

OUTPUT 1. PARTICIPATORY RESEARCH APPROACHES ANALYTICAL TOOLS AND INDIGENOUS KNOWLEDGE THAT LEAD TO THE INCORPORATION OF FARMERS' AND OTHER END-USERS' NEEDS IN INTEGRATED AGROECOSYSTEM MANAGEMENT, DEVELOPED FOR INTERESTED R&D INSTITUTION.

Reflections on human and social capital when establishing PM&E within the framework of a PITA

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Introduction

All development projects or interventions should have a system of participatory monitoring and evaluation (PM&E) that allows beneficiaries to determine the progress being made in activities and take the measures necessary to solve problems, making the required adjustments in the objectives and activities. This system should also allow an adequate flow of the process at community level, considering the formulation of indicators based on local criteria as well as gathering and recording of corresponding information. Analyses of the results of the M&E done by the community should make possible the determination of appropriate times for interaction and discussion between the community and the local institutions in order to reorient the interventions according to the beneficiaries' needs.

In 2003-2004 the FOCAM⁵ project began a series of experiences linked to establishing PM&E systems within the framework of Applied Technological Innovation Projects (PITAs),⁶ tendered for by the Bolivian Government through the Bolivian System of Agricultural and Livestock Technology (SIBTA). The purpose is to adapt the PM&E system to the Bolivian reality in order to bring about its institutionalization at the level of SIBTA, thereby optimizing the results generated by the projects.

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⁵ FOCAM stands for "Promoting Change" and is the short name of the project "Participatory monitoring and evaluation (PM&E) for rural innovation in Bolivia." FOCAM proposes to balance the demand for agricultural research from low-resource farmers with the supply of agricultural and livestock research so that this research responds more clearly to the population of low resources. FOCAM is supported financially by the British cooperation (DfID-RLD) and is executed by the International Center of Tropical Agriculture (CIAT-Colombia) and the Imperial College of the University of London, England.

⁶ According to SIBTA's (2003) definition, PITA represents a set of activities based on the agroproduction-chain approach and a program vision that comprises the validation, adaptation and transfer of process, product, management and technical assistance technologies for their adoption with the objective of promoting integrated change in an agroproduction chain.

Although it has been possible to determine the need for a PM&E system and the characteristics that this should have, at the moment of its implementation, numerous difficulties have been found that should be analyzed in order to find ways to make its establishment viable.

Objective

The objectives of this research are to determine the factors that limit the establishment of PM&E systems with the PITAs in the high Andean plateaus of Bolivia; analyze the problems that occur during this process; and propose alternatives for counteracting the effects of these problems in order to optimize the processes and results generated by the PITAs. Parallely, it seeks to analyze experiences in order to develop guidelines and principles that minimize these adverse factors, permitting the diffusion of PM&E within the framework of SIBTA.

Research questions

This paper analyzes the following research questions:

- What social factors limit the establishment of PM&E systems?
- What human factors affect the establishment of PM&E systems?
- What other factors limit the establishment of PM&E systems?
- What alternative measures can be taken to counteract the limiting factors?

Conditions for applying the methodology

Every PITA is established starting with a demand made by a requester.⁷ Eligible requesters are considered to be the different actors of the agroproduction chains such as producers' organizations, small farmers' and indigenous organizations, territorial grassroots organizations, cooperatives, agroindustries, merchants, etc.

There is a legal framework that should be clearly defined before a PITA can begin its activities. This framework consists of the following:

- The signing of a contract between the Foundations for Agricultural and Livestock Technological Development (FDTA)⁸ and the provider of services, in which the products and expected results are stipulated clearly in a logical framework and a plan of milestones.
- The signature of a document in which the legal representative of the providers is committed to making a cash payment of 15% of the total value of the project to FDTA.

⁷ All organized actors from any of the links in the agroproduction chain that can benefit a PITA. The concept also includes their capacity to make demands on the system.

