



## **URBAN RISKS**

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Rapid urbanization has been one of the most prominent features worldwide in the post- Industrial Revolution era. From 739 million people living in the urban areas in 1950 in the world, in 2008, for the first time in history, half of the world's population, or 3.3 billion people, lived in urban areas<sup>1, 2</sup>.

The rapid and often unplanned expansion of cities is exposing more people and economic assets to the risk of disasters and the effects of climate change. For city governments, increased climate variability imposes additional challenges to effective urban management and the delivery of key services, while for residents it increasingly affects their lives and livelihoods due to more frequent floods, landslides, heat waves, droughts, and fires<sup>3</sup>. The largely unplanned expansion of cities to accommodate rapid population growth, combined with inappropriate land-use planning and the failure of urban authorities to regulate building standards, contribute to the vulnerability of urban populations. In addition, inadequate living conditions of poor populations –including poor health, inadequate nutrition, poverty, illiteracy, and deficient or non-existent sanitation –constitute a permanent threat to their physical and psychological security and create “everyday risks” which cause small-scale disasters on an ongoing basis. Disaster risks from extreme natural hazards are compounded by these everyday risks, resulting in a process of “risk accumulation” specific to urban areas, where risk is amplified by human activities. Urbanization, therefore, often increases the exposure of people and economic assets to hazards and creates new patterns of risk, making the management of disasters in urban areas particularly complex<sup>1</sup>.

With disaster becoming a recurring feature, it has become increasingly important to modify the Urban built environment that are both socially acceptable and economically viable as well as environmentally sustainable pose an immense challenge for all<sup>4</sup>. There is an urgent need for radically new approaches to space formation and transformation and ways of working and creative engaging with design in order to respond to rapidly growing urban populations.

## **Urbanization and disaster risk<sup>5</sup>**

Vulnerability is not the same as lack of income but lack of income may also mean lack of access to safe housing with good provision for water and sanitation, healthcare, education and capacity to recover. And this, of course, is what increases risks for vulnerable groups. In cities where a high proportion of the population lives in poverty, under-5 mortality rates can be 15 to 20 times what they should be. Again, it has to be stressed that vulnerable groups are not at risk if the hazards to which they are vulnerable are removed. Women are often the mainstays of community organization and collective action reducing disaster risk, and the young can be resilient to disasters with proper support.

It is common that between one-third and one-half of the population of cities in low and middle-income nations live in informal settlements. And this is not just the case in cities with little economic success – around half the population of Mumbai and Nairobi, both of which are successful economically, lives in informal settlements. It is also common in such cities for the local authorities and utilities to refuse to extend to informal settlements (or to be prevented from doing so by law or regulation) all the infrastructure and services that do so much to reduce disaster risk. There are no statistics on the proportion of the urban population covered by good-quality fire services or rapid response to serious injuries or illnesses (including ambulances and hospitals able to provide rapid treatment), but the inadequacy or complete absence of such services is evident in many informal settlements. Only 1 per cent of households and businesses in low-income countries and 3 per cent in middle-income countries have catastrophe insurance, compared to 30 per cent in high-income nations.

## **Challenges of Urban Risks<sup>3</sup>**

City management is often reactive to disasters, with little consideration given to reducing or managing risk in a comprehensive, preventive manner. In spite of the potential impacts that disasters have on the financial resources of city governments and the functionality of the city, the management of disaster risk remains ex-post, with little attention to preventing or mitigating measures. Although some emergency and disaster response capability may exist, few cities in the developing

world are truly prepared to manage disasters, in part due to the day- to-day challenges that most city governments face.

