

Database of fault displacement and average slip rate along the major Active fault zone in Japan

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The location of active faults is one of the most important data for large seismic activities in the past, earthquake prediction on land and the relevant seismic hazard mitigation. Even in an earthquake country Japan, danger of active faults was not well understood among the people before 1995 Kobe earthquake. In order to provide the fundamental information regarding active faults such as their distribution and characteristic activities, we have re-interpreted air-photographs in Japan and depicted the detailed location of active fault traces together with related information. In 2002, Digital Active Faults Map of Japan was published in the scale of 1:25,000. These maps provide us with detailed information regarding their location and characteristic of fault activities for basic data of other science fields and seismic hazard mitigation.

We need to study further problems and questions concerning the characteristics of active faults and the mechanism of the occurring of earthquake ; 1) whether the recurrence interval of faulting has been uniform over time or not ; 2) whether or not each fault has a characteristic distribution of the amount of displacement ; 3) how many segments divide a long active fault or how many faults group in a particular earthquake. Active faults maps are expected to be GIS maps with the fundamental information regarding fault activity such as fault type, fault displacement and average slip rates.