⁸ The FDTAs are nonprofit institutions of a mixed nature: private and public-interest, without political or religious ends, created within the SIBTA framework. Autonomous in their technical and administrative management, they are in charge of administering and procuring resources to finance the PITAs from different sources, among which are the Bolivian State, organisms of multilateral, bilateral and other cooperation. Their commitment is to promote a system of dynamic, competitive, efficient, participatory technological development in each macro ecoregion, giving priority to the demands of the actors from the agrofood chains, with which they define their priorities for interventions.

Despite the fact that the legal requisites necessary for the organization to be awarded a PITA are clearly established, there are some gaps that undermine the process. These gaps begin with the gathering of the requesting organizations' demands. There is no methodology for this purpose, and it is not possible to determine how genuine the demands are. While the operational regulations define that there should be a signature of nonobjection by the organization's legal representative before beginning the project, it is also clear that the legal representative has the power to decide the outcomes of the project and that there is no mechanism that transcends the legal and that permits greater interaction with the grassroots groups.

During the execution of the PITA, the corresponding FDTA is in charge of doing the M&E to ensure compliance with the milestones that determine the progress in reaching the results and obtaining products. The requester's signature of nonobjection for each milestone completed is also contemplated in the regulations. This mechanism makes successive disbursements viable in order to continue the execution of the project. As in the previous cases, the form of operating this mechanism has not been defined. A well-defined system does not exist that permits the requester to object to the project based on data of all the beneficiaries.

PM&E was adapted to the needs of application in the context of the PITAs (Gandarillas et al., 2004) and applied in diverse interventions of the FOCAM Project in Bolivia. For purposes of this document, the limiting factors linked to the different capitals are analyzed within the framework of sustainable livelihoods (DfID, 1998).

The requesting organization

The Avaroa Provincial Association of Milk Producers (APPLA) is a small farmers' economic organization affiliated to the Coordination, Integration of Small Farmers' Economic Organizations (CIOEC-Bolivia), which promotes the development of all their affiliates. This organization, which groups the dairy producers from the Province in 29 "Dairy Modules", was founded in February 1999. The grassroots organizations that the dairy producers formed in one or several communities are known as "Dairy Modules." They have a director whose maximum authority represents the Module. As governing, executive and administrative bodies, they have the following hierarchical levels: Provincial Congress of Producers, General Assembly, Advisory Board, Directory of the Association, Director of the Module and Provincial Assembly Meeting. Details of the organizational structure of the Association are given below (Fig. 1).

