Rethinking Disaster Management

(This editorial is based on the article "Rethinking Disaster Management" which appears in The Hindu.)

Disaster management broadly encompasses the management (i.e of prevention, relief, rebuilding etc.) before, during and after a disaster, either man-made or natural. Of the two, natural disasters are generally more devastating and reoccurring.

The scale of damage from any natural disaster can never really be measured because of the long-term ecological and psychological effects. For example, post-flood effects include the spread of diseases, such as cholera, malaria, and leptospirosis (swamp fever), and may impact flood-hit communities for years to come.

Weather-related disasters are being affected by climate change that is caused by humans. The devastation is worsened by the collective failure of governments and businesses to invest in building resilience despite all the evidence on runaway climate change.

India faces numerous such perils and needs to be better prepared. In 2017, Swiss Re (Swiss Reinsurance Company Ltd) counted 183 natural catastrophes and 118 man-made disasters across the globe.

India alone is projected to have seven megacities —defined by a population of more than 10 million—by 2030, according to the World Economic Forum. The confluence of climate change, natural disasters, and human density could lead to more Kerala-like disasters. The task before the government is, therefore, to move from a reactive stance to a proactive one, by preparing for such natural disasters ahead of their occurrence.

Challenges to Disaster Management

- **India is the 10th most disaster-prone country in the world** with 27 out of 29 States and all of the seven Union Territories being most vulnerable.

- **About 60% of the landmass is prone to earthquakes of various intensities, over 40 million hectares is prone to floods, about 8% of the total area is prone to cyclones, and 68% of the area is susceptible to drought.**
- An absence of an institutional framework at the Center/State/District level, poor intersectoral coordination, lack of an early warning system, slow response from relief agencies, lack of trained/dedicated search and rescue teams, and poor community empowerment are the standard challenges.
- **Standard Operating Procedures (SOP) are virtually non-existent** and even where such SOPs exists, the authorities concerned are unfamiliar with it.
- The States also suffers from inadequate coordination among various government departments and other stakeholders.

What is Disaster Risk Insurance?

- Disaster risk insurance is one of the financial tools available as a mitigation measure.
- It triggers a pay-out by the insurer when a disaster occurs, e.g. when a tsunami hits or rainfall falls below a certain threshold.
- At its most basic level, insurance commits an individual or entity to pay a fixed amount at regular intervals (premium) into a common fund (the scheme), from which money is retrieved (pay-out) to compensate for losses arising from a predefined event (coverage).
- **Disaster risk insurance covers hazards arising from geological, meteorological, hydrological, climatological, oceanic, biological, and technological/man-made events, or a combination of them.**
- Natural hazards include earthquakes, floods, storms, tsunamis, droughts, and freezes.
- Man-made hazards can also be insured against, including air/water/soil pollution, nuclear radiation, toxic waste, dam failures, transport accidents, factory explosions, fires, and chemical.

Stakeholders in Disaster Risk Insurance

- **Beneficiaries/insured entity/party:** Individuals, households or companies receive the insurance payout after the occurrence of a certain disaster event.
- **Government/regulators:** Other than being the insurer of last resort, governments can promote (and incentivize) public and private insurance schemes. They are also responsible for providing the legal framework and oversight over the insurance industry.
- **Insurance/reinsurance industry** (e.g. banks, credit unions, development finance institutions): Insurers offer insurance solutions to the consumer market while the reinsurers (e.g. Re-Swiss, Munich Reinsurance Company) offer financial products to the insurers themselves. Reinsurers cover an estimated 55–65% of insured losses in natural catastrophes, while the rest is credited to insurers and the insured, depending

on the insurance policy.
- **Donors/facilitators:** Provide technical assistance and official development assistance to raise awareness for and implement disaster-related insurance schemes.

