

Urban disaster risk-reduction: Serious challenge for Kathmandu



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Disaster risk has become a serious problem in urban areas. Poorly planned urban development is a prime cause of increased risk from a disaster management point of view. In today's world, weak urban governance is seen as one of the factors that increases disaster risk. Old, weak and flimsy physical infrastructures and gaps in basic services create hazardous environments in most disorganized urban settlements. Rapid urban growth has increased strain on the urban environment, ultimately increasing the disaster risk. Kathmandu is not immune from such risk and is considered one of the most vulnerable cities in the world. The need for maintenance and upkeep of Kathmandu is crucial for the safety of its citizens, considering 90 per cent of the buildings are constructed without proper engineering considerations.

The Hyogo Framework for Action is a key guideline for disaster risk reduction. It specifies that "disaster risk is compounded by increasing vulnerabilities related to various elements including unplanned urbanization " and outlines five priorities for action. Priority 4 lists key activities to reduce underlying risk factors and urban risk exposure. It is a crucial area to focus on in order to successfully implement the Hyogo Framework for Action in Nepal. Based on this framework and Nepal's National Strategy for Disaster Risk Management, the Nepal Disaster Risk Reduction Consortium (NRRC) was established. Its Secretariat, at UNDP Kathmandu, is coordinating efforts with different stakeholders in partnership with the Government of Nepal and has identified five flagship priorities for sustainable disaster risk management. This has provided an excellent opportunity to create a disaster resilient urban society in Nepal.

Urban hazards vary considerably compared to rural hazards. They are not only represented by one-off events, like earthquakes or floods, and can be more complex due to abstractions in accessing basic services or public health services.

Many cities in underdeveloped countries suffer from poor critical infrastructures. Consequences of this were revealed in several recent disasters including the 2005 earthquake in northern Pakistan, the 2008 China earthquake, and the 2010 earthquake in Haiti. Kathmandu also has poor infrastructure with specific problems in the supply of water and electricity, including problems with sanitation and drainage systems. Experts have identified urbanization itself, in most cases, has proved detrimental to the local and regional environment. Ecologically fragile areas now have been swallowed by expanding cities resulting in the loss of biodiversity and disrupted balance of eco-systems. In addition to this, ground subsidence, underground excavations, surface and ground water contamination, and water table reduction are some of the products of urbanization. In Kathmandu the subsidence rate is very high due to over exploitation of underground water. This process will certainly would create problems in the future inviting further risk of disaster.

Disaster Risk Reduction (DRR) in Kathmandu is a priority. Some measures have been initiated, however, no serious steps have been implemented to reduce the risk of possible destruction as experienced in previous disasters. Kathmandu city itself is a cultural heritage site mixed with local residential areas that make up a large population. Buildings are old and weak and there are not many open spaces. Most houses require retrofitting or reconstruction. Roads are limited and very narrow. In the case of a mega level disaster, the expected destruction is very high and it will be extremely difficult to mobilize outside help for rescue operations.

Overall, urban areas inside the Kathmandu Valley are densely populated. Buildings are either close or attached to one another. Property divisions within families have created an environment in which structural aspects of engineering have been compromised. It is an ill managed city which is vulnerable not only to earthquakes but also fire hazards. Available resources have limited access to the city for crisis response. Therefore, immediate steps are necessary to protect the people and infrastructure in the metropolitan area.

The bottom line is urban risk reduction in Kathmandu needs a balanced mix of policy implementation, regulatory measures, and education-awareness programs through community based approaches. For effective urban risk reduction, there is a need to strike a balance between natural and built environments and between ecological and economic objectives. There is a need to develop a structure of set procedures to achieve urban risk reduction in order to identify actions that need to be taken. Collaborative efforts between all stakeholders for an integrated approach to DRR must be encouraged. There is an urgent need to enact proposed bills for comprehensive disaster risk management by the government who must deem it a national priority. Implementation of new policies will enable the mobilization of all available resources in a comprehensive manner. This will act as a milestone to encourage

all stakeholders to combat such disasters.

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