

DISASTER RISK REDUCTION: NEED FOR COLLECTIVE APPROACH-BASED POLICY MEASURES

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At the beginning of 2024, a massive earthquake struck Japan killing several people and displacing even more. However, the earthquake was only one instance of the various natural disasters experienced the world over in the year gone by, ranging from wildfires in North America to droughts in parts of Europe. Climate change has influenced the intensity and frequency of such disasters – causing immense economic damage. The effect of disasters is further amplified in regions already grappling with prolonged internal and cross-boundary conflicts. The linkage between peace, climate, and conflicts has multiple security implications at the individual and societal levels. These complex vulnerabilities especially in conflict settings, island states, and developing countries demand the adaptation of holistic Disaster Risk Reduction (DRR) strategies, which not only help in mitigating risks but enhance capacities for sustained development in the aftermath. This issue brief discusses the possibility of adopting a collective approach enabled by cooperation at the regional and global level while formulating DRR policies to address the gap between theory and practice.

Over the last decades, the increasing competition for land, water, and food resources has led to an uptick in conflicts and displacement. The incidence of violent conflicts signals weak and dysfunctional policies that have failed to anticipate and manage situations. Further, climate change is seen as a stressor in areas that are already struggling with prolonged conflict. This link between climate change, disasters, and conflicts is evident, for instance in countries across the Lake Chad Basin.

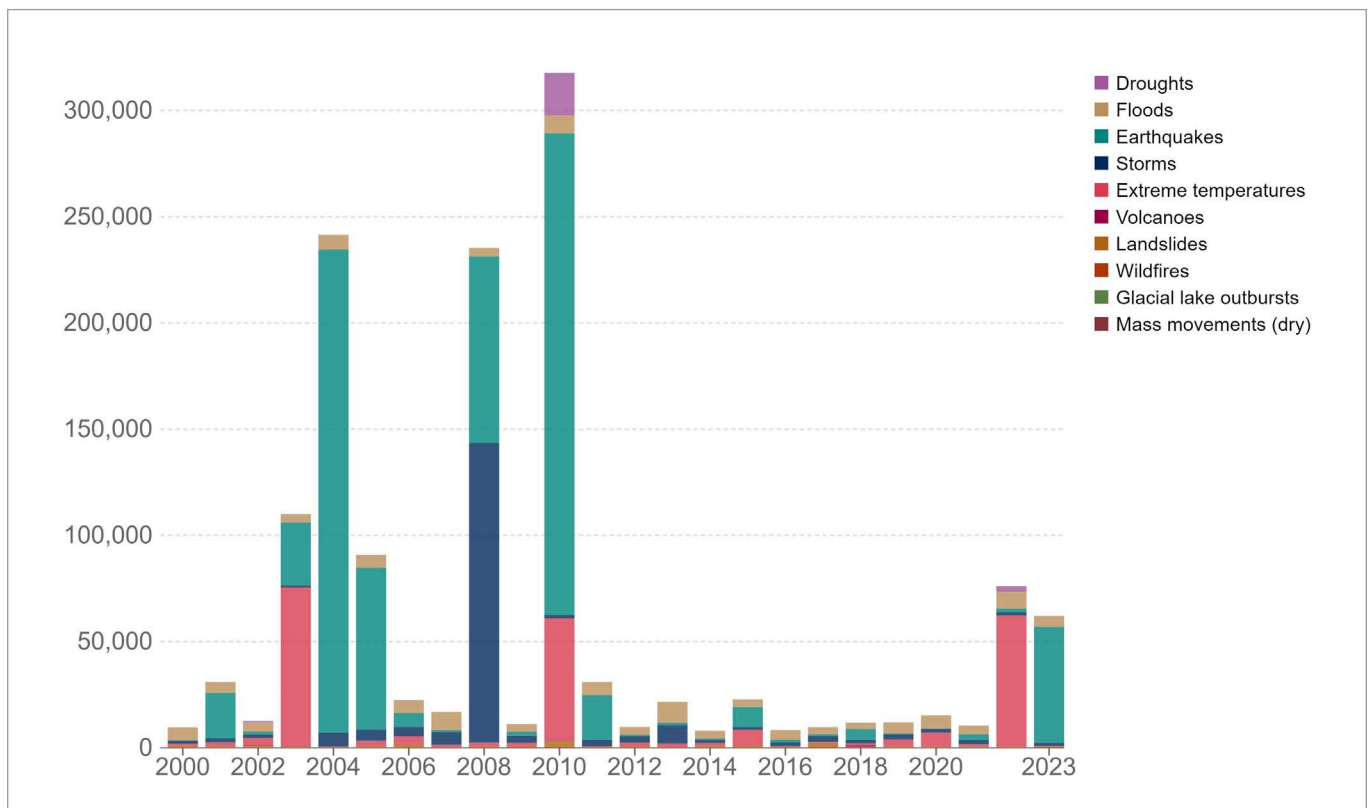
Climate change has exacerbated the conflicts in the basin including Cameroon, Chad, Niger, and Nigeria, displacing three million people.¹ While disasters ignited by climate change pose a security concern due to the threat of conflicts, they also impact human security.² This is mainly due to the undermining of growth and reduction in the coping capacities leading to chronic poverty and complex social vulnerabilities as seen in the Darfur region of Sudan.³ Therefore, the development of

