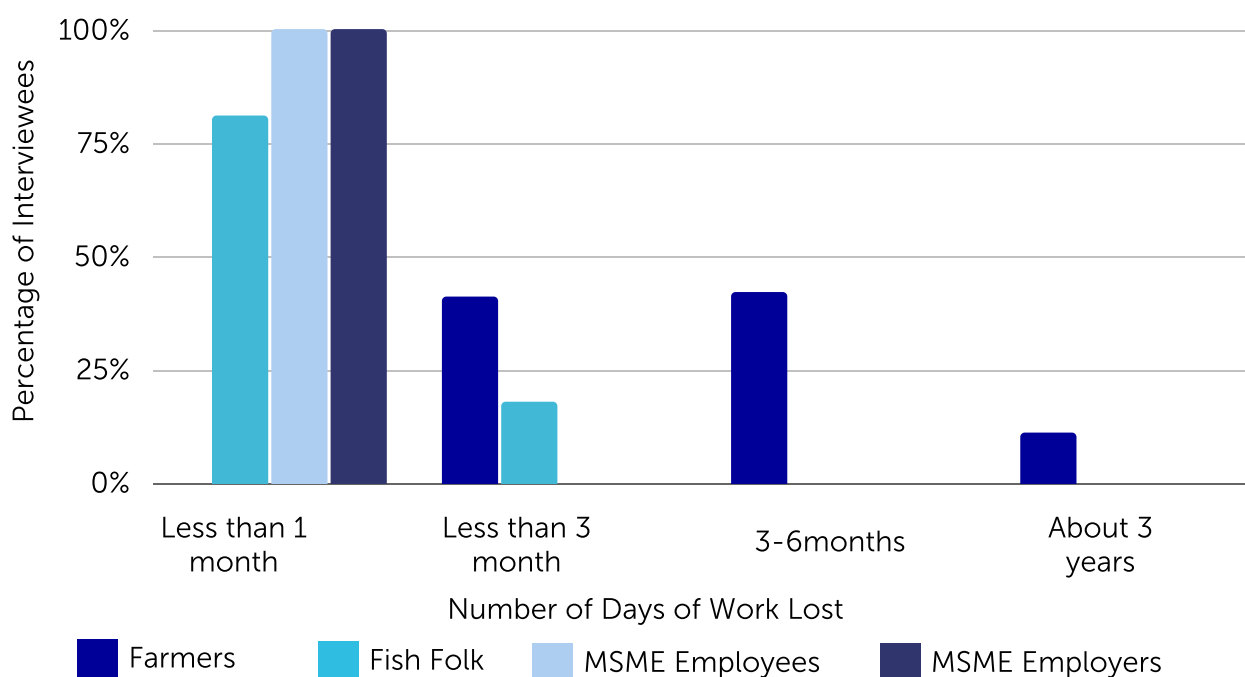
6 <https://reliefweb.int/report/vanuatu/vanuatu-volcano-alert-bulletin-n-3-tanna-activity-march-25th-2021>

