

Social learning and sustainable development

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To understand what social learning approaches can offer the sciences of adaptation and mitigation, we need to assemble an appropriate evidence base.

Research-for-development bodies such as the Food and Agriculture Organization of the UN (FAO), CGIAR and their partners are under mounting external pressure from donors to link knowledge to actions that achieve substantive, long-lasting and demonstrable development outcomes¹. If research is genuinely to result in beneficial changes in behaviour, policies and institutions, research outputs need to be much better informed by and engaged with the processes through which individuals, communities and societies learn and adapt their behaviour in the face of change^{2,3}. Social learning approaches may be able to contribute substantially to this aim⁴. Definitions vary, but in a nutshell, social learning approaches help facilitate knowledge sharing, joint learning and knowledge co-creation between diverse stakeholders around a shared purpose, taking learning and behavioural change beyond the individual to networks and systems. Through a facilitated and iterative process of working together - in interactive dialogue, exchange, learning, action, reflection and on-going partnership - new shared ways of knowing emerge that lead to changes in practice⁵. As such, social learning builds upon well-established traditions from participatory development, but puts learning and collective change at the centre of engagement. Social learning can provide a way to address complex socio-ecological (so-called 'wicked') problems by integrating diverse knowledge and value systems at many different levels and through different learning cycles.

From theory to practice

As a concept, social learning is appealing. The question is, how to do it as effectively and efficiently as possible? In practice, it takes many different forms and can be used to effect different types of change. Some examples of innovative sustainable agricultural development projects and programs taking social learning approaches are shown in Table 1. These examples illustrate a range of scales at which social learning and change are happening, from the individual to the community to networks and systems. The range of outcomes from these examples is equally wide, from changes in the way

farmers go about their business to new agricultural input distribution systems to the creation of new institutions and the empowerment of national agricultural planners.

[Table 1 about here]

On the face of it, social learning approaches should be able to contribute to smarter, more effective research-for-development institutions in terms of performance and governance, and as well as help them to achieve more sustainable results, measured as development outcomes⁸. We also know that iterative learning processes are perceived to be a critical component of adapting to environmental change, and that there is an absence of learning tools that can be applied in contexts where uncertainty is high¹². But at the moment, we have only limited evidence on the impact of social learning approaches on “hard” development outcomes, and not much is known about the costs of social learning approaches in comparison with more traditional, linear approaches¹³. There has been only limited effort put into evaluating social learning approaches beyond one-off case studies, and post-hoc or appreciative reflections^{9,14}. Larger-scale reviews of social learning have thus far focused on its framings and methodologies more than on its ultimate impacts. Scientists are particularly concerned with high perceived transaction costs (for example, the amount of time spent dealing with ‘messy partnerships’) and a limited ability to replicate and scale out results more broadly.

A common framework for gathering evidence

In view of the limitations of the current evidence base and calls for greater empirical rigour in evaluating social learning¹⁵, we are embarking upon a systematic evidence-gathering initiative, using a common evaluative framework to track new initiatives from a range of institutional settings that incorporate social learning approaches. This framework revolves around a set of practical guidelines that will help anyone interested in taking a social learning approach to use the best available knowledge, information and tools to implement and document their social learning initiative (Figure 1). It is increasingly recognized that case studies are not only an appropriate but also a necessary tool when considering social learning¹⁶. The problem is that they are seldom set up to allow comparison and lesson-sharing across a large range of environments and contexts, allowing us to answer questions about cost, effectiveness, scalability and impacts. This framework aims to enable us to do so.

[Figure 1 about here]

The first step involves taking stock of what is already known, gathering baseline information and identifying indicators that will allow an understanding of the process of change. It also involves determining whether social learning is really the right approach to the challenge in question: for some challenges, social learning may actually over-complicate a relatively straight-forward task. Next comes the joint identification of feasible options and solutions with research users – those that will take action. Eliciting feedback from existing communities of practice and networks then helps to assess if the right approach is being taken. This is followed by documenting the process being undertaken and gathering evidence on the changes taking place, at which point the people involved can be brought together to jointly analyze and interpret the evidence, and design new actions and solutions. A key step here is archiving and widely sharing the new information; too often data and analyses are held closely by a few people, limiting their accessibility and use.

In the spirit of social learning this framework is being supported by ongoing facilitated dialogue, collective analysis, and evidence sharing. Work on the first iteration of the practical guidelines that accompany the framework is well underway, and these guidelines are being made available on an open-access wiki space as they are produced, so that they can be critiqued and improved by the community. Developing this body of evidence from across an ever-growing range of actors interested in these approaches, we argue, necessitates taking a social learning approach to testing our hypotheses about social learning's effectiveness and impact on development outcomes¹⁷.

