Coupling Post-Event and Prospective Analyses for El Niño-related Risk Reduction in Peru

Adam French (1), Adriana Keating (1), Reinhard Mechler (1), Michael Szoenyi (2), Abel Cisneros (3), Orlando Chuquisengo (3), Emilie Etienne (3), and Pedro Ferradas (3)

(1) International Institute for Applied Systems Analysis (IIASA) (french@iiasa.ac.at), (2) Zurich Insurance Company, (3) Soluciones Prácticas

Analyses in the wake of natural disasters play an important role in identifying how ex ante risk reduction and ex post hazard response activities have both succeeded and fallen short in specific contexts, thereby contributing to recommendations for improving such measures in the future. Event analyses have particular relevance in settings where disasters are likely to reoccur, and especially where recurrence intervals are short. This paper applies the Post Event Review Capability (PERC) methodology to the context of frequently reoccurring El Niño Southern Oscillation (ENSO) events in the country of Peru, where over the last several decades ENSO impacts have generated high levels of damage and economic loss. Rather than analyzing the impacts of a single event, this study builds upon the existing PERC methodology by combining empirical event analysis with a critical examination of risk reduction and adaptation measures implemented both prior to and following several ENSO events in the late 20th and early 21st centuries. Additionally, the paper explores linking the empirical findings regarding the uptake and outcomes of particular risk reduction and adaptation strategies to a prospective, scenario-based approach for projecting risk several decades into the future.