Natural Hazards Impact



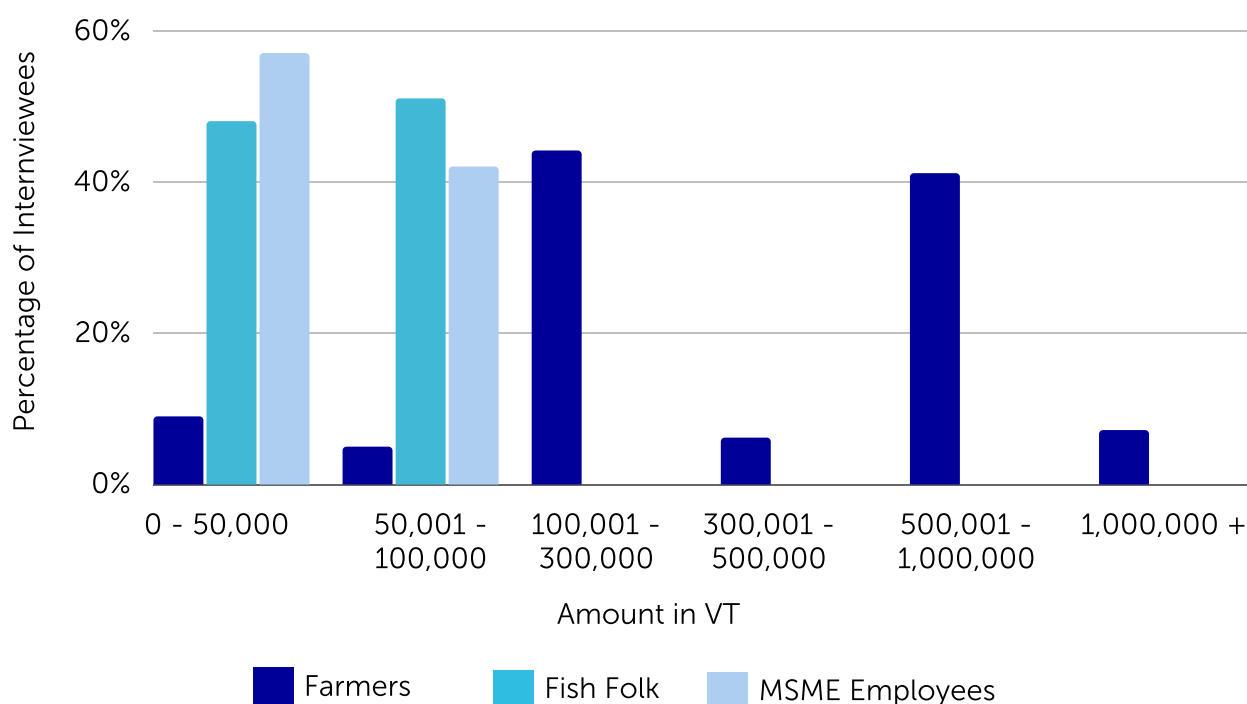
Recovery time after hazards varied among the different groups. However, all MSME employees and employers indicated that it took them and their enterprises less than a month to recover from damages resulting from natural hazards. 46 percent of all interviewed farmers indicated that it could take up to 3 months to recover from damages. Another, 42 percent indicated that it could take between 3 months to 6 months to recover. The remaining farmers have indicated that for perennial crops like cocoa, it could take about 3 years to recover from loss and damage caused by natural hazards. The farmers also indicated that the length of recovery also depends on the severity of the event affecting them. A majority (81 percent) of all fisherfolk interviewed indicated that it could take less than a month to recover and 19 percent indicated that it could take between 3 and 6 months for them to recover. From the above responses, it is evident that farmers are the most vulnerable in terms of the time it takes them to recover from loss and damage from natural hazards.

Loss Recovery Time of Groups



Considering income lost due to loss of work and damages, 44 percent of the interviewed farmers indicated they lost between VT 100,001 and VT 300,000 (~ USD 900 – USD 2,700). 32 percent of the farmers lost between VT 500,001 and VUV 1,000,000 (~ USD 4,500 – USD 9,000). A small number of farmers (6 percent) experienced loss between VT 300,001 and VT 500,000 (~ USD 2,700 – USD 9,000). Some farmers also indicated losing more than VT 1,000,000 (~ USD 9,000) especially in cases of high category tropical cyclones which cause large damages.

