A PROBABILISTIC MODEL FOR NORTH-EAST INDIA FOR EARTHQUAKE RISK ASSESSMENT

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The region of north-east India has been separated in four seismogenic sources where shallow earthquakes occur, on the basis of certain seismological criteria. In each of these sources, the interevent times between successive mainshochs with magnitudes equal to or larger than certain magnitude thresold were determined. By the use of the relation:logTt =-0.24Mmin+0.52Mp-0.01log mo-0.38Mf = -0.53Mmin+0.78Mp+0.79log mo-15.16which relate the expected interevent time, Tt, and the magnitude of the following mainshock, Mf, with magnitude of the smallest mainshock considered, Mmin, the magnitude of the preceding mainshock, Mp, and the yearly released seismic moment, mo. The conditional probabilities for the occurrence of strong earthquake (Ms greater or equal to 6.0) in each seismogenic sources were calculated for the next 15-years.