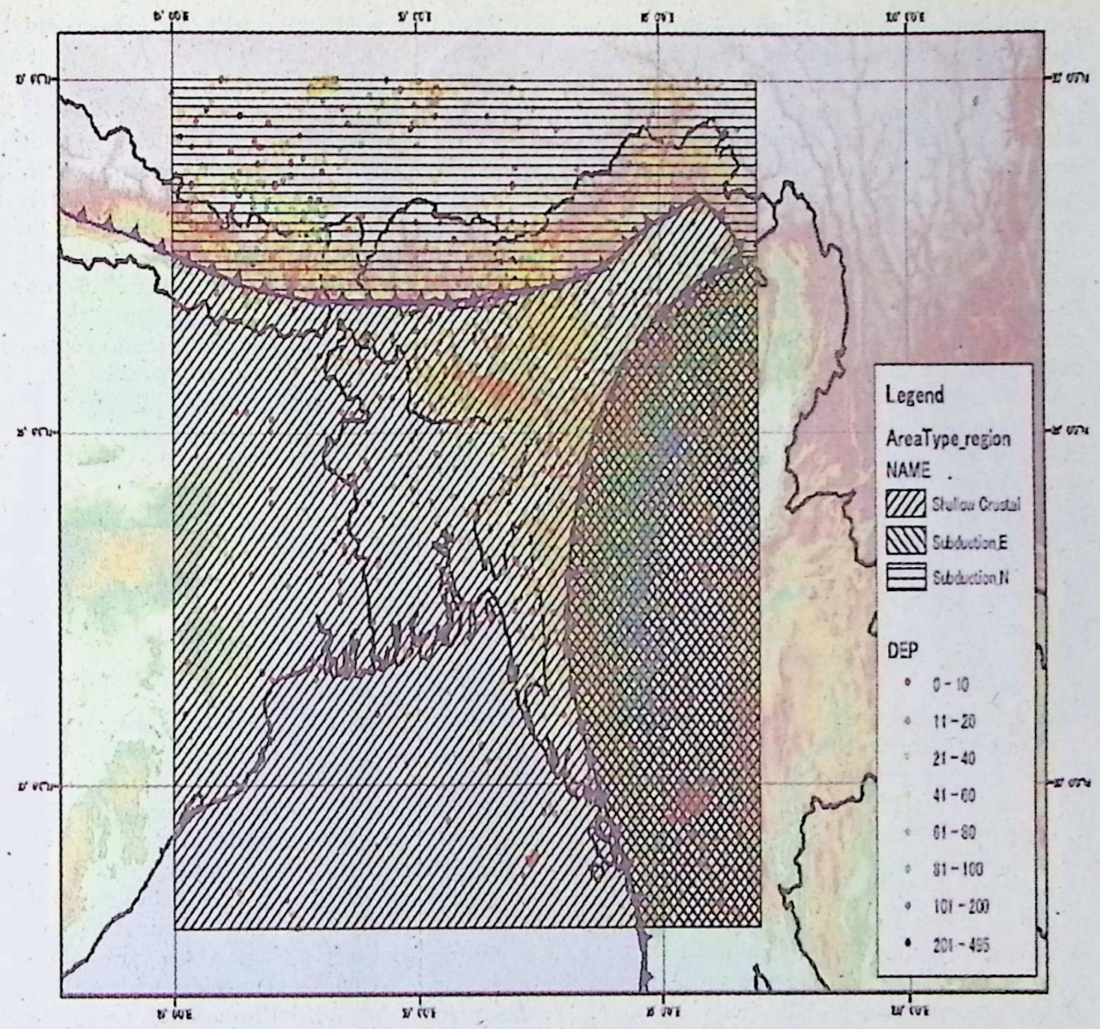


Figure 1: Plate boundary and historical earthquake epicentre

earthquake risk of the country. NGO initiatives should also be noted in this context. CDMP-I initiatives considered the following procedures taking onboard the respective organisations for earthquake preparedness and risk reduction: hazard, vulnerability and risk assessment of Dhaka, Chittagong and Sylhet following microzonation techniques, development of risk-based spatial contingency plan for national, city and relevant agency levels, capacity build-up of the major organisations for conducting search and rescue operations and promoting scientific research as well as raising awareness of the city dwellers and decision makers.

Earthquake Hazard, Vulnerability and Risk Assessment of the major cities

Hazard Assessment

Earthquake is a sudden movement of the earth's crust caused by the release of stress accumulated along geological plate boundary, fault zones or by volcanic activities.

In the immediate outside of the eastern frontier of Bangladesh, Eurasian and Indian Plate boundaries exist (Fig: 1) while in the Assam region of the northeastern territory of the country, the convergence of three plates, viz, Indian, Eurasian and Burmese subplates are located and known as Assam Syntaxis, where Great Assam earthquake occurred in 1950 ($M \approx 8.6$). Beside these plate boundaries, three major active faults, viz, Madhupur Fault (MF), Dauki Fault (DF) and Eastern Plate Boundary Fault (PBF), located inside the country (Fig: 2) have caused historically damaging earthquakes (magnitude over 7.0) in the region, of which, epicentres of two earthquakes (Srimongal Earthquake of 1918 along middle part of Plate boundary fault and Bengal Earthquake of 1885 along Madhupur blind fault) originated within the country.

For the first time, geological fault lines are being studied in Bangladesh, employing national