Photo credit: Wikipedia

Physical and
Fiscal Disaster Risk
Assessment in

PAKISTAN

OVERVIEW:

Pakistan's natural catastrophes raise a major financing challenge: the losses from flooding alone cost 3–4 percent of the federal budget, with losses from natural disasters exceeding $18 billion over the past decade.

A grant from the Global Facility for Disaster Reduction and Recovery (GFDRR) has begun to change the way the government of Pakistan (GoP) addresses disaster risk. One activity under the grant—a World Bank-implemented fiscal disaster risk assessment (FDRA)—enabled federal and provincial finance authorities to better understand the fiscal challenge and act proactively to reduce risk. Other activities have built technical agencies' capacity to undertake multi-hazard risk assessments (MHRAs). Together, these activities led the World Bank and the GoP to invest a combined $245 million toward risk mitigation, and the public sector has improved its capacity to replicate the risk assessments.

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RESULTS & ACHIEVEMENTS

- GFDRR support leveraged $225 million from the World Bank—with the GoP providing an additional $20 million—through two major risk mitigation programs which will address flood and drought risks and build capacities of institutions mandated with disaster risk management responsibilities at the provincial level.

- The government established a National Working Group for Risk Assessment and subnational groups to increase coordination among technical agencies and stakeholders and to streamline risk assessment activities. The participation of multiple technical agencies working together is adding value, will encourage data-sharing, and provide an important foundation in Pakistan's future DRM activities. The Working Group also makes the risk assessment a collaborative exercise being led by the Government rather than being done by an outside consultant.

- The GFDRR grant also helped the government's National Disaster Management Authority (NDMA) to develop and operationalize the National Data Sharing Platform for Disaster Risk Information to promote data-driven disaster risk management (DRM) decision making. This web-based collaborative tool allows for collection of risk information at a central repository and enables stakeholder to view the data generated as a result of risk assessments.

- The grant established effective methodology for undertaking Multi Hazard Vulnerability Risk Assessment (MHVRAs), enabling the scaling up of risk assessments to different parts of the country.

CONTEXT

Pakistan's high exposure to many types of natural disasters—floods, earthquakes, droughts, cyclones, and tsunamis—makes it the sixth most climate-change-affected country in the world. In the aftermath of enormous natural calamities over recent years such as the 2005 Kashmir earthquake and the widespread 2010 and 2014 floods, the government has made significant efforts to improve its regulatory and institutional environment for disaster management.

However, Pakistan's disaster management agencies have been obstructed by weak capacities, limited resource allocations, inadequate technical expertise, and weak partnerships with key decision makers such as budgeting and finance institutions.

Bridge construction across the Indus River. Photo credit: © Pulpitis

APPROACH

The GFDRR grant supported the following:

- Creation of the National Data Sharing Platform for Disaster Risk Information, enabling government agencies to share information for planning and decision making while providing stakeholder access to previous risk assessments; a consolidated, standardized repository for fresh information; and data that support a comprehensive risk financing approach.

- Completion of the FDRA, which used historical loss data and catastrophe risk modeling to quantify the fiscal impacts of natural disasters. It also supported dialogues with the insurance market regulator and the private sector about strengthening risk financing products and developing more innovative financial solutions.

- Formation of a National Working Group for Risk Assessment and subnational groups, which enable technical agencies to contribute information to, and use outputs from, the risk assessments. The agencies also received technical trainings on risk assessment.

LESSONS LEARNED

Without actionable information, capacity, and high-level support fiscal and physical disaster risk assessments cannot translate into policy actions. Activities under the GFDRR grant improved coordination between different agencies and other stakeholders, and also raised awareness about the importance of risk modeling and the need to incorporate risk into development planning. This is demonstrated through the creation of a dedicated unit within NDMA to undertake risk assessments across the country.

There is no complete picture on the cost of natural disasters to the government exchequer, as disaster losses are calculated by different line departments without a uniform methodology. During the assessment, the government began to realize that it (a) lacks aggregate data on the fiscal losses caused by natural disasters, and (b) needs to analyze these losses and their impact on development.

