



Proposing a Universal Framework for Resilience: Optimizing Risk and Combating Human Vulnerabilities

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In the recent years we have seen a massive impact of loss created to urban settlements and critical infrastructure as a result of disasters. The disaster risk associates itself vulnerabilities and many complexities which can disrupt the functioning of human society. The uncertain loss created by disasters can present unforeseeable risk which remain unaccounted to human understanding. It is imperative to note that human urbanization and development is correlated with human vulnerabilities and challenges posed by disasters. Disaster risks are aggravated by improper planning of cities, weak framework for urban governance and regulatory regimes and lack of equalities amongst the citizens. The international agenda on disaster risk reduction talks about increasing losses due to disasters associated with development and urbanization. The United Nations announced that the year 1990 was the International Decade for Natural Disaster Reduction. In relation to this, the “Yokohama Strategy and Plan of Action” was adopted at the first United Nations World Conference on Disaster Reduction. The United Nations Educational, Scientific and Cultural Organization’s (UNESCO) Intergovernmental Oceanic Commission coordinated the World Conference on Disaster Reduction in 2005 where the Hyogo Framework for Action was adopted.

The Hyogo Framework for Action: Building the resilience of communities to disaster was adopted by 168 nations after the massive loss caused by Indian ocean tsunami in 2005. The Hyogo Framework proposes to focus on implementation of risk and reliability system to shield disasters, proposes global scientific and community platform for disaster prevention and mitigation etc. The early warning system and its importance as an effective tool for reduction of human vulnerabilities for disaster management was majorly emphasized. It is imperative to highlight that resilience framework is important in order to minimize cost of disruption caused to critical infrastructure and to strengthen and optimize the decision making skill and platform for a better sustainable society. The resilience framework provides a cross-sector and multi-level analysis to tackle the vulnerabilities which can be caused to essential utilities like power, water, transport and various machineries that are essential for human sustainability. The direction of resilience framework focuses on prevention of damage and disruption of disaster, mitigate the loss caused to human society and provide the best response for disaster resilience. Thus, the basic pillars which are important for the implementation of resilience is proper governance framework and transparency which takes into account various cost and risk analysis. Thus a common and universal framework for resilience is the main requirement for mass accessibility. The aim of resilience framework focuses on universal adaptability, coherence and validation. A mixed method analysis has been undertaken in this research paper which focuses on the following issues:

- Legal, Institutional and community framework for integrating resilience framework of global north and global south.
- Spatial as well as statistical analysis to structuralize disaster risk and resilient framework for disaster management.
- Early warning system and emergency response in a comparative scale to analyse the various models of risk and resilience framework implemented in USA, China, Nepal and India for proposing an integrated resilience strategy.