Japan’s historical experience, can serve as a lesson for the rest of the world. The global cost of natural disasters in 2011 has been estimated at $380 billion—resources that could have been used in productive activities to boost economies, reduce poverty, and raise the quality of life and environs of developing countries. These efforts don’t stop tragedy from occurring. Despite their extensive preparations, Japan’s government could not foresee an event of this magnitude and complexity. The GEJE event was the most powerful earthquake ever to hit Japan and the most destructive tsunami in world history—Japan’s Cabinet Office has estimated the direct economic cost at ¥16.9 trillion (US$210 billion). Particularly catastrophic were the effects of the accident at the Fukushima Daiichi nuclear power plant, which compromised Japan’s energy supply, imperiled its environment, and threatened its international reputation. The shock to major Japanese industries reverberated through supply chains around the world. But without a culture of preparedness and key investments in risk management, the effects of this disaster might have been much worse.

Japan experienced nearly 2,000 years of coping with natural risks and hazards. These life-saving responses were part of a DRM system, which alerted 270 railway lines and the majority of people in affected regions evacuated in an orderly fashion. In less than a week after the disaster, access to most cities and ports was restored and evacuation drills are systematically practiced across the entire country. Sound policies and regulations, investment in structural measures (such as reinforced buildings and seawalls), effective legislation, and stakeholder involvement are key drivers of this success. As Japan has shown, far greater if Japan’s policies were not based on continuous learning.

In an unexpected sort of way, the GEJE event was the most important as the global economy becomes more interconnected, as environmental conditions shift, and as population densities rise in urban areas around the world. As the GEJE showed, proactive approaches to risk management can reduce the loss of human life and avoid economic and financial setbacks. To be maximally effective, and to contribute to stability and growth over the long term, the management of risks from natural disasters should be mainstreamed into all aspects of development planning in all sectors of the economy and be informed by local experience, context, and risks. In an unexpected sort of way, learning from the past can inspire innovation.
In collaboration with MIT

Learning from crises

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Tohoku, Japan

The disaster-prone country has used historical lessons to improve its policies, laws, regulations, investment patterns, and decision-making processes, as well as community and individual responses.

20,000

people died or missing after the Great East Japan earthquake occurred in the Pacific Ocean off the coast of Japan’s Tohoku region.

Tohoku region

Area: 25,826.20 sq mi
Population: 9,335,636
Density: 360/sq mi

Sources:
1. Kazujoshi Nomachi, 2011
2. Government of Japan
3. F. Ranghieri and M. Ishiwatari, World Bank, 2014
4. Google Maps