Karakorum highway. Photo credit: © pawel opaska
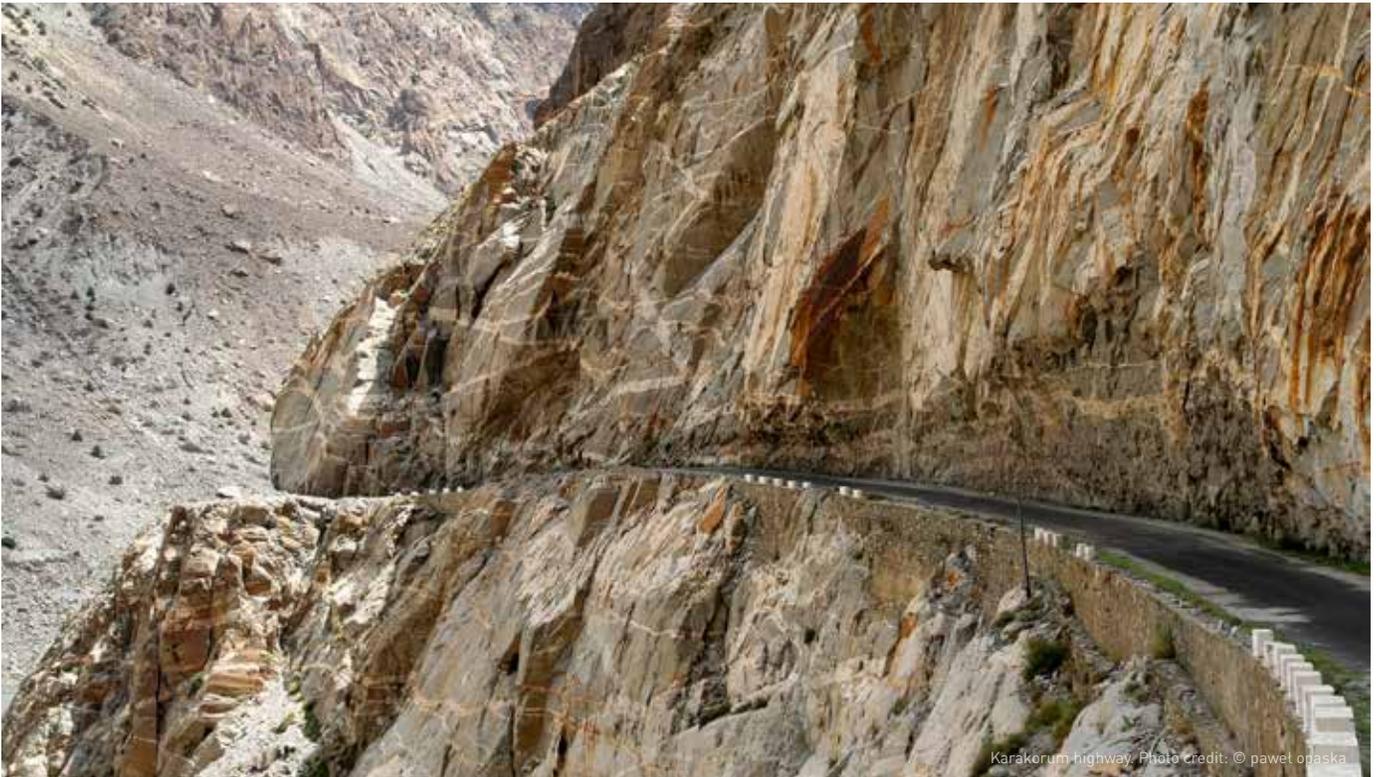
NEXT STEPS

The Disaster and Climate Resilience Project and the Sindh Resilience Project are strengthening governments' capacity to manage disasters, undertake recovery planning, improve physical preparedness, and mitigate fiscal impacts.

The World Bank is helping both federal and provincial governments to identify post-disaster financing instruments such as reserve funds; emergency cash transfer systems; and market-based options such as insurance, catastrophe bonds, and disaster management funds. Other donors have used the FDRA to advance dialogues with the Ministry of Finance toward establishing a National Disaster Management Fund.

Government agencies also have assimilated technical consultants engaged under the grant within a regular MHVRA unit to undertake further assessments and oversight of MHVRA interventions.

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