

Potential of transdisciplinary approaches and modeling for supporting transitions towards sustainability

April 10th to April 11th 2013
Munich

Background

Achieving sustainable development requires a transition from the current state of the human-environment system (e.g., values, norms, policies, infrastructure and economics), to a more sustainable one. It is agreed upon that this transition cannot be supported by the knowledge of a single scientific discipline alone. There is a need to develop tools which are able to exchange and produce knowledge at the interface between disciplines as well as between science and society. Furthermore, science should develop tools for anticipating potential outcomes of scenarios and strategies, e.g., societally relevant decisions and policies and assessing them from a sustainability perspective. Thus, two elements seem key to support a transition towards sustainability from a scientific perspective: transdisciplinarity and simulation modeling.

Aim of the conference

The potential of transdisciplinary research and modeling for fostering production and exchange of knowledge between science and society to induce transitions towards sustainability are at the center of this conference. We will analyze the commonalities, differences and linkages between transdisciplinary methods and modeling tools in the context of transition processes.

Keynote speakers (confirmed)

- **Prof. Dr. Wolfram Mauser**
(Department of Geography, LMU Munich, Germany)
- **Prof. Dr. Claudia Pahl-Wostl**
(Institute of Environmental Systems Research, University of Osnabrück, Germany)
- **Prof. Dr. Roland Scholz**
(Institute of Environmental Sciences, ETH Zurich, Switzerland)
- **Prof. Dr. Urs Wiesmann**
(Institute of Geography, University of Bern, Switzerland)

Sessions

The Symposium is set up such that **key plenary sessions** will be complemented with **speed presentation sessions** aiming at elucidating specific research gaps, and a **poster session** focusing on specific research areas.

Topics

The following topics will be at the center of the conference and will be addressed from different theoretical and methodological perspectives:

1. *Transdisciplinarity and modeling: Theoretical considerations*

In this first thematic block the epistemological bases of transdisciplinary research and modeling approaches in the broadest sense (e.g., qualitative mental models, quantitative simulation models) should be elucidated and similarities and differences derived.

2. *Transdisciplinarity and modeling: Methods (mediated modeling, participatory GIS, ABM roleplay games)*

This block of contributions will study the different methods which aim at combining transdisciplinary research with modeling approaches. Advantages and disadvantages of including transdisciplinary approaches before, during, or after the modeling process can be analyzed in the light of case study experience. Methods that can be discussed in this context are: mediated modeling, mental modeling, participatory or facilitated simulation modeling, and participatory GIS.

3. *Transdisciplinarity and modeling: Knowledge integration*

Whereas the above section explored the utility of transdisciplinary approaches within the modeling process, this section explores the utility of modeling within a transdisciplinary process. It should draw on the experience of participants to use modeling approaches in the widest sense within a transdisciplinary process. In particular the utility of models within roleplays, serious games, experiments etc. can be discussed.

4. *Transdisciplinarity and modeling: Policy support and implementation*

Finally, a key issue is how transdisciplinary research coupled with modeling approaches contributes to the development of policies and their implementation. What is the added value of combining transdisciplinary approaches with modeling approaches from the point of view of policy making?

Abstract Submission

Abstracts of 500 words must be sent before December 15th, 2012. Please include: name and institution of author(s), title of the presentation, 3-5 key words, the abstract itself, the type of presentation (poster / talk) and the topic (1-4) your contribution refers to.

Please send your abstract to:

geography_sustainability@geographie.uni-muenchen.de

Notification of acceptance will be given by January 20th, 2013.

The participation fee is 80 EUR for senior researchers and practitioners / 40 EUR for PhD students, and includes lunch, coffee break and aperitif.

Scientific Committee:

Prof. Dr. Claudia Binder (Department of Geography, LMU Munich, Germany)

Prof. Dr. Mariele Evers (Faculty of Education and Social Sciences, Bergische Universität Wuppertal, Germany)

Prof. Dr. Daniel Lang (Institute for Ethics and Transdisciplinary Sustainability Research, Leuphana University Lüneburg, Germany)

Dr. Christian Pohl (Institute for Environmental Decisions, Swiss Federal Institute of Technology, ETH Zurich, Switzerland)

PD Dr. Monika Popp (Department of Geography, LMU Munich, Germany)

Prof. Dr. Alfred Posch (Faculty of Environmental, Regional, and Educational Sciences, University of Graz, Austria)

Prof. Dr. Ulli Vilsmaier (Institute for Ethics and Transdisciplinary Sustainability Research, Leuphana University Lüneburg, Germany)