Income Lost Due to Loss of Work and Damages



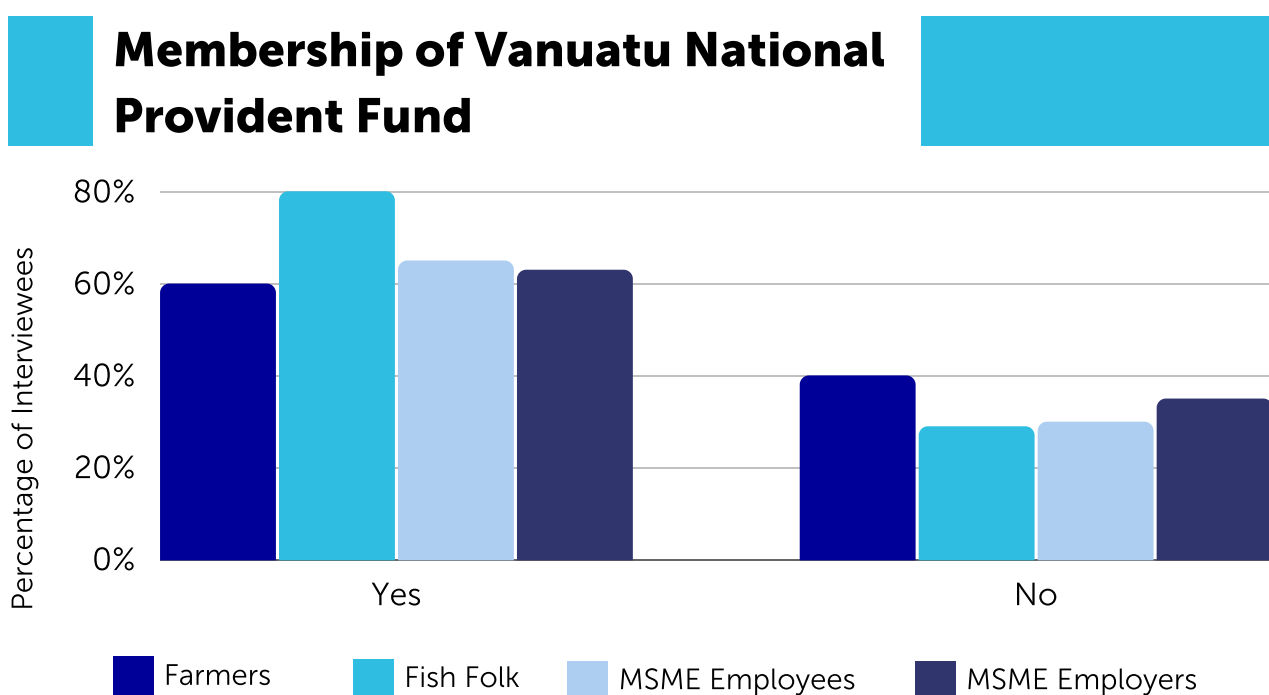
Among the fisherfolk, more than half (52 percent) incurred losses in the sum between VT100,001 and VT 300,001 (~ USD 900 – USD 2,700). The remaining 48 percent of interviewed fisherfolk incurred loss between VT 15,001 and VT 20,000 (USD 135 – USD 180) per day.

The group of MSME employees interviewed incurred lower losses with 43 percent of employees experiencing loss between VT 50,001 and VT 100,000 (~ USD 450 – USD 900) whilst 57 percent of employees incurred loss less than VT 50,000 (~ USD 450). From the above groups interviewed, the farmer group happens to have suffered the most income loss due to natural hazards.

4. Financial Services and Financial Risk Management

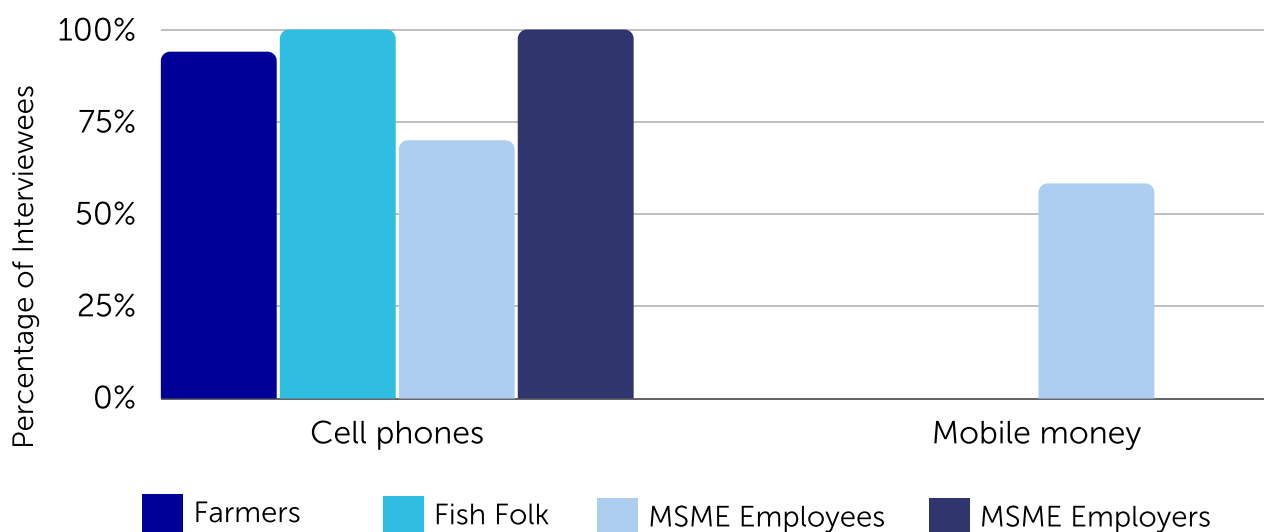
This part of the survey sought to gauge the interviewed groups' access to financial products, their choices for post-disaster risk financing and their preferred financial instruments for managing loss from natural hazards. Many of the groups interviewed indicated having bank accounts with 80 percent of farmers, 100 percent of fisherfolk, and 75 percent of MSME employees indicating to having bank accounts.

