



# Environmental policy evaluation and the issue of "scale"

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# Scale as a relevant concept?



- Recent attention for this concept
  - policy makers: 'eco-logic' of policy interventions
  - academics:
    - Young: "fit, interplay, scale"
    - yet, very little systematic relevant policy literature
  - evaluators
- Implications for policy making
- Implications for evaluators

# Scale-conscious policies



- New(er) types of environmental policy interventions
  - adapted to 'correct' environmental scale
  - ex: river basin approaches
  - ex: transboundary nature protection (EU: Natura 2000)
  - ex: migratory birds (EU: Habitat directive)
- Prompts debate about other scales
  - institutional: links different policy making institutions in new ways
  - innovative financial constructions
  - involve different type of actors: state, market and civil society actors (e.g. EU: water framework directive)
- Governance arrangements (>< trad. policy instruments)

# Need for policy evaluation



- does “better adapted to environmental scale” lead to better performance?
- does more attention for the environmental scale of the policy intervention lead to more attention for environmental effectiveness in evaluations?
- can we evaluate these new arrangements with old evaluation methodologies?
- how good are evaluators at linking different scales?

# Defining scale



- enormous variety of definitions in the literature!
- for environmental policies three most relevant scales are
  - ecological scale: level of analysis at which complex ecological processes are taking place
  - temporal scale: over what period of time are processes taking place
  - social scale: levels of social action and political or administrative organization
- along each scale there are different levels
  - ecological scale: cell level  $\leftrightarrow$  global ecosystem level
  - temporal scale: immediate changes  $\leftrightarrow$  long term changes
  - social scale: household level  $\leftrightarrow$  globalization of production/consumption
- traditional policy: 'state' levels are driving the policy process

# The power of definition and attribution



- “defining”
  - is a social process
  - scales are socially constructed: by whom? from what position? why?
- scales can make policies sound technical and a-political
- scaling up or down can change statistics
- switching scales or levels on a scale can make problems (dis)appear
- different scales/levels can suggest/attribution different responsibilities

## Problems: institutional fit



- scale mismatch between ecological and policy scale
- choice of policy level, level at which participation is to be organized, or the level of political responsibility, etc. : has to be adapted to the ecological scale
- consequences for effectiveness and efficiency
- more essential: our knowledge systems, policy models, environmental models and social organization have been dominated by an approach, that separates all of these scales (Homer-Dixon)

# Problems: knowledge discordance



- “discordance between the scale of scientific analysis and assessment and the scale for which scientific information is needed to usefully inform management and policy makers” (Cash and Moser 2000)
- problem of mismatch between the available information and the information needed to create a better match between ecological, social, and time scales
- Changing these systems is far more difficult than it seems.
  - technically
  - costly
  - scaling up or down knowledge production might require serious epistemological rethinking and
  - constructing new explanatory models



# Problems: cross scale interactions



- what are the interactions between different levels on the same scale and across different levels at different scales?
- Example: Convention on Biological Diversity
  - complexity: micro-level evolutions with macro-level consequences at different levels and across scales. (ex: debate about GMOs and their impact on global food chains)
  - complex governance arrangements: requires action at and across different levels
  - importance of spatial planning for biodiversity: size of protected areas: local impact with repercussions for higher levels on the ecological scale
  - local level participation versus participation at the level of multilateral negotiations

# Consequences for evaluators



- Become scale-conscious
- Question the scale aspect of your approach
- Design new methodologies
- Multi-disciplinary teamwork
- How to communicate with 'customer' (private or public)
  - "your policy is OK, but at an unadapted scale or level?"
  - "the information gathering that you are doing, is organized at the wrong level"
  - "you are responsible for X,Y and Z if we look at the problem at this level or from this scale perspective"
  - "your evaluation question is irrelevant for the scale/level of the problem"
- not easy to communicate!