Preventing soil erosion in agriculture: assessing the “From Farmer-To Farmer” experiment

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Introduction

In Switzerland, an estimated 20% of the cultivated land has been affected by soil erosion in 1990. Subsequently, several legal regulations regarding soil protection and sustainable land resource management have been introduced. However, soil conservation measures have only scarcely been applied to date in agricultural practice, and soil erosion damage can still regularly be observed.

Against this background, the ‘From Farmer - To Farmer’ experiment seeked to facilitate the spread of soil conservation measures by bridging the gap between farmers’, experts and scientists’ knowledge. The approach is based on the insight that farmers, experts and scientists have different perspectives on soil, work with different methods, and speak another language. Therefore, farmers are expected to learn more easily from the experiences of other farmers who have already integrated soil protection on their farms. The experiment sought to identify farmers’ knowledge about conservation agriculture and to communicate this knowledge in farmers’ networks by means of story-telling and film. The experiment was accompanied and shaped by an ‘accompanying group’ built by participants representing farmers, experts and scientists.

Evaluation

The assessment of the experiment was based on principles of transdisciplinary research and formative evaluation. Researchers collaborated with the ‘From Farmer - To Farmer’ project and they jointly co-produced new knowledge. The researchers investigated processes related to social learning in the project and its accompanying group by means of participatory observation, document analysis, group discussion, and qualitative interviews with all regular participants in the accompanying group. At the same time the researchers actively participated in this accompanying group. As a result, the social science perspective continuously enriched the debates and the researchers themselves learned about the perspectives and knowledge of other participants. Moreover, preliminary research results were regularly brought back to the group. This facilitated continuous reflection on the ongoing activities as well as refinement of the project.

The original research was published in Schneider et al (2009). For this presentation, we restructured the results using the tentative evaluative scheme by Luederitz et al.

Results

Outputs. The project generated the following outputs: Mutual understanding and trust, broader understanding of the issue, scrutinising approaches and underlying knowledge conceptions, improved collaboration for better solutions, film as an intermediary object, positive connotation of the issue ‘soil’, change of agendas and approaches of institutions.

Outcomes. The project aimed to enhance socio-ecological integrity, as well as resource maintenance and efficiency. However, impacts towards these criteria have not been systematically assessed.

Processes. The project was based on a meaningful sequence of actions, and a sound methodology. Moreover, it facilitated collaboration, reflexivity and learning.

Inputs. Analysing what elements facilitated social learning within the project, the following aspects were identified: Collaboration beyond traditional political tensions, an atmosphere of trust that led to acknowledgement of farmers', experts' and scientists' views and knowledge, communication and interaction beyond the knowledge systems to which the actors belong, possibilities for creating and sharing tacit and explicit knowledge

Reflections on the evaluative scheme

From my perspective, development of an evaluative scheme is crucial for structuring evaluative endeavours and for facilitating implementation of meta-studies. However, I think that more research is needed to identify what kind of processes and inputs are truly beneficial for achieving specific sustainability outcomes. Without this knowledge, it is difficult to properly evaluate questions such as if certain sequence of action is meaningful or if an experimental methodology is sound. Of course, the evaluative scheme could be used to generate exactly this kind of knowledge through meta-analyses. For this purpose, however, evaluative questions should generate insights about the nature of (un)successful processes and practices, ie. 'how' sustainability outcomes were achieved.