

Chance for big tsunami in eastern Japan within 30 yrs revised up to 30%

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Quake frequency rises 10-fold or more along 11 faults since March

TOKYO (Kyodo) — The frequency of temblors around 11 active faults in Japan has increased more than 10-fold since the magnitude 9.0 earthquake that struck northeastern Japan on March 11, a study by the University of Tokyo showed Thursday.

A group of researchers at the university's Earthquake and Research Institute has found that the frequency of quakes rose sharply in zones around six active faults in the Tohoku region of northeastern Japan and in central Japan, with the incidence jumping 70-fold at the highest point.

The team led by researcher Takeo Ishibe examined the number of quakes with a magnitude of 1 or more that occurred within a 5-kilometer zone around 170 major fault belts across Japan between March 2010 and November this year.

The researchers excluded areas where less than 10 quakes occurred and calculated the earthquake incidence ratio by extrapolating the eight-month results to a one-year period.

When the numbers of temblors in the year up to March 11 and the one year after were compared, the frequency rose 11-fold around the Inohana fault zone in Gifu Prefecture, 66-fold in the Sakai Pass-Kamiya fault area in Nagano Prefecture and 70-fold in the Kita-Izu fault zone in Kanagawa and Shizuoka prefectures.

Ishibe said it is highly possible that those faults have been activated by the catastrophic quake in March and that the phenomena require continued monitoring, even though they do not necessarily suggest major quakes will occur in those areas.

Ishibe said that pressure on the six active faults among the 11 has increased since the March disaster and the mechanism of triggering quakes itself has changed in those areas.

The frequency of quakes at three of the remaining five faults is believed to have surged due to the magnitude 6.7 temblor that rocked northern areas of Nagano Prefecture on March 12, according to Ishibe.

The factors leading to increased quake frequency at the two other faults in Miyagi and Yamagata prefectures require further study, he said.

No major changes in the quake incidence ratio were recorded for areas along major active faults in Hokkaido and Kyushu, the researcher added.

The findings will be reported at a meeting in Chiba of the Japanese Society for Active Fault Studies starting Friday.

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<http://mdn.mainichi.jp/mdnnews/national/archive/news/2011/11/25/20111125p2g00m0dm013000c.html>

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TOKYO (Kyodo) — The probability of a major earthquake occurring and triggering a massive tsunami in the Pacific Ocean off eastern and northeastern Japan within the next 30 years has been revised up to 30 percent from 20 percent, a government panel said Friday.

The Earthquake Research Committee has reexamined its long-term estimate of killer temblors after the March 11 quake and tsunami and found that a quake that triggers a tsunami as powerful as the one caused by the 1896 Meiji-Sanriku Earthquake, which killed more than 20,000 people, is more likely to happen in the sea zone stretching 800 kilometers north-south.

The panel stopped short of predicting the magnitude of the possible quake but said past records suggest it would be magnitude 8 or stronger.

The tsunami triggered by the 1896 quake reached as high as 38.2 meters, according to the records. The quake's estimated magnitude ranges from 6.8 to 8.5 among experts.

Meanwhile, the committee said the likelihood a quake with a magnitude of up to 9 occurs within the next 50 years in a sea area off Miyagi and Fukushima prefectures, which is closer to the shore than the 800-km zone, is almost zero percent.

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<http://mdn.mainichi.jp/mdnnews/national/archive/news/2011/11/26/20111126p2g00m0dm013000c.html>
