Innovating with rural stakeholders in the developing world

Action research in partnership

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11. Contractualization of relations in the Teria project in Burkina Faso

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The example of the Teria project shows how a collegial decision between farmers, technicians, and researchers, and a contractualization of relationships conditioned and modified the way an experiment that brought together various stakeholders within an ARP project was conducted. "Teria" signifies friendship in Dioula and was the name chosen for the project by the participants, describing the relationship between farmers and livestock owners.

Context and issues

In western Burkina Faso, there are conflicting strategies of expanding agricultural lands (farmers), on the one hand, and having larger animal herds (breeders), on the other. These separate strategies still largely prevail over an integrated use of land for both types of activities in a finite space that is fast reaching saturation point. The result is conflicts on the use of land, a deterioration of agro-sylvopastoral resources, and a leveling off or fall in crop and herd productivities. Innovative agro-pastoral activities such as bovine fattening in the dry season or dairy production are too slow to take off in spite of the existence of local urban or sub-regional markets that could support these activities. In such a context, how can research help change the status quo?

The Teria project experimented with an ARP approach from 2005 to 2008 in two villages in western Burkina Faso, Koubia and Kourouma. Its goal was to help scientists (from Cirad, Cirdes, and Inera) and local stakeholders (farmers, breeders, and technicians) engage in dialog and work together to design and test innovative methods for boosting crop-livestock integration, to reconcile economic development and sustainable management of ecosystems, and to design a future inclusive of all.

Three committees formed the ARP's governance mechanism: a steering committee, a scientific committee, and a village coordination committee. Figure 7 and Table 2 show the relationships between these committees and their respective roles.

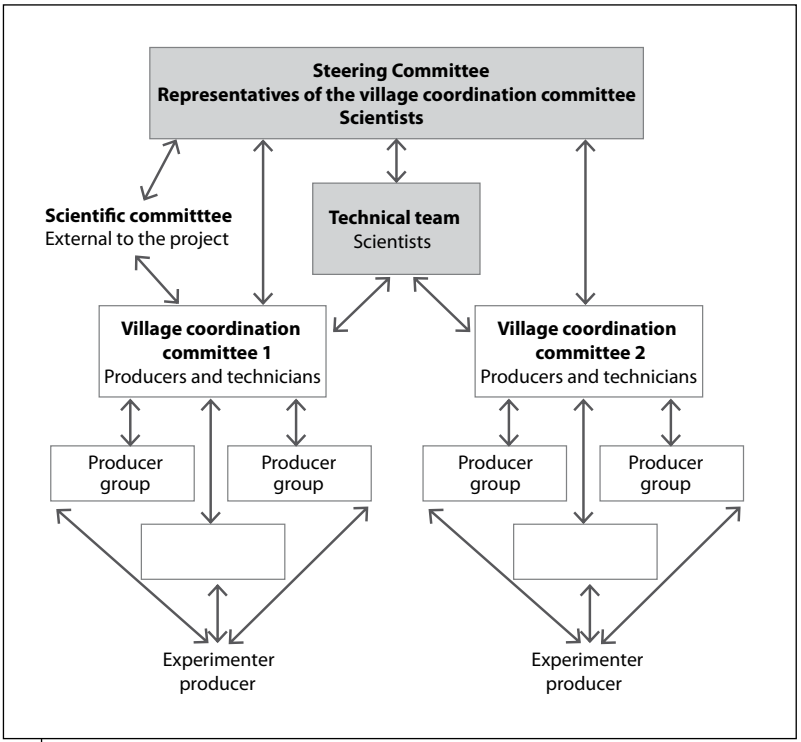

Figure 7. The governance mechanism of the Teria project.

The steering and scientific committees undertake the strategic planning of activities via collective debate and decision making. The village coordination committee involves on-the-ground stakeholders in the formulation of research subjects, in defining criteria for selecting farmers to undertake experiments, then in actually selecting them, in monitoring activities, and in evaluating the results.

Representatives of producer groups update specifications for experiments and finalize the protocols, amongst other tasks, during the meetings of the village coordination committee.

The governance mechanism, via these three types of committees, defines the rights and responsibilities of each partner, which, taken as a whole, constitute the ARP's ethical framework.

