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Two learning approaches were triangulated during the watershed exploration phase: Participatory Action Learning to enable local deliberations on watershed problems (above mapping exercise) and Empirical Research in social science in which different social groups were systematically “sampled” to ensure effective representation of diverse views (below).



**By differentiating among different learning approaches, AHI has been able to enhance research and development quality by matching specific objectives with appropriate methods.**

## Integrating Learning Approaches for Agricultural R&D

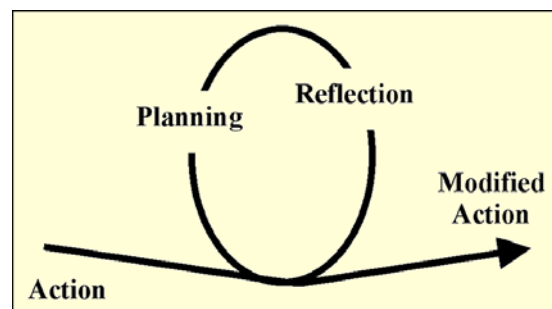
The African Highlands Initiative has a challenging mandate. While charged with developing approaches to operationalize participatory natural resource management at farm and landscape levels, approaches must also be researched (*What works/does not work in different contexts, and why?*) so that others may learn from AHI’s experiences. Furthermore, in recognition that agricultural development is not only about enabling the mobilization of local-level resources (human, social, natural), AHI must learn how to add value to local initiatives (in the form of knowledge or approaches) to enable farmers to overcome critical development bottlenecks. One of the most significant challenges to operationalizing this complex agenda lies in balancing quality research with quality development. This brief shares progress made toward this end.

In addition to understanding the specific requirements of “research” and “development,” a distinction was made to explicate the dual task of research: to understand development processes, and to add value to local knowledge and efforts by filling critical “information gaps.” These distinctions made it possible to identify three distinct “learning approaches” for agricultural R&D: *participatory action learning*, *action research* and *empirical research*. This brief highlights each of these approaches in turn, and methods for ensuring quality in each.

### Development and Change: Participatory Action Learning

Participatory action learning (PAL) is an actor-based approach that educates and empowers through implementation and frequent re-evaluation of “best bet” approaches so that their continuous refinement can better lead to desired outcomes. It

may be carried out within R&D institutions as a process of institutional change, or by local communities seeking solutions to shared problems. The approach is composed of iterative cycles of institutional or community-level action and reflection (Box 1) that empower by placing the nexus of development strategizing in the hands of the beneficiaries themselves. Its aim is to bring about change within the communities or institutions where it is embedded. The learning process does not lend itself to



Box 1: Participatory Action Learning Loop (Hagmann, personal communication)

formalized methods in which a development or change strategy is identified up front and implemented in a linear fashion, because solutions are ill-defined at the outset and require learning through action. The approach is best suited for institutional, social or political change processes for which ongoing action and scrutiny enable actors to better confront context-specific barriers to desired change as they emerge.

Methods for ensuring quality in PAL include effective facilitation and an inclusive change process that integrates broad-based concerns and perspectives. This requires a skilled facilitator knowledgeable of both community dynamics and the object of change (health, natural resource management or other), with a talent for devolving control and decision-making to others while providing useful tools for organizing group decision-making and action.

## Systematization of Lessons: Action Research

The term action research (AR) is used here to refer to research on participatory action learning (development and change) processes. The research dimension aids in documentation and systematization of lessons as target activities are implemented, monitored and adjusted through time. By systematizing observations on change processes, it provides answers to the questions, "What works, where and why?" This not only aids in actor-based learning at local or institutional levels, but also allows for impact to be scaled up beyond the immediate field site through more widespread sharing of experiences with other development actors. As action research is superimposed in time on PAL processes, the two are generally considered a single approach—"participatory action research" (PAR). As defined by Dick (2002), action research is a flexible spiral process which allows action (change, improvement) and research (understanding, knowledge) to be achieved at the same time. The reason why AHI differentiates among the two is that systematization of experiences through critical reflection is required not only at the local level, but also regionally. Furthermore, the tools needed for effective facilitation in PAL have been found to be different from those required for effective systematization of experiences (AR). So while the actions required to implement AR and PAL are integrated in time, it helps to differentiate between them in practice.

Effective action research is that which is flexible, iterative and progressive in design given its interactive nature and the emergence of new areas of observation as the PAL process evolves. While research questions (*What is the best approach for achieving X? What are critical ingredients to an effective change process?*) can be defined up front, answers can only be identified by maintaining a flexible, iterative PAL process on the ground. This is because answers can only be derived by testing approaches to organizational or community change in practice, identifying bottlenecks as they emerge, formulating strategies to address bottlenecks, and observing how these new strategies perform in practice. This is more difficult in a regional research program. While PAL approaches must be kept flexible and iterative, defining higher-order strategic AR questions that are more fixed is necessary for enabling ongoing

reflection on common questions (i.e., *How can a broadly participatory watershed management program be enabled?*). Defining a common point of reflection also enables regional synthesis of findings.

## Filling Information Gaps: Empirical Research

While the merits of AR lie in its flexible, iterative nature, there is also a role for empirical research in which the objects of study and methods are fixed. While empirical research has been greatly criticized for leading to overly academic research and contributing little to real development, there are several instances where it is required to enable development outcomes. For example, empirical research can assist in filling critical information gaps hindering agricultural development by shedding light on more illusive dimensions of perceived problems and solutions. In such cases, research questions can often be targeted by local residents. Other cases may require that research be targeted by outsiders so as to inculcate certain values (sustainability, equity) in the development process. One example involves stakeholder negotiation in natural resource management in which contrasting beliefs about biophysical cause-and-effect are contested. If effective scenarios for improved cooperation in natural resource management are to be developed, empirical data is needed to objectively determine the impact of different management practices on water resources, for example, thereby de-politicizing negotiation processes. A second example involves social "sampling" to more objectively determine the concerns or perspectives of a community and counter-balance the tendency for more powerful or outspoken groups to dominate within community fora. Yet for empirical research to be useful to development, its objectives must clearly target development outcomes and reflect the interests of the end users.

Achieving quality in empirical research entails well-known standards for scientific research. Methods will vary according to the objectives and standards for research quality within the field of interest (biophysical science, social science or other). Depending on the minimum level of technical knowledge required to derive reliable information, local residents can often be involved as researchers.

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