Building Natural Catastrophe Protection for Low-income Households: Notes from the Joint Asian Development Bank and IFMR Holdings Workshop

By Vipul Sekhsaria and Nikhil John, IFMR Holdings

Natural catastrophes in India, whether the current severe drought in Bundelkhand or floods like the one Chennai suffered in 2015, leave unparalleled and deeply disturbing destruction. And such disasters cost India $3.3 billion in 2015 alone,[1] even before "loss of livelihood" was accounted for.

Yet, insurance penetration in the country, which could provide protection against the costs of disasters, remains extremely low, with only 0.9% of gross domestic product protected by non-life insurance, according to P.J. Joseph, Member (Non-Life), Insurance Regulatory and Development Authority of India. Only 8% of economic losses were insured, he added, suggesting a substantial need for out-of-the-box solutions for insuring against catastrophe risks.

Mr. Joseph was giving the keynote address to the 2–3 June 2016 workshop jointly organized by the Asian Development Bank (ADB) and IFMR Holdings to discuss the challenges and opportunities that catastrophic risk entails for India.

In this context, participants in the workshop took steps to finding more solutions to protect low-income households in disaster's aftermath. The confab included top-level originators, data scientists, climatologists, insurers, reinsurers, social impact investors, and the Insurance Regulatory and Development Authority of India gathered under one roof for the discussions.

Finding solutions to protect customer households and businesses as well as the insurance originators that have a relationship with them was the workshop's overriding theme. And "what we can think of, we can do", as Sucharita Mukherjee, Chief Executive Officer (CEO) of IFMR Holdings put it, was the underlying spirit that drove the participants.

The premium collected by India's non-life industry for natural catastrophes amounts to about 45 billion Indian rupees annually, whereas the loss from the Chennai floods alone stood at about Rs140 billion, noted R. Chandrasekaran, Secretary General, General Insurance Council, in his own opening address. He added that although tax rebates initially helped give impetus to product take-up for health insurance, today it is not the foremost reason why people buy it. A similar approach might be worth considering for catastrophe protection.

Udaya Kumar, Managing Director and CEO of Grameen Koota, spoke about how natural catastrophes drag the already poor even lower and how catastrophe insurance could make clients more resilient, in addition to contributing to financial inclusion.

Yet, Bama Balakrishnan, Chief Risk Officer of IFMR Capital, later shared analysis suggesting that originators had medium to very high risk exposure in their net worth owing to catastrophe risk and how this remains a barrier to financial inclusion, keeping originators away from high-risk geographies.

[1] http://www.firstpost.com/india/natural-disasters-cost-india-3-30bn-in-2015-heres-why-we-should-be-very-worried-2622940.html

This is not an ADB material. The views expressed in this document are the views of the author/s and/or their organizations and do not necessarily reflect the views or policies of the Asian Development Bank, or its Board of Governors, or the governments they represent. ADB does not guarantee the accuracy and/or completeness of the material's contents, and accepts no responsibility for any direct or indirect consequence of their use or reliance, whether wholly or partially. Please feel free to contact the authors directly should you have queries.

In the first panel discussion, participants examined the different types of catastrophe risk protection products available globally and in India. A good starting point appeared to be in the form of a parametric insurance product that transcends the exposure only to assets and looks at items like loss of income and livelihood as the important factors in deciding the amount of insurance cover.

Among the more salient views expressed in the workshop was that catastrophe risk affects credit markets, including interest rates, and that losses on loans cause capital erosion for financial institutions. Recapitalizing and deleveraging are two options in the aftermath of a disaster, though both carry negative consequences. Recapitalization is not so forthcoming and deleveraging affects the financial institution's capability to lend. Residual risk management can be supplemented by catastrophe risk insurance products. Insurance and re-insurance play an important role in underlying catastrophe risk, and linking credit, risk, and savings can result in appropriate risk financing strategies said Christine Engstrom, Director, Private Sector Operations Department of ADB.

Participants also looked at risk models, loss curves, and data and how they can be improved. Lack of robust data, event curves, and loss models has prevented the development of holistic solutions, said Arup Chatterjee, Principle Financial Sector Specialist, Sustainable Development and Climate Change Department at ADB. The wait for perfect data might never be over, but there already exists a large understanding by data scientists and climatologists that is more than sufficient for natural catastrophe-specific products in India. Pushpendra Johri, Vice President of Risk and Insurance at RMSI suggested making available a flood model based on 50 years of river flow data and 109 years of rainfall data with RMSI. He added that there is enough data to begin, but data reporting in the future will be a key game changer to make products more affordable in the long run.

The workshop panel included Pushpendra Johri; Murthy Bachu, Principal Hydrologist at AON Benfield Analytics; Alex Chen, CEO of Asia Risk Transfer Solutions; Ulrich Heiss, Senior Advisor, Sector Project Insurance at GIZ; and Vineet Kumar, Head Cat Perils Asia at SwissRe. Arup Chatterjee moderated.

The second panel, moderated by Sucharita Mukherjee, had Brahmanand Hegde, Managing Director and CEO of Vistaar; Udaya Kumar; Vaibhav Anand, Head Risk Analytics and Modelling of IFMR Capital; Easwar Narayanan, Chief Operating Officer of Future Generali; K. Venkatesh, CEO of IFMR Rural Channels; and Ulrich Hess. The panel looked at informal ways low-income households can manage risk, such as income diversification, investing in gold (especially in South India), and investing in assets such as land.

Armed with all the inputs from speakers and panelists, the group agreed upon critical design parameters for product pilot ideas:

- Simple: could cover multiple perils, with simple options, and could be parametric or indexed.
- Affordable: captures the price benefit of risk-pooling between entities and household profiles.
- The magnitude of the cover should provide for the loss of assets, loss of livelihood, and a buffer at an organizational level to meet unplanned exigencies or provide for

households affected but that could not get compensation since parametric solutions will carry basis risk (may not cover all actual damages).

- The loan amount can be used as a proxy to determine the magnitude of cover.
- Design a vulnerability index to determine the value of cover (one may need a pre-survey to arrive at such a vulnerability index), pre-defined hazard and loss triggers.

The group, including originators, unanimously agreed to build protection for catastrophe risk and were ready to be a part of joint initiatives to bring some of the solutions to light.

Related reading: http://www.ifmr.co.in/blog/2016/06/21/building-natural-catastrophe-protection-for-low-income-households-notes-from-the-joint-workshop-hosted-by-asian-development-bank-and-ifmr-holdings/

About the authors:

Vipul has fourteen years of experience in the insurance sector in various leadership roles like that of distribution head, business strategy, team building and business head spanning across wide geographies in India at Bajaj Allianz General Insurance and Apollo Munich Health Insurance. He leads the insurance initiative in designing innovative strategies to introduce low-income focused insurance solutions at IFMR Holdings, a financial inclusion platform.

Nikhil comes from an economic consulting background with seven years of experience in financial and statistical modelling, valuation and project management at NERA Economic Consulting. For the past three years he's been supporting equity transactions, overseeing portfolio performance and currently leading new business strategy at IFMR Holdings, a financial inclusion platform.