

Earthquake Fatalities Mapping for the Eastern Asia Earthquake and Volcanic Hazards Information Map

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The Eastern Asia Earthquake and Volcanic Hazards Information Map is published in May 2016. This map illustrates geology and tectonics, active faults, earthquakes hypocenters and source areas, fatalities of major earthquakes, tsunami hazards, distribution of volcanoes, calderas, pyroclastic falls and ignimbrites, and fatalities of major volcanic events. We believe that this hazards information map will provide useful information for earthquake, tsunami, and volcanic disaster mitigation efforts.

Earthquake fatalities map is one of the major contents, which has been compiled to facilitate visual understanding of earthquake disasters in terms of their number of fatalities (deaths) and the main causes of deaths. Major disastrous earthquakes in terms of number of fatalities are selected in each country or region: all the recent (after 1850) events with fatalities more than 1,000 (hereafter, F1000 event) are included; for a country with less than three F1000 events, two F100-F10 events are added; for a country with no F1000 events, up to two F100 events or one worst earthquake with fatalities are added. The number of fatalities is categorized by five causes; structure (building) damage, tsunami, landslide, fire, and others (related death), when possible. It is important to understand that an earthquake and ground motions do not directly kill people, but vulnerable structures, fire, landslide, or tsunami do. The number of fatalities is mainly based on the Significant Earthquake Database (NGDC/WDS) provided by NOAA, and individual reports of each earthquake, if any.

The contents of the Information Map are planning to be implemented on the online hazard information system (<http://ccop-geoinfo.org/G-EVER>). We are going to collect more data or reports to make the map more reliable.

Keywords: Eastern Asia, disastrous earthquake, number of fatalities

