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Tephra GIS using Cyber Japan Web System

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The authors introduce the way to open the tephra GIS database using Web-GIS. Outcrop information and tephra distribution information on the 1/25,000 topographical maps are distributed by Cyber Japan Web System. The authors developed the trial Web GIS system about Bandai Volcano and Akita-Komagatake Volcano. At first, the location information of outcrops is described on topographical maps. When the users click the location of outcrops, various data about outcrops is described such as photo of outcrop, column section, sketch of the outcrop, mineral composition, petrologic characteristics, index of each minerals, chemical composition and so on.

Input information about Bandai volcano is based on Suzuki et al. (1995), Koarai et al. (1995), Koarai and Soda (1995) and so on such as the tephra originated Bandai Volcano (HP1 and HP2) and wide spread tephra (Nm-KN, Nm-SB, Aso4, On-NG and so on). Input information about Akita-Komagatake Volcano is the isopack maps of each tephra and outcrop information based on Wachi et al. (1977) and chemical composition of each tephra based on Fujinawa et al. (2004). In addition, the assumption of volcanic hazard areas on hazard map, polygon data of landform classification, the results of automated landform classification using 50m DEM and 10m DEM are input in this database. This research was supported by Grants in Aid for Scientific Research (19650259).

Keywords: Tephra GIS, Cyber Japan Web System, outcrop information, Bandai Volcano, Akita-Komagatake Volcano