



Catastrophe risk data scoping for disaster risk finance in Asia

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Developing countries across Latin America, Africa, and Asia are some of the most exposed to natural catastrophes in the world. Over the last 20 years, Asia has borne almost half the estimated global economic cost of natural disasters - around \$53 billion annually. Losses from natural disasters can damage growth and hamper economic development and unlike in developed countries where risk is reallocated through re/insurance, typically these countries rely on budget reallocations and donor assistance in order to attempt to meet financing needs. There is currently an active international dialogue on the need to increase access to disaster risk financing solutions in Asia. The World Bank-GFDRR Disaster Risk Financing and Insurance Program with financial support from the Rockefeller Foundation, is currently working to develop regional options for disaster risk financing for developing countries in Asia. The first stage of this process has been to evaluate available catastrophe data suitable to support the design and implementation of disaster risk financing mechanisms in selected Asian countries. This project was carried out by a consortium of JBA Risk Management, JBA Consulting, ImageCat and Cat Risk Intelligence.

The project focuses on investigating potential data sources for fourteen selected countries in Asia, for flood, tropical cyclone, earthquake and drought perils. The project was carried out under four stages. The first phase focused to identify and catalogue live/dynamic hazard data sources such as hazard gauging networks, or earth observations datasets which could be used to inform a parametric trigger. Live data sources were identified that provide credibility, transparency, independence, frequent reporting, consistency and stability. Data were catalogued at regional level, and prioritised at local level for five countries: Bangladesh, Indonesia, Pakistan, Sri Lanka and Viet Nam. The second phase was to identify, catalogue and evaluate catastrophe risk models that could quantify risk and provide a view of risk to support design and pricing of parametric disaster risk financing mechanisms. The third stage was to evaluate the usability of data sources and catastrophe models, and to develop index prototypes to outline how data and catastrophe models could be combined using local, regional and global data sources. Finally, the project identified priorities for investment to support the collection, analysis and evaluation of natural catastrophes in order to support disaster risk financing.