A call to action

By applying this framework for monitoring and evaluating social learning activities to a wide range of initiatives, expanding on the examples in Table 1, we will be able to build up a body of robust evidence concerning the conditions under which social learning approaches are effective, replicable and/or scalable, and sustainable.

To really understand what social learning approaches can offer the sciences of adaptation and mitigation across a range of contexts, we need a step change in how this kind of work is initiated, documented and evaluated. Here, we have proposed a way to facilitate this step change, and we suggest that actions by many different institutions with similar aims could usefully be launched, using this framework, across the international agricultural and food systems research and development community. This can be a highly effective and efficient way to generate a sufficient body of evidence to fill this important knowledge gap.

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References

- ¹ Clark, W.C. *et al. Proc. Natl Acad. Sci.* doi 10.1073/pnas.0900231108 (2011).
- ² Cash, D.W. *et al. Proc. Natl Acad. Sci.* **100** (14), 8086–8091 (2003).
- ³ Kristjanson, P. *et al. Proc. Natl Acad. Sci.* **106** (13), 5047-5052 (2009).
- ⁴ Collins, K. & Ison, R. *Environmental Policy and Governance* **19** (6), 358–373 (2009).
- ⁵ Reed, M. *et al., Ecology and Society* **15**(4) (2010).
- ⁶ Duveskog, D., Friis-Hansen, E. & Taylor, E. *J Dev. Stud.* **47** (10), 1529-1544 (2011).
- ⁷ van Etten, J. *IDS Bulletin* **42** (4), 102-110 (2011).
- ⁸ Shaw, A. & Kristjanson, P. *A new relevance and better prospects for wider uptake of social learning within CGIAR* (CCAFS, Copenhagen, 2013); <http://cgspace.cgiar.org/handle/10568/33832>
- ⁹ Harvey, B. *et al. Social learning in practice: A review of lessons, impacts and tools for climate change adaptation* (CCAFS, Copenhagen, 2012); <http://cgspace.cgiar.org/handle/10568/24456>

- ¹⁰ CARE, *Decision-making for climate resilient livelihoods and risk reduction: A Participatory Scenario Planning approach*. (CARE International, 2013); http://www.careclimatechange.org/files/adaptation/ALP_PSP_Brief.pdf
- ¹¹ Vervoort, J. *et al. Glob. Environ. Change* in press (2013).
- ¹² Tschakert, P. & Dietrich, K.A. *Ecology and Society* **15** (2) (2010).
- ¹³ Rodela, R. *Ecology and Society* **16** (4) (2011).
- ¹⁴ Armitage, D., Marschke, M., Plummer, R. *Glob. Environ. Change* **18**(1), 86–98 (2008).
- ¹⁵ Muro, M. & Jeffrey, P. *Journal of Environmental Planning and Management* **51**,325–344 (2008).
- ¹⁶ Cundill, G. *et al. NJAS - Wageningen J. Life Sci.* doi 10.1016/j.njas.2013.04.001 (2013).
- ¹⁷ Bidwell, D., Dietz, T., Scavia, D. *Nature Clim. Change* **3**, 610-611 (2013).

Table 1. Five examples of social learning (SL) in sustainable development and adaptation

