

Lessons learned from participatory action research in WAFFI

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Smallholder farmers in northern Ghana and southern Burkina Faso manage the forest–farm interface, which comprises a complex mosaic of cultivated fields and fallows mixed with useful trees, parklands, remnant woodlands and forest reserves. The functions of these diverse multi-use landscapes are not always apparent to outsiders, and local people often lack tools and opportunities to explain these systems or articulate the challenges they face. To address this knowledge gap, the West African Forest–Farm Interface (WAFFI) project introduced participatory action research (PAR) to facilitate social learning and catalyze knowledge sharing. PAR is an iterative method of learning that involves local people in the design of research and facilitates their participation in observation, experimentation, reflection and interpretation of findings to aid in decision-making.

Key messages

- PAR can build the capacity of local participants to engage with other stakeholders and articulate their agenda for inclusion in discussions and development planning with policy makers and researchers.
- A key goal of PAR is to focus participants on the learning process. Therefore, PAR activities use a ‘learning by doing’ approach, including simple data-gathering tools – such as structured observations, note-taking and participatory mapping – to collect relevant information, followed by group analysis of the observations, and then reflection and discussions to make informed collective decisions on ways forward.
- So far, the PAR process has empowered women to focus on issues that are important to them, e.g. changing access to tree products such as shea nut, conflicts of use related to important forest products and increasing scarcity of fuelwood.

Background

The forest–farm interface in West Africa

Smallholders in northern Ghana and southern Burkina Faso have managed multi-use landscapes for generations, including woodlands, pastures, farmland and parklands. For these smallholders, the forest and farm have merged into multifunctional production systems where there are no hard borders between farming and forestry. Smallholder production often occurs within complex spatial and temporal mosaics, with multiple land uses and production activities shifting across their property over time. This landscape can be understood as the ‘forest–farm interface,’ where it is often difficult to clearly separate agriculture from trees and forest. Unfortunately, these smallholder systems are poorly accommodated by policies and programs that treat forests and agriculture separately. Rather than build on the advantages of these multifunctional systems, policies instead focus on the intensification of agriculture or conservation of forests instead of strengthening or improving the existing, successful smallholder systems. Existing management



Going to the market with charcoal, Chiana, Kasena-Nankana West District - Ghana



School time in Nakong, Kasena-Nankana West District - Ghana

practices have many benefits, such as adaptability, resiliency and biodiversity. Policy makers should be aware of these management practices and use them as the point of departure for development interventions.

The West African Forest–Farm Interface (WAFFI) project attempts to draw attention to this mismatch between policy and reality. The WAFFI project is a collaborative initiative of the Center for International Forestry Research (CIFOR), the World Agroforestry Centre (ICRAF) and Tree Aid with support from the International Fund for Agricultural Development (IFAD). The central question of the WAFFI project is: “What are the practices and policy actions that can improve the income and food security of rural smallholders through the integration of forest and farm management systems?” Participatory action research (PAR) methods provide a key pathway to understanding the logic of local practice, farmer perceptions of how policies frame their behavior, and the viability of possible strategies for improvement that take into account participants’ needs and interests.

The local context

Since 2016, the WAFFI project has been working with local partners in 12 villages and associated landscapes, 6 in each country. In Ghana, the villages are in the Kassena-Nankana West District in the Upper East region of Ghana. In Burkina Faso, the villages are in the commune of Nobéré in the Zoundwéogo Province. This brief focuses on the results from

the villages in Ghana. The sites are in an arid region of dry forest and savanna grasslands. Local people rely on a diversity of tree products for household use and for income, including shea (*Vitellaria paradoxa*), baobab (*Adansonia digitata*), dawadawa (*Parkia biglobosa*) and others. The trees are found on farms and in the forest commons outside of each village. Now, shifting demographic and economic conditions are increasing development pressure on these systems. Farmers report mounting environmental stresses such as a longer dry season due to changing climate or declining soil fertility on many farms resulting from intensified use and shortened fallows. Adapting to these changes is complex, and individual reactions are hampered as legal pluralism in Ghana privileges customary authority over land, which makes individual control precarious for some and marginalizes others (particularly women). Identifying commonalities and shared interests is a crucial step in shaping collective actions to respond to these broad challenges.

The WAFFI project and PAR

Participatory action research (PAR) offers an approach to a more user-centered design and focus for applied research and ultimately for development policy (German et al. 2012). Through PAR, researchers and local people learn together and collaborate to solve problems experientially, and in this way, PAR accesses indigenous knowledge to build understanding of local perspectives and expertise. One of the outcomes of PAR is increased local capacity in problem solving and social mobilization (Borda 2001; German and Stroud 2007).

