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Distribution of Geological Disaster by Liquefaction-Fluidization on Boso peninsula at The Earthquake - Kujukuri plain

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Kujukuri Plain characterized over ten of sand dunes are distributed in Kujukuri Plain. Marshes and ponds distributed between the dune lines were filled by fine grained sand of dune sand and the Shimosa Group collecting for houses lots. Along the coast, sand dune was dug for iron sand. Then the sites were filled up again by the iron removed sand.

In past this area suffered the liquefaction-fluidization hazards caused by earthquake at December 17, 1987. These artificial beds also liquified by the 1987 East Off Chiba Prefecture Earthquake (Nirei, et al., 1990).

The hazards were more extensive than that of the past same scale earthquakes (Nirei, et al., 1990).

The liquefaction-fluidization hazards caused by the 2011 off the Pacific coast of Tohoku Earthquake, on the northern part Kujukuri plain seen more widely and seriously than the 1987 East Off Chiba Prefecture Earthquake. But the phenomena could not observe southern part of Togane city.

In Asahi city, located northern part of Kujukuri plain, the liquefaction-fluidization phenomena occurred more extensive than the 1987 East Off Chiba Prefecture Earthquake. Also the liquefaction-fluidization hazards were more serious. But the degree of damage varies by location. It is considered the impact of the differences in the thickness of the soft sand. Along the coast, sand dune was dug for iron sand. Then the sites were filled up again by the iron removed sand from many local residents - there was testimony that the liquefaction-fluidization hazards occurred.

At Komatsu/ Hasunuma-Hira, Sanmu city, located near the Kido-gawa river mouth, the severe liquefaction-fluidization hazards occurred. It is considered the impact of the differences in the thickness of the Holocene sediments and to configure the type of strata.

Keywords: Liquefaction-Fluidization Phenomena, Kujukuri plain, sand volcano, sand dune was dug for iron sand, the 1987 East Off Chiba Prefecture Earthquake