

**Effort of transdisciplinary approach  
by Japan Academic Network for Disaster Reduction**

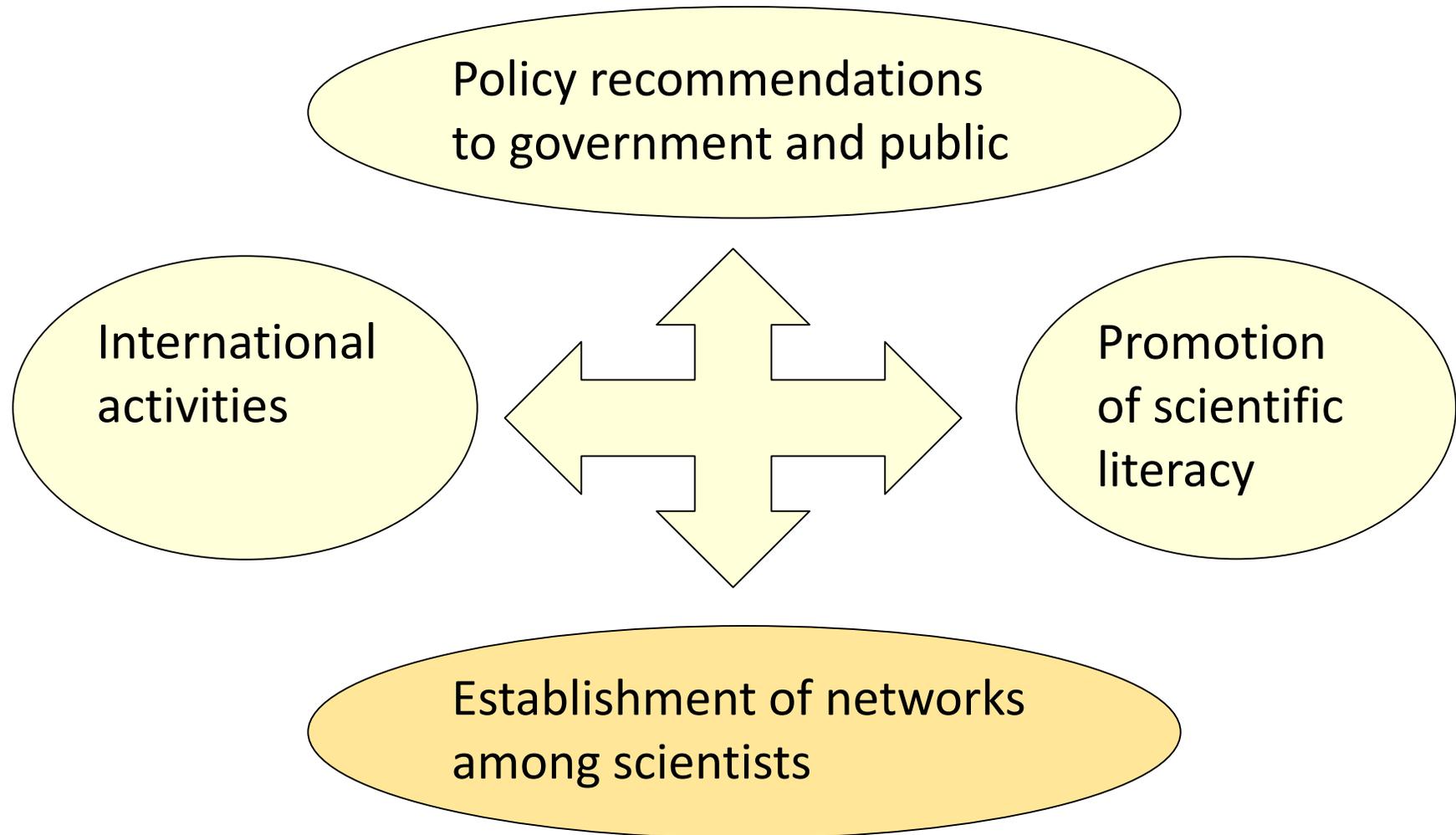
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Council Member of Science Council of Japan

