Have We Been Shaken Up Enough?

In the wake of recent earthquakes in the country, **DR. A. S. M. MAKSUD KAMAL** surveys the level of preparedness and what remains to be done.

HALF of the world population already lives in the urban area with the highest urban growth rates in the developing world. By 2050, the urban population of the developing world will be 5.3 billion; Asia alone will host 63 percent of the urban population, or 3.3 billion people. With an urban growth rate of more than 4 percent annually, Dhaka, which already hosts more than 13 million people, is one of the fastest but unplanned growing cities in Southern Asia, and is projected to accommodate more than 20 million by 2025.

Recent earthquakes in India (Bhuj, 2001), Pakistan (2005), China (Sichuan, 2008) and Haiti (2010) imply that earthquake disasters are mostly human-induced due to poor constructions because of unavailability or noncompliance of building code and unplanned urbanisation practices. Moreover, earthquake impact on Gross Domestic Product (GDP) implies that poor nations suffer more than rich nations. For instance, earthquakes of the same magnitude cost the nation's economy in Haiti at least 15 percent of its GDP but less than 1 percent in China. Factors which multiply the earthquake vulnerability of the major cities (Dhaka, Chittagong and Sylhet) of Bangladesh include phenomenal growth of the building stocks after independence, poor construction practices flouting existing building codes, a good number of buildings constructed before introduction of the code in 1993, rapid urbanisation on unsuitable land, high population density and narrow road networks in the cities, poor capacities of the major responding organisations during the period of emergency and little awareness (of what to do) among city dwellers.

Bangladesh can be regarded as a supermarket for natural disasters. Flood, cyclone, storm-surges, river erosion, landslides, drought, earthquake and climate-induced hazards can be noted in this context. Though in the last one hundred years, the country has not been jolted by devastating earthquakes, in the last couple of years, the country experienced very minor to moderately low seismic disturbances more than 130 times. It should be noted that between 2000-2010, earthquakes with magnitude over 4.0 within Bangladesh territory rocked the country eight times. Historical evidence reveals that in the last 250 years, eight big earthquakes occurred with magnitude >7.0 in and around Bangladesh. The Great Indian earthquake of June 12, 1897 (magnitude≈8.3-8.7), whose epicentre was about 230 kilometres away from Dhaka, caused extensive damage in Bangladesh, killing almost 450 people mostly in the north-eastern part of the country. Being located in the seismotectonic command areas of the Himalayan mountainous terrain, the countries stretching across this mountainous belt are a hotbed of seismic activity due to the existence of geological plate boundaries and the corresponding development of active fault zones in the region. It is postulated that around 50 million people are at risk of encountering Himalayan quakes in this area, many of them residing in densely populated cities in Bangladesh, Bhutan, India, Nepal and Pakistan.

Considering the potential threat of the earthquake hazards, Disaster Management and Relief Division of the Ministry of Food and Disaster Management has undertaken systematic approaches in reducing the earthquake vulnerability of the country through Comprehensive Disaster Management Programme (CDMP) since 2007. Besides CDMP, other wings of the 'Government such as Disaster Management Bureau (DMB), City Development Authorities (RAJUK), Public Works Department (PWD), Fire Service and Civil Defence (FSCD), Armed Force Division (AFD) and City Corporations are also working on addressing and reducing the