More than half of the participants (between 60 percent and 81 percent) of all groups interviewed indicated they were members, or that their employees were members of the Vanuatu National Provident Fund which is a common source of support for the groups after extreme weather events⁷.



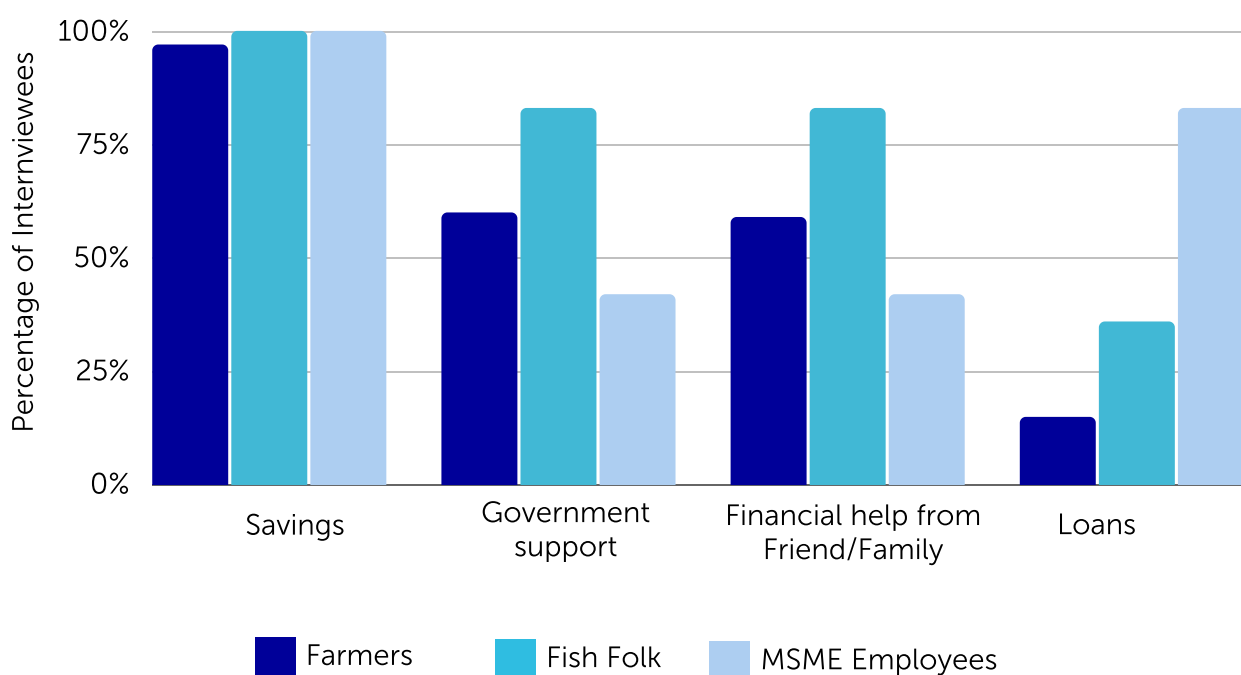
⁷ VNPF assists by allowing the members affected by the disasters to withdraw up to 20% from their retirement account.

