The Recent Rise of Risk Discourse in Japan:

Tension between Technocratization and Democratization in the Governance of Science and Technology.

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Objective

- To share the recent experience and problems of Japanese society in regulatory policy and culture with European / American researchers;
  which serves to:
  - Comparative studies (<= theoretical purpose)
  - Finding the same problems to be tackled (<= practical purpose)
- What is Japan's experience?

  Two Trends in the Recent Rise of "Risk Discourse": Technocratization and Democratization of the governance of S&T

Structure

1. What is the "rise of risk discourse"?
2. Background of the rise of risk discourse
   - Crisis of public confidence in S&T and policy system in late '90s.
3. Technocratic Response to the crisis
4. Democratic Response to the crisis
5. Concluding remarks

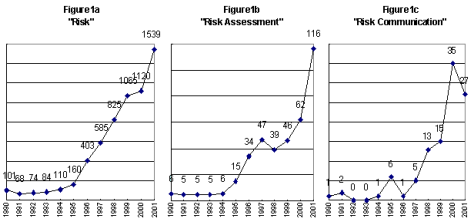
What is "Risk Discourse"?

- Discourse constituted by the language of risk analysis:
  - 'risk', 'risk assessment', 'risk management', 'risk communication', 'risk-benefit analysis' etc…
  - working as an ideology to propagate the conception of risk analysis among general public as well as experts and policymakers in a certain orientation.

What is "Rise of Risk Discourse"?

- Rapid growth of popularity of risk discourse in the second half of '90s.

Frequency of Risk Words in Japanese Magazines and Journals



Source: Nichigai Associates Inc., MAGAZINE PLUS, which includes academic journals in social science, humanities, science, engineering and medicine as well as general magazines written in Japanese. The number shows the frequency of three words appeared in the title of articles in these literatures.

Background of the Rise

- **Before 1995:** "**Safety Myth**" prevailed: Public confidence in / experts' disguise of infallibility of S&T, experts and government.
  - Nuclear Energy: expert and policy community's response to the Chernobyl: "Such accidents will never happen in Japan".
  - Architecture: the response to the Northridge earthquake (@L.A., Jan 17, 1994): "Japanese architectures are safe enough".

Turning point: 1995 and after

- Kobe Earthquake (Jan. 17, '95)
  - Death toll was more than 6,400; Economic damage = US $180billion
- Sodium leak accident at prototype fast breeder reactor (FBR) "Monju" (Dec. 8, '95)
  - IAEA's INES level = 1
  - Operation of Monju has stopped and development of nuclear fuel cycle (uranium-plutonium cycle) long delayed.
- Fire and explosion at reprocessing plant (Mar. 11, '97)
  - INES level = 3
  - 30 workers were exposed to radiation and the radiation was released to environment.
- JCO (Japan Conversion Operation Co. Ltd.) criticality accident (Sep. 30, '99)
  - INES level = 4 (worst case in Japan)
  - Many residents were exposed to radiation containing neutron ray.
- BSE crisis (Sep. 2001 ---)

Impacts on the Public

- Collapse of safety myth & fast decline of public confidence in S&T, experts and government

  e.g. Public support for promotion of construction of nuclear power plant after JCO criticality accident:

  39% in 1994 => 25% in 2001

  decreased 7% between 1998 and 2001

(Public opinion poll by

Research Council for Energy and Information Technology)

Impacts on experts & government (1)

- Dramatic change of attitude toward the safety of nuclear power and public concerns
  - Optimistic: *White Paper on the Nuclear Power 1995* (Atomic Energy Commission, Oct. 1995)
  - Cautious: *White Paper on the Nuclear Safety 1995* (Nuclear Safety Commission, Mar. 1996) squarely acknowledged:
    - Loss of public confidence
    - Lack of transparency and openness of policy-making.

Impacts on experts & government (2)

- STA & MITI joint-statement and proposal (Mar.'96):
  - "Toward the Formation of National Consensus on Nuclear Policy"
  - Round Table on Nuclear Policy (1996, 1998, 1999)
- AEC's decisions
  - "On the Promotion of Free Access to Information and Public Participation in Policy-making of Nuclear Power" (Sep. 25, '96)
  - "For the Future Development of Nuclear Policy" (Oct. 11, '96)

Two forms of Technocratic Response

The response to the crisis seems democratization, but…

1. **Further promotion of P.A. activities**, based on the assumptions:
   - The source of public distrust is the lack of accountability and easiness of understanding scientific information, *not* the lack of technical safety as such.
   - What the public have lost, hence what should be recovered, is the "sense of security (*Anshin* in Jap.)", *not* the technical safety (*Anzen* in Jap.) as such.

→ establishing clearinghouses, publishing information through internet, participatory exhibition for children at the science pavilions of electric power companies, TV programs, seminars etc...

2. **Propagation of risk discourse**
   - as an updated style of PA activity,
   - with a shift from *safety* to *risk*, or from *acceptance of safe technology* to *acceptance of risk*.
- ***Risk communication*** as socio-technical or socio-psychological tool for PA activity, rather than a political means for deliberation.
  - First use of the term in government's documents : *White paper on Environment 1996*
    - Reference to NRC's *Improving Risk Communication*
    - Emphasis on two-way communication and cooperation with the public.

Example of R.C. as P.A.

In order to make definite efforts to *relieve public anxiety* for nuclear power, to *recover the public confidence* and to *improve the public understanding* of risk and safety of nuclear power, it is effective to make full use of the methods of so-called "risk communication"… It is important that the *receivers* [of risk messages] are to get basic education to make judgment on and cope with various risks so that they may *accept* the risks.

