

Integrated Program for Next Generation Volcano Research and Human Resource Development

Next Generation Volcano Research Themes

A. Developing a system for centralization / exchanging of volcanic observation data

B. Development of advanced technology for volcano observation

- Muon tomography
- SAR and thermo-gas camera
- Geochemical monitoring
- Volcano internal structure multi-disciplinal observation
- Contactless power transmission
- Optical interferometry seismometer

C. Development of technology for forecasting volcanic eruptions

- Mechanisms for branching in event tree
- Middle to long-term eruption forecasting
- Volcanic hazard evaluation by numerical simulation

D. Development of technology for countermeasures against volcanic disasters

- UAV monitoring
- Volcanic ash multi-parameter monitoring at Sakurajima
- Information tools for stakeholders



Participating organizations

Akita University / Asia Air Survey Co., Ltd. / Hakusan Corporation / Hokkaido University / Hot Spring Research Institute of Kanagawa Prefecture / Ibaraki University / Kagoshima University / Kobe University / Kumamoto University / Kyoto University / Kyushu University / Mount Fuji Research Institute, Yamanashi Prefectural Government / Nagoya University / National Institute of Advanced Industrial Science and Technology (AIST) / National Research Institute for Earth Science and Disaster Resilience (NIED) / Nihon University / Obayashi Corporation Technical Research Institute / Shizuoka University / The University of Tokyo / Tohoku University / Tokai University / Tokoha University / Tokyo Institute of Technology / Waseda University / Yamagata University

Consortium for Human Resource Development in Volcanology

(<http://www.kazan-edu.jp/index-en.php>)



Participating organizations

Tohoku University (representative institution) / Hokkaido University / Yamagata University / The University of Tokyo / Tokyo Institute of Technology / Nagoya University / Kyoto University / Kyushu University / Kagoshima University / Kobe University / Shinshu University / Akita University / Ibaraki University / Hiroshima University / Tokyo Metropolitan University / Waseda University / National Institute of Advanced Industrial Science and Technology (AIST) / National Research Institute for Earth Science and Disaster Resilience (NIED) / Meteorological Research Institute (JMA-MRI) / Geospatial Information Authority of Japan (GSI) / Miyagi Prefecture / Nagano Prefecture / Nagasaki Prefecture / Kanagawa Prefecture / Gifu Prefecture / Hokkaido Prefecture / Gunma Prefecture / Kagoshima Prefecture / The Volcanological Society of Japan

