Cities are growing more and more vulnerable

Rapid urbanisation, the weight of accumulated failures in urban development and ineffectiveness in urban governance have placed growing numbers of people in cities at risk, writes ***Mark Pelling****, a Senior Lecturer in the Department of Geography at King's College, London, who edited the UNDP's disaster risk index.*

These risk factors are a product of global as well as national economic and political processes. In the 1980s Amartya Sen argued that cities offered refuge from drought and famine. In the early 21st century cities are better portrayed as hotspots of risk.

When disaster strikes it can undo the development gains of households and cities exacerbating poverty and inequality. Ms. Norma Chavez from San Salvador who lost her house to an earthquake, put it this way:

"To think I have worked so much and so hard, and we have never been able to leave poverty. But this is like taking a big leap backward. We are going from poverty to misery… but we have to keep up the struggle."

Urban risk has for too long been a marginal policy concern. Rapid urbanisation makes this position untenable. More and more of humanity, and the majority of the physical assets that drive development, are located in cities at risk. This urban shift is demonstrated by UN-HABITAT's observation that between 2000-2010 for the first time in our history more people will live in urban than in rural settlements.

But urban population growth is not evenly distributed. By 2030, UN-HABITAT estimate that 27 countries will account for 75 per cent of the World's urban population – with all but seven in less developed countries. Most urban citizens live in settlements of 500,000 people or less with limited capacity to respond to disaster risk.

Larger cities – especially mega-cities with more than 10 million inhabitants like Manila, Shanghai, Dhaka, Karachi, Tokyo or Los Angeles – have more resources but depend on complex life support systems which can lead to small events triggering large scale disasters of potentially global significance.

Economic poverty and inequality are arguably the greatest immediate causes of vulnerability. Poverty limits choices for those at risk and in cities with limited finances. Worldwide, an estimated 1 billion people live in slums, according to UN-HABITAT. In many cities more than half the population lives in slums. This is the case in Kolkata, India, where 66 per cent of the city's 4.5 million inhabitants live in slums and squatter settlements at risk to flooding and cyclones.

Urbanisation modifies the hazard environment and creates vulnerability. Uncontrolled air pollution can reach disastrous levels with children most at risk. In coastal cities, the destruction of mangroves or draining of salt marshes takes away a protective barrier between the city and the sea, generating hazard. As cities grow in population and wealth, increased consumption is a motor for climate change compounding global and local insecurity.

Unregulated development deepens urban risk. Many of those who perished in Turkey's Marmara earthquake, in 1999, for example, were middle-income families living in *gececondos*, the high-rise flats built without regard to construction standards.

Elsewhere, the close proximity of residential, industrial and transport land-uses can generate a cocktail of hazards. Reconstruction can be an opportunity to amend the planning failures that led to disaster. But, too often reconstruction leads

either to the displacement of low-income families for urban development, or a simple return to pre-disaster conditions so that risk is built into the city once again.

Insecure land tenure compounds vulnerability, acting as a disincentive for families and city authorities to invest in basic services and secure construction. People living in informal settlements and those in rental accommodation are among those most at risk.

Acess to clean water and sanitation is a basic need that around a quarter of urban households are denied. This undermines heath and generates vulnerability. In inner-city and peripheral communities, overcrowding increases fire risk and makes the job of the emergency services more difficult. Following the Kobe earthquake in Japan new spaces were planned to provide access and refuge during an earthquake.

Disaster risk is possibly the greatest threat to urban sustainability we face today. Given the widespread experience of cities at risk from disaster, it might be tempting to resign ourselves to risk being part of the cost-benefit process of urbanisation.

But disasters, and the vulnerability that underlies them are not inevitable. They are an outcome of choices made locally, in the boardrooms of governments and businesses in the city, and also increasingly at international and national levels.

As the urban expert David Satterthwaite has argued, “An increasingly urbanized world holds the potential to greatly reduce the number of people at risk from disasters. This can only be achieved in well-managed cities which make basic services available to all and respond to needs of vulnerable groups”.