Learning across National Borders and Policy Fields: Empirical Perspectives

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Growing attention to scientific advice in post-Fukushima Japan coincided with expanding international exchange on this topic.
Surge of attention to scientific advice in the last five years
- to address global issues
- to learn from each other
Serious discussion on scientific advice in Japan was triggered by the triple disasters of March 11, 2011.

- The Great East Japan Earthquake, the largest earthquake ever recorded in Japan
- Tsunami, which was caused by the earthquake and resulting in the loss of 18,500 lives
- The Fukushima nuclear disaster, which evacuated people within 20km from the site

“The absence of a strong and independent scientific voice to advice the government.”

– Nature 480, 291 (15 December 2011)
Failed expectations for seismic science, fall of the nuclear safety myth, attention to the closed nuclear community, poor mobilization of science in emergency situations, all contributed to the loss of public trust in science.

Survey results. Question: Should the direction of research and development be decided by experts who are well-versed in the subject?

Creating the position of Chief Science Advisor to the Prime Minister was seriously considered in Japan.

- Great attention paid to the role played by Sir John Beddington, then U.K. Government Chief Scientific Advisor, who advised not to evacuate U.K. nationals in Japan, reassuring not only the British but also Japanese people.
- A series of international symposia were held in Tokyo.

A Cabinet Office’s study group in late 2011 recommended creating such a position, but the proposal did not materialize.

→ A “one-size-fits-all” model of scientific advice would not work.

But in September 2015, the first Science and Technology Advisor to the Minister for Foreign Affairs was appointed.
Codes of conduct in Japan

Principles, guidelines, and codes of conduct overseas was studied, and original codes of conduct was developed in Japan.

Basic concepts shown in UK Department of Business, Innovation, and Skills, "Principles of Scientific Advice to Government" (March 24, 2010).
Dialogue between policy fields, and that between the risk analysis community and the scientific advice community, are needed.
It is important to note the diversity of policy areas that are subject to scientific advice.

- In many cases, risk assessment is expected of scientific advice.
- Risk assessment is always accompanied by benefit assessment, which is more important than risk assessment in some policy areas.
- Social science plays a particularly large role with regard to advice for strategy making, where assessment of the effects of public expenditure is critical.
Comparing scientific advice in diverse policy areas

For example, realms of responsibility of scientific advisory bodies in Japan differ from one policy area to another.

**the “Honest Broker” model**

- **Risk Assessment**
  - (Assessing risks objectively and impartially based on scientific expertise)
  - (Division of responsibility in practice in Japan)
  - Food Safety
    - Food Safety Commission of Japan
    - Ministry of Health, Labor and Welfare (MHLW) (Pharmaceutical Affairs and Food Sanitation Council)
    - MHLW
  - Drug Approval
    - Pharmaceutical and Medical Devices Agency (PMDA)
    - MHLW (PAFSC)
    - MHLW
  - Earthquake prediction
    - (Short-term)
      - Earthquake Prediction Council
        - Japan Meteorological Agency → Prime Minister
    - (Long-term)
      - HQ for Earthquake Research Promotion
        - National and local authorities
  - Climate Change
    - Intergovernmental Panel on Climate Change (IPCC)
    - Conference of the Parties (COP)
Thank you for your attention –

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For more information on this topic, please refer to