This case study pertains to the functioning of this multi-tiered set-up in the specific context of experimenting with bovine fattening in the dry season, drawing up a problem-set, and formulating research questions and hypotheses, and of implementing and evaluating activities.

Table 2. Composition and roles of governance authorities of the Teria projecta

Authority	Composition	Roles
Scientific committee	Cirad, Inera, universities	Framing of methods, quality control of knowledge produced, proposals for strategic reorientations
Steering committee	Scientists: Cirad, Cirdes, Inera –	General planning of activities, monitoring of activities (appraisals, etc.), conflict arbitration, funding negotiations
	Village coordination committee: 4 representatives per village (producers and technicians)	
Village coordination committee	Executive office (6 members)	Interfacing between scientists and producers, monitoring the flow of information, executive management of activities
	General office (in charge of organizing, advising, information flow, etc.)	
	Producer groups belonging to village coordination committees	
	Network of experimenter producers	

Conducting the experiment and the role of governance mechanisms

Preliminary studies of the agropastoral situation at Koumbia and Kourouma villages had identified bovine fattening activities at the farms of a few agropastoral farmers, briefly evaluated its profitability, and identified weak points relating to cattle feeding practices and insertion into markets. Representatives of the village coordination committees and the technical team presented this topic during the first meeting of the Teria project's steering committee. The aim was to improve the technical and economic management of the fattening activities within a perspective of local development.

The idea was to analyze, in real time, several fattening enterprises with their owners and then suggest improvements specific to each situation. The final product was to be a practical guide for bovine fattening available to the Teria project initiators, village coordination committees, and technicians.

After the steering committee meeting, representatives of the two village coordination committees presented the objectives and methods to their members. In each village, the members then identified, on the basis of criteria openly debated, four voluntary producers for conducting a bovine-fattening project during the 2006-2007 dry season. Two of them had already been practising fattening for several years, the other two were novices in this field.

The Teria project proposed four progressive stages to handle this type of experimentation while meeting the major objectives of an ARP:

– Contractualization, via drawing up of a specifications document;

– Diagnosing and formulation of the problem, based on an analysis of the initial individual projects;

– Formalization of knowledge and strengthening of learning, via training sessions and inter-village exchanges;

– Implementation of the technical aspects of the experimentation, i.e., a feasibility study of the experimentation for fine-tuning the initial project, implementation of the experiments coupled with an analysis of farmers' practices and strategies, and an assessment and valorization of the experiments (difference between what was planned and what was achieved).

Contract agreement: drawing up the specifications

Experimentation starts with the drawing up of formal specifications listing the respective responsibilities of the producers and the technical team for each stage. The format of the specifications was decided by the steering committee, then explained by the village coordination committee to the farmer volunteers, then further refined and modified to address their concerns.

This process makes it possible to specify who does what and how. Thus, at the start, each participant knows to what he is committed and, in case of problems, participants can fall back on the specifications as an arbitration mechanism. At this early stage, the calendar of experiments has been suitably adjusted, as has the list of material contributions of the various partners, logistical aspects such as study tours, and final products of the experiments, for example, technical datasheets or a practical guide.

Diagnosis and formulation of the problem: study of the initial projects

The technical team comprehensively analyzed the production unit of each voluntary experimenter including any previous bovine fattening activity. Several common issues were identified in these initial fattening projects, including strong points and weaknesses.

The four cases were intensive-fattening projects planned for around three months during the dry season and involving between 2 and 14 discard animals. The proposed fattening practice was based on feeding each bovine 2 to 3 kg of cotton oil cakes per day. The idea was to buy cheap discard animals, ready to be culled, and to get them rapidly back into shape via a rich feed and sustained prophylaxis to be able to resell them at the highest possible price.

Several weaknesses surfaced. Feeding costs were high due to the indiscriminate use of cotton oil cake. Animal husbandry infrastructure, including stables and hay stores, was not up to the mark. Information on market outlets was hard to come by and was often faulty. The newcomers to bovine fattening had unrealistic expectations of cattle sale prices. Management tools were inadequate to allow the producer to take proper decisions, even though the experienced bovine fatteners noted down their receipts and expenses in a notebook.