effective Disaster Risk Reduction (DRR) strategies provides an opportunity to reduce the risks of vulnerability and exposure. The collective working of organizations like the United Nations Office for Disaster Risk Reduction (UNDRR), United Nations Development Programme (UNDP), and United Nations Environment Programme (UNEP), thus becomes imperative towards ensuring that strategies identify and understand disaster risks, which in turn helps create awareness among people and for decision-making.⁴

The UNDRR projections suggest that the world is expected to face 560 disasters annually, which could require an estimated 1.6 trillion Euros in DRR strategies to increase the readiness of the countries.⁵ The UNDRR have estimated a budgetary requirement of USD 110 million for the implementation of the Work Programme in the year 2022-2023.⁶ Recognizing the escalated requirements, donors have augmented their

financial contributions raising over USD 60 million to the agency. Although a significant contribution exists from High-Income Countries, additional financing streams are essential to fulfil the present demands. The financial constraints faced by low-income countries affect their ability to adopt effective DRR strategies, making international collaboration imperative as it can bring together scarce resources that otherwise would not be possible. While it is important to focus on developing strategies to reduce the adverse impact of disasters, there is a need for special focus on the Least Developed Countries (LDCs) and Small Island Developing States (SIDS). Their vulnerabilities have become complex because of climate change, conflicting development choices, growing inequalities, poverty, and humanitarian needs. Thus, making it important to address challenges for developing inclusive and equitable strategies required for enhancing the preparedness of countries, especially in the more vulnerable ones.

Figure 1: **Number of deaths from natural disasters, World, 2000 to 2023**



Source: Our World Data⁷

Further, while analyzing the impact of natural disasters, it is seen that earthquakes have resulted in the major cause of death, as depicted in Figure 1. This is evident from the recent earthquake in Afghanistan, where the estimated death toll has crossed 4000.⁸ The existing situation in the economically backward countries of the Global South create considerable obstacles in enhancing disaster preparedness due to constraints in resources, technical expertise and other de facto challenges, including ad hoc functionality and reduced attention on the global stage.⁹ The impact of climate-related disasters has been catastrophic on LDCs, with these countries accounting for 70 percent of the global fatalities in the last 50 years.¹⁰ Their economies have also been subjected to a higher degree of impact as compared to developed countries. Most of the foreign support and aid in these countries during the disasters have been reflexive and spontaneous and the assistance has eventually declined over time.¹¹ The absence of continuous support and assistance for conceiving a strategic disaster management action plan does not receive sufficient attention from donors' perspective.

