



Disaster Risk Management in Pakistan – Challenges and Viable Approaches

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Arguably, disasters pretty much resemble financial crises – both are exogenously driven events spreading shocks across the country of a scale disrupting the long-term economic growth trajectory by stripping away the developmental gains, resulting in the loss of valuable human lives and livelihood losses of a large number of people. Ongoing floods in Pakistan and their devastating effects are a freshly agonizing example we all passing through. As per the reports, one-third of the country is currently inundated due to unprecedented monsoon rains affecting over 33 million people predominantly in Sindh and Baluchistan provinces. Causing the death of nearly 1,500 people and further injuring over twelve thousand. Amongst the most affected population of 5.7 million, almost 546,288 people are reported to be displaced from their homes and are currently in relief camps. Floodwaters and debris flows have also blocked bridges, rail networks, and roadways, restricting overland travel in and around affected areas, and a large number of schools and other public infrastructure buildings were entirely or partially damaged. The devastation will have far-reaching implications on the lives of affected people over a long period.

This national-level catastrophe has triggered the much-delayed debate in the country on a multitude of disaster hazards and risks the country is exposed to and how such risks are likely to exacerbate in the coming years and decades. Coupled with question marks on the capacity of our national institutions towards preparedness, risk reduction, and risk management facing disasters of such a scale and magnitude with increasing frequency.

Climate change is now beyond any doubt causing irreversible changes around the world with serious and

largely adverse impacts on people, sectors of the economy, and natural systems. The science is now certain that increasing concentrations of harmful gasses (greenhouse gasses) into the atmosphere has fractured the natural systems to such a magnitude with inevitable consequences of climatic changes unless transformative changes involving low

carbon emissions pathways are made. Even then societies shall have to adapt and economic systems to be appropriately re-engineered to diminish the impacts. Given the inherent limitations for required transformations in the shortest available time, increasing the intensity and frequency of climate-induced disasters is now nothing but inevitable.

This rather bleak and dismal scenario has fittingly centralized the debate on predicted climate-related risks with a particular focus on managing climate-induced disaster risks for societies, economies, and businesses. Risk management in this context has acquired a redefined perspective. It refers to the design and application of policies and strategies to reduce existing risks, prevent new and emerging risks and manage residual risks with the long-term and presumably durable aim of strengthening resilience against disaster risks.



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Pakistan is one of the top ten climatically vulnerable or at-risk countries of the world a position consistently sustained for over ten years now. Our geographical location and unique atmospheric conditions while endowing us with an abundant natural resource base but also exposes us to onset climate-related extreme scenarios. From a climatology point of view, Pakistan lies in a temperate zone and its climate variability of extreme weather conditions is erratically emerging. Consequently, Pakistan continues to face one disaster after the other increasing the inherent hazards and associated risks. It desperately demands for comprehensive disaster risk reduction and risk management policies, strategies, and appropriately designed and capacitated national institutions.

It is commonly and justifiably understood that risk identification is the first priority of the disaster risk reduction approach. The Sendai Framework for Disaster Risk Reduction (2015-2030), notes that “Hazard identification, the analysis of exposure and vulnerability and the subsequent identification of risk is the cornerstone of understanding disaster risk and forms the basis for effective risk-based planning”. It fundamentally implies having a clear line of sight from the identified vulnerabilities to the risks and specifically designed plans to mitigate the risks. It goes on to prescribe necessary safeguards in place to manage the risks which are clearly not mitigated in the context of climatic and other exogenous factors beyond our control to reduce adversarial impacts to the extent possible.

Against this backdrop, a comprehensive disaster risk management (DRM) strategy for a country like Pakistan must include both disaster risk reduction plan through investments in mitigation and prevention measures – an area where National Disaster Risk Management Fund (NDRMF), as a federal government Fund, is already heavily engaged through its multiple disaster risk reduction interventions across Pakistan. Typical interventions of NDRMF include flood protection and control measures,

strengthening of early warning systems, and rescue services, and ensuring disaster-resistant public infrastructure. While these interventions have contributed effectively and positively to managing and mitigating disaster risks but it is also well understood that with the increasing gravity of disaster risks the scope for such physical measures-focused interventions will remain limited in effectiveness unless complemented by climate adaptation actions and a strategy to reduce the economic and fiscal impacts on public finances as well as for people at large.