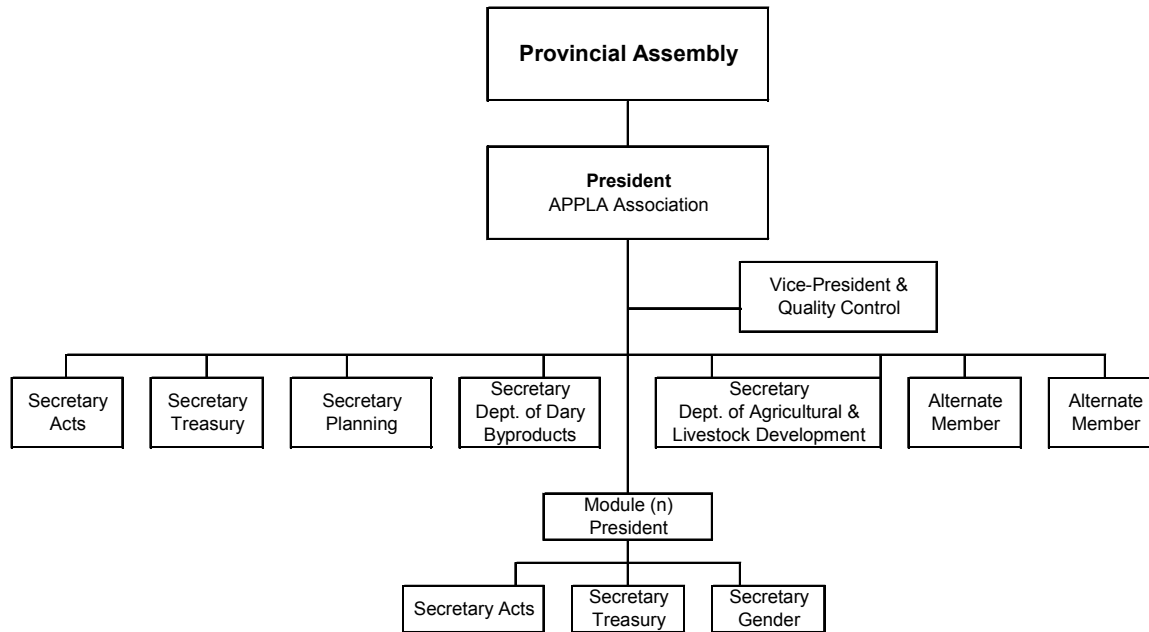


Figure 1. APPLA’s organizational structure.

To support the Association and give advice on its work, it has a technical team consisting of a manager and a chief accountant. One-fourth of their salaries comes from APPLA resources, while the remaining 75% comes from the Royal Embassy of Denmark through the Dairy Development Program for the High Andean Plateaus (PDLA), an institution that has been supporting the Association on a provincial scale and the Federation at the state level.

Several institutions have carried out training projects in the zone. The producers received training at different levels on topics related to dairy production; however, this continues to be a topic of interest for producers. For this reason, the Association has been seeking funding for various projects supporting the dairy sector with entities such as the Royal Embassy of Denmark through the PDLA, the FDTA high Andean plateaus and others.

At present, there are several projects under way: Forming Veterinarian Promoters and Techniques for Conserving Forages generated by the FDTA high Andean plateaus; Dairy Farm Management, Implementation of Alfalfa Seed, Construction of Stables, Haylofts, Provision of Buckets, Harvesters and Pails, Training in Dairy Byproducts, Health and others, generated by the PDLA. Collaboration has also been received from the Japanese volunteers program of the Japanese International Cooperation Agency (JICA), which supports women in making dairy byproducts.

Problems during the incorporation of PM&E within APPLA

During the different phases of incorporating PM&E within APPLA, the following problems arose:

Introductory motivation meeting

- Total lack of knowledge about SIBTA, the FDTAs and the PITAs in terms of what they are and what they do
- Total lack of knowledge about the scope of the PITAs in execution (logical framework, plan of milestones or others)
- Unawareness of the processes that make the execution of a PITA viable (operational regulations)
- Nonpresence of the President of APPLA and the technical officials for lack of time

Definition of evaluation criteria and preparation of formats

- Various criteria that vary according to the level of education and the community of origin
- Difficulty in assigning responsibility for the activities for lack of time
- Difficulty in assigning responsibility for the follow-up for lack of time
- Unawareness of the project's activities and expected products

Evaluation

- Absence of the Module presidents at the prescribed monthly meetings
- Change of Board in the different Modules
- Absence of the President of APPLA during the evaluation process
- Absence of the Board of Directors of APPLA at the monthly meetings

Presentation of results

- Difficulties in finding a time for getting together for the presentation of results
- Unawareness of the results on the part of the President of APPLA
- Problems in perceiving the spirit of the evaluation (It is seen as an inspection more than as a constructive process.)

Relationships and attitudes toward evaluation

Conflicts for establishing PM&E were detected at the level of the different actors, the details of which are given below:

Requesters

- Nonfunctional organic structure. (Only the president attends.)
- Nonoperational internal regulations and bylaws. (No one knows them.)
- Incongruence between the terms of the Association's Board of Directors and of the Module Boards. (The Module Boards are renewed yearly, but with no set date causing constant changes within the assembly of Module presidents.)
- Discontinuity of actions in the renewed Module Boards (The outgoing directors do not inform about current topics.)