CONTACT

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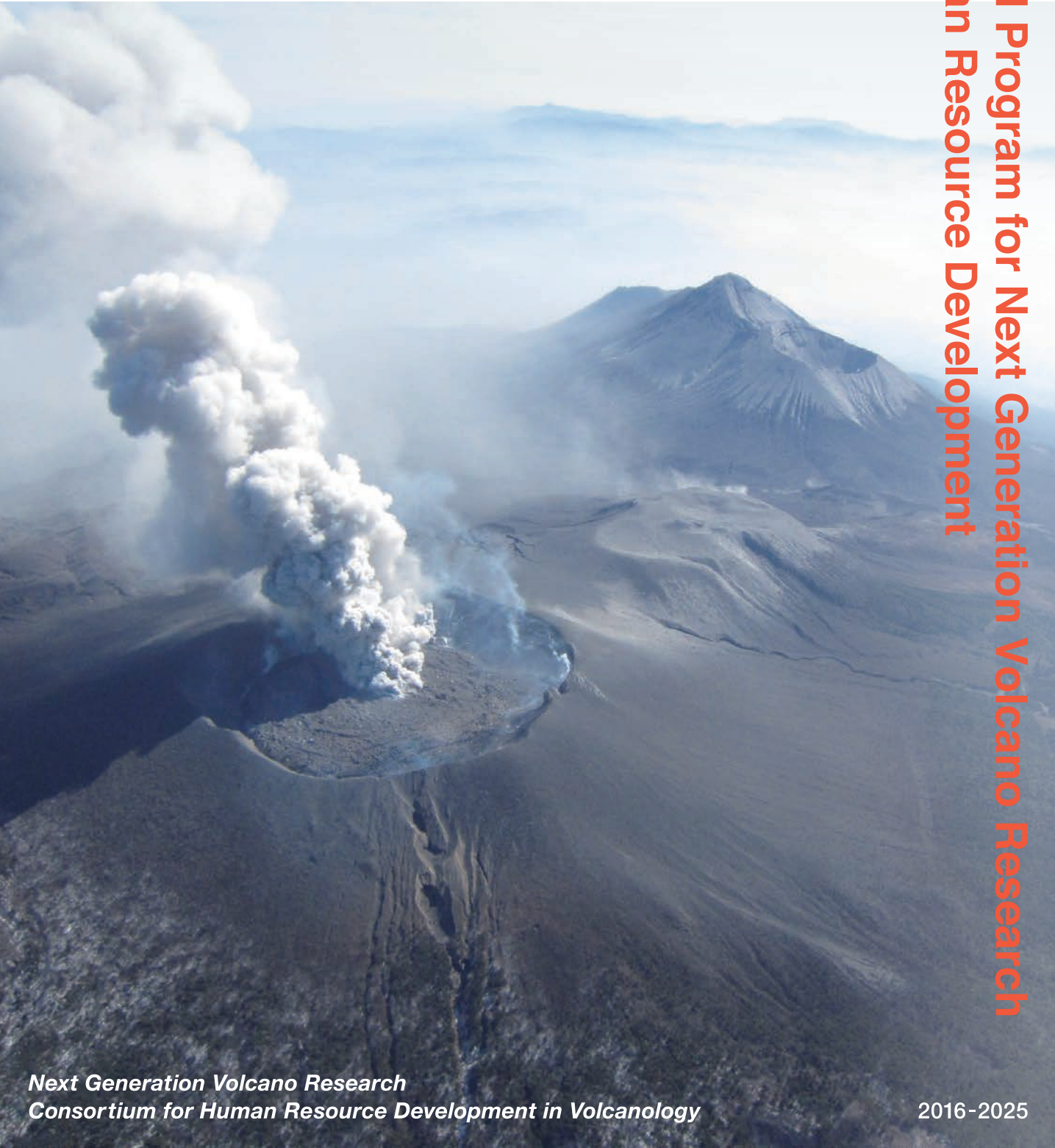
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Look to the Future of Volcanoes

The “Integrated Program for Next Generation Volcano Research and Human Resources Development” promotes research on “observation, forecasting and countermeasures”, and develops the next generation of volcano researchers. This program aims to contribute to mitigating volcanic disasters.



