

# InnovationLab

Further your understanding of disaster risk



GLOBAL FACILITY FOR DISASTER REDUCTION AND RECOVERY **GFDRR**

## Risk Identification

### Advancing resilience through information

Recognizing, assessing, and understanding risk from natural hazards and climate change are the first steps toward reducing their adverse effects. With access to comprehensive disaster risk information, policymakers and the public can better understand the potential impacts of natural hazards, and carry out risk-sensitive planning and investment before a disaster strikes.

### Assessing risk – the first step

To enable evidence-based decision-making, risk identification is the important first step toward leveraging larger and better-targeted investments in risk reduction, preparedness, financial protection, and resilient recovery. The Global Facility for Disaster Reduction and Recovery's (GFDRR) Innovation Lab supports countries in the development and use of risk information by:

- ▶ Identifying gaps in country risk information
- ▶ Managing the risk assessment process, from designing targeted analytics to the communication of results
- ▶ Communicating complex data into understandable, actionable information
- ▶ Helping governments use risk assessments as evidence for decision making

### Using risk assessments

With risk information in hand, agencies across sectors can proactively respond to disaster risk through activities such as retrofitting buildings, developing new land-use planning guidelines, designing financial protection measures, and equipping and training emergency responders.

### Best practices in risk assessment

As a leader in disaster risk assessment, the Innovation Lab team produces risk assessments that:

- ▶ Define clearly the purpose of the risk assessment prior to beginning the process
- ▶ Enable and promote ownership of the process and mitigation efforts
- ▶ Promote open data generation
- ▶ Prioritize risk communication
- ▶ Foster multidisciplinary, multi-institutional, and multi-sectoral collaboration at all levels
- ▶ Consider the broader risk context, such as multiple hazards
- ▶ Keep abreast of evolving risk
- ▶ Account for uncertainties and limitations of risk information
- ▶ Are transparent and credible
- ▶ Encourage open source software innovations

### The need for open data

A risk assessment is only as good as the data it uses. The Open Data for Resilience Initiative (OpenDRI) helps ensure that risk assessments use the most up-to-date and accurate data available. The initiative stores risk-related datasets on online open platforms, helping to ensure data generated through risk assessments are widely accessible and reusable. This includes data on hazard, exposure, and vulnerability, the components comprising disaster risk (see below).

### Components of disaster risk

<b>Hazard:</b>	Physical phenomena of nature (e.g. earthquake, flood)
<b>Exposure:</b>	Characteristics of assets that are important to a community (e.g. buildings, people, agriculture land, infrastructure)
<b>Vulnerability:</b>	Likelihood of assets being damaged or disrupted when a hazard strikes (e.g. 60% chance of building collapse)



## Case study

# Facilitating risk assessments

GFDRR has facilitated the development of risk information in more than 60 countries.

High-level analysis of national and sub-national risks from floods and earthquakes were undertaken for over 30 European and Central Asian countries. Access to risk analytics were secured substantially below market rate and analysis undertaken within a period of less than six months. From this information, GFDRR and the World Bank are developing risk profiles for non-technical audiences to support countries in better understanding their disaster risk.

In the Africa region, GFDRR is facilitating access to new risk information and providing technical assistance to countries in the Southwest Indian Ocean Islands, with plans to scale up this leadership to other regions. The data from this initiative will be stored on an open data platform supported by OpenDRI.

Additionally, GFDRR supported a school safety project in Armenia by working with partners to identify an Armenian expatriate engineer, who specialized in seismic risk. The project leveraged the engineer's expertise and knowledge of local languages and cultures to train local engineers.

More info at [www.gfdrr.org/area/Pillar1](http://www.gfdrr.org/area/Pillar1)



**GFDRR**  
Global Facility for Disaster Reduction and Recovery

[www.gfdrr.org/innovation-lab](http://www.gfdrr.org/innovation-lab)