

Insuring Sustainable Development

What drives uptake of insurance in developing countries?

From extreme weather patterns that threaten food security to rising sea levels that mean catastrophe for coastal communities, climate change impedes all elements of the Sustainable Development Goals (SDGs). It is not just major disaster events that we need to worry about. Climate change poses subtler risks too.

Hotter temperatures can accelerate evaporation, pulling more moisture from crops and creating longer periods of drought. Dry soil is also less able to absorb extreme rainfall, increasing mudslides and land erosion.

In both the short and long term, the increasingly unpredictable nature of weather patterns heightens the challenge of adapting to environmental changes and building the capacity of a system to absorb stresses brought on by climate change. Empirical evidence from the insurance sector shows that damage costs from weather related disasters have been rising over the past 30 years and will likely continue to grow as climate change increases the intensity of storms, droughts, and floods.

The impact of climate change is not equal. It is the most vulnerable populations, particularly households in Least Developed Countries (LDCs) that will feel the brunt of these threats. These households are almost exclusively located in rural areas and are the poorest and most vulnerable sections of the population. Increasingly, they are impacted by climate shocks while having few or no resilience mechanisms. It is estimated that more than 100 million people could fall into extreme poverty due to climate change related impacts with unmitigated climate change reducing average global income by 23 percent by year 2100. These figures only detail economic losses and financial damages, and don't capture the devastating human costs.

These consequences are not inevitable. Individuals and communities can build their resilience and sustain their development gains through effective risk mitigation and coping mechanisms. Financial services play a critical intermediating role in helping communities manage these risks, contributing to sustained economic development, poverty reduction and protection from vulnerability.

However, access to financial services, particularly insurance, is uneven across the developing world. Many households rely heavily on informal mechanisms of savings and borrowing to deal with fluctuations in income and consumption, heightened during times of crisis. Insurance as both an industry and a product offering are still a nascent risk management tool in emerging economies.

The United Nations Capital Development Fund (UNCDF) Making Access Programme (MAP) and the Grantham Research Institute on Climate Change and the Environment at LSE collaborated to pool survey data from 65,916 households across sixteen developing countries to better understand the use of financial services as it relates to household risk and resilience.

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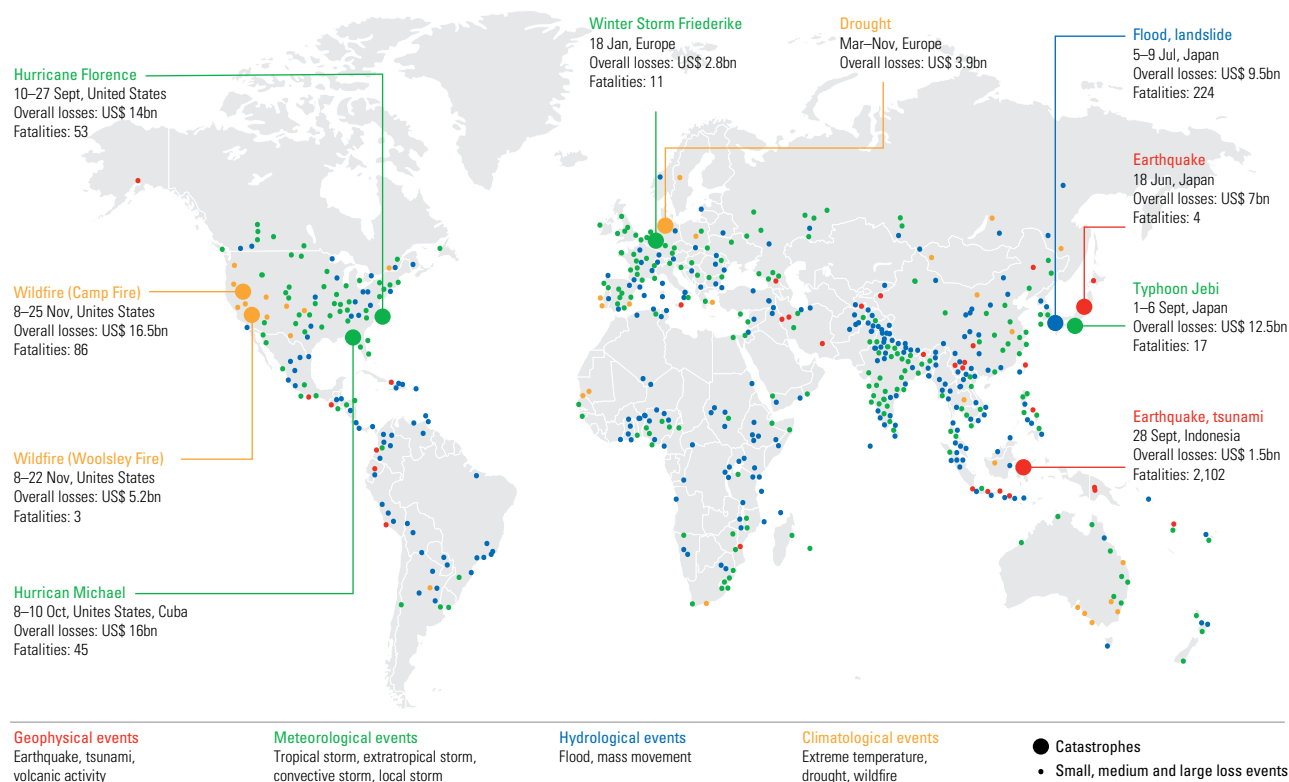


