

Social-Ecological Research: An Innovative Approach in Sustainability Sciences

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Dr. Thomas Jahn

Institute for Social-Ecological Research (ISOE), Frankfurt/Main

www.isoe.de

Key Elements of Transdisciplinary Research



- **Transdisciplinary problem definition**
 - Constitution of a common research object
 - Team formation

- **Generating new knowledge**
 - Knowledge integration
 - Stakeholder / user involvement
 - Adaptive methodology

- **Transdisciplinary integration**
 - Integrated solutions
 - Societal impact
 - Scientific impact

Sustainability Problems in a Social-Ecological Perspective

- **Social action and ecological effects inseparable**
 - Complexity of interaction processes
 - Problems of scale (spatially, temporally, socially)
 - Subjectivity of problem perception

- **Societal problem context**
 - Different social claims, orientations and interests
 - Chances and risks of technological innovations
 - Agency relevance for different social actor groups

- **Scientific problem context**
 - Uncertainty of (available) knowledge
 - Goal conflict: “truth” vs. “utility”
 - Natural vs. social sciences



- **Collaborative production of scientifically reliable and practice / everyday-life oriented knowledge**
- **Enhancement of societal decision-making capacity by**
 - addressing societal problem perceptions through feedback mechanisms
 - organizing exemplary decision-making processes under test conditions
- **Stimuli for the development of innovative transdisciplinary methods for other research areas**
- **New experienced-based forms of transdisciplinary collaboration in society and policy**



Distinction and (re-)combination

- of different disciplinary knowledge as well as scientific and lay knowledge
- of societal and scientific goals
- of demands and interests of different groups and institutions
- of utility and validity criteria of knowledge
- of technical measures and changes of demand and use patterns

Facts and Figures

- Part of FONA
- Overall budget: approx. 70m Euro from 2001 to 2010
- Number of projects funded: 44 (18 infrastructure projects: 17 thematic research networks, 9 young researchers projects)
- Funded thematic foci:
 - Supply and disposal systems
 - Urban and regional development
 - Agriculture, nutrition and consumption
 - Governance and policy
 - Assessment of systemic risks
- Midwife to bring social-ecological research en route to a generic field in sustainability science



- **Strengthening and long-term development of transdisciplinary research**
 - Influencing other research and funding areas
 - Promoting methodological and theoretical innovations in science
- **Community Building**
 - Development of quality criteria
 - Better transfer and joint activities of different research institutions
 - Social-ecological training and education
- **Internationalisation**
 - Enhancement of the interface of global change research, sustainability sciences and social-ecological research
 - Scientific support for the sustainability strategy of the EU