Pros of Disaster Risk Insurance

- **Insurance provides reliable and timely financial relief for the recovery of livelihoods and reconstruction, providing security in the post-disaster period.** As a result, it can prevent people from falling into poverty and destitution, or provide the liquidity necessary to restore livelihoods.
- **Insurance helps create a space of certainty and stability for the individual, institutions, and government within which investments and planning can be undertaken.** This allows, for example, for climate-resilient investments in climate-sensitive sectors such as tourism and agriculture as well as in job creation and market development. Outreach towards poor and vulnerable communities can also be secured in a relatively short period of time.
- **Technological innovations, such as satellite imaging and mobile phones, have substantially lowered the costs of evaluating claims in remote and poor regions and thus of insurance products.** This has increased substantially the number of people who can be covered under such insurance.
- **Pooling risks over a wide geographical spectrum allow risk diversification:** as a result risk premiums can be reduced considerably, thus ensuring affordability for many countries (like India, for example) that otherwise might not be able to access insurance coverage.
- **The temporary loss of tax revenues and the sudden increase in public expenditures for reconstruction can easily condemn vulnerable countries to a downward fiscal and macroeconomic spiral.** Disaster risk insurance—especially pooled mechanisms—can help countries cope with these macroeconomic shocks.

Cons of Disaster Risk Insurance

- **Insurance can help individuals and countries to recover from disasters and incentivize preparedness, but cannot prevent risks as such nor the loss of lives and assets.**
- On its own, insurance will thus not be sufficient. Insurance schemes need to be complemented with other disaster-risk reduction strategies, such as integrating disaster risks into development planning, a collection of data, setting up early warning systems, awareness raising, contingency planning, etc.
- Disaster risk insurance can be comparatively costly compared with other disaster risk reduction measures.
- In some cases, insurance premiums may be set too high for the poor or the poorest countries. Affordability will be determined by the availability of public incentives or

depend on grants from donors.
- Maintaining the affordability of insurance schemes in light of more frequent and impactful extreme weather events might become unrealistic. For example, traditional insurance schemes might become unsuitable due to sea-level rise and desertification.

Risks associated with Disaster Risk Insurance

- **Access to reliable information:** Risk assessment requires reliable data and institutional risk assessment capabilities, which is still limited in many countries.
- **Accessibility:** It is important that insurance schemes address the needs of all beneficiaries and stakeholders involved so that coverage is maximized.
- **Affordability:** Premiums may not be affordable for low-income households.
- **Financial sustainability of the scheme:** Direct insurance schemes can only be commercially viable if there is a steady stream of premium income at scale to cover future payouts.
- **Un-insurability associated with increasing frequency and magnitude of extreme weather events:** insurers may withdraw from markets as the risks become too high for the pool of premiums available.

Way Forward

- Disaster management approaches require administrative support and medical intervention, apart from psychosocial intervention.
- Improvement in government policy frameworks to better manage risk and mitigate economic and social costs is the foremost necessity. Governments also have to frame good macroeconomic policies before and after disaster shocks.
- We should be able to estimate the probability of such shocks and identify local vulnerabilities and integrate these into plans for contingencies, invest in risk reduction, insurance, self-insurance, and disaster response.
- There must be a provision in the budget for emergency spending that helps in crisis mitigation, resolution and insurance coverage. A low public debt can bolster government spending and increase its flexibility for relief work especially if reconstruction needs arise.
- There should be public investment in risk reduction. Tax and spending policies need to be flexible, to allow rapid redeployment of spending when needed.
- Coordination with foreign partners before disaster strikes could mobilize external assistance for risk reduction, which is likely to earn a higher return than emergency help after the fact.

A proactive stance to reduce the toll of disasters in the country requires a more comprehensive approach that comprises both pre-disaster risk reduction and post-disaster recovery. Such an approach should involve the following set of activities:

- Risk analysis to identify the kinds of risks faced by people and development investments as well as their magnitude;
- Prevention and mitigation to address the structural sources of vulnerability;
- Risk transfer to spread financial risks over time and among different actors;
- Emergency preparedness and response to enhance a country's readiness to cope quickly and effectively with an emergency;
- Post-disaster rehabilitation and reconstruction to support effective recovery and to safeguard against future disasters.

- India needs a strong disaster management agency. Disaster preparedness should be focussed on meeting the immediate contingency, implementing a conceptual, long-term rehabilitation strategy while maintaining an ethnographic understanding. It must be built on anticipatory governance, emphasizing studies that embed foresight and foster citizen awareness.
- The NDRF (National Disaster Relief Force) must fill its vacant specialist positions while being given better control over transfers and deployment of its personnel. Without such reforms, only the Indian Army and paramilitary forces can remain first responders, and States will continue to cry out for relief.
- It is, therefore, time to move on from being focussed only on managing natural disaster emergencies to improving resilience.

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