

Nuclear Risk Governance in the Post-Fukushima World

comments
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Fukushima: A Disaster with **Global** Impacts

- The prominence of Japan as a *disciplined* society.
- Fukushima a *global shock* to both nuclear and non-nuclear utilizing countries.
- Global *environmental* concerns
- Raised *awareness* of nuclear producing states of possibly similar events.
- Nuclear *de-renaissance* (?)

Why Fukushima Happened

- *Assessment of Risk Assessment > Deficit Analysis (Sugawara):* lack of knowledge in assessing and understanding risk leads to inability to manage risk with catastrophic results.
- *Organizational deficiency (Schmid):* inherent tendency within complex organization to ignore potential risk due to reliance on standardization of risk prevention.

Lessons Learned and Unlearned

- Implications of Fukushima for the US (Knowles): failure, negligence, and interest > gap in technical knowledge and regulatory structures.
- “Organized ignorance” (Frickel) coupled with “structural disaster” (Matsumoto) leaves risk governance deficit of risk.
- Stark contradiction between cultural explanation and international standardization (Schmid).
- Opportunity for competitors, most notably South Korea (Jeon). How about Russia?
- Continuous nuclearization of Southeast Asia, Middle East, and other regions.

Point of concern

Complexity, Vulnerability, Uncertainty

- Complexity as byproduct of industrial advancements of modern society.
- Vulnerability as an unintended/inevitable consequence of complex sociotechnical organizations (Perrow, Winner, Bijker).
- Internal organizational dynamics and external socio-political environments work together to produce sociotechnical vulnerability (me).

Point of concern

Organization, Expertise, Power

- Risk lies in organizational context: multiple layers of sociotechnical interactions.
- Expertise at the core of emergency decision-making (Knowles, Fortun).
- Limits of expert analysis (epistemological problem) (Woodhouse and Lindblom, Jasanoff)
- Politics at play in risk analysis and blame-placing in the aftermath of disaster.

Questions to Think About

RISK

- How to reconcile cultural/political/critical qualitative understanding of risk and technocratic/scientific/quantitative analysis of risk?
- Can we develop a comprehensive model of risk analysis?
- What multiple approaches to be integrated, if possible, in understanding and assessing risk?

ORGANIZATION

- Can we avoid/lessen organized ignorance and structural vulnerability due to increasing complexity of modern engineered systems?
- If we can, what cultural, political, and institutional resources to be mobilized in order to build resilient organizations?

GOVERNANCE

- What are the new key factors in governing complex sociotechnical systems such as nuclear power plant?
- What proper role should civil society play in democratic governance of nuclear risk?
- What are the common grounds for experts and non-expert groups to deal with complexity and uncertainty of engineered systems?

EXPERTISE

- Should we really abandon faith in expert capacity to fully control technological risk?
- To what extent can we actually rely on expertise and technical knowledge in dealing with crisis and disaster?
- How do we know what we do not know to overcome limits of technical knowledge?
- How can we implement this in the Asian context where technocracy constantly exercises deeply hegemonic power on society?

ありがとうございます。