

# Executive summary

As climate change continues to alter natural hazard patterns, ensuring infrastructure resilience to natural disasters emerges as a global priority. This requires strengthening the prevention, reaction and rebuilding capacities of governments, the private sector and civil society. In such an endeavour, technology, collaboration and data emerge as linchpins, as they determine the quality of prevention, reaction and rebuilding efforts. In turn, adequate financing and investment, technical expertise and regulatory frameworks shape the effectiveness of preparedness and responses.

Based on concrete infrastructure projects in Colombia, Ghana, India, Indonesia, Japan, Mozambique and the United States, this compendium identifies seven global practices with universal relevance to make infrastructure resilient to natural disasters:

- Adopt a life-cycle approach and factor in resilience throughout the entire lifespan of projects, from planning and design to operation and maintenance.
- Align interests through effective collaboration among stakeholders to ensure collective action towards resilience goals.
- Conduct comprehensive risk assessments to identify vulnerabilities and develop robust mitigation strategies.
- Measure impacts to understand the consequences of natural disasters and guide informed decision making.
- Invest in capacity building and knowledge management to empower individuals and organisations with the skills and information needed to plan, implement and operate resilient infrastructure.
- Carry out strategic preventive maintenance to increase the lifespan of infrastructure assets and ensure resilience.
- Deploy cutting-edge technology and foster innovation in design to enhance infrastructure resilience and adaptability to changing environmental conditions.

For each good practice, the compendium presents concrete implementation guidance, taking into account the specific challenges of developing countries, which are disproportionately affected by the heightened risks of climate change and natural disasters. Small Island Developing States (SIDS) and least developed countries (LDCs) are among the most vulnerable due to their geolocation, economic structures, poor infrastructure, limited financial capacities and a general lack of technical skills and access to early warning systems. Increased international partnerships and enhanced support from development banks – through financing, risk assessment and project preparation – are thus necessary to support infrastructure resilience in developing countries and enable them to implement global good practices.



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