Conference on European Climate Change Adaptation Research and Practice

XII – Transition societal transformation, ethics, values and equity

Parallel session D – Tuesday 11th March 14:00-15:30

ID Nº: [27]

Title: **TOWARDS EXPLANATIONS OF 'DEEP' SHIFTS IN ENVIRONMENTAL GOVERNANCE PRACTICES: A FRAMEWORK AND EXAMPLES FROM THE DOMAIN OF FLOOD RISK GOVERNANCE IN THE NETHERLANDS**

Authors: Dries Hegger[1]

Institutions: [1]Utrecht University, Environmental Governance, Copernicus Institute of Sustainable Development

Changes in environmental governance practices can be part of and may constitute an important force behind the transformative pathways to sustainability that are increasingly asked for in society. To be able to understand and help constitute such changes, insight is needed into, first, the types of shifts that are occurring or have occurred, and second, potential explanations for such shifts. Literature provides some evidence that both conceptualising the former (the explanandum) and providing an overview of the latter (possible explanatory factors) is often done in an incorrect or incomplete way.

To address this gap, this paper presents a framework for explaining 'deep' changes in environmental governance practices, based on a review of recent literature from the fields of policy sciences and environmental governance. The framework, first, provides guidance on how 'deep' changes can be distinguished from 'shallow' ones and, subsequently, introduces five types of explanatory factors (and their possible interrelationships): physical circumstances, infrastructures, structural factors, characteristics of agency and shock events. The usefulness of the framework is illustrated with the example of a shift towards a risk-based approach to water safety in the Dutch city of Dordrecht.

The paper concludes that the presented framework provides a good starting point for empirical studies into explanations for shifts in environmental governance practices. Our tentative expectation is that a future comparison of explanatory studies will show diversity in: i) the extent to which shifts can be identified across domains and geographical contexts; ii) the extent to which these shifts can be attributed to policies purposefully aiming at such shifts (or not) and, finally iii) the relative importance of structural factors vis-à-vis characteristics of agency in explaining such shifts.

Presenter

Name: Dries Hegger

Email: d.l.t.hegger@uu.nl

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ID Nº: [290]

Title: **DIVERGENT ADAPTATION TO CLIMATE VARIABILITY: A CASE STUDY OF PASTORAL AND AGRO-PASTORAL SOCIETIES IN NIGER**

Authors: Julie Snorek[1]; Fabrice G. Renaud[1]; Julia Kloos[1]

Institutions: [1]United Nations University Institute for Environment and Human Security (UNU-EHS), Hermann-Ehlers-Str. 10, 53115 Bonn Germany

Adaptation is a complex, dynamic, and sometimes unequal process. Stemming from social ecological systems theories of climate change adaptation and adaptive capacity, this case study introduces the concept 'divergent' adaptation. Adaptation is divergent when one user or group's adaptation causes a subsequent reduction in another user or group's adaptive capacity in the same ecosystem. Using the example of pastoral and agricultural groups in northern and southern rainfall zones of Niger, this study illustrates the concept of divergent adaptation by identifying changes in adaptive capacity of users or groups which have historically conflicting patterns of natural resource use. During a period of eight months in the Tahoua region of Niger, we carried out 115 qualitative interviews with sedentary agricultural and agro-pastoral and nomadic pastoral households, expert interviews with multi-scale community leaders from both customary and democratically elected positions, and document reviews at the regional and department levels. As other studies have found, expansion of farmland and the consequent loss of pastoral space are restricting pastoral adaptation mechanisms. Divergent adaptations favoring agricultural livelihoods include planting around pastoral wells or within pastoral corridors, both of which limit the mobility and entitlements of pastoralists. Institutions rarely secure pastoral routes and access to water points, a problem that is compounded by conflicting modes of governance, low accountability, and corruption. The case study illustrates the necessity of institutions to enhance adaptive capacity of multiple user groups and enable their transformation when conditions require it.

Presenter

Name: Julie Snorek

Email: snorek@ehs.unu.edu

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ID Nº: [277]

Title: **REGIMES OF VALUE, CLIMATE CHANGE AND THE HANDLING OF WATER**

Authors: Katrina Wiberg[1]

Institutions: [1]Aarhus School of Architecture

Regimes of value, climate change and the handling of water

Both regionally and locally areas are subject to climate change adaptation in relation to handling of water. This is often costly and have physical implications of our landscapes. In this context climate change adaptation and handling of water could be seen not only as a limitation but also as a potential to achieve added-value in our surroundings and society as such.

