

XII – Transition societal transformation, ethics, values and equity

Parallel session B – Monday 10th March 16:00-17:30

ID N°: [251]

Title: **ENSURING SOCIETAL RELEVANCE IN GEOTECHNICAL CLIMATE ADAPTATION SCIENCE**

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European countries are still facing a range of challenges – from recovery from the deep financial crisis, unemployment and social exclusion, to the challenge of transforming to a low-carbon economy and adapting to the impacts of climate change. In response to these challenges research and development efforts in all scientific areas are called upon to contribute to the Europe 2020 goals of smart, inclusive and sustainable growth. The Horizon 2020 programme as well as other research programmes such as the Joint Programme Initiative (JPI) stress that even technical sciences should be relevant for the wider needs of society at large.

The broader policy-relevant question in this paper is *how to ensure societal relevance in geotechnical research and studies*. While geotechnical research on erosion, landslides, polluted land and flooding form essential inputs into regional and local planning and climate change adaptation strategies, their societal relevance is implicit and sometimes “buried” in the technical details. The task is then to see how this type of research could become more explicit and sensitive to the needs of the users and places so as to better complement the wider climate change adaptation work.

To this end, the concept of “societal relevance” is problematized and operationalized in order to, *evaluate* the degree of relevance to society in geotechnical research, and suggest ways to *ensure* that it become even more relevant. We start by discussing what we actually mean by *societal* (ie “for whom” or which groups science should be relevant) and what we mean by *relevance* (ie are we referring to practicality, usefulness, feasibility, “implementability” or impact?). The paper then proposes and “tests” a *preliminary framework* for analyzing and evaluating “societal relevance” in climate adaptation work based on three broad dimensions adapted from spatial planning, evaluation and governance studies:

- 1) users’ needs and local social, economic and environmental preconditions
- 2) communication, dialogue and feedback possibilities with stakeholders
- 3) potential synergies with other climate adaptation measures and goals at different scales

The empirical background is based on a pilot study of 3 recent types of projects commissioned by Swedish local and regional authorities to the Swedish Geotechnical Institute and dealing with regional climate vulnerability, municipal beach erosion and detailed stability mapping. The study examines the outcome of the studies in terms of the proposed framework both by desk research and by interviews with the relevant local/regional end-users of each project. This is subsequently used to “test” the feasibility of the analytical framework.

While the study is focused on providing a framework for analyzing social relevance specifically for geotechnical science, it is expected that the framework may be useful for analyzing societal relevance in other types of science and knowledge utilized in climate change adaptation.

Presenter

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ID N°: [32]

Title: A “MULTI-ARENA” GOVERNANCE FRAMEWORK FOR THE STUDY OF TRANSITIONS IN THE MAKING

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This paper proposes an analytical framework for the study of “multi-arena” deliberative governance processes.

Supported by a critical assessment of the Arenas of Development (AoD) proposal (Jorgensen, 2012), an alternative to the Multilevel Perspective (MLP) (Geels, 2002), the paper presents a framework to operationalize AoD as a research approach to “transitions in the making”, that accounts for both structural long term changes and everyday life practices. Moreover, the framework suggests that the researcher may choose to assume the role of a facilitator, rather than that of a manager of transitions, and represents a step towards finding a prescriptive “governance from the inside” design, which is non-normative, but instead an open process towards the “moving target of sustainability”.

A critical review of Transition Theories indicates that different ways of viewing socio-technical entities and the interplay of dynamics within actor coalitions – whether they are understood as regimes, niches and landscapes (Geels, 2002) or arenas of development– may bear consequences on modes of governance for sustainability and affect the relational processes between multiple domains of agency.

The objective of the proposed framework is to promote deliberative governance processes and dynamics that could optimize multi-arena relations in policy design and implementation, aiming at transformative change or systemic transitions. Here, governance domains are understood as arenas, and include traditional “command and control” state structures, institutions and agency, but also new forms of network governance, such as social movements, informal networks, online social networks, groups, associations, and non-governmental organizations, and individual or group practices, whose impact may reach out to local, regional, national and supranational levels, creating a wide range of interactions and influences. However, rather than considering a multilevel approach to governance (Bulkeley & Betsill, 2013) we suggest a multi-arena governance approach, where power distribution, political dimensions and arena boundaries are attributes determined within the research itself; shaping the stage where actor-worlds engage in multidirectional power relations and processes of change.

The six step framework - problem setting; arenas; dynamics of influence; political dimension; map cooperation; space for dialogue - supports a participatory process that is open to a multitude of possible actor-worlds and where the researcher assumes the part of a facilitator of change.

Despite presenting research challenges that can probably only be resolved in the field, AoD seems to bring potential advantages if applied to transitions that are currently taking place, or what we referred as “transitions in the making”, because it accounts for everyday practices, allowing for a more in-depth interpretation of the social and political dimensions of transition processes.

