

# Alexandra Dehnhardt, Ulrich Petschow: "Governance in River Basins"

## Abstract

Distributional conflicts between users and use functions cause a destruction of river ecosystems and therefore can be regarded as an indicator for an insufficient sustainable management of natural resources. Thus, environmental problems indicate that conventional forms of social organisation fail in managing complex ecosystems. New approaches in environmental policy emerge which focus on institutional arrangements as well as on the interdependence between social and ecological systems in order to achieve a sustainable use of water systems. In the presentation different levels of social regulation processes at different time scales are discussed in order to analyse how structures to regulate common resources are organised. This analytical framework is essential to understand the different elements of governance and furthermore, concepts for the management of complex natural resources have to consider these dimensions. Based on this analytical approach the River Basin Management and the Water Framework Directive (WFD) as a new policy approach is examined. The WFD might induce an institutional change at different levels of social regulation processes and is based on a systems approach, dealing with scale and complexity, and emphasises new forms of co-operation and social decision-making processes. But, despite integrated management systems for river basins are widely accepted as an appropriate framework to deal with complex water resource management issues, the scientific base and designs for the implementation are not yet fully developed – particularly the requirements for an interdisciplinary approach.

## Curriculum Vitae

Alexandra Dehnhardt (\*1968) studied agricultural science with a focus on agricultural economics at the Humboldt University in Berlin. From 1997 to 1999 she worked at the University of Cottbus and carried out a research project concerning economic aspects within the recultivation of post-mining landscapes. Since 1999 she is researcher at the IÖW and carried out several research projects with a focus on economic ecological valuation and cost benefit analysis. Actually she is working on research projects concerning the implementation of the Water Framework Directive and the economic valuation. She published a book (together with J. Meyerhoff (eds.): „Nachhaltige Entwicklung der Stromlandschaft Elbe. Nutzen und Kosten der Wiedergewinnung und Renaturierung von Überschwemmungsauen.“

Ulrich Petschow (\*1952) studied economics at the University Mannheim. He worked as research assistant at the University of Applied Science in Berlin. Since 1989 he is researcher at the IÖW and is since 1992 head of the department "Ecological Economics and Environmental Policy ". Main research and working interest are

green jobs and environmental policy, ecological economic valuation methods (e.g. cost benefit analysis), valuation of new technologies, globalisation, innovation and sustainability. Some recent publications are: Globalisation and Sustainability (with K. Hübner, J. Meyerhoff, S. Dröge; Springer Verlag 1998), Green industrial restructuring (with M. Binder, M. Jänicke (eds.) Springer Verlag -2001), Spiel mit Grenzen – ökonomische Globalisierung und soziale Kohäsion (with K. Hübner sigma 2001) and Governance and sustainability (with J. Rosenau, E.U. v. Weizsäcker (eds.) 2004). Furthermore „The precautionary principle of the European Union and Nanotechnology“ (with R. Haum and M. Steinfeldt) forthcoming IÖW Schriftenreihe).

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