



Cities on Volcanoes 9
November 20-25, 2016
Puerto Varas, Chile

'Understanding volcanoes and society: the key for risk mitigation'



Volcanic Alert Levels in Japan

Kazuhiisa Inoue¹, Tomoyuki Kanno², Makoto Saito²

¹Administration Division, Seismology and Volcanology Department, JMA.

²Volcanology Division, Seismology and Volcanology Department, JMA.

Keywords: volcanic alert level, volcanic warnings, disaster mitigation, coordination with local governments, volcanic activity evaluation

The Volcanic Alert Levels in Japan are the indices divided into 5 classes based on the disaster mitigation measures in the target areas. Each Level is described with an action summary keyword; "Potential for increased activity" for Level 1, "Do not approach the crater" for Level 2, "Do not approach the volcano" for Level 3, "Prepare to evacuate" for Level 4, and "Evacuate" for Level 5. Clear action summary descriptions enable residents to take quick and appropriate action against disasters. Forecasts are issued with Level 1 in which the specific actions are not ordered. Near-crater Warnings are issued with Level 2 or 3 to non-residential areas around and near the crater, respectively. Residential-area Warnings are issued with Level 4 or 5 to residential areas. When the Japan Meteorological Agency (JMA) issues Volcanic Warnings or Forecasts with the Volcanic Alert Levels, it is necessary that the action and target area for each level are coordinated in advance at local Volcanic Disaster Management Councils consisting of representatives from local governments, relevant organizations including JMA and experts, and the Regional Plans for Disaster Management for each volcano are set by local governments. The Levels are applied to 37 volcanoes out of 47 under constant observation (as of August 2016). JMA plans to apply them to another 9 volcanoes except Ioto, the island not open to public. Based on the lessons learned from the eruption of Mt. Ontake in 2014, JMA has changed the keyword for Level 1 from "Normal" to "Potential for increased activity" avoiding misunderstandings as to a safety declaration at active volcanoes. In addition, JMA has been investigating and publishing the criteria for upgrading/downgrading Volcanic Alert Levels so that hikers and residents can understand the conditions.