- Lack of communication among the Director of APPLA, the Module presidents and the grassroots groups.
- Low motivation due to inconsistency between the demand to which the project responds and the effective demand of the grassroots groups.

Providers

- Conducive attitude regarding ongoing evaluations
- Attitude of susceptibility, trying to evade the evaluation
- Lack of adequate technological supply to meet the beneficiaries' demands
- Lack of internal M&E mechanisms to ensure the quality of the service they provide
- Limited openness to alternatives or modifications proposed by the requesters

FDTA

- Lack of human resources and time for interacting to make the evaluation and presentation of results viable

Answers to the research questions

What social factors limit the establishment of PM&E systems?

Within the framework of sustainable livelihood, social capital is understood as the social resources that support the people in the search of their objectives. These are developed through networks and connections, participation in more formalized groups, and relationships of trust, reciprocity and exchange (DfID, 1998). According to Putnam (2002), "social capital is a set of aspects or characteristics of social organization such as norms, systems and trust, which facilitate coordination and cooperation for mutual benefit."

Social capital is closely linked to structures and transformation processes; for this reason it is the principal variable of analysis when evaluating constraints for establishing PM&E systems.

In general, when working with PITAs, PM&E is applied with more formalized groups—a situation that implies the individuals' adherence to rules, norms and sanctions. This would appear to constitute an advantage as it makes the execution of the project viable in an organized, normative framework. However, when this situation is analyzed in greater depth, there are elements that hinder the proper establishment of PM&E.

Given the conditions of the formal organizations in terms of hierarchies and responsibilities, it is expected that the director is the one who implements the PM&E processes. The difficulty lies in the fact that the connection between the directors and individual beneficiaries is not always optimal losing; thus a wealth of information is lost in the process. At the same time, the functions that are delegated to the directors' are always excessive so that there is a risk that the PM&E will not be valued or executed properly.

If the existence of a formal organization is to be considered as an advantage for establishing PM&E systems, it has to have functional organic structures, as well as operational norms in effect. Weak formal organizations constitute a constraint at the moment of establishing PM&E with their members.

In every social milieu an M&E culture of some sort exists, as well as an internal system of information flow. These local systems should not be excluded when the grassroots groups are brought together to construct formal organizations and/or establish PM&E systems. The formation of formal structures outside the local traditional structures can generate confusion, exclusion and be a source of greater inequality. The establishment of PM&E parallel to local processes generates duplicity although this may not be readily perceived. This duplicity cannot only lower the participants' motivation but the process can also lose importance for them.

What human factors affect the establishment of PM&E systems?

Human capital is represented by aptitudes, knowledge, working capacity and good health, which together permit the populations to undertake different strategies and reach their objectives with respect to livelihood (DfID, 1998). These aptitudes, knowledge and capacities affect the establishment of PM&E systems in the PITA framework.

The quality and amount of time available are factors that influences human capital and that parallely influence the establishment of PM&E systems directly within the framework of the PITAs. Given that it takes a great deal of time if the parties interested in PM&E are to be able to participate in a significant way (Banco Mundial, 2004), those groups of beneficiaries whose productive activity demands greater attention and takes up a large proportion of their time will be less disposed to participate in the M&E of their projects. Activities such as the dairy or intensive cattle production, which require permanent attention, will face greater difficulties when it comes to forming the M&E committees, as well as for the beneficiaries finding time to attend events of this nature. Even if they show interest in participating and evaluating the projects, their limited time is a constraint that will hold back their participation in activities whose economic income is not quantifiable and immediately visible.