Example	Approach	Model of social learning	Key outcomes	Key lessons
1 Farmer field schools in Kenya ⁶	Participatory agricultural extension that provides a platform for male and female farmers to work together in groups to learn about the 'how and why' of various farming practices. Facilitator promotes active participation, group dialogue and reflection through experimentation.	SL as both concerted action and a mode of governance which effects change in individuals and communities. Involves testing and improving practices and rethinking principles that underlie the practices.	Increases in farm productivity and incomes, reductions in pesticide use, improved farming knowledge, empowered farmers, changed gender roles and norms, improved community relations.	The combination of instrumental knowledge (e.g. about practices and innovations) and enhanced individual and collective agency acquired through the learning process can enable poor farmers to improve their well being and agency.
2 Participatory varietal selection in Africa with crowd-sourcing ⁷	Creation of knowledge networks with a learning environment for co-producing knowledge. Uses mobile phone technology so farmers are engaged in evaluating and distributing seeds on a massive scale.	SL as concerted action which effects change in individuals and networks. Involves testing and improving existing practices.	Expansion in acreage under improved varieties; new farmer networks evaluating and distributing seeds.	Co-designing and evaluating research that involves equitable and widespread involvement of different groups in testing and evaluating new technologies and practices. Sharing lessons improves uptake by marginalized groups and can re-direct research to meet users' needs.
3 Learning alliances in Latin America ^{8,9}	Building multi-stakeholder innovation platforms that develop collaborative teams and 'co-learn' regarding needs along the value chain (or from one region to another) with farmers, traders, agribusinesses, banks, producer associations, etc.	SL as concerted action which effects change in individuals and networks. Involves testing and improving existing practices, as well as rethinking assumptions and principles that underlie the practices.	Support for ongoing dialogue between researchers and development actors on lessons learned, innovations, adaptations and emerging demands for new research.	Can increase reach of local meetings of participants with videoconference links and learning tours. Strong facilitation key. Purpose and supporting processes need to self-evolve to become more endogenous (rather than directed) social learning spaces.
4 Community-based management with participatory future scenarios in Africa ¹⁰	Learning dialogue through facilitated workshops with meteorological and agricultural extension experts, with joint learning around timely seasonal weather forecasts, and information on agricultural management options to capitalize on that learning.	SL as concerted action and mode of governance that effects changes in communities, networks and systems. Involves rethinking assumptions and principles that underlie practices and designing new governance norms.	Communities and local governments creating new institutions that help link different timelines, e.g. the immediacy of farmer priorities and responses with longer-term understanding and capacity to plan and respond to climate change.	Champions at different levels and creating a level playing field are key. Strategic, culturally sensitive communication efforts are important. Need to create room for reflection, building trust, and inclusive learning spaces. Need to recognize and accommodate users with different timeframes and purposes.
5 Participatory future scenarios at regional level in E and W Africa ¹¹	Participatory future scenarios that explore plausible regional economic development pathways to the 2050s and the impacts these may have on key development outcomes.	SL as mode of governance that effects changes in networks. Involves re-thinking the assumptions and principles that underlie practices.	Key national and regional food system decision-makers engaged and empowered in new future-oriented and food security-based dialogues.	As for example 4 above. Forward-looking planning processes are new in many regions so capacity strengthening is a key need. Engaging and linking private and public sector decision-makers is challenging but critical for influencing policy change.

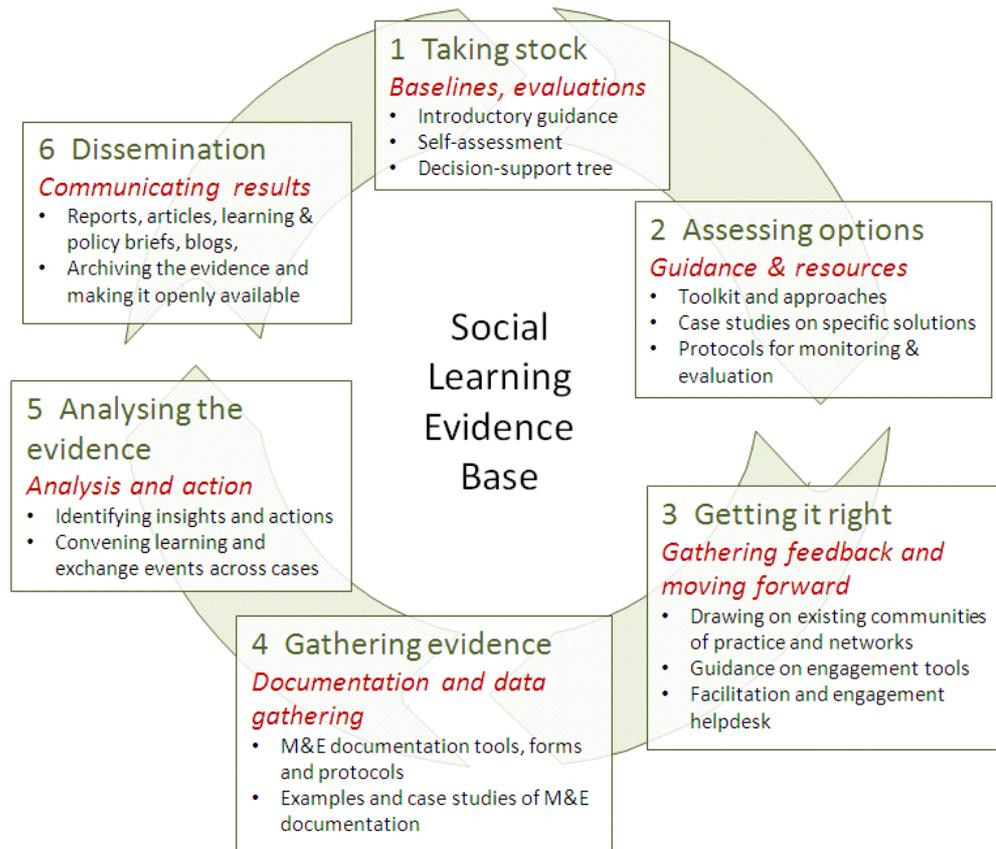


Figure 1. An evaluative framework for assembling an evidence base on the impacts of social learning.