Access to Cell Phones and Mobile Money



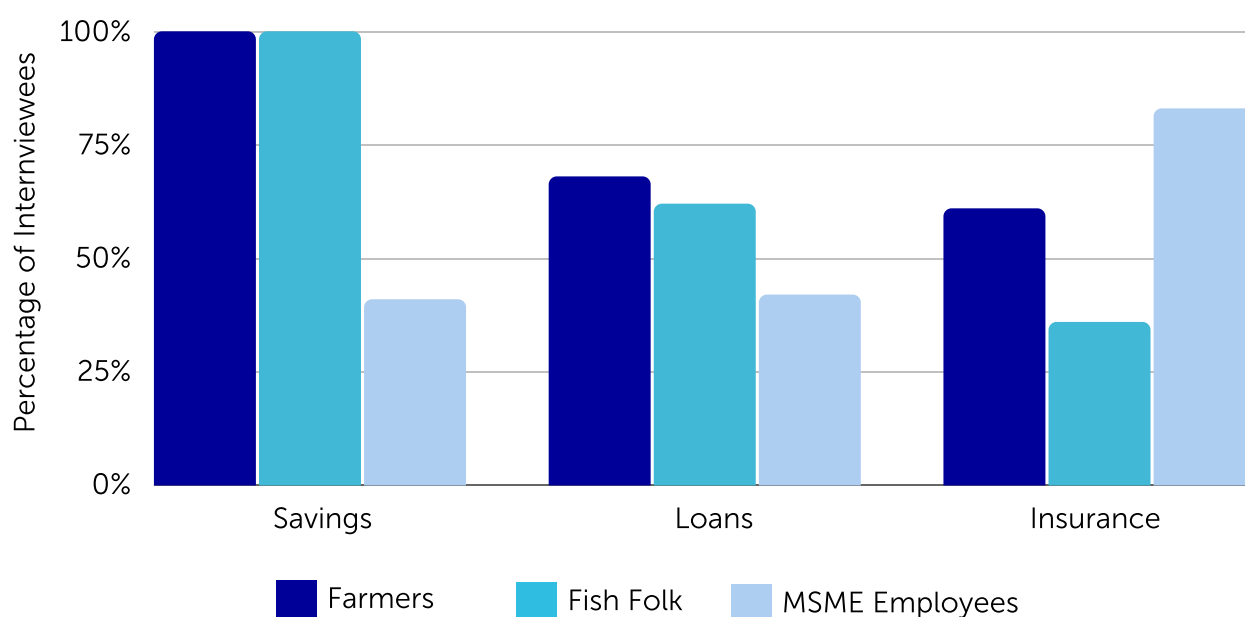
A vast majority comprising 100 percent of interviewed fisherfolk, 100 percent of interviewed MSME employers, 93 percent of interviewed farmers, and 71 percent of interviewed MSME employees had access to cell phones. However, only 57 percent of MSME employees had access to mobile money. This gives an indication that for a digital payment solution to be deployed, more effort needs to be placed on deepening availability, access and use of mobile money among the other interest groups like farmers and fisherfolks.

