

## Timing of the last faulting event of the Kego fault, Fukuoka Prefecture, Southwestern Japan

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The Kego fault is a 22-km-long NNW-SSE trending left-lateral strike slip fault running beneath the densely populated Fukuoka City. We excavated three trenches at the southern part of the fault, in order to obtain parameters such as the last faulting event age and recurrence intervals. As a preliminary results, it revealed that the last faulting event occurred between ca. 20,000 years ago and 4th century.

In previous studies, timing of the last faulting event are estimated in the period between 10,000-15,000 years ago based on the results of trench excavation at two separate sites. The recurrence intervals is also estimated as ca. 15000 years from the result of a trench survey in the southern part of this fault. On the other hand, rather shorter recurrence is proposed for the part of offshore. We excavated three trenches, Kamiohri, Ohzano and Daimon, in the southern part of this fault, where the fault trace is separated into 3 segments with left-stepping.

At the Kamiohri site, trench was excavated in the valley bottom incising granite hills. On the trench walls, the high angle fault cuts the soft sediments of silt, sand and humus. In the Ohzano trench, fault is dipping to the west and displaces layers of soft sediments. Tip of the fault are cut by artificial channel, filled with humic silt with pieces of the pottery in the Yayoi and the Kofun era. Therefore timing of last faulting event is limited to the period before the formation of this channel. The Daimon site is located at off-set valley bottom where the young sediments continues to deposit. The sediments were too soft to excavate a trench deep enough to find the faulted layers beneath them.

We will start to discuss the timing of the faulting event in each trench when the dating of samples are finished. This study was partly performed under the sponsorship of JNES research project for enhancing the basis of nuclear safety.