

Coping with Disasters Due to Natural Hazards: Evidence from the Philippines¹

Majah-Leah Ravago,* Dennis Mapa,

Jun Carlo Sunglao and

James Roumasset**

**University of the Philippines and*

***University of Hawaii*

Abstract

We explored how local governments respond to disasters due to natural hazards to determine the mix of risk management and coping strategies (ex ante and ex post) they employ to improve welfare. We focused on disasters caused by hydro-meteorological hazards that occur with high frequency and high probability. Using data from a novel survey we conducted on disaster risk management practices of local government units (LGUs) in the Philippines, we developed indices of the various risk management and coping strategies of LGUs to explain what aids in their recovery from disasters.

The most prominent strategies are risk-coping activities, especially cleanup operations and receiving relief from others. Among ex ante activities, employing long-term precautionary measures improve recovery. These include building resilient housing units; investing in stronger public facilities; building dams, dikes, and embankments; upgrading power and water lines; maintaining roads; identifying relocation areas; and rezoning and land-use regulations. In contrast, interruption of lifeline services such as water and electricity contributes adversely to recovery. Evidence also shows that LGUs' profile characteristics matter. An LGU with higher local revenues has higher chances of recovery. On the other hand, being located in a province where dynasty share is high contributes negatively to an LGU's recovery. The combination of these ex ante and ex post risk management strategies informs policies on where to put priority and investments in disaster risk management.

Keywords: Disaster, shock, coping, risk management, local government
JEL Codes: Q54, D81, I38,

¹ This research was funded by the University of the Philippines System's Balik-PhD Program under the Office of the Vice President for Academic Affairs (OVPA). The authors are grateful for the excellent research assistance of Angelie Grace Aycardo, Rica Santos, and May Kathleen Montenegro. Any errors of commission or omission are the sole responsibility of the authors.