Figure 1: Natural disasters impact millions of families each year. As a result of a changing climate, extreme weather events are more likely, resulting in significant economic, social, and cultural losses. Each dot in the above image represents communities and families facing economic hardship and untold personal loss. Image Source: Munich Re

Using the UNCDF MAP diagnostic data, this analysis provides both scale and a level of confidence in the insights generated. It offers a window into the daily realities of the poor that can be used to inform decisions within public-sector policy making. It can also better enable capital investment and products and services that are more suited to the financial lives of these consumers.

A delicate daily balancing act: Meeting daily needs and coping with risk

Households in developing countries face a myriad of risks with limited coping mechanisms, often resorting to self-insurance via savings and borrowing from formal and informal sources. Without access to an adequate range of financial services that are affordable and conveniently available, many turn to alternative coping measures. This includes continued reliance on community and other informal structures, and the inefficient use of whatever financial services/products (formal or informal) are available. Previous research from UNCDF MAP shows that many households, in the absence of risk-mitigating insurance products, turn to drastic coping measures, including selling something, lowering expenses (e.g. by skipping meals or other forms of going without), or using credit or savings to cope.

Much of the understanding on demand for financial services exists in the realm of savings and credit. Consumers do access financial services, albeit not within the paradigm of current business models or product sets. Rather, they use financial services based on their specific needs. Consumers consistently note that healthcare, education, and retirement planning form key financial needs in emerging markets use, despite the lack of any formal insurance coverage.

Perhaps the least well-understood aspect of a household's choice of coping mechanism is the demand for insurance. Compared to the demand for savings and credit, the demand for formal insurance has remained low in developing countries despite the micro-insurance revolution of the last decade. The pooled survey data and analysis examines current assumptions on demand drivers for insurance and offers new insights on what motivates insurance coverage and demand in these market segments.



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In developed economies, access to insurance is an important method that households use to cope with risk. Our data shows that, in most developing countries examined, access to insurance is limited. Overall, around 16.30 percent of those surveyed had access to formal insurance, though this is skewed by higher results in Thailand. The percentage of adults formally not insured was 83.70 percent among all the countries.

Table 2: Insurance Coverage by Product and Country

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Why don't households in developing countries have insurance?

Using the pooled survey data illustrates that broadly having a higher income, being older, or being formally employed all positively and significantly influence the probability of having insurance coverage. Results also indicate that adults with higher education are more likely to be covered under formal insurance across all countries surveyed.

However, the elasticity of insurance coverage probability with respect to income is heterogeneous across countries. In Eswatini, the difference in having some formal insurance between households earning US \$2 per day and those earning US \$10 per day is substantial, increasing from 12 percent to 85 percent. Thailand, on the other hand, only rises from 45 percent to 58 percent, and in Myanmar from only 5 percent to 8 percent. This indicates that there are country specific factors beyond income that affect the likelihood of a household having insurance coverage.

Cross country differences on the likelihood of having insurance is also seen in relation to education levels, particularly at lower levels of education. For example, in Cambodia households with primary or secondary education levels have a lower probability of insurance coverage relative to households with no-education. The differences are less likely at higher levels of education where tertiary educated individuals across all countries surveyed are most likely to have insurance.