Variability in the level of schooling is another factor that affects the establishment of PM&E systems, primarily due to the people's different interests and capacities. People with higher levels of instruction seek to evaluate aspects related to the distribution of the technicians' time, the resources, and the subject of the interventions; whereas people with lower levels of schooling are interested in evaluating aspects of a quantitative nature, related to execution, such as workshops held, assistance to events, yields, etc. This divergence of criteria results in the individuals' losing interest in the evaluation when they do not understand or do not find some of the criteria relevant.

As long as the individuals do not have good knowledge about PITA, they will be limited in the sense that they will not be able to take full advantage of the project and the implementation of PM&E. The lack of information or inappropriate flow of knowledge with respect to the conditions of establishing a PITA, in terms of the financing of the same, their objectives, goals and products; causes confusion among the individual beneficiaries. The people feel susceptible

about evaluating a “donation” or do not know the products and cannot therefore emit judgments with respect to its scope.

It is also important to point out that SIBTA’s operational regulations⁹ establish that the demands of the organizations should be identified in a participatory fashion; however it is clearly evident that given the beneficiaries’ ignorance with respect to the project and the system overall, that it is at the level of the directors where the demands are formulated and the processes are made viable. There are serious difficulties in the flow of information toward the grassroots groups, due to the ineffectiveness of the bylaws and regulations of the formal organization.

What other factors limit the establishment of PM&E systems?

In addition to the social and human aspects, there are other factors that limit the establishment of PM&E systems. Among some of them are:

- A mechanism for identifying demands. SIBTA’s operational regulations¹⁰ establish clearly that determining the demand should be framed within the principles of prioritization, focalization and participation. However, the methods to be followed for making effective participation of the beneficiaries viable in the process of gathering of the demand are not defined clearly.

The difference between the demand identified and addressed by the project and the real expression or actual needs of the beneficiaries is a critical factor that will determine the level of participation in PM&E. The beneficiaries whose real demands are not addressed by the project will be less disposed to participate in the M&E of activities and processes that do not respond to their needs.

- Mechanisms that permit requesters to express their nonobjection based on data of all the beneficiaries.

In general, there is a lack of mechanisms that allow the requesters to express their nonobjection with data that reflects the perception of the majority of the beneficiaries. Most of the time, these decisions are taken at the level of the leaders of the organizations while their representation of beneficiaries is highly variable.

- Inclination of the providers to be evaluated. Some providers feel susceptible to the evaluation. This translates into attitudes that are either conducive towards evaluation or obstruct channels and times destined to this activity.
- Inclination of the FDTAs to provide sufficient time to the requesters so that they express the results of their evaluation
- Availability of human and operational resources in the FDTAs

⁹ Operational Regulations of the Competitive Fund for Technological Innovation of SIBTA.

¹⁰ Operational Regulations of the Competitive Fund for Technological Innovation of SIBTA.

What alternative s can be taken to counteract the limiting factors?

To initiate PM&E and counteract the presence of some factors that limit the process, it is necessary to verify the following aspects:

- Recover the local knowledge about M&E for beginning the construction of the PM&E system about the principles and structures of the local practice. According to Estrella and Gaventa (1998), most of the literature about PM&E cites the difficulties that arise when the process is perceived as extractive. These can be overlooked if the beneficiaries are involved from the design of the project, passing through the implementation, M&E.

This alternative of proposing the participation of the beneficiaries as early as the design of the project onward will ensure that there is a real and effective demand, thereby avoiding future problems related to the execution of projects that do not respond effectively to the target group's needs for innovation.

- Analyze the conditions of the formal institutions to strengthen them and make them operational before initiating the process. Parallely, other opportunities that go beyond the established legal framework should be sought to ensure greater interaction of the grassroots groups in the different stages of the process.
- Establish PM&E from the onset, through the providers, in order to make the process sounder from the perspective of both the provider and the requester. The requesters will show greater interest and dedicate more time to the activities that the provider and/or the FDTA offer directly; and the providers will feel less controlled and with greater commitment.