But how do we define and agree on what kind of added-value to achieve? And since the concept of value in itself is both relative and contextual interdependent - how do we discuss and engage with the concept of value - cross-scale, between different actors[1] and varying fields of interests? The objective of the presentation is to engage with the concept of value in relation to climate change adaptation and handling of water in order to engage interdisciplinary and intersectorial within the field of landscape architecture.

If one accept that value is a relative concept, it is apparent that what is seen as a value to one actor in a certain project is not necessarily considered a value to another actor within the same project. Value naturally involves priorities and compromises related to underlying understandings related to distinctive regimes and contexts. Thus values have a clear potential of conflict.

How do we bridge fields of values in order to discuss and develop added-value in a practice oriented context of climate change adaptation?

Thévenot and Boltanski present an overarching approach to values with their *6 Regimes of Justification*[2], *the market-, the industrial-, the opinion-, the domesticity- and the civic regimes*. These regimes of justification could provide an alternative approach to address value and different actors allowing for mutual understanding as a mean to reach for a collaborative and contextual development of added-value.

The 6 regimes of justification are used as a method to analyze an ongoing project about SUDS/WSUDS[3]: "*Alternative climate change adaptation Project in Lystrup Town"* by Aarhus Municipality. The purpose of this project is climate change adaptation involving different regimes (policy makers, different disciplines, sectors, utility company and citizens) with the objective of handling water as well as focusing on added-value.

The overall objective in the underlying research project is to engage in the field of climate change adaptation by a practice-oriented approach. Findings are expected to be transferable to other fields where added-value, interdisciplinary, intersectorial collaboration and sustainability are considered relevant.

1 e.g. municipalities, regions, advisors, commercial interests, utility companies, citizens

2 Luc Boltanski og Laurent Thévenot, *De la justification. Les économies de la grandeur*. Éditions Gallimard. Paris. 1991

3SUDS – sustainable drainage systems, WSUDS – water sensitive urban design

Presenter

Name: Katrina Wiberg

Email: katrina.wiberg@aarch.dk

ID Nº: [230]

Title: **THE POTENTIAL OF TRANSDISCIPLINARY RESEARCH-EDUCATION COOPERATIONS AS A STEP TOWARDS SOCIETAL TRANSFORMATION.**

Authors: Maximilian Riede[1]; Lars Keller[2]; Johann Stötter[2]
Institutions: [1]alpS Centre for Climate Change Adaptation; [2]Institute of Geography University of Innsbruck

Responding to key challenges of the 21st century, such as global climate change, is a complex process of societal transformations. While the body of knowledge on the physical science basis of climate change and its impacts is growing steadily, there is not yet an equivalent understanding of the societal challenges of global climate change. However, every key document, including the IPCC 5th Assessment Report, prioritises participatory approaches for knowledge sharing and capacity-development. Therefore, it is absolutely vital to focus the production of transformation knowledge additionally to system and target knowledge.

Within the project "*k.i.d.Z.21*", a research-education cooperation between the *Karl-von-Closen high school Eggenfelden* (Germany), the *University of Innsbruck* (Austria) and its international partner network including scientists from *alpS - Climate Change Adaptation Centre* (Innsbruck /Austria) and *University of Natural Resources and Life Sciences* (Vienna/Austria), about 120 students deal with various interdisciplinary aspects of global climate change. While natural science school subjects focus on the chemical, physical and biological causes and effects of climate change, in the humanities anthropogenic causes and effects of climate change are at the center of attention. In geography, the interactions between man and environment, in the context of global climate change, are being discussed.

Designed on the principles of Moderate Constructivism and embedded within the UN Decade of Education for Sustainable Development, the participating students have the opportunity to choose a specific area on which they concentrate in more detail and participate through active contributions in the classroom. Following this 6-month intensive phase, the students meet scientists of different disciplines and collaborate with them in a one-week research camp at the University Centre Obergurgl (Austria). During this research week, students will have the opportunity to discover previously and theoretically developed topics in reality. However, the scientists don't act as one-way communicators of knowledge but collaborate with the students at eye level. While scientists communicate their objective expertise, they get insights into students' subjective perception and attitudes towards different aspects of climate change.

The goals of this research project are twofold. On the one hand, it serves as an environment for knowledge-sharing between students and scientists. On the other hand, by evaluating the students before, during and after the project, it is expected to provide insights into the complex field of societal transformation as well as conceptual and behavioural change in order to find adequate formats and methods for the effective communication of adaptation-related societal transformation.
In this talk, novel insights as well as field-tested and scientifically evaluated measures towards societal transformation will be presented.

Presenter

Name: Maximilian Riede

Email: Riede@alps-gmbh.com