In its strategic and operational approach, NDRMF firmly believes that the goal of disaster resilience building remains effectively unachievable unless economic and financial risk management is part and parcel of the overall risk management strategy. This overarching approach is based on the premise that not every natural hazard has to be a disaster and not every disaster must translate into an economic shock of grave intensity.

This demands both disaster risk management and disaster risk financing approaches to be complementary and synchronized in a manner to both minimize the risks of physical damages to public and private properties and assets and reduce financial and economic shocks. A well-designed disaster risk financing strategy is aimed to be

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functional before disaster strikes, integrated into the public finance systems, and combine risk retention and transfer instruments in the context of the prevailing legal and policy frameworks.

In the context of Pakistan, a disaster risk financing strategy must include financing mechanisms, in particular, for critical public infrastructure and economically dominating privately owned assets (such as crops). Currently, the use and integration of such instruments are dismally low resulting in no other option but for the government to come forward with relief and loss and damage support in the aftermath of every natural disaster. An unendurable pressure on public finances.

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A disaster risk financing strategy becomes handy in such scenarios. A diversified disaster financing strategy may include a range of approaches and instruments, such as building fiscal buffer zones, innovative financing, and insurance approaches. Government can transfer some of its natural disaster risks through traditional and/or parametric insurance ensuring that there is adequate coverage to mitigate risks of damage to critical public assets as determined by disaster risk assessments. It may sound disbelief that insurance as an instrument for risk mitigation and risk transfer stands at less than 1% of penetration in Pakistan. Crop insurance where it can be most effective given the exposure of the agriculture sector to the impacts of climate change and affiliated disasters has also not been successful due to inherent structural and other challenges. Similarly, insurance for public infrastructure

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NDRMF is one of the key national-level organizations, mandated to work on disaster risk financing with an objective to sustainably reduce the financial impact of disasters on public finances and the development budget. For this purpose, an integrated and holistic approach is being followed whereby preparing and managing disasters without compromising development progress, fiscal stability, and wellbeing. To successfully achieve this objective, several activities/interventions have been initiated.

The first and foremost initiative is the establishment of a DRF Synergy Group (DRF-SG), to ensure a greater synergy amongst the various key stakeholders working on DRF, as well as guide the strategy and product development processes. Second, NDRMF has prepared a draft of the first-ever National DRF Strategy identifying appropriate tools for each layer of disaster risk. These tools are based on multi-hazard loss curves and take into account the scale of funding required for each layer of risk, the speed with which disbursement of funding is required, and the relative cost-effectiveness of alternative instruments for specific layers of loss. Third, NDRMF in collaboration with Space & Upper Atmosphere Research Commission (SUPARCO) is developing a National Catastrophic (NatCat) model for Pakistan, which is expected to provide quantitative information on the expected levels of loss for hazard events of varying types, intensities, and return periods. The model will ultimately bridge the gap between the insurance industry and the disaster management authorities and provide the basis for developing and implementing a National DRF strategy for Pakistan and pricing DRF solutions.

It is believed that the goal of resilience building against disasters for Pakistan cannot be achieved without a comprehensive strategy including risk reduction by significantly scaling up investments in mitigation and preparedness. But it must also include innovative instruments for disaster and loss financing.

About the Author: Mr. Bilal Anwar is an International Climate Policy and Sustainable Development Professional with over two decades of diverse experience in the field of climate change. Since 17 January 2021, Mr. Anwar has been appointed as the CEO of the National Disaster Risk Management Fund (NDRMF). His core areas of technical expertise are climate action, climate finance, and disaster risk management. He has worked extensively on the operationalization of Climate Investment and Disaster Management Funds for Pakistan as well as internationally. He holds extensive management expertise in Climate Change and Carbon strategies in the corporate sector and program and operational management for donor-funded based projects in several countries. His earlier experiences include as General Manager of the Commonwealth Climate Finance Access Hub, Port Louis, Republic of Mauritius, successfully rolling out the technical support and climate finance mobilization programs of worth USD 700 million in 15 countries. Also set up of international carbon regime of CDM in the United Nations Climate Change Secretariat, in Bonn, Germany and served in the private sector in UK and USA.