Participation should be part of the design of the project from the beginning and generate a spirit of collaboration and interaction among the different interest groups during the life of the project or program in execution (UNDP, 1997). For the participatory approaches to be truly effective, they need to be incorporated into the project and executed on a continuous and iterative basis (Rietbergen-McCracken and Narayan, 1998).

The planning of PM&E from the early stages is essential to ensure that it is incorporated gradually into the cycle of the project instead of being added on at the end. This also has important implications for gathering baseline information, which should be done before the onset of activities or at least in the initial phases of implementation of the project (Pasteur and Blauert, 2000).

- Execute the PM&E activities as part of the events with the provider (at the beginning or end) in order to make good use of the requesters' time and avoid overloading them with meetings.
- Ensure that the flow of information is viable by making the documentation and the processes open, providing copies of the material as required.
- Changes are needed at the level of operational regulations of the competitive Fund for innovation so that the PITAs do not confront the interest groups with the local organizations

(communities, *ayllus*, etc.). These changes should promote the use of PM&E among the providers and the FDTA.

Conclusions

We are aware that the processes of extension and generation of technology face conflicts of a social, cultural and economic nature that limit their optimal execution. For this reason, the FOCAM Project wishes to contribute its grain of sand to help confront these problems in the best way possible.

Based on the analyses of problems and constraints summarized in the preceding paragraphs, the need to begin the process of PM&E was identified. In the in-depth exploration of the demands for PITA, local knowledge and the traditional channels of M&E should be considered as well. At the same time, it is important that the formal organizations of requesters be strengthened at the beginning of the projects in order to count on an ally that follows the project's process.

This experience with the introduction of participatory methodologies for the M&E of PITAs shows us that it is possible to give the beneficiaries tools so that they are the ones that define the degree of satisfaction with the projects that they demand and at the same time are more committed to their execution. However, we should also be aware that in giving them tools, we will be the object of their evaluation and should be prepared for it.

Within the framework of the PITAs, PM&E generates an opportunity for redefining development and its implications, creating a channel of communication between the decision-makers and the subjects of development actions. However, to accomplish results, both the decision- and policy makers should accept the idea that their plans and programs can change radically and should be prepared to face these changes.

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Institutional innovations for the Bolivian system of agricultural and livestock technology: The case of participatory monitoring and evaluation

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Background

The Bolivian State has created the Bolivian System of Agricultural and Livestock Technology (SIBTA), destined to promote and support technological modernization and the sustainable development of the agricultural and livestock, forestry and agroindustrial sectors, with important participation by the private sector. For this purpose SIBTA finances Projects of Applied Technological Innovation (PITAs)¹⁴ through Foundations for Technological Agricultural, Livestock and Forestry Development (FDTAs)¹⁵ of the Highlands, Valleys, Humid Tropics and Chaco; and Projects for National Strategic Innovation (PIENs) under the supervision of the Office of the Director General of Productive Development of the Ministry of Small Farmers' Affairs, Agriculture and Livestock (MACA).

SIBTA responds to organized requesters¹⁶ and administers a competitive process of awarding productive projects. In this competitive process suppliers¹⁷ of technology (NGOs, foundations, etc.) participate in response to the demands of beneficiaries through the PITA projects. By means of this strategy SIBTA hopes to accomplish the following objectives:

- Reduce rural poverty by improving the producers' income and the people's food security
- Increase sectorial competitiveness
- Contribute to the sustainable use and management of natural resources

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¹⁴ In accordance with SIBTA's (2003) definition, a PITA represents a set of activities with a focus on agroproduction chains and a program vision that comprises the validation, adaptation and transfer of process, product, management and technical assistance technologies for their adoption with the purpose of promoting integrated changes in an agroproduction chain

¹⁵ The FDTAs are nonprofit private institutions, with a public interest and mixed in nature with no political or religious orientation, created within the framework of SIBTA. They enjoy autonomy with respect to technical and administrative management and are in charge of administering and managing resources to finance PITAs from different sources, among which are the Bolivian state, organisms of multilateral, bilateral and other forms of cooperation. Their commitment is to promote a system of dynamic, competitive, efficient and participatory technological development in each macro ecoregion, prioritizing the demands of the actors from the agrofood chains, with which intervention priorities are defined.