Post-Disaster Financing Choices



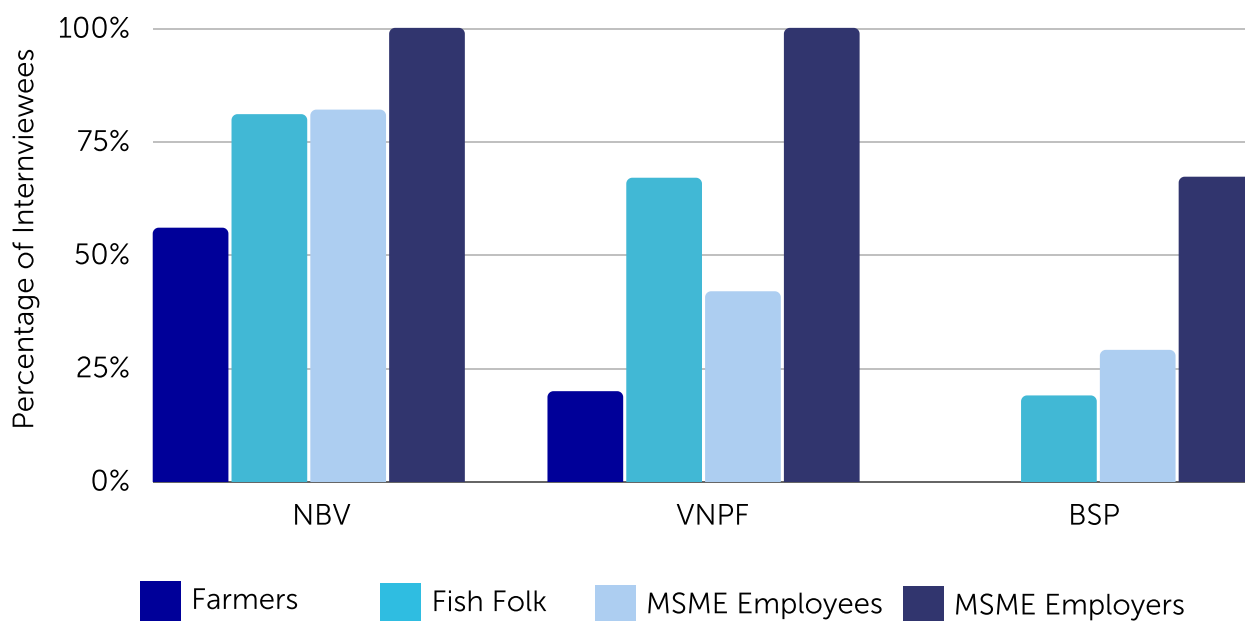
When the groups were asked about the instruments they depended on in managing their loss in the event of damage caused by natural hazards, all fisherfolk, all MSME employees, and 95 percent of farmers answered that they used their savings. Furthermore, there was high dependence on government support and financial assistance from family and friends among the farmers and fisherfolk groups. There was also a rather high dependence (86 percent of interviewees) in the MSME employers' group on loans. This gives an indication that farmers, fisherfolk, and MSME employees tend to rely mainly on savings in addition to support from government and family or friends when they suffer loss or damage. MSME employers on the other hand tend to depend more on loans.

Disaster Financing Preferences



In relation to the preferred disaster risk financing instrument, savings remain the dominant choice among farmers and fisherfolk with all interviewees choosing that option. Loans is also a preferred choice among 71 percent of farmers and 67 percent of fisherfolk. Less than half (43 percent) of MSME employees preferred savings and loans. Regarding insurance, a vast majority (86 percent) of MSME employees had preference for insurance as a disaster risk finance instrument. More than half (62 percent) of farmers also selected insurance as a preferred disaster risk financing instrument. A minority (33 percent) of fisherfolk preferred insurance as a disaster risk financing instrument. This observation gives an indication for a high demand for introducing an insurance product which also covers loss of income as there is a high interest among the MSME employees group.

