Effort of transdisciplinary approach by Japan Academic Network for Disaster Reduction

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In academic world, specialization has been progressed and integration has been weakened.
Members of SCJ and 56 academic societies proceed JANET-DR which covers social sciences, life sciences, natural sciences and engineering.
56 academic societies are such as

Architectural Institute of Japan,
Atomic Energy Society of Japan,
Geographic Information Systems Association of Japan,
Geological Society of Japan,
Japan Association for Earthquake Engineering,
Japan Emergency Management Association,
Japan Geoscience Union,
Japan Society for Natural Disaster Science,
Japan Society of Civil Engineers,
Japan Society of Disaster Nursing,
Japanese Association for Disaster Medicine,
The City Planning Institute of Japan,
The Japan Association for Regional Economic Studies,
The Robotics Society of Japan
History

the Great East Japan Earthquake
March 11, 2011

May 2011-Dec. 2015

“Academic Society Liaison Association Corresponding to the Great East Japan Earthquake” (30 academic societies)

January 9, 2016 for natural disasters in general

Japan Academic Network for Disaster Reduction (JANET-DR)
(47 academic societies) → (55 academic societies)
Representatives of 47 Academic Societies and members of Science Council of Japan, January 9, 2016
The 2016 Kumamoto Earthquake on April 16

The Kumamoto earthquake happened about three months after JANET’s start. M 6.5 earthquake occurred on 14 April 2016, in Kumamoto. Then, the strongest M 7.3 earthquake occurred on 16 April which was called the main shock of “the 2016 Kumamoto Earthquake.
Kumamoto earthquake was caused by the displacement of faults. **Surface earthquake fault** in Mashiki town.
Damage in Mashiki town, caused by seismic intensity 7, twice

Kumamoto earthquake victims
50 deaths, 174 related deaths,
2677 wounded,
189079 houses collapsed or damaged
(March, 2017)
Landslides in Minamiaso village and collapse of Aso-Ohashi bridge.

Mt. Aso erupted from October to December 2016. Land made of volcanic ash is fragile with heavy rain. Complex disaster are concerned.
SCJ & JANET-DR held a joint press conference on 18 April. Representatives of eight academic societies explained about the Kumamoto earthquake and answered many questions from 43 media companies.
On 2 May, the "Urgent report meeting" was held and 17 academic societies announced interim reports of urgent investigation and relief activities.
On 16 July, "Three-month report meeting" was held and representatives of 23 academic societies presented. This series of report meetings helped to convey accurate information from academia to society. In lots of articles on newspapers and television programs cited the presenters' comments of these report meetings.
In addition to the presentations of 30 academic societies, Kumamoto prefecture and Kumamoto city reported their current status and their plans. It is necessary to understand the situation of the affected site for contributing to future recovery and disaster prevention.
On the day after the report meeting, 70 researchers inspected the affected areas of the Kumamoto earthquake. This is the survey of active faults in Mashiki town.
We inspected the collapse and damage of Kumamoto castle and its restoration work.
Group Activities of Several Academic Societies

- Disaster medicine + Seismology + Civil and building engineering + Transportation.
- Space satellite technology + Geographical information + Evacuation plans.
- Volcano explosion + Earth observation + Landslide + City planning.
- Earthquake engineering + Huge urban cities
JANET-DR works well for promoting transdisciplinary approach and social implementation of research, for the 2016 Kumamoto earthquake.

In academic world, specialization has been progressed and integration has been weakened. More transdisciplinary collaboration is required.

Many natural disasters occur in Asia. I also consider what we can do to promote collaboration among academies in Asian countries with a view to the future.