What is PAR and how is it done?

PAR dates from the 1940s, when it was conceived as a learning process to help solve social problems through hands-on experimentation (Lewin 1946). It has since been embraced by research and development practitioners in many fields, including natural resource management (Maarleveld and Dabgbégnon 1999; German et al. 2012).

PAR works by using a structured, iterative method of 'learning by doing' (Walters and Holling 1990). This is often visualized as a series of cycles or loops (Lewin 1946; Fazey et al. 2005; Kolb 2014), where observation, experimentation, reflection and action result in people learning together in group settings, also referred to as social learning (Maarleveld and Dabgbégnon 1999; Fazey et al. 2005). PAR has been particularly effective at involving economically or socially marginalized groups, such as rural people and women, in problem-solving processes (Colfer 2005a; Guijt 2007; Evans et al. 2014).

The WAFFI project initiated PAR through a series of training workshops for the field team and community facilitators from each village. These have been followed by regular PAR activities in the villages, where technicians and community members collaboratively identified issues of importance, defined questions and devised data collection activities to help them learn about

the issues. They then reported the information back to the group, discussed the results and collectively decided on next steps. The data collection activities have involved participatory mapping, formats for recording observations, meetings with local officials and group discussions. Annual exchange workshops brought community members together with other local stakeholders to share their progress and discuss actions that could help address the issues explored through PAR.

Learning cycles in the forest-farm interface

The PAR work has built understanding about several concerns that are relevant for local stakeholders. What follows are the key questions explored in Ghana:

Distance to firewood? PAR participants were concerned that fuelwood supplies for household use have diminished, thereby increasing distances that women must travel to find fuelwood for household use. This is partially due to commercial firewood collection and charcoal production, which has depleted fuelwood supplies. Women also reported conflicts with forest guards who threatened women near forest reserves and confiscated their wood. When the PAR participants were discussing the increasing distances they traveled to gather fuelwood, this raised



Woman cleaning maize near Chiana, Kasena-Nankana West District - Ghana

the question of “How far do women walk to gather wood?” As a training example, the WAFFI team had introduced some simple mapping methods for participating villagers, so PAR groups were able to map areas of fuelwood use to better understand the problem. The reflection on these results raised additional questions about the conflicts with forest guards and the competition with commercial fuelwood collectors (mostly young men). New questions emerged about the degradation of shea resources and the implications for production, because fuelwood collectors cut shea trees and branches. Sometimes hunters and commercial fuelwood collectors set wildfires, which damaged trees and cut productivity, further impacting shea harvests. In response, PAR participants engaged with local authorities to discuss clarifying access rules and strategies to control wildfires. PAR participants also decided to explore issues regarding shea nut collection. This demonstrates how PAR catalyzes an iterative learning process of continued exploration of complex issues, and is described in the section titled “Lessons learned from the PAR training sessions”.

How has the shea nut harvest been changing? Shea nut is a crucial local product and has traditionally been collected by women. Men who own land control access to the shea trees on farms, which have the most productive shea trees. A recent change is that buyers now come to the village to purchase shea, removing a stigma against men selling shea at market. As a result, men have become more restrictive with access to shea trees in their fields, either claiming all production or charging women as sharecroppers to harvest. This shift was new, so PAR participants, particularly women, wanted to understand what was happening, and how this affected shea collection practices. Together with WAFFI technicians, PAR participants designed data collection sheets that villagers could record on a daily basis: whether they had harvested, where and how much. Participants tallied and discussed the results on a weekly basis, exploring not only issues such as where shea is being collected and levels of shea collection, but also prices of shea, impacts of bush fires and gender roles. They noted that women are now more reliant on shea resources in bush and forest reserves where fires were more intense and uncontrolled. Wildfires early in the dry season cause trees to abort flowers and otherwise damage or kill shea



Shea butter production process near Chiana, Kasena-Nankana West District - Ghana

trees. Fuelwood collectors now cut shea trees because over-exploitation of other fuelwood species has increased reliance on shea as fuel. The PAR groups are discussing additional ways to track these issues to get a better understanding of the topics, and they are also discussing options to mitigate the processes degrading the resource base.

Lessons learned from the PAR training sessions

While seemingly simple, the learning cycle (Figure 1), or ‘worm,’ is just an abstraction until put into practice. We noted two lessons related to short-cycle learning and reporting back observations from PAR activities that helped participants become more conscious of how they learn.

