Challenge Fund

New York University

Enabling institutions to manage storm surge risks



Often, vital information never reaches those that need it most, despite recent advances in methods to collect and analyze hazard data. In addition to accurately assessing risk, governments and other stakeholders are increasingly focused on better communicating risk to communities and development practitioners to increase disaster preparedness and resilience.

In November 2013, Tacloban City was struck by a record magnitude storm surge dealt by Typhoon Haiyan. Despite the weather agency's accurate storm surge prediction, thousands lost their lives. In response, a team from New York University set out to improve communication practices linking national agencies to local governments and the public. The goal of the project was to identify improved strategies for crafting and communicating risk messages, to develop this into new practices, and to ensure that communities are able to respond quickly to vital risk communication to better protect lives and livelihoods. LINK TO PROJECT PAGE



An evaluation of the experience of Typhoon Haiyan revealed that improved risk communication practices may have saved lives.



A targeted survey found that more narrative-like, as opposed to technical, messages would be more effective in emergency situations.



A toolkit for risk communication was constructed, assembling insights from various studies into improved practices for message construction and dissemination.



Field Interviews with Community Leaders, July 2016.

The Coast of Eastern Samar, site of focused interviews.

The project team combined insights learned from evaluating the experience of Typhoon Haiyan, lessons from the literature on risk and hazard communication, and field surveys to construct guidelines for constructing hazard warning messages. The team at New York University worked alongside the University of the Philippines, as well as two Philippine NGOs, the Center for Disaster Preparedness and the Climate Change Adaptation Advocacy Cooperative, to integrate lessons from research and the field.

In the first half of 2016, the research teams studied different bodies of knowledge related to communicating storm-related hazards and constructed a trial approach involving narrative-like messages. This was tested and validated in the field from May to June, 2016. Expert and community workshops were then held in July and August, 2016, to test the team's evolving guidelines against the experience of different stakeholders. The project also provided insights into agency processes, the use of maps, and community engagement.

In phase I, the team developed a Drought Risk Visualization Toolkit (DRVT) for three Pacific Island countries: Samoa, Solomon Island and Fiji. The objective of the tool is to assist National Meteorological Services provide better and more timely advice and early warning to drought-sensitive communities, government agencies, and other key clients in the Pacific.

In the second phase, NIWA are developing and extending the DRVT to Kiribati, Vanuatu and Papa New Guinea, with an additional focus on uptake and end-user pre-drought contingency and action planning.

"What is needed is a curriculum (formal learning modules) for (provincial officers) on communicating and creating messages. And for local government units on interpreting and adding to messages."

- Participant in expert workshop, August, 2016

Preparation of the toolkit was the foremost outcome of Phase I of the two-year project. Phase II, which has now been initiated, will involve translating the communication guidelines into workshops that will be tested and implemented in the Philippines and Bangladesh. The workshops will be fashioned into learning modules that different groups and agencies can access through an upcoming online portal, currently in development. The module will be translated into a lesson plan at the primary or secondary school levels. The long-term vision is to use the online portal to develop a virtual community of practice for exchanging knowledge and program designs. Through the NGOs partnering in the project, the workshops will be scaled up and, ideally, institutionalized in Bangladesh and the Philippines, as well as other countries.