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ID N°: [213]

Title: **EQUITY AND ECONOMIC ANALYSIS IN THE DETERMINATION OF CLIMATE CHANGE ADAPTATION**

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This paper discusses the role of equity in assessment of climate change adaptation. It considers equity in relation to the application of economic analytical concepts and metrics, so enabling us to explore the extent to which they are compatible. In order to investigate whether – and to what extent – this is the case, this paper reviews national-level evidence that allows the delineation of the role of equity in a range of adaptation decision-making processes.

In the first part of the paper we define terms in order to promote a shared understanding of equity in the adaptation context. Here, equity refers to the concept of fairness in the distribution of capital, goods or access to services, and the welfare associated with these. Its applicability as a guiding principle in influencing decisions is independent of scale, and operates at multiple scales. We re-state the distinction between horizontal and vertical equity in the adaptation context. Moreover, following the classification made by Paavola and Adger (2002), we delineate between retributive, distributive and procedural equity. Whilst these notions are well-established, their relative importance is disputed. Subsequent empirical analysis seeks to shed light on this issue.

To illustrate how the challenges of equity analysis are currently met at a national level, the paper then presents two country-based case studies of adaptation assessment: from the developing country context (Ethiopia) and from Western Europe (UK). The Ethiopian case study analyses the government strategy for climate-resilience. The strategy focuses on the low per capita income agricultural sector, itself suggesting a distributive aspect to the strategy design. The means by which equity is incorporated into adaptation option identification, appraisal and prioritization in this sector are then evaluated. A feature of the strategy is its temporal sequencing that emphasise short-run adaptive capacity and low-regret options that implicitly give weight to low income, risk averse, farmers. The UK analysis is in the context of the National Adaptation Programme. It assesses the differential impacts for four key risks and associated vulnerable groups. It found, for example, that whilst flood-related policies can disadvantage these groups through weaker protection from floods and lower ability to recover assets lost through flooding, strong social networks can ameliorate the effects. In both country examples, whilst the decision-support processes recognise equity as a decision criterion, the final weightings that it receives in resource allocation are not yet clear. Ultimately, though, this may be expected to determine the acceptability and sustainability of the adaptation strategy.

Presenter

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ID N°: [248]

Title: **INVESTIGATIVE AND TRANSFORMATIVE RESEARCH FOR SOCIETAL TRANSFORMATION TO SUSTAINABILITY**

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The overall objective of our joint research project KLIMZUG NORD is to explore solutions to the question of how to cope with the consequences of climate change in the metropolitan area of Hamburg, Germany (www.klimzug-nord.de, 2009-2014). In our work package 'Climate Adaptation Governance' we facilitate regional co-operation networks for participative problem structuring, capacity building, mutual social learning, and decision support. Our transition approach is normative-oriented towards sustainable development as a societal learning process and based on our Conflict-orientated Understanding (Feindt et al., 2008; Gottschick, 2013). Climate adaptation and mitigation are (only) one of the most relevant aspects of societal transformation to sustainability. Our case studies could easily be viewed as stories of success. However, one of our observations we made was that communication between local actors (farmers, environmentalists, administration) seems too harmonious considering the opposite interests. Further findings included (closed) policy arenas and networks relevant for 'powering over interest'

Focus of the paper is to explore the area of conflict between on the one hand trustfully, collaborative, positivistic, and harmonic transdisciplinary and transformative research and on the other hand investigative (or critical) research to explore and unmask power relationships and strategic behaviour (Gottschick, 2013, im Druck). My aspired investigative research direction is close to what Keller (2011) calls the Sociology of Knowledge Approach to Discourse (SKAD). It does not focus on one particular document of discourse (e.g. one interview) rather it breaks up the material surface of utterances (Keller, 2011). It will be argued that both approaches can be (and should be) integrated in transformative transformation research to avoid pitfalls of each approach and realize both practical and scientific strengths.

I will show first steps how Investigative Research and Transformative Transdisciplinary Transformation Research can mutually strengthen each other (Gottschick, 2013, im Druck). My objective is to give impulses for a new research approach what could be called a "Investigative Transdisciplinary Research for Social Transformation to Sustainability". I'm looking forward to discuss these ideas based on the background of our empirical results.

Our work is theoretically/methodologically based on notions from Actor Oriented Institutionalism (Mayntz and Scharpf, 1995), Soft System Thinking (Checkland, 2000), Participative Modeling (Gottschick, 2008; Vennix, 1999), Participation and Climate Change (Gottschick and Ette, 2013; Knierim et al., 2013); Reflexive Governance (Gottschick, 2013; Voß et al., 2006), and Transition Studies (Geels and Schot, 2010; Gottschick, 2013; Grin et al., 2010; Markard et al., 2012).

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