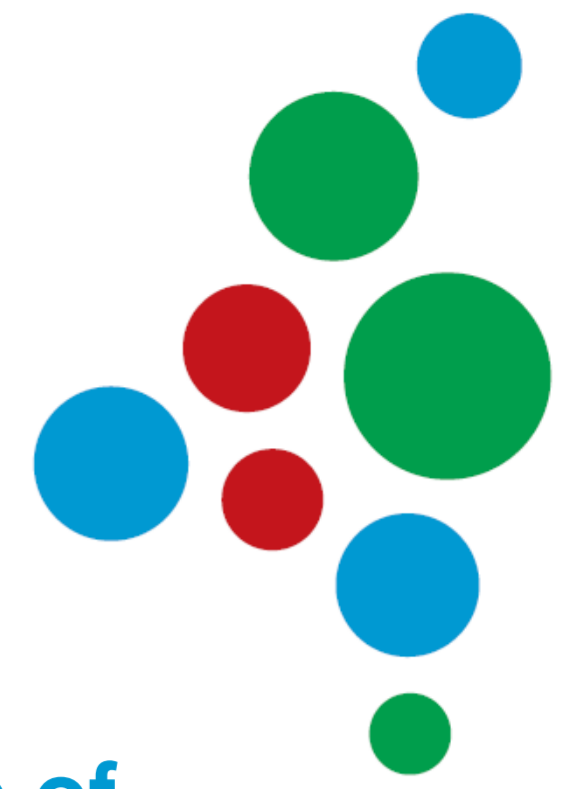# Kennis voor Klimaat
Knowledge for Climate

Theme 7: Governance of Adaptation

What is the Value of Twisting the Lion's Tail? Evaluating the Use of Policy Experiments and how they can Facilitate Learning.

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Research Problem

Social-ecological system dynamics render modern environmental issues complex and highly uncertain and a learning approach is needed to build an effective governance response (Newig and Pahl-Wostl, 2010). Policy experiments are touted as a useful tool for producing policy relevant information that decreases uncertainty and helps manage system complexity (Folke et al 2005) but neither their institutional design nor their potential as "learning incubators" has been studied in a governance context.

It is broadly hypothesised that a policy experiment's institutional properties (such as participation diversity, information flow, and power distribution) have an impact on learning in the context of governance of social-ecological systems. This project investigates just how much influence design has on learning effects and whether enhanced learning leads to the policy experiment having more influence in the policy domain.

Concept- Policy Experiment

Policy experiments are broadly **defined** as: the testing of a policy innovation in a temporary field setting, whether an innovation in technology, concept, or governance process. They are also known as pilot projects, field experiments, or quasi-experiments that have a connection to policy. A recent example is the sand engine experiment along the Frisian IJsselmeer coast (www.ecoshape.nl)

Characteristics include: creating a "protected space" within which to test by temporarily changing the institutional context; requiring the involvement of participants with at least limited involvement of the state; and being used to generate policy evidence, so there is a connection with government policy (where it seeks to influence).

Concept- Learning

Defined as: *"relatively enduring alterations of thought or behavioural intentions that result from experience and that are concerned with the attainment (or revision) of public policy"*[1].

I measure learning effects based on the following typology:

Cognitive: acquisition of new or the improved structuring of existing knowledge;

Normative: changes in norms and values;

Relational: increased trust, improved ability to cooperate and a better understanding of the frames of others.

Analytical Framework

In order to compare the institutional design of a range of policy experiments, I apply the rule typology in Ostrom's Institutional Analysis and Development Framework and develop Ideal Types as a heuristic tool for comparative analysis of the institutional arrangements (see below). These design "rules" are then linked to learning theory and hypotheses are formed (see across).

Technocratic experiment:	Boundary experiment:	Advocacy experiment:
• Experts are the only invited participants. • Positions: initiator and funding body; • Technical, scientific information. • Information is distributed openly to all participants; • Scientific knowledge is shared irregularly; • The initiator maintains authority over each decision node; • Decisions are taken consensually.	• Participation is broad and consists of all those who have a stake in outcomes; • Positions include: initiator, funding body, facilitator; • Technical information and reflexive knowledge; • Hard, scientific knowledge, local knowledge. • Information is distributed openly to all participants and regularly shared; • All participants are provided with decision making powers; • Decisions are taken consensually.	• Participation is limited to those who contribute resources; • Positions are initiator, steering committee, and project manager; • Information may be commercially sensitive so it is not evenly distributed; • Hard and soft knowledge is shared; but only the steering committee is privy to all of it. • Selected information is distributed regularly to garner support; • An elite steering committee takes final decisions at each decision node. Other participants are able to influence; • Decisions are taken as a majority vote.

"Twisting the Lion's Tail"- quote from Sir Francis Bacon (1561-1626) about the use of experiments to understand how nature behaves in unnatural circumstances.

Hypotheses

H1: Knowledge acquisition is enhanced when information is communicated broadly and regularly with transparency.

H2: The range of knowledge and perspectives will be wider with more diverse participation, which will heighten cognitive and normative learning.

H3: Norm convergence and goal flexibility is possible if participants' perspectives are shared and challenged and participants are able to influence design throughout the experiment.

H4: Trust is improved by allowing participants control over the process, regular interaction, and the use of an independent facilitator.

H5: The Ideal Types create different learning effects. A technocratic experiment produces mainly cognitive learning and minor relational learning. A boundary experiment produces cognitive, normative and relational learning. An advocacy experiment produces cognitive and relational learning.

Newig, J., D., and C. Pahl-Wostl. 2010. Synapses in the network: learning in governance networks in the context of environmental management. *Ecology and Society* 15(4):24

1 **Sabatier, P. A.** 1998. The advocacy coalition framework: revisions and relevance for Europe. *Journal of European Public Policy* **5**:98–130

Field Work in Progress: The Policy Experiment Hunt!

Construction of a database to test hypotheses against a sample of policy experiments in the Netherlands. If you think you know of a policy experiment, please email me on: **b.k.mcfadgen@vu.nl**

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