

SEISMOTECTONIC MAP OF THE WORLD

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Earth science project of the CGMW for preparation of Seismotectonic Map of the World (1:25 M scale) has been supported by UNESCO and encouraged by UN-International Decade for Natural Disaster Reduction (IDNDR). Draft shall be presented during the 31st IGC in Rio, and expected to be published at the closing of UN-IDNDR and at the end of the century, as a worldwide contribution to the scientific & educational institutions and non specialists interested. World distribution of earthquakes with different characters and their arrangements with different concentrations or relative frequencies, coincides on corresponding recent structural frameworks with different activities and relative plate-motion velocities of the present-day neotectonic forces; presents a worldwide general seismic zoning or a seismotectonic picture of the globe. Recent tectonic features resulted from geodynamic processes, naturally present high and frequent seismicity for mobile oceanic and continental plate/block margins specially in Tethyan Alpine - Himalayan Belt & Circum-Pacific Ring (Great Seismic Belt & Ring); and neotectonically active branches. Global historic and modern earthquake epicenters having magnitude 6 and over are presented (with distinctions of time periods, magnitudes and focal depths, all with statistical sums) in a worldwide geo-structural & neotectonic base map, together with present day -kinematics, main stress orientation and active volcanoes. Amongst almost 5 million earthquake events known for the past 5000 years (third millennium B.C. to third millennium A.D.), approximately 120000 events have had magnitudes of 5 and over, around 18000 events with magnitude 6 and greater of which distribution is about 30% in the Alpine-Himalayan and 70% in Circum-Pacific (west 43%, east 27%) regions, or two third of which are located in northern hemisphere (same as active volcanoes). For the period of 1964-2000 A.D., approximately 200 events (180, 18 and 1 to 2 events with magnitudes 6-6.9, 7-7.9, 8 & over, respectively) is the annual mean sums of global recorded earthquakes with magnitude 6 and greater.