

**Recent activities of the Earthquake Research Committee,  
the Headquarters for Earthquake Research Promotion, Japan (HERP)**

Aitaro Kato

akato@eri.u-tokyo.ac.jp

Earthquake Research Institute, the University of Tokyo

Member of Earthquake Research Committee, the Headquarters for Earthquake Research Promotion

It is 29 years since the Headquarters for Earthquake Research Promotion (HERP), Japan, was established after the 1995 Hyogoken-nambu earthquake, which is internationally known as the Kobe earthquake. The HERP consists of two committees: Policy Committee and Earthquake Research Committee (ERC).

The HERP released its earthquake research policy approximately every 10 years through the formulation at the Policy Committee. The first policy was published in 1999. The policy was titled as *New Promotion of Earthquake Research - Comprehensive Basic Policies for the Promotion of Seismic Research through the Observation, Measurement, and Survey* -. This policy is a guideline of earthquake research for the next 10 years. The 2nd version was released in 2009, and revised in September 2012 to enhance research related to tsunami hazards highlighted by the 2011 Tohoku-oki earthquake (M9.0). The 3rd policy was published in May 2019 and the current research has been conducted from 2019 to 2029. The policy also emphasizes the research related to tsunami hazard and devastating inland earthquake hazard.

The ERC holds regular meetings once every month and classifies and analyzes all available research and observation results, as well as study outcomes done by individual institutions including JMA, GSI, NIED, AIST, JAMSTEC, JCG, and universities. In addition, special meetings are held in response to damaging earthquakes or marked seismic activity. For examples, the ERC had each special meeting in 2024 after the Noto earthquake (M7.6) on January 1, after the initiation of a slow slip event off Boso-Peninsula (Kanto Region) on March 2, and after the 2024 Hyuga-nada (Kyushu Region) earthquake (M7.1) on August 8, respectively.

An earthquake swarm activity accompanied with crustal deformation has lasted since the end of 2020 in the Noto peninsular of Ishikawa prefecture, on the Japan Sea coast of central Japan. Since local residents seriously have been worried about the activity, the ERC has summarized the seismic and geodetic features and possible mechanisms of the swarm activity: migration of liquid from deep to shallow depths has been inferred from the spatiotemporal evolution of seismicity and GNSS data, electrical resistivity structure, and reflected S-waves. On January 1, the M7.6 earthquake rupture started from an area hosting the long-lasting seismic swarm area and propagated bilaterally toward ENE and WSW directions along multiple faults, resulting in devastating seismic and tsunami damages. Globally, it is rare that a long-lasting seismic swarm preceded such a large event. In early August, the location, geometry, and estimated magnitude of active faults along the Noto Peninsula that had been evaluated so far were made public.

A national probabilistic seismic hazard map was first published in 2005. The current version was published in 2020, and the probabilities are updated yearly.