Director of Japan Academic Network for Disaster Reduction

# *Four Roles of Science Council of Japan (SCJ)*

Representative organization of Japanese scientist community

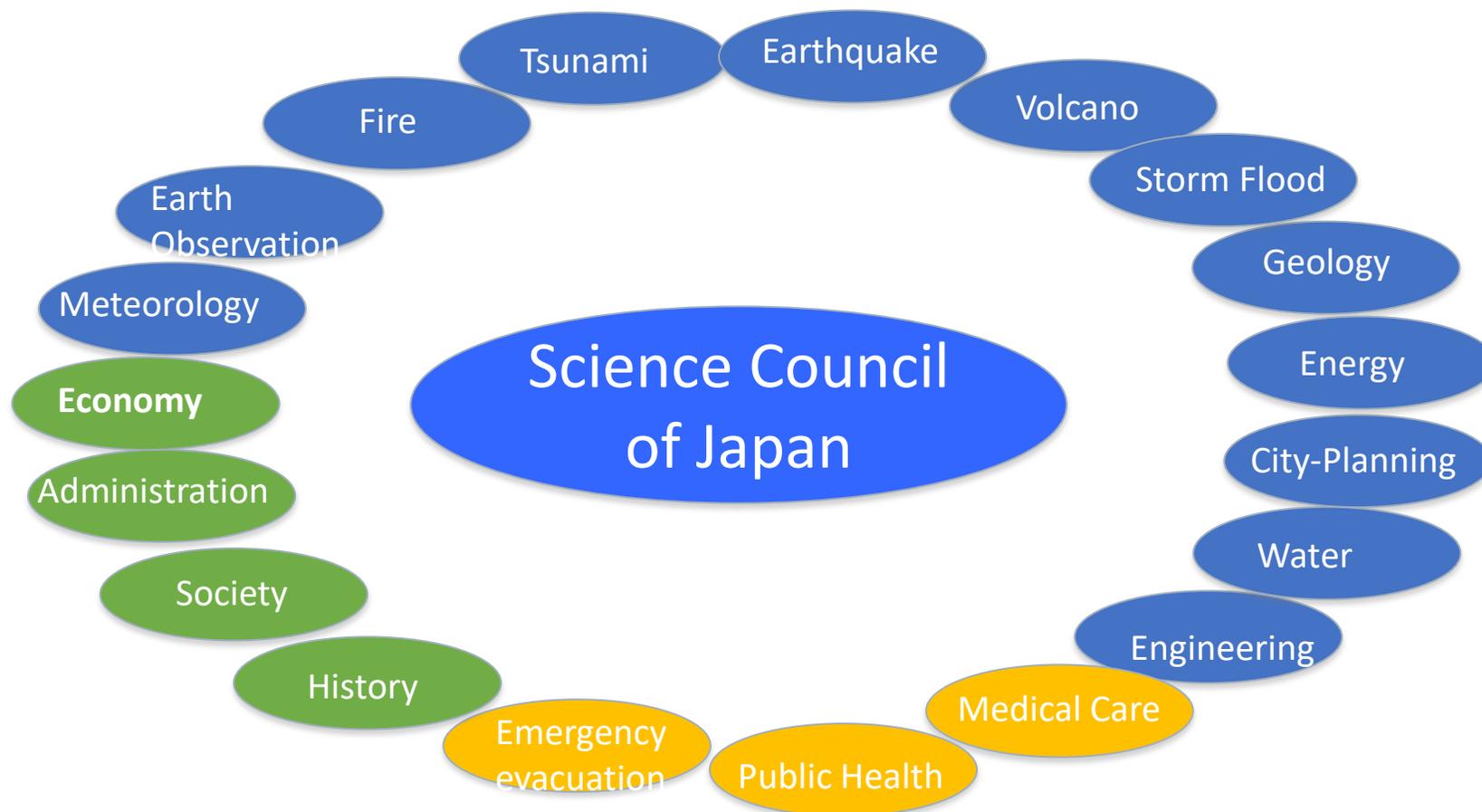


In academic world, specialization has been progressed and integration has been weakened.

# *Japan Academic Network for Disaster Reduction (JANET-DR)*

Established on January 9, 2016

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*

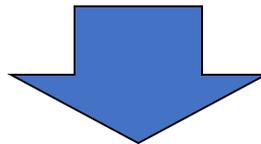
Architectural Institute of Japan,  
Atomic Energy Society of Japan,  
Geographic Information Systems Association of Japan,  
Geological Society of Japan,  
Japan Association for Earthquake Engineering,  
Japan Emergency Management Association,  
Japan Geoscience Union,  
Japan Society for Natural Disaster 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

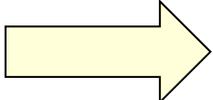
the Great East Japan Earthquake  
March 11, 2011

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)

