

## X – Knowledge sharing and science-practice interactions

### Parallel session B – Monday 10<sup>th</sup> March 16:00-17:30

**ID N°:** [173]

**Title:** **EXPLORING THE INFORMATION GEOGRAPHIES OF CLIMATE CHANGE ADAPTATION THROUGH INNOVATIVE MAPPING TECHNOLOGIES**

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Climate change has prompted a proliferation of information on adaptation practices that has been facilitated in part by a growing number of online platforms that have generally succeeded in removing some of the barriers to sharing online while improving their techniques for the collation and systematisation of data.

The Climate Actor Mapping for Adaption (CAMA) project aims to build upon the success of climate change adaptation knowledge platforms by harvesting data and using innovative social network mapping techniques to isolate trends and patterns within datasets. Strong methodological influences are evident from its sister project EMAPS (Electronic Maps to Assist Public Science), led by Professor Bruno Latour and Axel Meunier from Science Po, Paris.

CAMA will initially harvest data from one climate change adaptation platform: weADAPT. This platform provides access to metadata from a wide array of projects, many of which have geospatial components. Dynamically syncing the link between the dataset and visualisations will provide researchers, practitioners, planners and policy/decision-makers with a continually up-to-date and relevant resource to help inform multi-scalar decision-making and strategic partnerships.

Outputs will include a number of powerful communication tools that we would like to showcase at this Adaptation Frontiers conference and the final outputs from project scheduled for the latter half of 2014 will see the dynamic linking of the visualisations into weADAPT's "Adaptation Layer".

The mapping process follows an extensive capacity building exercise revolving around Stockholm Environment Institute Centres in Asia (Bangkok) and Africa (Nairobi) to increase the depth and breadth of weADAPT case studies, from which the maps will draw their data.

Utilised in this way, "big data" gathered through case studies on adaptation can unveil hidden connections between different stakeholders/actors and help answer: who are the biggest producers of knowledge? Who collaborates with whom? Which sub-areas of adaptation are emerging priorities? Where is the funding flowing from, and to where? Where are the big gaps in adaptation competencies?

#### **Presenter**

**Name:** Michael Rastall

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**ID N°:** [131]

**Title:** RESEARCH TO INFORM ADAPTATION PLANNING AND POLICY IN THE BUILT ENVIRONMENT AND INFRASTRUCTURE SECTORS

**Authors:** Roger Street<sup>1</sup>; Patrick Pringle<sup>1</sup>; Vicky Hayman<sup>1</sup>

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The Adaptation and Resilience in the Context of Change (ARCC) Network is a knowledge exchange network established in 2009 to increase the capacity of researchers, policymakers and practitioners to work together and seek solutions to issues relating to adaptation and resilience in the built environment and infrastructure sectors. The ARCC Network aims to enable the effective interpretation, integration and mobilisation of knowledge emerging from across the research community to better inform policy and practice.

In addition to providing opportunities for interdisciplinary research projects to share resources, data and results, the ARCC Network facilitates the engagement of a wide range of stakeholders within the research process. By enhancing stakeholder-researcher links and collaborations, the Network helps promote outputs that are focussed on informing the adaptation planning and policy process and maximises and accelerates the uptake and impact of such outputs.

UKCIP manages the ARCC Network which is now entering the second phase of its work with a broader mandate including the requirement to integrate evidence and information on the wider aspects of adaptation and resilience (environmental, technical and socio-economic drivers of change, including climate change) to support sustainable growth. This includes a recognition that there is much to be gained across Europe by sharing experiences and expertise with similar national networks and organisations both to identify and promote research synergies and to contribute to, and benefit from, lessons learnt from the process of sharing of information.

This presentation will highlight some of the cross-sectoral knowledge exchange activities carried out by the ARCC Network, the achievements and the challenges. In particular, the presentation will point to the value of activities such as focussed science-policy/practice dialogues (on infrastructure interdependencies), targeted themed initiatives (on overheating and the role of social science in adaptation research and knowledge exchange for example), early career researcher-focussed events and other activities such as involvement with the CIRCLE-2 climate adaptation INFOBASE.

This presentation will offer an opportunity to highlight recent accomplishments and on-going challenges, and to explore lessons learnt related to cross-cutting knowledge sharing approaches at the local, national and international levels.

**Presenter**

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**ID N°:** [249]

**Title: SCIENCE-STAKEHOLDER BASED ADAPTATION RESEARCH GAINING PACE: EXPERIENCES AND THEORETICAL CONSIDERATIONS FROM SWEDEN**

**Authors:** Åsa Gerger Swartling<sup>1</sup>; Oskar Wallgren<sup>1</sup>; Karin André<sup>1</sup>; Gregor Vulturius<sup>1</sup>; Anna-Maria Jönsson<sup>2</sup>; Fredrik Lagergren<sup>2</sup>; Victor Blanco<sup>3</sup>

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The next generation of climate change adaptation research needs to learn from the successes and shortcomings of its predecessors. Despite its scientific advancements, adaptation research has so far had only modest impact in demonstrating its relevance to stakeholders and decision makers.

