

The Significance of Concealed Quaternary Faults inferred in the Tokyo Metropolitan Central District

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Central Disaster Management Council presents several scenarios of hazardous earthquakes that may hit the Tokyo Metropolitan Area in the near future. None of them was related to active faults, because none was reported.

The authors summarized data on Quaternary faults found at three construction sites and sonic profiles along the Sumida River, and analysed borehole data of restricted places in the metropolitan area. It revealed seven concealed faults displacing later middle to late Pleistocene deposits in Minato, Chiyoda, Bunkyo, Chuo, and Taito Wards trending NS to NNE-SSW and one trending NW-SE in Koto Ward. These concealed Quaternary faults are ranging from 1.5 km to 9 km in length and may be classified into Class B to C active fault based on their average slip rate, which will cause catastrophic disaster on the basis of risk evaluation. Active fault studies on these faults, however, have not been conducted to reveal their details yet. The authors would like to call for immediate full-scale active study to keep prepared for earthquake disasters in the capitol of Japan.