Public policy and risk financing strategies for global catastrophe risk management – the role of global risk initiatives

Patrick McSharry (1), Andrew Mitchell (2), and Rebecca Anderson (2)
(1) Centre for Catastrophe Risk Financing, Smith School of Enterprise and the Environment, University of Oxford, Oxford OX1 2BQ, UK (patrick@mcsharry.net, +44 1865 614960), (2) Willis Re, Willis Analytics, The Willis Building, 51 Lime Street, London EC3M 7DQ, UK

Decision-makers in both public and private organisations depend on accurate data and scientific understanding to adequately address climate change and the impact of extreme events. The financial impacts of catastrophes on populations and infrastructure can be offset through effective risk transfer mechanisms, structured to reflect the specific perils and levels of exposure to be covered. Optimal strategies depend on the likely socio-economic impact, the institutional framework, the overall objectives of the covers placed and the level of both the frequency and severity of loss potential expected. The diversity of approaches across different countries has been documented by the Spanish “Consorcio de Compensación de Seguros”. We discuss why international public/private partnerships are necessary for addressing the risk of natural catastrophes. International initiatives such as the Global Earthquake Model (GEM) and the World Forum of Catastrophe Programmes (WFCP) can provide effective guidelines for constructing natural catastrophe schemes. The World Bank has been instrumental in the creation of many of the existing schemes such as the Turkish Catastrophe Insurance Pool, the Caribbean Catastrophe Risk Insurance Facility and the Mongolian Index-Based Livestock Insurance Program. We review existing schemes and report on best practice in relation to providing protection against natural catastrophe perils. The suitability of catastrophe modelling approaches to support schemes across the world are discussed and we identify opportunities to improve risk assessment for such schemes through transparent frameworks for quantifying, pricing, sharing and financing catastrophe risk on a local and global basis.