

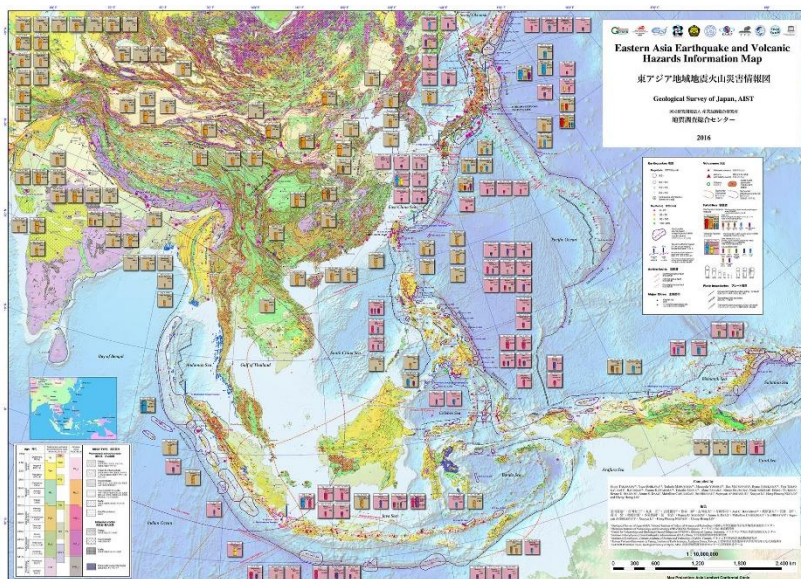
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## Eastern Asia Earthquake and Volcanic Hazards Information Map

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The G-EVER Consortium promotes earthquake and volcanic hazards reduction activities through the collaboration of different research institutes in the world. The G-EVER Promotion Team in Geological Survey of Japan has been worked on publishing a new “Eastern Asia Earthquake and Volcanic Hazards Information Map” (Figure 1) as a part of Asia-Pacific region earthquake and volcanic hazards information mapping project since 2012. The Eastern Asia Earthquake and Volcanic Hazards Information Map shows geology, 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. The occurrences of earthquake and volcanic hazards are closely related with the geological settings. The geological map is recompiled on the basis of the Geological Map of Asia 1:5,000,000 and Digital Geologic Map of East and Southeast Asia 1:2,000,000 2nd edition. Since the Eastern Asia Earthquake and Volcanic Hazards Information Map is 1:10,000,000 in scale, the legend is simplified from the original geological map. Distribution of active faults in eastern Asia and its surroundings has been compiled from various sources including maps and scientific papers. The hypocenter parameters of historical earthquakes (1000-1899) were adapted from the catalog of the Global Historical Earthquake Archive (1000-1903). The ISC-GEM catalog is used for the earthquakes from 1900 to 2011. Earthquake source regions shown for major earthquakes. Earthquake Fatalities Map is compiled to facilitate visual understanding of earthquake disasters in terms of their number of fatalities 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 are included. Tsunami hazard distribution is compiled to facilitate visual understanding of the occurrence, extent and severity of tsunamis. Distribution of Holocene volcanoes is shown on this hazard information map. Distribution of Holocene volcanoes is shown on this hazard information map. Distributions of calderas and large-scale ignimbrites (Volcanic Explosivity Index: VEI6-8) are shown on the hazard information map. The fatalities of major volcanic events are compiled to facilitate visual understanding of volcanic disasters in East Asia. The number of fatalities and the main causes of deaths due to volcanic events are displayed. Five to thirty worst volcanic events were chosen from each country: Japan (24),



the Philippines (15), Indonesia (30) and Papua New Guinea (5). The number of fatalities is categorized according to seven causes: pyroclastic flow, debris avalanche, tephra fall and ballistic, lahar, tsunami, volcanic gas and other related causes. The contents of Eastern Asia Earthquake and Volcanic Hazards Information Map are planned to

be implemented on the online hazard information system. We believe that hazards information map will provide valuable knowledge which is useful in mitigating geological hazards.

*Figure 1: Eastern Asia Earthquake and Volcanic Hazards Information Map*

