ECCSSafe – Exploring contributions of civil society to safety

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Why addressing civil society contribution to safety?

- Social dimensions in safety addressed mainly through
  - general issues of stakeholder involvement, perception studies, risk governance studies or general issues of exercise of democracy regarding technical issues
  - Analysis of human and organisational factors in the industry, with a focus on an organisation and its safety culture in a safety system where safety results from the interactions between 3 pillars of safety: operators, regulators and experts
- New approaches developing notably in the nuclear sector, where civil society (CC) is included in the safety system as a 4th pillar of safety, alongside operators, regulators and experts
- First results on this renewed role of civil society in the field of radioactive waste (COWAM research projects) or in the nuclear field (empirical studies – Richardson, Rickwood), but this issue has not been much investigated from a theoretical point of view.

Objectives

Feasibility study for a larger scale research on the contribution of civil society & local actors to the safety of industrial activities, to the safety culture and to the resilience of organisations as regards safety. Objectives:

- Identifying concrete cases & concrete contributions of the engagement of civil society to safety;
- Building a theoretical framework for the analysis of the contribution of civil society to safety;
- Identifying and specifying the nature and added value of the civil society contribution to industrial safety;
- Sketching out favourable conditions & means for the development of a contribution of civil society to the safety of industrial activities in a dynamic perspective;
- Identifying key issues to address in further research and proposing guidelines for a larger scale research.

Outcomes to be produced

- A common theoretical and methodological framework
- 3 case studies in nuclear and non-nuclear fields
- Transversal analysis of the case studies
- Proposition of a guidelines for larger-scale research

Partners

- Mutadis (France) – Coordinator
- Regional Environmental Centre for central and Eastern Europe (Slovenia country office)
- EnergiaKlub (Hungary)

A research team gathering a variety of profiles:

- Academic research
- Think tank
- NGO

Civil society contribution to safety – international perspective (1/3)

Nuclear field pioneer in the development of human & social dimensions of safety

- TMI → human factors
- Chernobyl → safety culture, introduced in 1986 then precisely defined in IAEA INSAG-4 report on safety culture (1991)
  - Focus on the organisations, their members and their management
- IAEA INSAG-20 report on stakeholder involvement (2006), a shift in rationales for interacting with civil society: “The active involvement of stakeholders in nuclear issues can provide a substantial improvement in safety”
  - “provides clarity, prevents complacency and may expose unforeseen problem areas”
  - “increases the motivation of individuals and institutions to meet their responsibilities”, “strong incentives for achieving a high level of safety”

Civil society contribution to safety – international perspective (2/3)

In the field of non-nuclear hazardous activities

- OECD Guiding principles for Chemical Accident Prevention, Preparedness and Response (2003). Roles for CC:
  - "Make chemical risk reduction and accident prevention… priorities in order to protect health, the environment and property"
  - "Communicate and co-operate with other stakeholders on all aspects of accident prevention"
  - "Be aware of risks"
  - "Participate in decision-making relating to hazardous installations"
- OECD Guidance on safety performance indicators (2003)
  - "Stakeholders are in a unique position to provide objective chemical information to the public as well as work with the industry on innovative ways to improve safety of hazardous installations and reduce risk"

Civil society contribution to safety – international perspective (3/3)

Conclusion / international guidelines:

- Significant contribution of CC to safety is acknowledged in some international guidelines
- However, if the concept of safety culture has been thoroughly developed, it has not been the case for the contribution of CC to safety
- Towards a broader understanding of safety culture encompassing the whole safety system composed of operators, regulators, experts and civil society ?

Theoretical framework - Social dimension as a resource for addressing complexity (Luhmann)

- Industrial systems & safety issues are of increasing complexity, mingling technological, human, organisational and social aspects
- “A system is positioning itself in front of an “environment” that is constituted in a selective manner. This “environment breaks itself when confronted with contradictions that occurs between it and the world.” (Luhmann)
- “Social dimension of human experience increase the potential of man facing complexity” (Luhmann)
  - → collective action as a way to deal with complexity
  - → social trust as a tool for reducing complexity and distributing capacity of knowing and acting in the system
- Dynamic character of complexity: processes of reduction of complexity and of re-complexification of the world.
  - → Arising complexity in safety management is not necessarily expected to be dealt with by usual processes and routines

Theoretical framework – Experimental democracy and democratic culture (Dewey, Zask, Bourcier et al.)