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But what drives the demand for insurance?

The key issue in only looking at demand side factors is the selection bias, namely the problem that certain areas lack the supply of insurance and have demographics that can confound results. For example, if a high proportion of female-headed households live in regions that lack any supply, the data will correlate female-headed households to low coverage, even if they have the same preferences as male-headed households. Accounting for this selection bias illustrates the limited role of demographic variables in affecting demand for insurance. Household age, size, and primary education show no significance in affecting demand for insurance. The effect of secondary education strengthens slightly, and the effect of tertiary education strengthens substantially.

However, the mean proportion of formally employed households have a positive effect on a typical household's probability of having formal insurance. This indicates that the supply of insurance is available in developed places and regions within developing countries and poor targeting of insurance products in underdeveloped areas.

Our analysis shows that, before accounting for the selection bias, income and formal employment are underestimated in affecting the demand for insurance. An average household that is formally employed compared to an informally or unemployed household has nearly a ten-percentage point higher probability of having formal insurance coverage. Demand for insurance is twice as sensitive to household income than one might think when no effort is made to identify supply and demand separately.



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Insurance coverage: a new opportunity

Key findings from the analysis of over 65,000 households highlight that most demographic variables have a limited role in driving the demand for insurance. While education, formal employment, and income can play an important role, there is also a need to consider insurance market inhibitors from the supply side. Addressing these barriers can enable risk mitigation and build resilience for poor households.

The coping mechanisms of households show how resourceful families are but also the support they need to maximize potential at a community and national level. It is essential to consider the type of products that are most suitable in economic terms as well as socially and with a view on wider societal resilience in the face of climate change. Bundled financial services that allow households to support livelihoods (savings and credit) and manage risk (insurance) while reflecting social values are key inputs for relevant products.

Market factors hampering insurance usage as a risk mitigating mechanism

Consumer drivers

Lack of financial literacy: This can lead to a misunderstanding of risks and the role of insurance, leading to wrong expectations about pay-outs, cover levels and limitations of insurance.

Lack of trust: Distrust of the insurance mechanism or those running it, often due to lack of experience with insurance.

Limited willingness to pay: Particularly for sovereign risk schemes the lack of political buy-in and political attractiveness of post disaster aid present challenges.

Low-income and unaffordability: Insurance is often considered too expensive for those most vulnerable, especially if it is tied to regular, long-term payments. Even if these are relatively cheap, any long-term commitment from poor households with an uncertain income stability is a problem. The product itself and payment around the product should be structured differently.

Existence of alternative measures: The perception of alternative sources of finance that reduce demand for insurance products. For example, post-disaster aid and reliance on neighbour support in lieu of investing in insurance coverage.

Enabling institutional frameworks: Clarity on customer rights and transparency of how insurance functions and how it is supervised are important but often missing.

Market inhibitors

Better understanding risk characteristics: Insuring climate and natural disaster risks is technically challenging, with a wide range of 'risk drivers' at work, such as urbanization, accumulation of assets in exposed areas such as at the coast, or changes to climate patterns because of natural vulnerability and climate change. Calculating the impact of these factors on risks is difficult for insurers.

Lack of data to accurately price risks: Often due to missing data, outdated risk information, lack of standardisation and/or access to risk data.

Business models that are suitable for developing countries and low-income markets: Moral hazard and adverse selection problems imply that those that are willing to pay for insurance are usually those most at risk and hence costly to insure.

Lack of technical capacity: Risk financing and insurance require technical skills that are often not present in developing countries, thus inhibiting detailed market understanding linking societal and business content.

High operational or distribution costs: Administrative aspects and a lack of distributional networks can put a burden on insurance schemes, particularly in their early phases.

Unsupportive regulatory frameworks: Effective regulation is a key requirement for insurance. A lack of clear and transparent rules can be a deterrent for private sector involvement and can hamper the scaling up of insurance schemes.

'Insurance as a formal product is for many households in developing countries either not available, not affordable, or seen as a luxury good. While not offering a silver bullet insurance can play a role in supporting financial resilience in the face of economic shocks including climate-related risks. The evidence on the impact on income from climate change is highlighting that it is going to become important for policy-makers to understand the regulatory infrastructure and transparency required in enabling insurance markets. At the same time, insurers will need to look at their ability to deploy relevant products to developing markets.'