Starting with short cycles allowed participants to easily conceive of each activity as a step in the process. In fact, if a full learning cycle was completed within a single day, the learning was immediate and further motivated participation. Having short

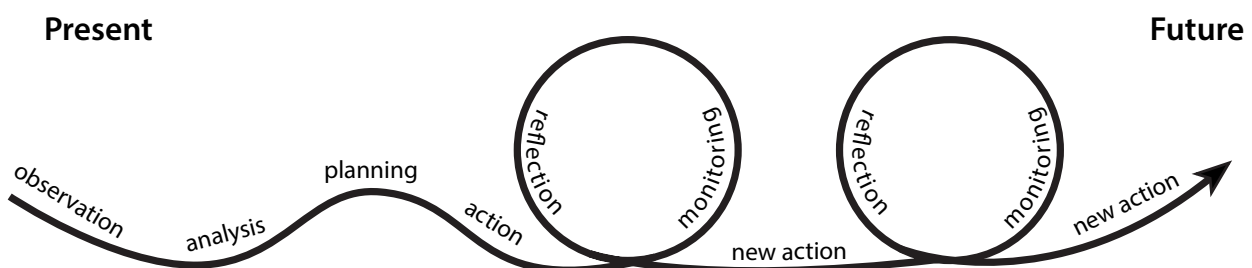


Figure 1. The ‘worm’ diagram illustrates the steps and cycles in systematic social learning (Evans et al. 2014)

cycles initially was crucial for building understanding of the cyclical nature of PAR, how it worked and why. Frequency also facilitated learning, so an activity involving a quick sequence of cycles showed how each new set of observations and decisions built on learning from previous ones. Furthermore, the learning cycles could be nested within each other to accelerate the process. For instance, the weekly schedule was structured to reflect a full learning cycle. Then the agenda of each community meeting was structured as a learning cycle: report back, reflection, next steps; each meeting reviewed and built on the results of previous meetings. This 'nesting' of the learning cycles ensured frequent, quick learning cycles.

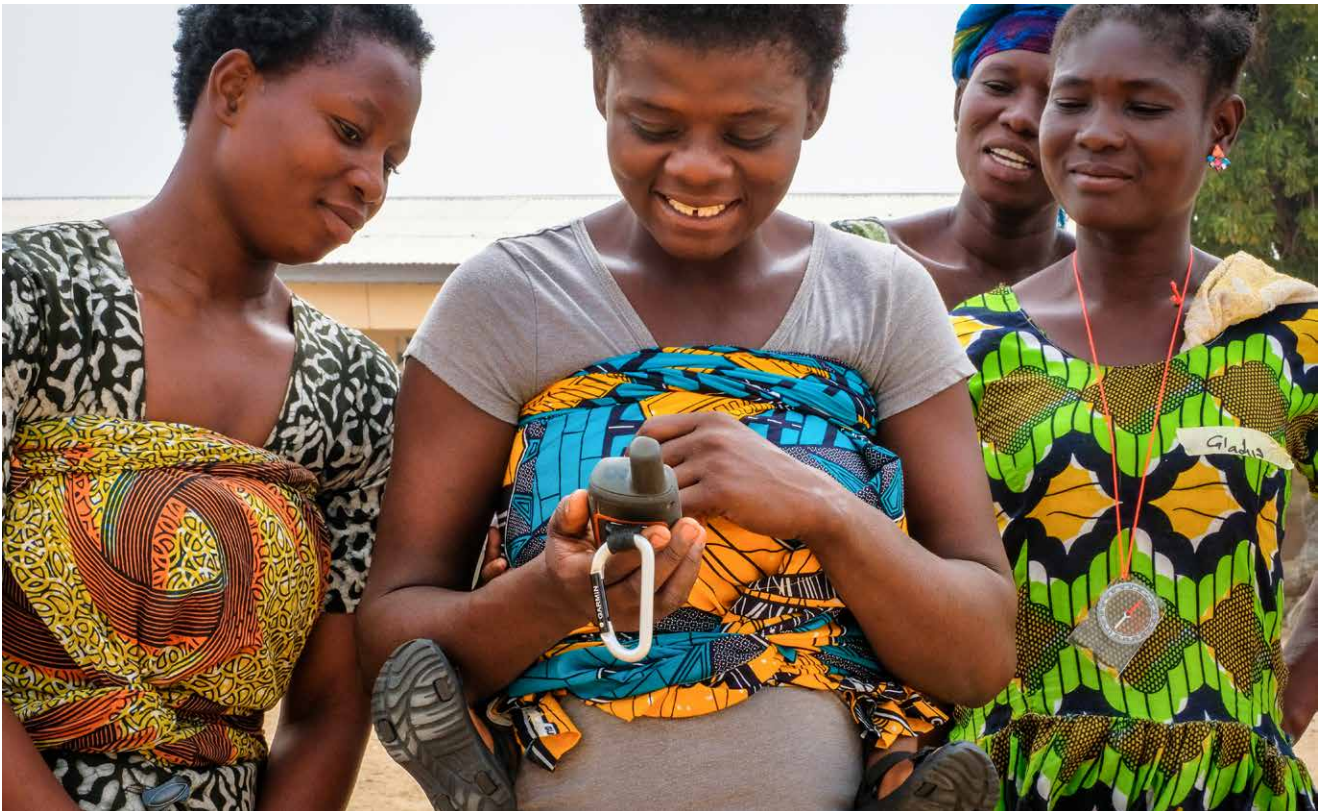
During a training scenario when teaching PAR methods, we realized that participants could misunderstand the evaluation stages in the process because in conventional approaches to development, field technicians report 'up' to their supervisors. Instead of reporting 'up', 'reporting back' was a crucial part of the PAR process, where the field team and participants shared results from their data collection with each other, and discussed and reflected on them. In other words, it is not the community reporting to the facilitators, or the facilitators reporting to their supervisors; this reporting is internal to the PAR group and is crucial to evaluation and learning. Reporting back brought the process full circle, where participants reevaluated the original question being addressed and reformulated the plan of action.