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The ability to cope with disasters by these economies is further affected by other determinants, particularly variations in weather patterns due to climate change, increased water stress and extreme weather events. Such interlinkages in turn affect food security as events such as floods, droughts, and rising temperatures cause damages and losses to the agricultural sector, which in turn influence the safety, quality, and quantity of food.¹² An important factor within the nexus between DRR, climate change, and food security is the unpredictability of the hydrological cycle, whose two extremes, floods, and droughts, exacerbate the issue by impacting both food and water security. According to the World Bank, water-related disasters have caused 70 percent of total deaths due to natural disasters.¹³ Thus, it is important to understand and mitigate these by adopting DRR measures to improve resilience by taking into account both current and future risks.

The Sendai Framework: A Step Towards Mitigating Disaster Risk?

The Sendai Framework (2015-2030) for Disaster Risk Reduction has been decisive in interlinking global frameworks including the Sustainable Development Goals (SDGs), the Paris Agreement and the Addis Ababa Action Agenda with disaster risk reduction objectives.¹⁴ The framework has been widely regarded as the foundation for implementing inclusive DRR strategies at both national and regional levels, to bridge the deficiencies in disaster management. The framework intends to strengthen international collaboration by providing adequate and resilient support that complements their domestic strategy for implementing the framework by 2030 in the context of the Global South and developing countries. Nevertheless, the mid-term review held in 2023 highlighted disproportionality in the levels of disaster preparedness in some countries where economically weaker factions continue to be more vulnerable to disasters.¹⁵ The review also stressed the influence of climate change on the growing

frequency of disasters and fatalities in countries of the Global South.¹⁶

As of 2021 (latest available), 116 country governments out of 151 were reporting to the Sendai Framework Monitor, regarding the indicators that are part of the framework and SDGs, which indicates a steady rise from 2018 (60) when the reporting began. While the Sendai Framework promotes the sharing of best practices such as early warning systems and disaster data dissemination to enhance disaster management measures, the complexities in practice-sharing systems inhibit the transfer of information to the LDCs.¹⁷ Another concern is regarding the inadequate representation of LDCs and SIDS in climate and disaster reduction-related negotiations globally resulting in strategies that may not be compatible with all the countries.¹⁸ Such instances question the feasibility of having a cooperative mechanism which further highlights the preexisting inequalities within and among the countries.

Hence, addressing inequality becomes a major aspect of the Sendai Framework to achieve its objectives by 2030. The existing challenges that hinder DRR preparedness need to be addressed by ensuring increased involvement of Global South countries in climate and disaster-related decision-making at the global level, including in UNDRR. There is a requirement for increased disaster management cooperation bilaterally and multilaterally to share the best practices for enhancing disaster preparedness. The case of Bangladesh and the Netherlands' cooperation for flood control is an example of economically viable measures being adopted by Low- and Middle-Income countries to safeguard and increase the readiness of their susceptible population.¹⁹ Involving local actors and NGOs in frontline activities will also help these countries create tailor-made preparedness measures that could be quickly enacted.

The Coalition for Disaster Resilient Infrastructure (CDRI) launched by Indian Prime Minister

***“The Sendai Framework (2015-2030) for Disaster Risk Reduction has been decisive in interlinking global frameworks including the Sustainable Development Goals (SDGs), the Paris Agreement and the Addis Ababa Action Agenda with disaster risk reduction objectives. But, while the Framework promotes the sharing of best practices such as early warning systems and disaster data dissemination to enhance disaster management measures, the complexities in practice-sharing systems inhibit the transfer of information to LDCs.*”**

Narendra Modi during the 2019 UN Climate Action Summit is a multilateral cooperation that aims to mitigate disasters by developing disaster-resilient infrastructure that can be adapted.²⁰ Additionally, it advocates research in risk management, funding, and recovery strategies.²¹ Within the CDRI, the Infrastructure for Resilient Island States (IRIS) initiated during COP26 is the first and largest program globally working towards providing technical support for Small Island Developing States (SIDS). It aims to address the complex issues arising due to disasters by overcoming vulnerabilities faced by the infrastructure systems of the SIDS and making them climate resilient.²²

