

X – Knowledge sharing and science-practice interactions

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

ID N°: [72]

Title: CLIMATE CHANGE ADAPTATION MANUAL: EXPERIENCES AND LESSONS LEARNED ACROSS EUROPE AND BEYOND

Authors: Sabine McCallum¹; Andrea Prutsch¹; Torsten Grothmann²; Inke Schauser³; Rob Swart⁴

Institutions: ¹Environment Agency Austria; ²University of Oldenburg, Germany; ³Federal Environment Agency Germany; ⁴Alterra, Wageningen University and Research Centre, Netherlands

Success in the international negotiations on mitigating climate change seems further away than ever. Thus, the importance and urgency of adaptation is becoming more and more apparent. It is now one of the main imperatives of international research and action. However, past and present research on adaptation is mostly not directly applicable to adaptation policy or practice, leaving a disconcerting gap between scientific results and practical advice for decision makers and planners.

A Climate Change Adaptation Manual has been edited by Prutsch, McCallum, Grothmann, Schauser and Swart with the aim to bridge this gap by providing practical and readily applicable information on climate change adaptation. This compendium on the current state of adaptation offers inter-disciplinary insights into cutting edge knowledge and lessons learned.

The core of the Manual is structured along three main essential phases in adaptation processes: (1) Preparing the ground; (2) Planning for adaptation; (3) Implementing adaptation and reviewing the process. For every phase guiding principles for good adaptation are developed, which are exemplified by experiences from adaptation policy and practice in several European countries. Practical experiences are presented on how to, for example, explore climate change vulnerabilities or ensure commitment for adaptation in the governmental and private sector. Further cases investigate practical experiences with prioritising adaptation options or dealing with uncertainties. Additional chapters describe the state of adaptation in the US, Canada, Australia, Japan and in developing countries.

The book is framed with an overview on current adaptation research and practice and a final section on lessons learned from the practical experiences presented and a discussion on necessary future pathways in research, policy and practice on adaptation.

The presentation will commence with a brief overview of the experiences gathered and published in this Manual, highlighting both policy responses and practical, on-the-ground adaptation measures. The main part of the talk will however focus on our lessons learned from the various state-of-the-art examples and provide some "food for thought" on possible further directions for adaptation in research, policy and practice.

Presenter

Name: Sabine McCallum

Email: sabine.mccallum@umweltbundesamt.at

Title: WHY IS IT SO DIFFICULT TO GET STAKEHOLDERS AT THE(CLIMATE CHANGE) TABLE? A LOOK INTO THE KITCHEN OF SCIENCE

Authors: [Marta Varanda](#)¹; Sofia Bento²; Audrey Ricahrds³; Nicolas Faysse⁴

Institutions: ¹University of Lisbon, ICS; ²University of Lisbon , ISEG/SOCIUS; ³IRSTEA; ⁴CIRAD

In face of complex environmental problems and of a need for the sustainable management of water, answers are increasingly requested from science. In order to face such challenge science must be constructed in cooperation with policy makers and society, and its product must be linked to policy. However, differences in interests, incentives and languages among these actors raise a number of obstacles. These are further increased when the scientific results involve predictions of the future that are not certain and not related to short term issues, which is the case with climate change.

This paper focuses a set of scientific projects financed by the 2007 Circle Med call, which dealt with the management of hydrological resources in the Mediterranean region in a context of climate change. The call emphasized that “adaptation strategies call for early collaboration with decision makers in order to effectively disseminate recommendations from the call to policy practitioners. Research projects should aim at identifying and providing information to solve practical adaptation problems”. The current study focuses 7 of the 8 projects selected, and it was set out to determine the stumbling blocks and enabling conditions for achieving the call’s objectives as far as the relationship between scientists and stakeholders goes.

After the analysis of documents and interviews to researchers and stakeholders, we concluded that the liaison to stakeholders had a very secondary role (and was often not even considered) in the scientific process and outputs. According to researchers, the under financing and short duration of projects was to be blamed. However the absence of a “culture” among the natural scientists to make the linkage to society, plus the lack of methods and competences to do it, seem to be also at play here. Moreover the topic of research itself, climate change, has created great difficulties to researchers engaging in field work that involved stakeholders. Climate change is so distant from the concerns and needs of local actors that it did not seem a topic in which knowledge could fruitfully be exchanged and built. In consequence research teams, avoided engaging with stakeholders - mainly local civil society but also regional administrations - under the umbrella of such topic. According to a researcher a frequent reaction of stakeholders was: “Climate change? Hmm... Please just let me get back to my work!”. Innovative participatory methods, with a credible and accessible message and firm commitment to include society’s feedback, are needed in order to get stakeholders at the climate change table. There is already enough know-how accumulated to join these two worlds incomprehensibly apart; however it must be followed up by changes in policies defining scientific performance and the incentives underlying it. Greater flexibility (e.g. budgetary) and responsiveness, together with the empowerment of all partners in the scientific process are required.

Presenter

Name: Marta Varanda

Email: Marta.varanda@ics.ul.pt

Title: HOW TO COMMUNICATE CLIMATE CHANGE ADAPTATION EFFECTIVELY?

