earthquake occurred at Madhupur fault with magnitude 7.5, about 72,000 buildings will be damaged in Dhaka beyond repair. The building related economic losses for this earthquake are estimated at more than 6,000 million USD. It is estimated that about 140,000 buildings will be damaged if a 8.5 magnitude earthquake is generated from the plate boundary fault located near Chittagong. During an earthquake of 8.0 magnitude from Dauki fault, about 25,000 buildings will be damaged beyond repair in Sylhet. There will be severe damage to essential facilities like hospitals, schools and police stations. For instance, Madhupur fault earthquake will cause moderate to complete damage in Dhaka to about 250 hospitals or clinics, 1,300 schools as well as 30 police and four fire service stations. In Dhaka, there are about 60,000 hospital beds available for use. On the day after the earthquake, it is estimated that only 24,200 hospital beds (40 percent) will be available for use by patients already in the hospital and those injured by the earthquake. After one week, 54 percent of the beds will be back in service. By the thirtieth day, 70 percent will be operational. During this period there will be around 80 leaks and 270 breaks in the water supply system, 100 leaks and 350 breaks in the waste water system and 60 leaks and 200 breaks in the gas supply network. It has been observed that about 50 percent of highway road, 70 percent of railway track and six major highway bridges in Dhaka are located in moderate to very high liquefaction susceptibility areas. Moreover, about 55 percent potable water pipeline, 52 percent waste water treatment pipeline, 56 percent gas pipeline in Dhaka are located on moderate to very high liquefaction potential area.

Such microzonation-based damage assessment is a common practice over the globe for developing preparedness and emergency response plan/contingency plan for the national and major responding organisation though it cannot pinpoint damage to individual buildings.

Development of Scenario-based Earthquake Contingency Plan

Usually many agencies are involved in accomplishing the activities for preparedness, response and early recovery to reduce the risk of any big disastrous event. Experiences have shown that all agencies need to work together under a well-designed and fully-coordinated plan for optimum and efficient preparedness, response and early recovery, usually known as Contingency Plan, in a systematic manner so that their capacities and resources are best utilised to fulfil the need by complementing and supplementing other agencies. From CDMP-I initiatives, scenario-based contingency plans have been developed for national level, three city corporations (Dhaka, Chittagong and Sylhet) and five key Responder Agencies viz., Armed Forces Division (AFD), Fire Service & Civil Defense (FSCD), Directorate General of Health Services (DGHS), Disaster Management Bureau (DMB) and Directorate of Relief and Rehabilitation (DRR). Moreover, lifelines and utilities agencies, such as Power Distribution Company Limited, Dhaka Water Supply and Sewerage Authority, Titas Gas Transmission and Distribution Company Limited, Bangladesh Telecommunication Company Limited (BTCL) and humanitarian assistance providers have also been addressed in the contingency planning process. This Plan adopts scenario-based Contingency Planning approaches that involve the development of specific scenarios through the hazard, vulnerability mapping and risk estimation assessment, which are then used as a basis for developing an emergency response plan with regard to earthquake hazard based on the need assessment of the organisation.

Of all earthquake-preparedness measures, earthquake drills are the most important.

Realising the need for coordinated and comprehensive emergency response, the United Nations has been promoting its humanitarian response activities in a cluster approach. This approach has proved to be effective and efficient in responding to recent disasters, for instance, during the October 8, 2005 Kashmir earthquake in Pakistan. Hence, it has been assumed that this concept of response operations in functional clusters be applied in Bangladesh also in case of possible earthquake disaster. In this approach, under National Earthquake Contingency Plan, all response activities are grouped into nine relevant operational functional clusters based on the similarity of work, normal time and disaster time mandates of different relevant organisations and possible complementarity in the resources and