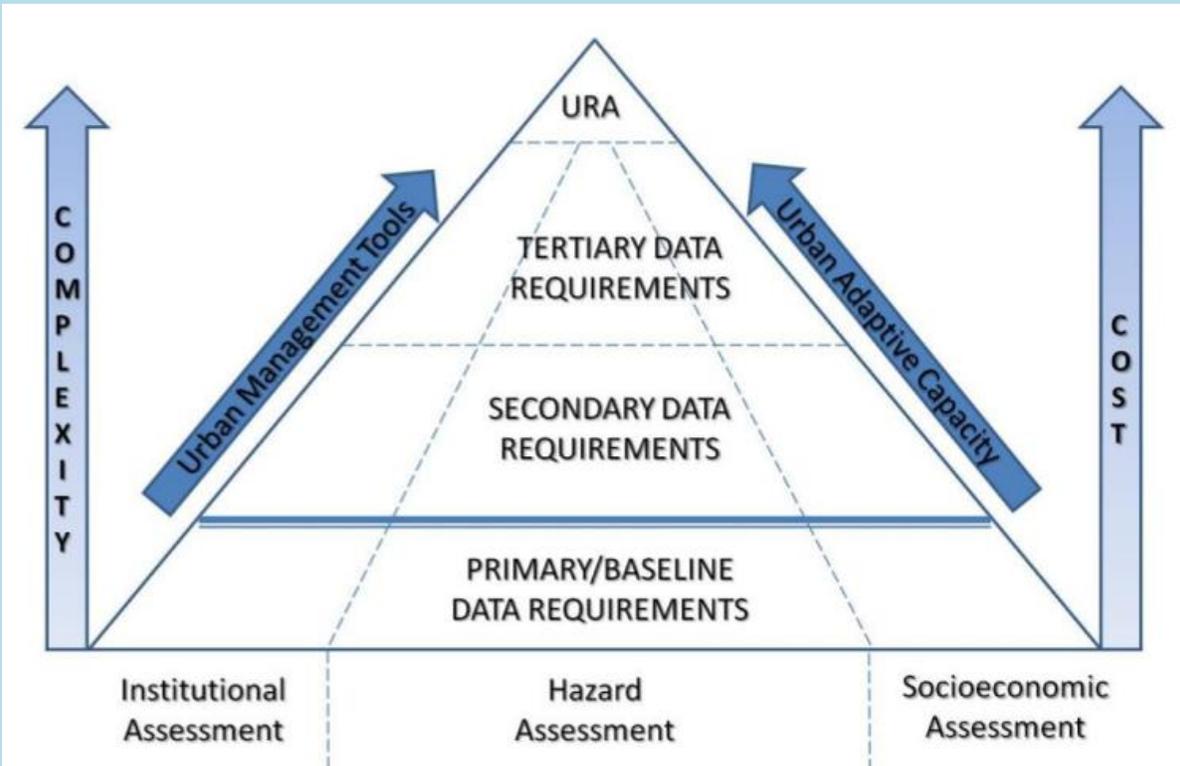
Cities can plan and respond better if the location and nature of risk is known, and also if risk assessment and management is mainstreamed in urban development and management programs. Even if strategies exist, city management faces challenges in developing, implementing, and maintaining risk management as a result of:

- Limited understanding of climate risks
- Limited institutional capacity and financial resources
- Absence of standard protocols for managing disaster risk and adapting to climate change

### **Urban Risk Assessment<sup>6</sup>**

The assessment is based upon three principal assessment pillars (institutional, hazard, and socioeconomic) to improve the understanding of urban risk at three levels of assessment complexity (primary, secondary, tertiary). The framework is designed to allow for flexibility in how it is applied dependent on available resources, institutional capacity, available information and time. Through a phased approach where each assessment level is linked to progressively more complex and detailed tasks requiring higher levels of investment, city managers may select the appropriate series of components from each pillar that individually and collectively enhance the understanding of urban risk.

Each city is unique and will have different priorities in regards to increasing resilience to natural hazards and climate change. Larger urban conurbations will likely require specific local efforts to given that the quality and availability of data will vary by individual local governments. The pillar/level framework permits for a consistent approach that can be applied in a variety of cities facing different risks.



**Urban Risk Assessment Framework**

## **Urban Risk Management<sup>1</sup>**

### **Risk identification and communication**

Municipal administrations cannot effectively manage disasters if they lack an institutional understanding of the potential impact of hazards that threaten the local population, infrastructure and economy.

### **Municipal disaster management**

The goal of disaster management is to provide appropriate response and recovery efforts following a disaster. This implies that local institutions, including involved municipalities, have adequate organizational capacities, as well as capacity and plans in place to address the consequences of disasters.

## **Institutional and legislative system support**

Adequate governance is fundamental for the sustainability of urban risk management and risk reduction. Institutional and legislative systems at the municipal level must 'own' the disaster reduction process. Local authorities should allocate sufficient financial resources to ensure that risk reduction programmes are implemented, and ensure that there is adequate capacity to monitor compliance with comprehensive rules and regulations.

## **Awareness-building for public officials, construction experts and communities**

Urban DRR is a relatively new concept that requires further promotion as knowledge about DRR in cities remains low among many national and city governments and with donors and multilateral financial institutions.

## **References**

<sup>1</sup><http://www.undp.org/content/dam/undp/library/crisis%20prevention/disaster/6Disaster%20Risk%20Reduction%20-%20Urban%20Risk%20Management.pdf>

<sup>2</sup> <http://nidm.gov.in/PDF/modules/urban.pdf>

<sup>3</sup><http://ecapra.org/sites/default/files/documents/Urban%20Risk%20Assessments.pdf>

<sup>4</sup> [http://www.saarc-sadkn.org/theme\\_env\\_urban.aspx](http://www.saarc-sadkn.org/theme_env_urban.aspx)

<sup>5</sup> <https://www.ifrc.org/Global/Publications/disasters/WDR/WDR2010-full.pdf>

<sup>6</sup><http://web.mit.edu/jcarmin/Public/For%20Nina/Dickson-Understanding%20Urban%20Risk.pdf>