Authors: [Andrea Prutsch](#)¹; Veronika Wirth, Natalie Glas, Markus Leitner, Maria Balas, Therese Stickler¹; Torsten Grothmann²; Bettina Wanschura, Stefanie Gartlacher, Wolfgang Gerlich, Florian Lorenz³

Institutions: ¹Environment Agency Austria; ²University of Oldenburg, Germany; ³PlanSinn Vienna

Communication of climate change, its potential impacts and feasible adaptation options, is essential for successful adaptation, but proves difficult due to its complexity, long-term perspective, uncertainties, fragmentation of knowledge and adaptation barriers.

The project **CcTalk!** deals with the question on how to communicate climate change adaptation effectively to stakeholders and the general public in order to increase awareness, motivate to take actions as well as enhance the acceptance of adaptation activities taken by others. Thus, an adaptation communication guideline for Austria as a framework to support implementation of adaptation is currently under development. This guideline will present the main outcome and experiences gained within CcTalk!.

In a first step we conducted an inventory of communication formats that were developed in 10 OECD countries in order to get a comprehensive overview on the status quo of climate adaptation communication. We identified more than 270 adaptation communication formats and assessed these by using 16 success factors for communication. In a second step, potential target groups for adaptation communication in Austria were screened using multiple criteria (e.g. reachability via communication formats) and three different target groups were investigated in depth via half-standardized interviews. Based on results of the interviews we developed four different communication formats focusing on health and heat (two short videos (risk and adaptation action), flyer, brochure and an expert talk concept) for two target groups (mobile health care nurses for the elderly and kindergarten teachers in Austria). The communication formats developed focus on the identified drivers of adaptation behavior in the addressed groups. They were presented in four focus group workshops and evaluated by members of the two target groups. Based on the evaluation, the communication formats were further improved to better fit the target group needs.

In order to tackle the complexity of this issue, the research is being carried out in a transdisciplinary way. Thus, we developed sustainable and practical knowledge in close cooperation with a transdisciplinary sounding board comprised of experts from climate research, communication, education, media, science, policy making, emergency service and business.

The paper will present the general approach taken in the project in order to find answers to the research question set out and highlights findings of key topics such as developing principles for effective communication in climate change adaptation, assessing available communication formats, investigating target groups for communication as well as developing new communication formats for climate change adaptation.

Presenter

Name: Andrea Prutsch

Email: andrea.prutsch@umweltbundesamt.at

Title: TRANSNATIONAL LEARNING FOR DROUGHT ADAPTATION: OPPORTUNITIES AND BOTTLENECKS FOR KNOWLEDGE TRANSFER

Authors: [Joanne Vinke-de Kruijf](#)¹

Institutions: ¹University of Osnabrück

As in the rest of the world, Northwest European countries increasingly experience more frequent and intense periods of drought and water shortage due to climate change. International collaboration and knowledge transfer may help reducing these problems. That knowledge transfer can play an important role in climate change adaptation is explicitly acknowledged in the European Climate Adaptation Strategy and stimulated through cohesion programmes for transnational and cross-border collaboration, such as Interreg.

To better understand opportunities and bottlenecks to transnational learning, we build upon the literature on policy transfer and implementation, knowledge transfer, and social learning and the experiences of an Interreg IVB project focusing on drought adaptation and governance (DROP project). In the project, six water management authorities (practice) and five knowledge institutes (science) investigate how Northwest European regions can prepare for an increase of drought and water scarcity. The project is implemented by various transnational teams. A governance team analyses the governance context for drought adaptation in the six participating regions. The water authorities exchange knowledge and experience related to nature, agriculture and freshwater in three transnational drought teams.

Literature often emphasizes contextual differences as a bottleneck for knowledge transfer. This does not mean that a transfer between relatively similar countries is without problems. In fact, relatively small, but important, institutional and practical differences are often overlooked making the transfer of knowledge less successful. Moreover, collaboration between persons with diverse socio-cultural, organizational and professional backgrounds easily gets stuck in misunderstandings, which make partners less willing to trust and to collaborate. While, knowledge transfer is thus far from straight-forward, it is certainly not impossible. Particularly, personal and direct communication and working together in small teams stimulate knowledge transfer. Also the involvement of persons who can 'translate' between persons with diverse backgrounds may help to diminish hurdles for knowledge transfer.

The DROP project confirms that 'the interactive process of knowledge transfer' is a key factor in explaining the successful transfer of knowledge. As no context is exactly the same as another, knowledge transfer is only possible when actors want, know and can adapt knowledge to their own relevant context. This involves learning processes, which can be enhanced through interaction. The challenge is to stimulate not only interpersonal learning by individuals, but to also stimulate the organization in adopting this knowledge. A broad understanding of social learning that pays attention to the multi-level context is needed to better understand the bottlenecks and opportunities of knowledge transfer in an international setting.

Presenter

Name: Joanne Vinke-de Kruijf

Email: joanne.vinke@gmail.com