

Project of the Impact Assessment of the Uncertainties of Earthquake Forecasting Information on Societal and Individual Disaster Preparedness

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In 2017, the Japanese government started a new operation system that issues earthquake forecasting information to the residents in Pacific coastal areas of the central and south-western part of the Japanese Islands when anomalies of the seismic activities and/or crustal deformation that may be related to a large and destructive earthquake along the Nankai trough are observed. The purpose of this information is to urge people to take precautions such like checking evacuation routes and supplies, bracing their homes and unsecured items, confirming first aids supplies, food, and water, and so forth.

However, the information will likely remain ambiguous in terms of where and when the destructive earthquake occurs. Although this ambiguity is inevitable due to the uncertainties inherent to earthquake forecasting, societal responses to such equivocal information are not well understood.

We launched a collaborative research project not only by researchers on seismology, earthquake engineering, disaster information, and public policy but also by practitioners of disaster preparedness to study the socioeconomic consequences of the ambiguous forecasting information on individual and organizational behavior. The basic concept of the project and the preliminary results will be introduced.