

My opinions on the disaster prevention policies by a local government, especially on earthquake prediction

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For disaster prevention policy makers in a local government, how to announce earthquake prediction is one of the most important issues. I'll address my opinion on earthquake prediction, as a policymaker in charge of earthquake disaster prevention administration.

1. Influence on earthquake disaster prevention administration by earthquake prediction period.

When we think the influence on earthquake disaster prevention administration, we have to consider the period of earthquake prediction; the warning statement forecast just before an occurrence of The Tokai Earthquake, a short period (several - ten years) forecast, and middle or long-term period (ten - 30 years or more) forecast.

1.1. Disaster Prevention measures.

Safe city planning is a fundamental measure which mitigates damage caused by earthquakes. The middle or long-term earthquake prediction should be used for the planning. In Kanagawa prefecture, the Minami-Kanto Earthquake is examined based on this prediction.

1.2. Disaster Preparation measure.

It is a purpose of short-term earthquake prediction to advance preparation of the measures which suppress expansion of damage to the minimum. For example, establishment of an action manual, the stockpile of disaster prevention materials. In Kanagawa prefecture, the Tokai Earthquake and the earthquake occurring directly under the Minami-Kanto Area (M7) are examined based on this prediction.

1.3. Emergency measure.

It is most important to minimize human damage efficiently. The strengthening plan of earthquake disaster prevention against the Tokai Earthquake is based on the Large-Scale Earthquake Countermeasures Act. According to the plan, the measures which calm panic and social confusion will be conducted at the time of the warning statement.

2. Expectation for earthquake prediction.

2.1. Super-long term forecast.

Regarding active faults, present super long-term evaluation is difficult to understand for ordinary citizens. For example, the Headquarters of Earthquake Research Promotion often uses the following expressions: 'within some hundred years from now on', 'some percent-probability in coming 30 years'. Although these descriptions may be theoretically correct, they are beyond people's imagination. Therefore, not only statistical evaluation but also geophysical analysis is highly expected.

2.2. Short period and Middle or Long-term forecast.

The earthquake prediction of these period is comparably reliable. A typical example is an evaluation about the trench type earthquake by the Headquarters of Earthquake Research Promotion. However, some organizations and researchers propose different approaches and get various results, which makes us confused. The establishment of any standardized approach is indispensable.

2.3. An imminent Prediction.

We know The 'Mizoue-scenario' and the crustal deformation simulation by the Meteorological Agency, so we can expect that an imminent prediction is announced on the Tokai Earthquake. But I cannot expect about any earthquake prediction other than the Tokai earthquake.

However, advanced research on earthquake prediction is highly required because only the improvement of earthquake-resisting capability in cities cannot save our lives completely.

On the other hand, today there are many approaches to earthquake prediction by governmental organizations, academic institutes and semi-professionals. Although these different actions should not be necessarily regulated, some organization should be authorized and others should be put under control in order to send appropriate messages to people.