- A thinking of the definition of public in terms of social interactions, as a consequence of the impact of activities on the life of people
- Any activity gets a public dimension when it has implications for other people/groups that those who implement them (J. Dewey)
  - Public affairs as an intermediate field in which actors meet or clash to address issues that affect them (negatively or positively)
  - The “public” is intimately related to the specific activity considered
  - State, governments and administrations, although having special prerogatives and attributes, appear as participants among others
  - The legitimacy is build through mutual recognition of players.
- An approach for understanding of the framing processes of emerging issues and their subsequent institutionalisation
- Experimental democracy (TRUSTNET): “cooperative inquiry” processes in which actors (possibly with support of experts) frame and investigate a complex public issue

Theoretical framework – Inclusive governance (Rosenau, Stocker, TRUSTNET)

- Governance (Rosenau) as a “more encompassing phenomenon than government. It embraces governmental institutions but also subsumes informal, non-governmental mechanisms”
- 5 aspects of governance (G. Stocker):
  - concerns a range of organisations and actors
  - modifies the respective roles & responsibilities of public & private actors as established in traditional policy-making
  - interdependence of actors engaged into collective action when none has the necessary resources & knowledge to tackle an issue alone
  - involves autonomous networks of actors
  - actions can be pursued without the power or authority of the State
- Inclusive governance processes (TRUSTNET) aiming to restore citizen’s capacity of influence to change things and contribute to the sustainable development of their territorial community
- Reflexivity of governance

Theoretical framework – Actor-network theories and hybridation (Law, Latour, Callon)

- Most of modern object are of an hybrid nature as they are both technological and human and in which technological and human issues are intermingled.
- Safety involving combinations of what we usually call the social (human actors, relationships, norms, groups, values, etc.) and things deemed technical (technical equipment, measures, calculations, tools, texts, etc.)
- In an innovation process there is mutual adaptation between many factors gathered together in one and the same process, where involved actors do not separate between what is usually defined as technical and social factors.
- Taking into account the social-political-technical nature of modern objects through dialogical procedures and “hybrid forums” enabling mutual learning of experts and non-experts

Theoretical framework – Commons and common good perspective (Ostrom)

- Commons opposed to public or private property as well as to general and particular interests
- Safety as a common good in a network of actors.
- The notion of common patrimony is helpful in order to analyse whether a Commons procedure and process necessitates a new type of governance, namely a ‘patrimonial governance’.
- Commons lead to consider in safety governance:
  - How is safety taken (or not) as a common good between all actors
  - What is the articulation between the common good and the objectives of each actor
  - The “total quality of safety”, i.e. how each actor and the system of action manages the quality
    - Of safety
    - Of his contribution to safety
    - Of the relationship between the various actors as regards safety

Theoretical framework – Trust issues in modern societies, reembedding (Giddens)

- "Disembedding" (Giddens) mechanisms in modern societies, where face-to-face relationships are replaced by abstract systems, formal bureaucratic institutions and faceless relations
- "Reembedding": processes in which faceless commitments are sustained or transformed by face-to-face relations.
- "Access points" as points of connection between individuals and communities and representatives of abstract systems.
  - Crucial in situations in which trust and consequent legitimacy of technology operations is critical.
- Science has long maintained an image of reliable knowledge. However, lay attitudes to science & technical knowledge are becoming more and more ambivalent. Trust building involves increasing introduction of moral issues into the largely instrumental relation between human beings and the created environment.

Case studies

- 2 case studies in the nuclear field among:
  - Engagement of the French Local Information Commissions (CLI) in the 3rd decennial safety review of nuclear reactors
  - Civil society and local actors engagement on the safety of the Asse II mine (used as a radioactive waste storage) in Germany
  - Local partnerships for siting radioactive waste in Slovenia
  - Contribution of CC to the re-assessment of copper canisters quality in the radioactive waste programme of SKB in Sweden
- 1 case study in non-nuclear field among:
  - Engagement of the public on the safety of a hazardous waste incinerator at Dorog, Hungary
  - Hydro power plant dam destruction at the hydroelectrical power station Golica in Austria
  - The role of the Local Information & Dialogue Committees (CLIC) in the Plans for Prevention of Technological Hazards in France

Grid of analysis of case studies

- Understanding of safety and safety culture by the various stakeholders and nature of contribution of CC to safety
- Definition of safety as a public affair and definition of the “public” associated to safety, definition of safety as a common good
- Inclusiveness of governance of hazardous activities and safety governance
- Social construction of technological safety: role of controversies and co-framing of safety issues with stakeholders
- Trust as a tool for addressing complexity, analysis of mechanisms of disembedding and reembedding, integration of technical and non-technical issues

Thank you for your attention