(Committee for the Evaluation of Nuclear Public Relations, *The Report of Committee for the Evaluation of Nuclear Public Relations*, ANRE, 2000; italic mine)

Contents of Technocratic risk discourse

- Anti-democratic mindset of promoters

Public control of risks is called regulation. The regulation is by its nature to regulate the magnitude of risks but should not decide the appraisal of technology posing that risk. … Some say that any technology appraisal should be subject to the democratic decision-making. However, if the appraisal depends on the size of political support, it would be political discrimination against those who want to use that technology.

(Contribution to Japanese version of H.W.Lewis's *Technological Risk* ('97), by Shunsuke Kondo, the president of the International Association for Probabilistic Safety Assessment and Management (IAPSAM))

Assumptions and problems of Technocratic risk discourse

1. **Dichotomy of 'objective risk' and 'subjective risk'**
   - capitalization on psychometric studies (e.g. Slovic) of public perception of risk.
   - neglecting *difference in kind* of definition of risk between experts and public.

2. **Lay public's fallacy of zero-risk**
   = Experts' myth of public fallacy of zero-risk

- Persuading rhetoric for people to accept risk,
- using several *clichés*: "Everything has risks", "One should take into consideration benefits as well as its risks", "How safe is safe enough?", "Resource for risk management is finite", "No risks, no benefits", "No adventure, no progress" etc…,
- without considering the width and depth of public concerns for risks.

- **Outcome of Consensus Conference on GMCs** shows the concerns of citizen panel is much wider than scientific experts, including issues of:
  - Meaning of GMCs for Japanese Agro-food system
  - Trade issue of GMCs
  - Social risks (esp. on developing countries)
  - Responsibility of experts and government
  - Fallibility of science and human agents
  - Uncertainty (incl. "unknown unknown")
  - Unpredictability and uncontrollability of nature and human consequences

3. **Risk analysis as a politically neutral ground for decision-making**

neglecting the facts:

- Evaluation of risks & benefits involves value-judgment.
- Uncertainty is a primary locus of controversy, which is an unavoidable predicament
- Framing of risk analysis tends to be much narrower than what stakeholders want to do
- Efficacy/applicability of risk analysis is subject to the societal settings

  e.g. Coincidence of risk-takers and benefit-sharers is one of the vital conditions for the risk-benefit analysis.

Democratic response(?)

…still minor and in the beginning of the way,

1. **Round Table on Nuclear Policy** (’96, ’98, ‘99)

- Boundary case between democratization and technocratization.
- Democratizing principles of Table:
  1. To invite wider range of participants from various corners of society;
  2. Members of the Atomic Energy Commission (AEC) are to attend at every meeting;
  3. To Adopt a dialogue method;
  4. To consider the possibility of meetings held in local areas;
  5. To keep full access to information of the Round Table.

Evaluation of process & outcomes

- Process:
  - operated by 6 moderators including members independent of nuclear community (in ’96 series)
  - more than 100 invited participants including critics.
  - Open meeting, full access to minutes and material docs., videotapes etc…
  - Few general citizen participants (6 in ’96 series)
- Outcomes:
  - Recommendation of “Public Comment Procedure” in nuclear policy-making
  - No critical changes of policy has been made.
- Evaluation:
  - There is a consensus on how to make consensus but no consensus on the contents of the policy
  - Procedurally democratic, but substantially not so.

2. **GM Consensus Conference** (’00, ’01)

- Objective
  - Promotion of communication and mutual understanding between experts and public.
  - New agenda setting based on public concerns and interests.
- Process: (‘00)
  - operated by steering committee incl. 2 STS scholars.
  - facilitator was also a STS scholar
  - 2 closed meetings and 2 open meetings
  - Wider range of expertise invited based on citizen panel’s concerns and interests.
- Outcome:
  - Wider range of framing made by citizen panel
  - New research program (on env. risks of GMCs)
  - Deficit model of scientists remains almost the same

3. **Post-BSE Food Safety Policy** (2001--)

- Concerned Organizations:
  - A) Advisory Committee for Investigation of BSE Problems (MAFF&MHLW)
  - B) Ministerial Conference on Food Safety Administration
  - C) Special Committee on Food Safety (Liberal Democratic Party = gov. party)
- Common concepts (= EU’s)
  - Establishing Food Safety Agency
  - Shifting priority from producers to consumers
  - Introduction of Risk Analysis, for rationalization & depoliticization of regulatory process
    - separating Assessment and Management
    - based on Precautionary Principle (esp. A))
  - Promoting transparency, accountability, participation

Problems to be tackled

- How to promote rationalization and democratization of regulatory process at the same time?
- How to mobilize and organize expertise, how to reform the structure and function of advisory system?
- Cognitive & political legitimacy of public participation
- Problem arising from Assessment/Management Separation
- How to cope with uncertainty, how to operationalize precautionary principle?
- Who to pay cost?
- Trade issues when adopting precautionary principle

List of acronyms used

AEC	Atomic Energy Commission of Japan
ANRE	Agency of Natural Resources and Energy, Japan
CENPR	Committee for the Evaluation of Nuclear Public Relations
IAEA	International Atomic Energy Agency
IAPSAM	International Association for Probabilistic Safety Assessment and Management
INES	International Nuclear Event Scale
MAFF	Ministry of Agriculture, Fishery and Forestry, Japan
METI	Ministry of Economics, Trade and Industry, Japan
MHLW	Ministry of Health, Labor and Welfare, Japan
MITI	Ministry of International Trade and Industry, Japan
NRC	National Research Council, USA
NSC	Nuclear Safety Commission of Japan
STA	Science and Technology Agency of Japan
STAFF	Society for Techno-innovation of Agriculture, Forestry and Fisheries

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