This presentation highlights core elements of the new generation of adaptation research that promise to increase the readiness of relevant stakeholders to act. We will showcase past experiences and present theoretical considerations based on the ongoing Swedish research programme on climate, impacts and adaptation, Mistra-SWECIA. In six years, Mistra-SWECIA has gradually developed into a multidisciplinary science-stakeholder-based research process shaped by new scientific insights and stakeholders' perspectives.

Mistra-SWECIA was launched in 2008 in the aftermath of a devastating hurricane and Sweden's first governmental inquiry on climate change. In the project's first phase, research on climate scenarios and impact assessments were complemented by participatory research involving stakeholders of the forestry sector. This research took the form of focus groups which aimed to elicit stakeholders' views and opinions about climate change and adaptation and to offer a platform for knowledge exchange between scientists and stakeholders.

For its ongoing second phase, the scope of Mistra-SWECIA was broadened to include a number of participatory research methods that are expected to foster a science-stakeholder dialogue that more directly addresses stakeholder's questions and needs, without compromising the research agenda. Mistra-SWECIA now encompasses targeted climate change communication for forestry stakeholders. Stakeholders have also been actively involved in the design of a quantitative survey and the development of an Agent Based Model that aims to inform future policies and decision making.

Experiences from Mistra-SWECIA strongly suggest that adaptation research needs to become more interactive and practice-orientated in order to create greater engagement among relevant stakeholders with climate change adaptation. Future adaptation research should engage both scientists and stakeholders in a process of co-production of knowledge and joint development of research questions. This requires adaptation research to be conducted in multiple steps giving scientists and stakeholders' time and space for co-evaluating the research process and findings, assess adaptation needs and build mutual trust. Our findings also suggest that science-stakeholder based adaptation research needs to address social barriers to adaptation, namely factors affecting the perceptions of the severity of climate change risks and of the efficacy of adaptation measures. This calls for the development of user-oriented climate change communication strategies that build upon insights into these barriers and that convey a sense of self-efficacy to stakeholders.

**Presenter**

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**ID N°:** [159]

**Title:** **YOUTH MEETS ADAPTATION SCIENCE AND PRACTICE. AN EXAMPLE OF BIDIRECTIONAL KNOWLEDGE-SHARING FROM AUSTRIA.**

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Global climate change leads to rising pressure to adapt at a local level, especially in mountainous and coastal regions. Simultaneously to mitigation efforts, adaptation measures have to be taken in order to deal with the unavoidable climate change impacts. Both, the IPCC 5th Assessment Report and the EU Adaptation strategy prioritise participatory approaches for knowledge sharing and capacity-development in order to take early, planned adaptation actions instead of paying the price of inaction in the future.

Today's teenagers will not only be tomorrow's decision makers in business, politics and science, their generation will also have to tackle climate change more intensively. Therefore, it is absolutely vital to involve them in current efforts on climate change adaptation. When considering the future of the young generation, it is essential that they develop capacities to be able to adapt their own actions to the changing conditions flexibly.

However, there are hardly any specific target-group oriented and field-tested approaches to promote adaptation awareness and capacity-development among teenagers. This gap is being addressed by the project *ActAdapt - Action for Adaptation Awareness*. In this inter- and transdisciplinary research-education cooperation, 70 secondary school students of three grammar schools in Tyrol (Austria) collaborate with researchers and practitioners from alpS - Centre for Climate Change Adaptation (Austria) and its international partner network in research on climate change adaptation. Thematically embedded within the existing school curricula, however designed with innovative out-of-classroom activities, the project features motivational elements for the participating students as well as down-to-earth applicability for the responsible teachers and school headmasters.

The workshops, designed on the principles of the UN Decade of Education for Sustainable Development as well as the theory of Moderate Constructivism, create an appropriate environment for exchange between students and experts at eye level, which enables teenagers to develop their own research questions, conduct research independently and finally discuss their results with current decision makers.

Unlike most monodirectional knowledge-sharing education and outreach activities, *ActAdapt* thereby arranges a bidirectional exchange. While students express their attitudes and expectations as well as their research results, the scientists and practitioners exchange their experiences and competences. These target-group specific communication and learning methods will be developed, applied and the students' conceptual change in terms of topic-related knowledge, attitude and behaviour as well as their function as inter- and intra-generational multipliers in their social environment is being scientifically evaluated within *ActAdapt*.

In this talk, field-tested examples as well as novel insights for knowledge-sharing and facilitating adaptation actions will be presented.

#### Presenter

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