# 47 Academic Societies and members of Science Council of Japan



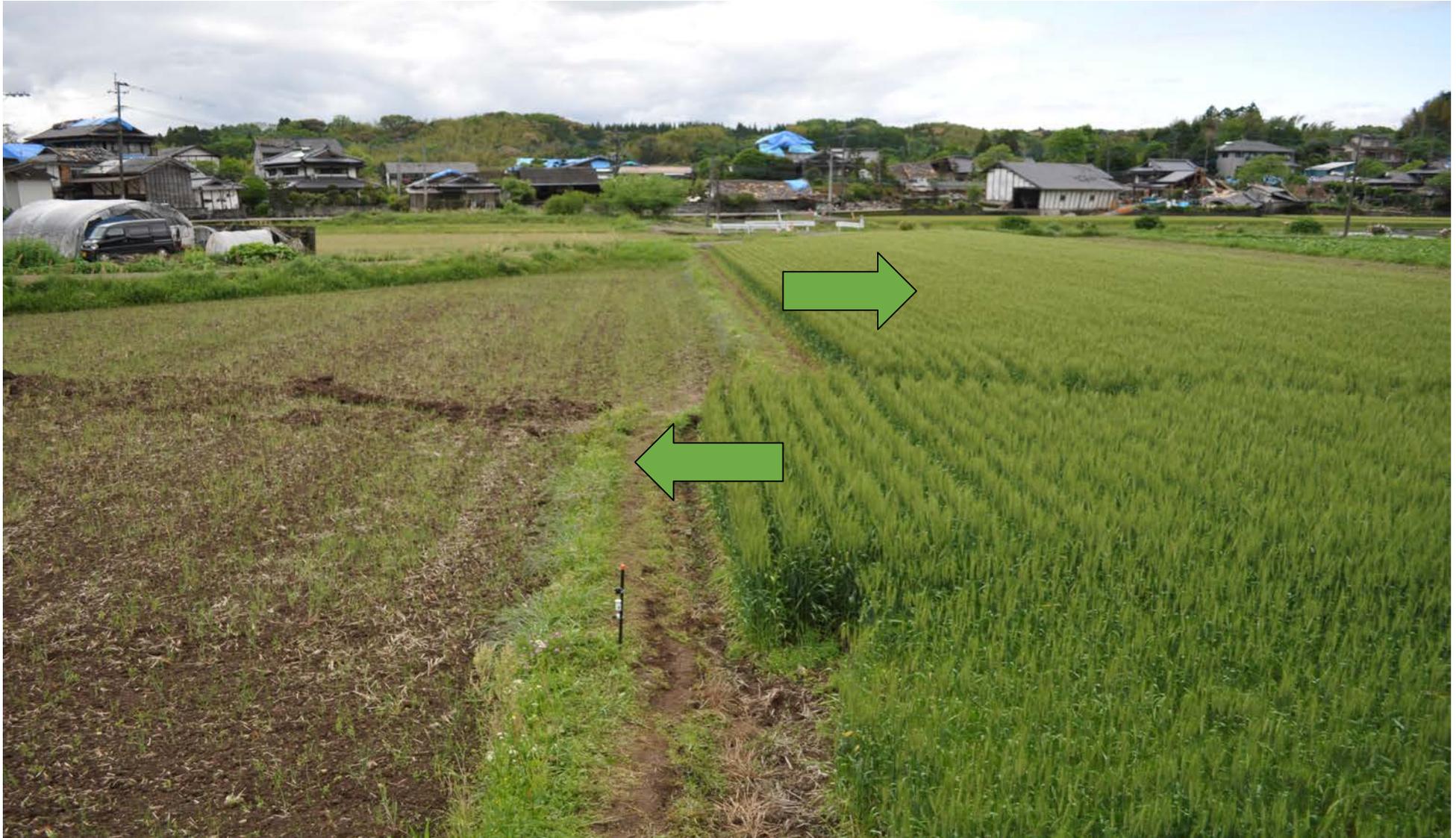
Representatives of 47 Academic Societies and  
members of Science Council of Japan, January 9, 2016

# *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.

## *Emergency joint press conference on April 18*



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.

## *Urgent report meeting* of Kumamoto earthquake on May 2



On 2 May, the "Urgent report meeting" was held and 17 academic societies announced interim reports of urgent investigation and relief activities.

## *Three-month report meeting on July 16.*



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.

# *One-year report meeting in Kumamoto Prefectural Office*

*April 15, 2017*



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.

# *The survey of active faults in Mashiki town on 16 April 2017*



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.

# *The damage of Kumamoto castle*



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

# *Conclusion*

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.