The positive aspects were the existing experience in livestock farming and the ownership of a cattle herd.

Formalization of knowledge and strengthening of learning

Before the start of the technical part of the experiments, the village coordination committee and the technical team organized exchange visits between the four volunteers and a visit to a fattening farmer expert who was not participating in the experiment.

These exchanges helped producers become part of the process of finding solutions to their problems and to become conscious of the various expectations of the fattening project's proponents. In general, these expectations related to discovering fattening practices, to learning how to reduce feed costs, to tricks for bargaining down the purchase price of animals, and, finally, to ways of choosing good animals. The expectations of the novices were somewhat vague, those of the experienced ones more specific.

Following the brief presentations of their projects by the volunteers, the exchanges, conducted in Dioula, quickly became a learning process on the choice of animals (how to avoid buying a sick animal, for example), the best periods in which to buy them, techniques on diversifying feed, reducing the feed costs, and exporting products to the Abidjan market in neighboring Ivory Coast. On their return from the exchanges, the farmer-experimenters decided to apply some of the newly acquired knowledge in their projects.

Conducting the technical part of the experiment

At the end of the first three stages, the technical team and the fattening-project volunteers reformulated the technical aspects of the project, with detailed calculations of daily feed quantities. Also discussed were the commercial implications of the project for each producer.

The producers then set up their fattening enterprises and each project was evaluated at the end when the animals were sold:

– One of the four producers, despite a project that was formalized in greater detail than those of the other three, could not raise the money to acquire animals. He therefore decided to postpone his project to 2007-2008;

– The other three producers finished their projects. But they were unable to reduce feed costs as much as expected, having already acquired feed stock before the project was reformulated. Nevertheless, one experimented with urea-treated rice straw he had in stock, following a specific protocol;

– A novice producer made good profit even though he did not get the expected sale price. As the project progressed, it became more realistic;

– A second producer did not implement the modifications introduced in the project reformulation and retained the original parameters. He seemed happy with a less-than-optimum financial result but one that was guaranteed by the animal dealer he normally dealt with;

– A third producer adopted a different sales strategy inspired by what he saw at the expert bovine fattener. He chose to sell the animals in Abidjan, rather than in Bobo-Dioulasso, a risky but potentially rewarding decision. He formed a partnership with his usual local retailer. They hired a cattle car, pooled their animal stock, bought additional heads to fill the car, took care of administrative requirements, and prepared for and undertook the trip to Abidjan. Selling the animals there made him a handsome profit.

Analysis of the project's results and discussions between the technical team and the village coordination committees showed that intensive bovine fattening during the dry season is indeed a profitable activity. It carries some risks, however, mainly due to the investments required. Even though funding under the Teria project ended, the four producers carried on bovine fattening activities in subsequent years, yielding positive results and further lessons.

To extend the approach to other producers, a practical guide for undertaking bovine fattening activities was produced. It advocated a flexible approach based on gradual adjustments along the way. It recommended exchanges between the project proponent and the village coordination committee or the animal-husbandry technician in three steps: the definition of the project objectives, the design of the initial project at the technical and economic levels, and, finally, the monitoring, possible adjustments along the way, and final project assessment.

Impact of involving farmers in the decision-making process

The participation of local stakeholders in the decision-making process was one of the main features of this ARP. The partnership was based on an organized governance structure with responsibilities clearly distributed amongst the various authorities and on the establishment of an ethical framework around shared values. For such a system to work, it was paramount that the information flow between the members of the various governance committees remained free and unfettered.

Involving local stakeholders in experimental activities led to a rethink on the entire experiment, its progress, and its end results. The changes that were brought about by this sequence of stages are as follows.

The issues to be addressed emerged gradually from the concerns expressed not only by the experimenter-producers but also by the farmers' representatives in the various committees. Scientists, producers, and technicians all worked together to refine the issues to be addressed. Studies, along with reporting back their results to the producers, and the ensuing discussions were part of this process. The researchers were thus gradually able to bring the farmers around to think on the basis of working hypotheses.