¹⁶ Any organized actors or end-users in any one of the links of the agro-production chain that can benefit a PITA.

¹⁷ An organization, institution or enterprise, alone or associated, with a technical and administrative capacity for offering services of applied technological innovation, that participate, in alliance with a demand, in the competition for the final design and execution of PITAs.

- Contribute to modernizing rural producers' associations (institution-building) as basic representatives of the process of formulating demands for technological innovation

Since SIBTA was established four years ago, the regulations of the competitive fund for innovation have been adjusted several times. Because this is a novel system, it has required periodic methodological adjustments, which have sought to increase the participation of the beneficiaries, nonexclusion, equity, greater efficiency and strengthening of the competitive market of suppliers so that they can respond better to the demands of the Bolivian small farmers.

Given this panorama, the project Promoting changes (FOCAM)¹⁸ promotes the implementation of the methodology of participatory monitoring and evaluation (PM&E) as an institutional innovation that can be used for the SIBTA requesters so that they can “control and participate” more effectively in the projects (PITAs) of which they are beneficiaries. At the same time FOCAM is evaluating the effect of the interventions (PITAs) on the livelihoods of the requesters (human, social, financial, natural and physical capital; vulnerability, livelihood strategies and development products) in order to obtain evidence of the impact of SIBTA's interventions and its contribution to alleviating poverty.

This article presents the PM&E methodology implemented by FOCAM and the adaptations made for its use in the context of the PITAs with which they are working, together with the FDTAs.

Institutional innovations

Within the New Institutional Economy (NIE), the term “institution” means “rules of the game.” These can be formal or informal and “define the incentives and sanctions that affect the people's behavior and interactions” (Dorward et al., 2002, p. 5). Thus the organizations are the “the game players,” groups of individuals joined by a common purpose to accomplish shared objectives. These organizations can be political, economic and social (North, 1990; Dorward et al., 1998). Another important distinction within the NIE is between the institutional environment and the institution's agreements (Davis and North, 1971; Stockbridge, 2001): The institutional environment is the set of general rules with which the people and the organizations develop and implement institutional specific arrangements in a society. The institution's agreements are forms of contracting that were created for specific transactions among contracting parties that govern the way in which they cooperate or compete.

The NIE framework favors the understanding of the institutions' roles in Research and Development (R&D) in two aspects:

¹⁸ FOCAM means promoting changes and is the short name of the project “Participatory monitoring and evaluation (PM&E) for rural innovation in Bolivia.” FOCAM intends to balance the demand for agricultural research from the low-resource farmers with the supply of agricultural and livestock research so that this research responds more clearly to the target population. FOCAM receives financial support from the British (DfID-RLD) and is implemented by the International Center of Tropical Agriculture (CIAT- Colombia) and the Imperial College of the University of London, England.

- In the context of the markets, the institutions (rules) can be used to improve the exchange of services and products.
- In the context of science and technology, the institutions refer to the set of rules and norms that govern the interactions among different actors (politicians, farmers and providers of R&D services) in the R&D process.

In the case of Bolivia, SIBTA is considered to be an R&D system based on a competitive mechanism of free markets. Therefore, in terms of NIE, the institutional environment comprises the law of popular participation, the strategy for reducing poverty (Blackburn and Holland, 1998) and the operational regulations of SIBTA's competitive fund for technological innovation. The economic agents that will make the transactions are the farmers (associations and Territorial Base Organizations (OTB, acronym in Spanish), also referred to as requesters), the providers of R&D services (suppliers), municipalities and the FDTA. The institutional arrangements in the context of PITAs currently in force are the contracts that are signed by the three agents when they reach an agreement for developing a PITA. The adjustments that are made in the operational regulations of the Competitive Fund for Innovation so that the PITAs comply with their product commitments are referred to as institutional "innovations" (Hall et al., 1998). These innovations set norms for the agents (i.e., the FDTA, requesters and suppliers) so that the interactions among them will be more efficient.

