

## Rethinking Earthquake Prediction in Japan: A Risk Communication Perspective

James D. GOLTZ • Evelyn ROELOFFS

The history of the “Tokai Prediction” and its legislative foundation the Large-Scale Earthquake Countermeasures Act of 1978, have long been controversial in Japan. After the Great East Japan Earthquake and Tsunami, scientific concern regarding the Nankai and Tonankai regions of the Japan Trench led to a call for extending the planning and monitoring targeted for Tokai to these areas, as well. But the entire nation of Japan is vulnerable to damaging earthquakes. The objective of this presentation is to make a case for a short-term operational earthquake forecasting system for all of Japan. In doing so, we are not advocating for earthquake prediction, rather we

suggest that possible precursory earthquake activity be closely monitored and, if scientifically warranted, an earthquake advisory be issued for areas that may become the source regions for damaging earthquakes. These advisories would be short-term (3-5 days) and risk communication associated with these advisories would recommend simple measures to prepare and mitigate damage, but not large scale evacuations, closures and interventions envisioned in the Countermeasures Act due to the low probabilities that potential precursors would be followed by large earthquakes.