Reputation of Financial Service Providers

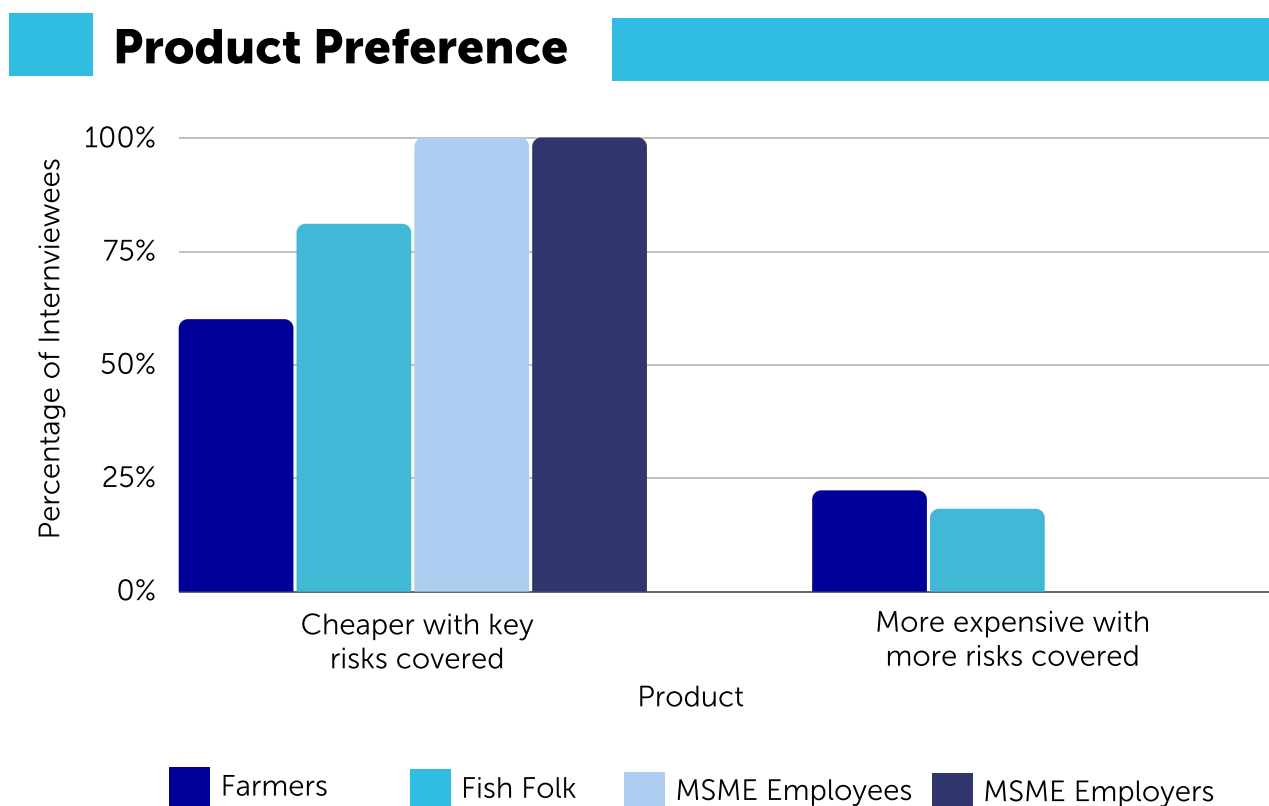


Reputation of financial service providers among interviewed MSME employers is generally high with all employers indicating they trust and will recommend National Bank of Vanuatu (NBV) and Vanuatu National Provident Fund (VNPF) whereas 67 percent recommend Bank of South Pacific (BSP). Fisherfolk have considerable trust (81 percent and 67 percent) in NBV and VNPF but a few of them (19 percent) trust BSP. A majority (86 percent) of MSME employees trust NBV but a lower number (43 percent and 29 percent) trust VNPF and BSP. The farmer group have low trust in the financial service providers with only 53 percent and 20 percent indicating that they will recommend NBV and VNPF respectively. A few farmers also indicated that there were no commercial banks within their communities. A few more mentioned that the banks need to do more work to gain trust within the community groups. For a successful intervention by any financial product, public participation and community stakeholder engagement must be thoroughly implemented to increase or enable its potential uptake.

