



Berlin Workshop in  
Institutional Analysis of  
Social-Ecological Systems

# **Governing the Anthropocene: Cyber-systemic possibilities**

Herrenhausen Palace, Hannover, Germany,  
30<sup>TH</sup> - 31<sup>ST</sup> July, 2015

## **Welcome Address**

Konrad Hagedorn  
Humboldt-Universität zu Berlin  
[k.hagedorn@agrar.hu-berlin.de](mailto:k.hagedorn@agrar.hu-berlin.de)

# What is WINS?

## Workshop in Institutional Analysis of SES

- Subject: how institutions and governance structures regularize interaction of actors mediated by social-ecological-technical systems (SETS)
- Observation: scientific communities use different analytical frameworks, heuristics and languages
- Explanation: they work on different *physical transactions and transformations*, activities through which humans interact in SETS
- Gains possible: communication across most of them is rather weak - mutual learning!

# Intention, Meaning and Relevance

- Framing a research problem implies 3 components: **intention**, **meaning**, **relevance** (Lichtenberg).
- **Intention**: What problems do we want to solve with the expected outcomes of our analysis?
- **Meaning**: theory which provides explanation of reality in that area where the problem is.
- **Relevance**: empirical substantiation of theories, positive and normative – do we understand the problem and can we aim to solve it?
- **„Frameworks“ emerge from „Framing“**

# “Science Map of Analytical Frameworks”

Table 1: Stylized Ordering of Transformations and Transactions in Stimulating Action Situations in Linked Natural, Engineered and Social Systems

Resulting category of activity	Impact on the resource system or stock	Effect on biotic activity	Natural system (potential)	Engineered system (potential)	No major transformation	Material-related	Production-related	Production-related	Material-related	Production-related	Production-related	Production-related
<b>Activity involves the entire resource system</b>												
Conversion	Being substance, beyond active energy, resistance, entanglement	Locks for housing, low for extraction	Acquisition, retention of substances	Conversion by use of machinery and	Production and	Storage of land for traffic, housing, shipping and commerce etc.	Production of goods for transport	Production of goods for transport	Production of goods for transport	Production of goods for transport	Production of goods for transport	Production of goods for transport
<b>Activity deals with components of the resource system or stock</b>												
Extraction	Non-renewable resources, increasing demand	Peak, coal, crude oil, natural gas, biomass	Extraction	Extraction	Extraction	Extraction	Extraction	Extraction	Extraction	Extraction	Extraction	Extraction
<b>Activity directly uses sink or absorption capacities of natural systems for discharge of matter or energy</b>												
Release	Renewable resources, depletion, available	Peak, coal, crude oil, natural gas, biomass	Release of waste matter	Release of waste matter	Release of waste matter	Release of waste matter	Release of waste matter	Release of waste matter	Release of waste matter	Release of waste matter	Release of waste matter	Release of waste matter
<b>Activity generates or utilizes the resource system or stock to enable partly controlled biological processes</b>												
Energy fixation	Being matter, living organisms	Being matter, living organisms	Energy fixation	Energy fixation	Energy fixation	Energy fixation	Energy fixation	Energy fixation	Energy fixation	Energy fixation	Energy fixation	Energy fixation
<b>Activity is detached from the resource system or stock and deals with decomposed commodities gained from the partly controlled biological processes</b>												
Processing	Being matter, living organisms	Being matter, living organisms	Processing	Processing	Processing	Processing	Processing	Processing	Processing	Processing	Processing	Processing
<b>Activity uses the decomposed commodities which indirectly enter natural systems and benefit from their sink and absorption capacities and</b>												
Generating commodities	Being matter, living organisms	Being matter, living organisms	Generating commodities	Generating commodities	Generating commodities	Generating commodities	Generating commodities	Generating commodities	Generating commodities	Generating commodities	Generating commodities	Generating commodities
<b>Activity aims at protecting human livelihoods from the impact of resource system or stock</b>												
Protection of stock	Being matter, living organisms	Being matter, living organisms	Protection of stock	Protection of stock	Protection of stock	Protection of stock	Protection of stock	Protection of stock	Protection of stock	Protection of stock	Protection of stock	Protection of stock



# The Role of WINS

- Sufficient reason for diversity of frameworks and heuristics for the Institutional Analysis of SES
- Bridging between communities as a focus
- Scholars' collective action needs to be organized
- WINS - institutionalized space for bridging
- Analytical frameworks are a **starting idea** – real bridging will occur in **joint practice** of **research, teaching and communication**

# Core Elements of the WINS Agenda



- **Integrative Discourses** for institutionalizing communication between members of several research communities
- **Interdisciplinary Research** for conducting studies guided by one or more, single or linked analytical frameworks
- **Advanced Studies** addressing both junior and senior researchers



# WINS Organisation

- ❑ Steering Group
- ❑ Coordination Team
- ❑ Affiliated Faculty
- ❑ Associated Fellows
- ❑ Visiting Scholars
- ❑ Graduate Students and Postdocs
- ❑ Working Groups
- ❑ Research Projects
- ❑ Teaching Modules

# WINS Guidelines

- Our understanding of WINS is not to form a strongly formalized group working in the bondage of strict rules and inflexible procedures
- Our visioning orients towards a permanent lively workshop developing a culture of openness
- Welcoming everybody who may contribute to creative discourse, research and teaching



# Questions for this Workshop

- ➡ Systems approach to institutions and governance structures – where are the micro-foundations?
- ➡ Governing the anthropocene – isn't this infeasible given the insights from institutional analysis, and in view of the ubiquity of institutional failures?
- ➡ Solving real actors' problems in crafting institutions - what have these two approaches contributed to this?

# THANK YOU for your attention!

---

**Welcome to the Workshop on  
“Governing the Anthropocene:  
Cyber-systemic possibilities”**



Berlin Workshop in  
Institutional Analysis of  
Social-Ecological Systems