

Monitoring Learning Processes

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Background

The paper reports on a study of multi-stakeholder processes around spring rainwater conservation in field ditches on farmers' fields. The impetus for the project came from a rapid drop in ground water levels as a result of sprinkler irrigation and other uncontrolled extraction in the sandy areas in the two southernmost provinces in the Netherlands and two northern provinces in Belgium. This drop resulted in a direct threat of desiccation of nature conservation areas. At the same time, farmers suffered from summer droughts. The introduction in 1991 of extraction licensing and a direct ban on sprinkler irrigation during summer led to a politically unacceptable protest by farmers. Other ways had to be found and this led to a number of initiatives: 'Measured Sprinkling' (Beregenen op Maat) based on assessment of water needs and a measuring device on the nozzle of the sprinkler gun; Water Conservation I Project (1998 – 2001); and Water Conservation II Project (2002 – 2004). The senior author has been involved in the evaluation of both Water Conservation projectsⁱ.

The WC Projects rely on the introduction of small weirs in field ditches on farmers' fields. A macro water conservation impact was to be achieved by thousands of farmers individually deciding to install and manage these small weirs.

Funding (3 Million Euros) for WC I was provided by the EU fund for Inter-Regional Developmentⁱⁱ. WC II was funded (Euro 3.6 million) through various Dutch sources. Partners in both cases included the Provincial Authorities, the Water Boards covering the project area, farmers' associations, and a number of others, notably nature organizations and land managers in WC II. The project was managed by ZLTO, the Dutch farmers' organization involved.

The three authors form the Dutch team of a European-funded project called Social Learning for the Integrated Management of Water at Catchment Scale (SLIMⁱⁱⁱ). The research reported upon here was funded through SLIM and was one of the 12 case studies that made up the body of its empirical evidence. SLIM was funded by the EU with a view to providing insight into the management instruments that could be deployed in the implementation of the Water Framework Directive, other than those based on hierarchy (right regulations) and market (right prices).

The two projects were effective in enlisting the participation of thousands of farmers (and nature conservation agencies in WCII). Together they conserved an appreciable amount of water (about which more later). The projects generated a great deal of goodwill and enthusiasm^{iv} and in this respect stand in contrast to a number of other case studies of social processes around integrated catchment management that are more often than not stuck in initial phases of conflict and controversy that mark the refusal to accept inter-dependence, a condition for social learning to proceed.

Main Findings with Respect to Social Learning

Social Learning can be called a process by which multiple stakeholders at multiple scales converge towards concerted action. This convergence is the result of various forms of interaction. The following lessons from WC I&II can be enumerated:

- Instead of one central formal platform that brings together representatives of public bodies (the Dutch 'polder model'), the effectiveness of the WC Projects was based on investment in 'multiple spaces for learning at multiple scales'. The PowerPoint Presentation lists these spaces for learning.
- Instead of engaging in the formulation of a joint vision, the interaction among the partners at multiple scales was based on the engagement with a socio-technical object (or boundary object), in this case, the small weir for water conservation (see photo's in PowerPoint presentation). These weirs have a great many aspects, including hydrology, land tenure, nature conservation, geography, indigenous farmer knowledge, legal issues, catchment management (e.g., consequences for flooding in cities), etc. As such they generated a great amount of interest among very diverse partners. Specific examples of engagement are research and experimental projects involving farmers and other stakeholders.
- Investment in spaces for interaction at multiple scales proved hard to get. It required up-front outlays of money with unpredictable effects later. Yet not investing in interaction was agreed to lead to high costs in terms of litigation, delays, soured relationships and so forth later on.
- At first, officials (e.g., Provincial Authorities) assumed that social learning was a matter of 'they' learning what 'we' want them to do. In the end, all stakeholders agreed that they had all learned from the project and as a result had changed their perspective on policy instruments available to them.
- Framework conditions, in the form of EU regulations (e.g., the Habitat Directive and the Water Framework Directive) can have a strong motivating influence on local stakeholders to come together. At the same time, hierarchical relations and directives from above (e.g., 'The Hague') can also stifle the ability of stakeholders on the ground to learn together.

Main Findings with Respect to Monitoring and Learning

A considerable number of efforts was made to monitor the m³ of water conserved. These included data from the Water Board (based on using piezometers close to the weirs), provincial data, data gathered by farmers (e.g., in experimental projects) and data collected in a net of measuring points established by TNO, the Dutch Government's technical organisation. None of these measures could provide 'proof' of effective water conservation because variations in annual rainfall, extraction by others (cities, beer brewers), and limited time series affected the results. Some hydrologists considered the results achieved peanuts compared to the problem at hand. But all stakeholders agreed that the trends were in the right direction and during WCII, nature conservation agencies and terrain managers recorded improved water levels in nature areas.

The following conclusions can be drawn with respect to the monitoring of the learning process:

- It is mostly not a separate event but emerges as a realisation that something is ‘happening’ as a result of the nested interactions among multiple stakeholders at multiple scales. People realise that they are talking to people they have never talked to before, that they are beginning to share something, and so forth.
- Monitoring is a key part of reflexive social learning about learning.
- The SLIM research process and its reporting had an important input into learning about learning and people’s ability to talk about it.

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ⁱ Jiggins (2003). Key Informant Study. Final Report InterReg Project Water Management in het Benelux Middengebied. Wageningen: University, CIS. Unpublished report to the Project Co-ordination Committee. The report can be found on www.waterconservering.nl

Jiggins, J. and N. Röling (2003). Key Informant Study. Report on the 2nd Generation Water Conservation Project in North Brabant and Limburg. Wageningen: WUR/CIS, unpublished report to the Project Co-ordination Committee. The report can be found on www.waterconservering.nl

ⁱⁱ A Third Water Conservation project has meanwhile been funded by the EU, this time focusing on water quality management. The senior author will again be involved in the study.

ⁱⁱⁱ Contract EVKI-CT-2000-00064. The countries involved were the UK (England and Scotland); France, Italy, Sweden and The Netherlands. The publications of the projects can be found on <http://slim.open.ac.uk>

^{iv} A video recording with English under-titling that reports on the final multi-stakeholder meeting of WC II is available on www.waterconservering.nl.