

WORKSHOP

THE ROLE OF NEW APPROACHES IN STUDYING SUSTAINABLE GOVERNANCE: EXPERIMENTAL RESEARCH AND MODELING OF GOVERNANCE PROCESSES

Date: October 03-04, 2011

Venue: the Centre for Transdisciplinary Study of Institutions, Evolution and Policies¹ (CETIP), Institute for Forecasting, Slovak Academy of Sciences (IF SAS), and Institute of Management of Slovak University of Technology, Bratislava, Slovakia.

Organizers: Tatiana Kluvánková-Oravská (CETIP) and Veronika Chobotová (CETIP)

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Workshop in brief:

The main objective of the workshop is to demonstrate if and how experimental and modeling techniques can substantially contribute to environmental governance and the design of effective management strategies under the given complexity.

The workshop targets at interdisciplinary researchers in the area of environmental governance, in particular post doctoral researchers and PhD students (max 20 participants). It will take the form of keynote lectures, lab sessions and roundtable discussions. The workshop is the contribution to the debate on innovative ideas and challenges of multi-method application and collaborative research in interdisciplinary environmental research as being a part of open series of Training Institutes initiated by the European Society for Ecological Economics (ESEE).

The workshop is an activity of the Working Group 2 of the COST Action IS0802 "The Transformation of Global Environmental Governance: Risks and Opportunities (TGEG), <http://transformation-geg.org/>

Programme:

Sunday October 2nd: Arrival and check-in

Monday October 3rd: 9:00 – 17:00 Workshop, 19.00 Dinner

Tuesday October 4th: 9:00 – 17:00 Workshop, Departures

Bratislava is easily accessible from the Bratislava airport (BTS) or Vienna International airport (VIE)

Please send your CV and motivation letter to cetip@savba.sk by **Friday 15th July 2011**. You will be notified if your application has been successful by **Monday 1st August 2011**. Please note: limited funding will be available to assist with expenses for doctoral and early career academics.

Please contact the coordinators if you require further information about the research workshop.

¹ **CETIP** is research centre dedicated to trans-disciplinary research and training, primarily in the region of Central and Eastern Europe. Main concern is to support flexible research teams and interdisciplinary cooperation across natural and social sciences. CETIP ambition is also to provide a platform for science and policy interface. Research Foci of CETIP are Human Dimensions of Global Environmental Change and Co-evolution of institutional and technology change.

Workshop outline:

Experimental research and modeling approaches aim to determine and model empirically how individuals and groups make choices. The importance of experimental and modeling approaches is dramatically increasing in the present complex and globalised world as they are capable of addressing issues under uncertainty and multiple agent arenas of choice facing conflicts of interests (Poteete et al. 2010). Under controlled (laboratory) conditions experiments can analyze and predict human behaviour. They attempt to test novel instruments and examine how incentives and institutions affect decisions in real world situation. The significance of game theory in social sciences has also been recognised by being awarded Nobel Prize for Economics in 1994, 2005 and 2009. Earth system analysis has made tremendous progress in developing integrated computer-based models that bring together with sophisticated techniques vast arrays of data from numerous components of the earth system. However, one crucial component of the present earth system is hardly reflected in integrated models: human activities, including in particular the self-steering capacities of human societies and collective action problems. While the emergence of the Anthropocene and of earth system transformation calls for new strategies in earth system management (Amsterdam Declaration 2001) or earth system governance (Biermann 2007; Biermann et al. 2010), these governance processes themselves are hardly linked with integrated modeling programs. Whereas some elements of social systems are included in integrated modeling (such as population dynamics, energy consumption, or economic growth expectations) the governance process itself, although vital for understanding future developments of the earth system, has remained a “black box” in integrated modeling. Studies of typical problems of social dilemmas associated with public goods and common pool resources can find direct application in resource and environmental governance (Ostrom et al. 1994). The compelling reason for the application of the experimental and modeling approach to environmental governance is the interdependence of agents, their actions and strategies (Dinar et al. 2008).

The main objective of the workshop is to demonstrate if and how experimental and modeling techniques can substantially contribute to environmental governance and the design of effective management strategies under the given complexity. The Bratislava workshop will provide an opportunity to focus on other-regarding preferences in the context of social norms that facilitate and direct human cooperation i.e., agents that care not only about their own pay-offs but collective interests and processes (Gintis et al. 2008). The workshop targets at interdisciplinary researchers in the area of environmental governance, in particular post doctoral researchers and PhD students (max 20 participants). It will take the form of keynote lectures, lab sessions and roundtable discussions. The workshop is the contribution to the debate on innovative ideas and challenges of multi-method application and collaborative research in interdisciplinary environmental research as being a part of open series of Training Institutes initiated by the European Society for Ecological Economics (ESEE).

The workshop is an activity of the Working Group 2 of the COST Action IS0802 "The Transformation of Global Environmental Governance: Risks and Opportunities (TGEG).

Key questions to address are:

- *Can experiments and modeling contribute to the better understanding of the conditions of effective environmental governance?*
- *How can communication increase cooperation in environmental governance?*
- *What is the effect of informal rules and resource regimes on social dilemmas?*
- *In what way can ecological dynamics in the experimental design affect outcomes of decision-making and the co-evolution of ecosystems and institutions?*
- *Could experiments and modeling be employed as tools enhancing learning and capacity building for effective environmental governance?*

References:

Biermann, F. 2007. 'Earth system governance' as a crosscutting theme of global change research. *Global Environmental Change. Human and Policy Dimensions* 17: 3-4, 326-337.

Biermann, F., et al. 2010. Earth system governance: A research framework. *International Environmental Agreements: Politics, Law and Economics* 10: 4, 277-288.

Dinar, A., Albiac, J., and J. Sanchez-Soriano (eds.) 2008. *Game Theory and Policy Making in Natural Resources and the Environment*. Rutledge Explorations in Environmental Economics. Rutledge Abingdon, pp. 343.

Gintis, H., Bowles, S., Boyd R., and E. Fehr. 2005. *Moral Sentiments and Material Interests. The Foundations of Cooperation in Economic Life*. MIT Press.

Ostrom, E., Gardner, R., and J. Walker. 1994. *Rules, Games, and Common-pool Resources*. Ann Arbor, MI: The University of Michigan Press.

Poteete, A., Janssen, M., and E. Ostrom. 2010. *Working together: collective action, the commons, and multiple methods in practice*. Princeton University Press, Princeton, NJ.

PRELIMINARY PROGRAMME

October 3:

9:00 **Registration**

9:10 **Opening**

9:30-10:00 **Modeling international environmental regimes to help understanding their effectiveness (Philipp Pattberg)**

10:00-13:00 **Common pool resource experiment (CSID, CETIP-IF-SAS)**

Originated from the innovative work of Ostrom et al. (1994); Cardenas et al. (2008) participants will take part on web based version of lab experiment to simulate decision situation in which individuals respond in practice on social dilemmas in collective actions of the commons.

13.00-14.00 **Lunch**

14.00 -16.00 **Experimental methods for collective action and the commons (Marco Janssen CSID)**

OCTOBER 4

9:30-11:00 **Experimental Approach to study social dilemmas of environmental goods: Case studies (CSID, CETIP-IF-SAS)**

11:00-12:00 **Fuzzy logic as framework to model governance and institutions (Maros Finka SPECTRA+ Bratislava, and COST partners)**

12:00-13:00 **Lunch**

13:00-16:00 **Research skills, Collaborative research (IEEP, CETIP-IF-SAS)**