The G20 New Delhi Leader's Declaration proposed accelerating the Early Warning-Early Action (EWEA) system by strengthening national and local capacities along with using alternative financing instruments, private sector investment, and information sharing to minimize and mitigate the impacts of disasters.²³ Accelerating the implementation of the EWEA initiative will ensure universal coverage of raising intimation alarms during a disaster, which was also highlighted during the 28th Conference of the Parties of the UNFCCC (COP 28) held in UAE.²⁴ Improving information sharing and disaster warning can effectively alert the countries in advance, providing adequate time for better preparedness. Further, countries can utilize open-source satellite data from observatory satellites for disaster management activities.²⁵ For instance, data from the Landsat satellite were critical for Pakistan in calculating the intensity of the 2021 floods. The social protection programs encompassing monetary and food needs to be prolonged rather than being considered as just

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an immediate response to the affected population.²⁶ Lastly, the inequalities in the countries of the Global South have been broadly conceived by their fragile economic situation and poverty incline, which needs to be addressed by increasing their income status through multisectoral development.²⁷ While everyone feels the impact of disasters, its effects are disproportionate on a few vulnerable sections, making it necessary to build a system that not only deters disasters but also inequalities.

Furthermore, while international cooperation is required for the effective implementation of DRR strategies, however questions about the compliance and commitments of larger multilateral organizations have led to countries' turning towards minilateral groupings, which are seen as more flexible and exclusive.²⁸ This could help countries adopt a holistic, yet tailor-made approach to address vulnerabilities specific to the geography and disaster events. One of the ways this could be achieved is through the nexus approach which is built by considering the interdependencies of the various determinants.²⁹ Such an approach could also help in improved water and crop management, and increasing efficacy in fisheries – some examples of how the trade-off between the humans and environment could be minimized. This in turn could help in minimizing the negative externalities of climate change on livelihood and food security.

While international frameworks and conventions like the Sendai Framework or Agenda 2030 provide a broader landscape of integrated risk reduction strategies, intersectoral components such as urban settlements, land use, irrigation and watershed management, and financial capacity vary across countries. Thus, there is a need for intersectoral DRR plans at the national and subnational levels since disasters pose threats that cannot be encompassed if strategies are planned in silos or by any one sector. Another advantage of having plans at the lower levels is it helps in identifying and understanding the

threats endemic to a particular area. This enables monitoring of high-priority risks while enabling easier implementation and assigning tasks in case of disasters. However, such micro-level policies should be underpinned and well-coordinated with the national and international architecture for ease of mobilizing human and financial resources in times of distress. For example, in India, although the National Disaster Management Authority (NDMA) is the apex organization in charge of disaster management, it also necessitates the establishment of governing bodies at the state and district levels.³⁰

Conclusion

A multisectoral policy task, disaster risk reduction can be integrated into national development plans, especially in developing countries which face resource constraints. In such cases, DRR awareness can also be used to sensitize policymakers in bringing concrete measures. With the increasing frequency of natural disasters, the magnitude of their socioeconomic impacts is also rising. In such a scenario, it is imperative to focus on the safeguarding and restoration of ecosystems such as wetlands, forests, and mangroves as they hold the potential to enhance overall resilience towards disasters by forming natural barriers. Thus, maintaining and improving their capacity helps in the reduction of direct exposure to hazards while also sustaining the livelihoods of the populations. DRR is a complex task that can be achieved by working in a cooperative approach with local communities, governments, NGOs, and the academic community. This interaction, however, between the multiple stakeholders could help in addressing the existing gaps between research, knowledge, and practice, thereby ensuring the development of a holistic DRR strategy with linkage to climate change and SDGs.

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