By conducting the experiments with a focus on formalizing knowledge and on learning, the experimenter-producers were well on their way to obtaining answers to their questions. By doing a "bibliographical" analysis of sorts, they were, in their own way, doing work analogous to that of the researchers.

The drawing up, right at the start, of a contract between the experimenter-producers, scientists, and technicians, helped determine together each participant's reciprocal responsibilities. This contract, in the form of the specifications document, formalized relationships between participants and committed them to various responsibilities for the duration of the project. As time passes and when such commitments are upheld, trust between the participants progressively increases.

Exchanges between researchers and the experimenter-producers during the technical implementation of the experiments helped analyze individual projects in detail and revise them in real time. They also helped increase knowledge about the producers' fattening practices and on the performance of such livestock farming systems under various conditions.

Even though preplanned, the experiments remained flexible. They included stages to analyze, exchange, and implement activities. The results obtained at each stage were used to fine tune the next.

Summary

The contractualization of relationships between scientists, producers, and technicians in the case of the Teria project resulted in a rethink of conventional wisdom about the way farmers and livestock producers learn. They are quite capable of constructing and conducting a structured project. But they cannot work alone; they need to interact with their peers and with external actors for acquiring and producing new knowledge.

By ending the isolation of producers and by facilitating dialog between them, scientists, and technicians, the village coordination committee puts this principle into practice. Thus, it plans activities, encourages initiative taking by providing information that sheds light on the decisions taken by the projects proponents, assists in implementing activities, and contributes to the evaluation of results. Such a committee is an essential factor in building the management capacities of the practitioners.

All the governance mechanisms that include the producers – the steering committee and the village coordination committees – become forums where new relationships of trust are forged between different types of stakeholders, a propitious factor for the emergence of new questions to tackle and proposals for action.

As a field technician of the Teria project in 2008 remarked, "Farmers and breeders of Koumbia today see researchers as partners with whom they can discuss new issues. The researchers listen to them, discuss with them, eat with them, and are interested in their cultural practices, even ancient ones."

Listening to these producers on this subject, one can only be impressed by their rehabilitation as intelligent men and women with a conscience. They are not mere instruments that administrations, technicians, or even researchers often tend to manipulate.

Thus, before the end of funding of the Teria project and the disengagement of researchers, the participants decided to set up a new ARP project. This project also involves crop-livestock integration, but on a much more ambitious scale involving several villages and administrative regions. Its overall responsibility rests with a farmer organization that brings together the different producer groups that were associated, in one way or another, with the various committees.

Conclusion

The governance of an ARP aims to create conditions conducive to the participation of all stakeholders in the decision-making process. It is based on an ethical framework defined during the launch phase.

One of the key components of this ethical framework is the establishment of rules governing relationships between participants and specifying the use and ownership of any results.

Governance mechanisms help define the strategic directions of the project, plan activities, evaluate results, and manage any possible tensions and conflicts. The authorities can take several forms (for example, steering committee, scientific committee, local committees) to be able to include all participants in taking the decisions that will impact on them. An ARP's operational rules are discussed and formalized in documents and/or during special events.

The implementation of such governance mechanisms is the most important feature that distinguishes an ARP from other action-research approaches. It is this that gives the word "partnership" its full meaning.

Implementing an ARP requires a broad range of tools with varying degrees of complexity. Most of these tools originated with participatory approaches or more conventional research methodologies. It is the way they are used that is original, i.e., by involving all the stakeholders in their design and use, in a learning process for mastering them and for valorizing the results produced.

In this way, the tools facilitate various functions: information collection and configuration of knowledge, helping solve problems by allowing the planning and evaluation of activities, and intermediation by facilitating dialog and exchanges between participants.

However, certain useful rules should be followed to select and adapt tools. To begin with, the tool should actually relate to the questions posed by the stakeholders and should be adapted to their requirements, not only to those of the researchers. It should help boost the stakeholders' autonomy and provide quick visible results, even if they are partial. Finally, it should be accessible to the various stakeholders and should be flexible enough to accommodate changing needs and rising stakeholder skill levels.

Good management of communications between participants and with the external world is fundamental to an ARP's success. Facilitation and mediation functions are also important and specific skills have to be developed to master them.