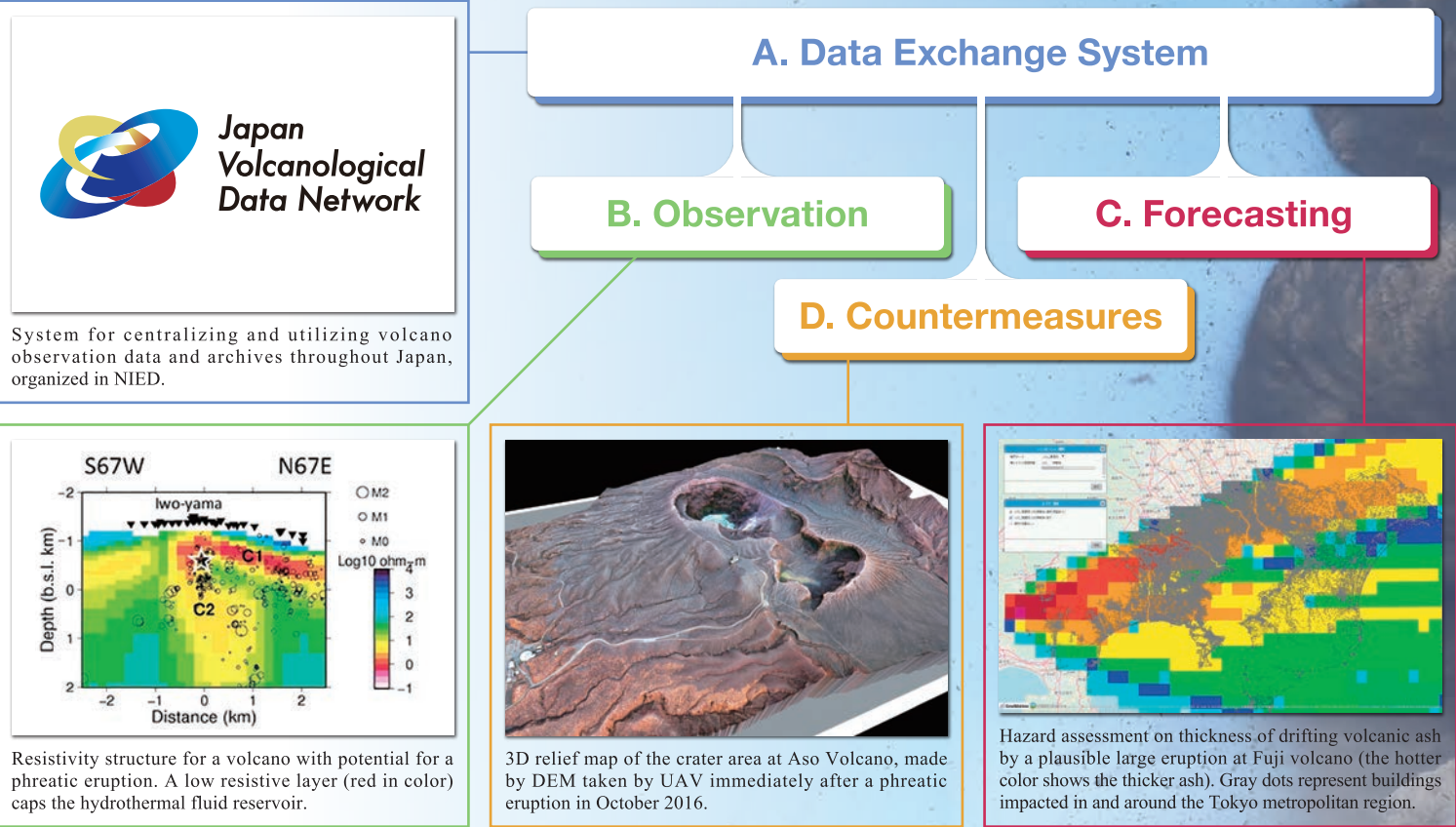
Next Generation Volcano Research
Consortium for Human Resource Development in Volcanology

2016-2025

Integrated Program for Next Generation Volcano Research and Human Resource Development

Next Generation Volcano Research

What is
Next Generation Volcano Research?



Sixty-three people lost their lives due to a sudden eruption at Mount Ontake, Central Japan, in September 2014. Following this tragic event, volcanologists have faced high expectations to develop technologies to reduce volcano disaster risks through monitoring and forecasting volcanic activity together with preparing precise and timely information. To this end, this project promotes collaborative research among universities and research institutions throughout Japan on volcano observation, forecasting, and countermeasures.

Next Generation Volcano Research

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Consortium for Human Resource Development in Volcanology

- Countermeasures for upcoming/ongoing volcanic hazards; understanding real-time information and presenting their scenarios
- Presenting probabilities of volcanic eruptions
- Fostering and retaining volcanologists with a broad knowledge not limited to science but also including engineering and social science

What is
Consortium for Human Resource Development in Volcanology?

This consortium aims to foster young researchers who can deepen their understanding of complex and diverse volcanic phenomena, promote cutting-edge volcanology research through international collaboration, and engage in the discipline of social science to reduce volcanic disaster risks.



Curriculum

Curriculum for the fundamental and application master courses includes: seminars, exercises, and field practices for basic and specialized knowledge on volcanology and disaster mitigation, observation and survey methods for conducting research, skills to embed research results into society, and social science and engineering to mitigate volcanic disasters. The program also includes overseas field practices, presentations at scientific meetings, and internships at other research institutions.



Training classes for students in Consortium program

1. Field training of volcanic geology / 2. Lecture in Kagoshima University / 3. Field training of geodetic observation / 4. Experimental petrology practice in Tohoku University