5. Product Preferences

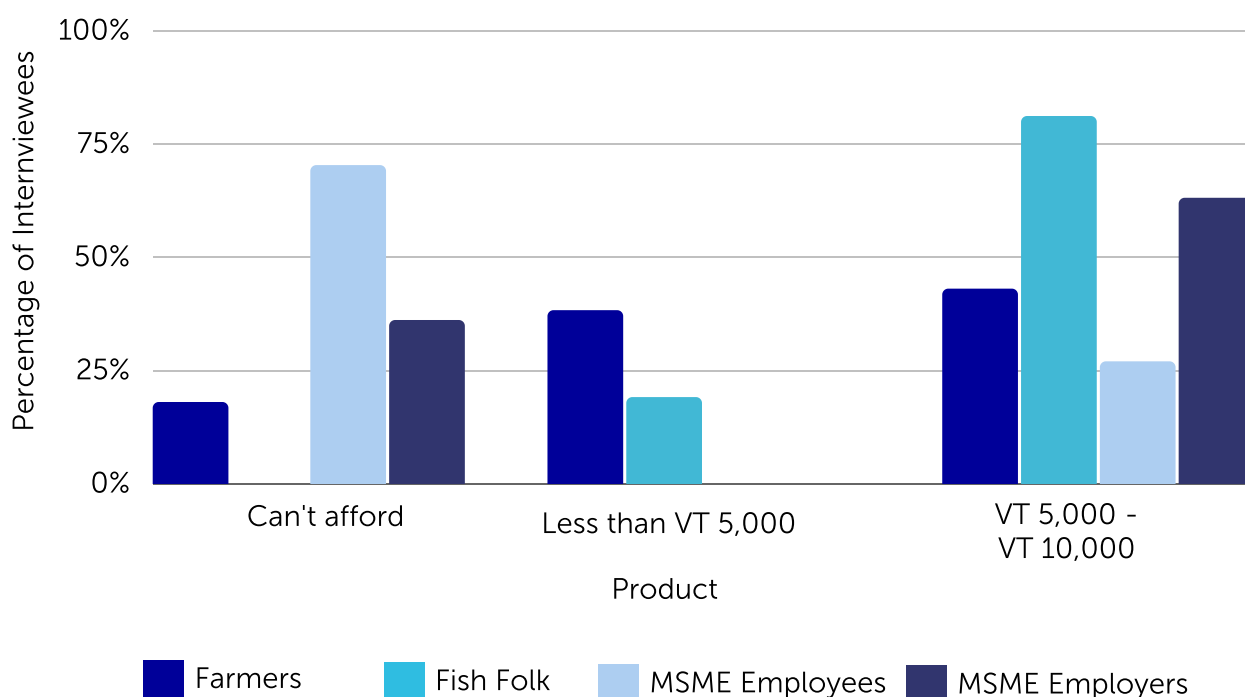
There is a clear preference for bundled insurance products which are cheaper and cover the key risks affecting the interviewed groups during the survey. All MSME employees and employers preferred such product choices. More than 80 percent of fisherfolk preferred a cheaper product which covers key risks while 17 percent preferred a more expensive product which covers more risks. In the case of farmers, 60 percent preferred a cheaper product which covers key risks. It is also notable that a vast majority (81 percent) of the fisherfolk had preference for a product that bundles the key risks with health or life insurance. All MSME employees also had preference for a health or life insurance bundled product. The remaining interviewees in the farmer and fisherfolk groups indicated that they could not make a choice because they lacked sufficient knowledge on insurance.

In this regard, product differentiation could be an option. A product which covers cyclone and drought could be offered to farmers whereas a bundled product which covers cyclone, health or life, and loss of income could be offered to fisherfolk and MSME employees.



In terms of the pricing of the potential insurance product, the responses from the interviews indicate that VT 10,000 (~ USD 90) could be a realistic annual premium amount to start with as more than half of all groups interviewed (except MSME employees) could afford a premium between VT 5,000 and VT 10,000 (~ USD 45 – USD 90). However, there is a significant 71 percent of MSME employees interviewed, 33 percent of employers, and 18 percent of farmers who indicated that they or their employees cannot afford insurance premium at any cost. Keeping this in mind, a more realistic product option for the MSME employees' group could be a bundled group insurance policy with the employers as the policy owners covering the employees against the risks of cyclone, loss of income, and health or life.

Price of Product



6. Conclusion

With regards to natural hazards, the survey results indicate that tropical cyclones and drought present the most imminent and damaging to the farmers group. As such a parametric wind, rain, and drought combined pilot insurance product could succeed among farmers in Vanuatu. Alternatively, given the preference for cheaper products, single peril rain, wind, and drought insurance products could also be investigated. With respect to fisherfolk, a bundled parametric wind and rain combined with loss of income, health, or life insurance product is likely to succeed since the fisherfolk perceive tropical cyclones as the most imminent and damaging hazard to their business and desire to have a combined insurance product. As the fisherfolk, the MSME employers and employees also perceive tropical cyclones as the most imminent hazard. But in the case of the employer groups, bundled parametric wind and rain combined with business interruption losses, and health or life insurance cover for employees seems to have a potential success when piloted.

Regarding access to cell phone and mobile money, there must be extra effort to deepen accessibility and use of mobile money among all the interviewed groups before a solution based on mobile money can be implemented. In the meantime, the banking system or other financial service providers can be used in the pilot phase. There is also a need for more financial literacy programs and more financial service providers in all communities to improve the reputation of the financial service providers within the communities. In this regard, an agency model could be adopted. Based on the responses of the groups, the pilot product can be sold through the cooperative groups and employers.

When it comes to product preferences, the groups prefer a cheaper insurance product which covers key risks to a more expensive product which covers more risks. Therefore, affordability of the premium payable should be a key decision in the insurance product development and piloting. An annual premium of VT 10,000 (~ USD 90) could be a good starting point for the pilot.

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.

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>

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