In PAR training, we emphasized that reporting back refers to the local PAR participants organizing their observations and sharing the results with others in the group. Initially, external facilitators introducing PAR techniques may need to assist a PAR group in organizing and synthesizing the collected information to share with the others. However, when assisting the group, it is important to avoid misunderstandings about the direction of the reporting. By reflecting on the information they gathered and discussing its implications, the participants could then decide what additional steps were merited.

One final observation about introducing PAR methods into applied research and development initiatives. As this approach differs from conventional or top-down development interventions, it is necessary to devote time to training the technicians who will be facilitating the work and to provide guidance as they gain experience. In this approach, technicians need to be oriented to understand that they are assisting a process, and that it is in this process that people learn. The technicians may feel that it is counterintuitive to set aside their authority and allow participants to explore issues and make decisions on their own terms, but by opening up that opportunity, they help the participants gain skills and capacity. Providing support and feedback as the technicians become more confident in this role will help them become better facilitators.



Mapping workshop in Adabania, Kasena-Nankana West District - Ghana



Mapping workshop in Nyangania, Kasena-Nankana West District - Ghana

Why PAR is a relevant method for dealing with the forest–farm interface

The forest–farm interface is a complex system of multi-use production practices, as well as vibrant socioeconomic relations within pluralistic frameworks combining customary practices and legal regulations, particularly for accessing resources. As such, it is difficult for outsiders to understand the patterns, to observe social divisions and identify local priorities. Villages are not static and unchanging; they are dynamic and adaptive, responding to external actors and conditions. Conventional methods do not necessarily capture changes and trends, particularly when influenced by bias and flawed assumptions about local conditions or that obscure local complexity and heterogeneity. Understanding these multifaceted realities of farmers and their diverse activities requires a way of participatory learning that is structured exploration using accessible science-based approaches. For researchers, PAR provides a participatory way of digging deeper to get a more multidimensional understanding of the issues, connections and relationships between all of the parts.

For the farmers, the forest–farm interface is their reality – and sometimes it is hard for someone living a reality to see clearly the central issues and associated knowledge because they are immersed in them. By learning and exploring issues together



Spontaneous fire in Nakong, Kasena-Nankana West District - Ghana

with 'outsiders' who are new to their reality, they see their own worlds in a different way. And, both they and the outsiders gain a window into the competing interests, divergent opinions, shared concerns and common goals that are present in community



Hand pump well near Chiana, Kasena-Nankana West District - Ghana

settings. This type of social learning, also referred to as multiloop learning, is crucial for recognizing change and adapting to it in complex, dynamic socio-ecological systems (Maarleveld and Dabgbégnon 1999; Colfer 2005b).

There is a need to build capacity for people to solve problems on their own and to engage in dialogue with local neighbors and external stakeholders. PAR helps local farmers become proactive actors in development processes. It tries to create self-reliant actors who learn and solve problems on their own (rather than

being dependent on development assistance). PAR provides a framework that develops trust and builds the capacity for engagement by providing a structured process for articulating concerns and needs, collecting and reflecting on information, developing strategies and opportunities and negotiating with other stakeholders. PAR also opens up social learning spaces for people less often heard, such as women. For instance, when the women were afraid to talk about collecting firewood from the forest, PAR provided a method to explore why and learn more about the issue. Women felt strength in numbers when they met as a large group, and they openly discussed the issues with researchers. Both female and male farmers need to be engaged with policy makers and practitioners to adapt development policies to address real-world conditions

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