

Data that can save lives

Since 1970, more than two million people have been killed by natural disasters in the 'Ring of Fire' region around the Pacific Ocean, an average of 43,000 a year, as per the United Nations (UN). In 2004, the Indian Ocean tsunami struck 14 countries, and killed more than 18,000 people in India.

There is a way to dramatically cut down on the number of people impacted by such disasters, and that is by using data. If we are to save lives and prevent damage to economies, it is critical to identify the most vulnerable populations. Data on these communities can be used to pursue 'risk-informed development'. For instance, road infrastructure can be built by calculating the intensity of floods and determining the types of materials needed to construct durable roads. India recently embarked on an initiative to establish a comprehensive disaster database system. Now, the United Nations Development Programme (UNDP), working with partners, has established National Disaster Loss and Damage databases in 16 countries.

Data also help identify the gaps and makes recommendations on where to allocate resources to mitigate risks from disasters. For example, flood-resistant roads can only be constructed if governments consider and review data about flood risks. With such information, they can allocate appropriate funds for better road construction.

Institution to study risks

To further advance resilience in the region, in 2015, the UNDP partnered with the Tohoku University and Fujitsu to create a Global Centre for Disaster Statistics (GCDS).

The aim is to gather and crunch 'big data' to meet the ambitious targets of the Sendai Framework to reduce the risks from disasters. Fujitsu's cloud-based ecosystem captures data from a variety of sources, including unstructured sources like social media, high-resolution satellite imagery and drones. Specialised technical institutions like the Tohoku University can crunch and analyse these data sets to provide insights for policymakers about the impacts of disasters. This includes helping to monitor recovery, focussing on early warning, and assessing resilience.

Big data also provides a deeper understanding about how an economy is interconnected: how devastation of a rice crop by a disaster can trigger a chain impact across several industries and services, such as transportation, rice-trading, packaging and retail. With such valuable information, governments can anticipate disasters and reduce risks through preventive measures such as early warning systems, safety drills, and resilient infrastructure. Of course, the data that matters the most is the number of lives saved.

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This refers to the tendency to form friendships and other forms of interpersonal relationships with people we come across often in our daily lives.

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