Participatory monitoring and evaluation

The literature review found that there was not just one definition of PM&E; in fact there are a diversity of interpretations and meanings that differ with the person, ethnic group, etc. (Abbot and Guijt, 1997; Campilan, 1997).

The different groups interested in undertaking PM&E are included, including the local people. Through PM&E, they decide how progress should be measured, define the criteria for success, and determine how the results should be used (Guijt and Gaventa, 1998). PM&E is an internal learning process which permits the people to reflect upon their past experience, examine present realities, redefine objectives and define future strategies, recognizing the different needs of the stakeholder groups and negotiating the diversity of demands and interests. In conclusion, as soon as the organization defines clearly the meaning of PM&E, there are no problems in having variations in the definitions (Guijt, 2000). The most important thing is to ensure that the local people are empowered by the process.

There are several reasons for using PM&E:

- Improve the exchange of knowledge (i.e., provide an environment that permits the different stakeholder groups to make their viewpoints known)
- Increase their commitment, sense of ownership and self-determination
- Strengthen the organizations and promote institutional learning
- Increase the public responsibility of the local and national programs toward the communities

- Promote institutional reforms toward more participatory structures
- Motivate the donors to reevaluate their objectives and attitudes through understanding and negotiating the perspectives of the stakeholder groups in an undertaking, etc.

In this context, PM&E is less an instrument of control; rather it is a means that permits the organizations and groups to take ownership of their progress, build their success, improve their capacities for self-reflection, learning and social responsibility (Estrella, 2000, p. 7). Therefore, PM&E is used more as a way of transformation/emancipation that supports learning and self-determination among those who use it. PM&E is constructed on the basis of participatory processes, where the beneficiaries are present in all the stages and where participation and empowerment are considered as ends in themselves. It is based on four principles: participation (Estrella and Gaventa, 1998; Hussein, 2000), learning (UPWARD, 1997; Ward, 1997), negotiation (Marsden and Oakley, 1990) and flexibility.

PM&E is a process of negotiating, based on the premise that the different stakeholder groups have different demands, understandings and topics that change in accordance with the social context and these groups' values. Moreover, it is, to a great extent, a political exercise that necessarily addresses issues of equity, power and social transformation, cutting across at different levels (e.g., family, community, local government). It also increases interinstitutional linkages and collaboration among all the participants. Therefore, negotiation is perceived as a contribution toward the building of trust and a change of perceptions, behavior and attitudes among the stakeholder groups.

There are no formulas for undertaking PM&E; on the contrary, it is a process that is continually evolving and adapting to specific circumstances and needs. Multiples stakeholder groups with different expectations make it difficult to use any one methodology; thus the facilitators should be flexible and willing to adapt.

PM&E at CIAT

The International Center of Tropical Agriculture (CIAT), through the IPRA project, has developed the PM&E methodology, initially applied to the work of the Local Agricultural Research Committees (CIALs)¹⁹ in Central America and Colombia and then to other participatory research undertakings in South America and Africa.

The methodological steps that comprise PM&E for research, development and technology transfer (RD&TT) are the following (Guijt, 2000: FOCAM, 2002):

¹⁹ The Local Agricultural Research Committees (CIALs) are organizations created within the local farmers' organizations. They have the role of implementing research processes on agricultural and livestock topics that concern the families that form the local organization. The community delegates said task to men and/or women who have research abilities and skills, who then form part of the CIAL.

1. Identification of groups interested in RD&TT (including providers of RD&TT and their clients); reference is made to identifying the actors involved in RD&TT
2. Exploring and strengthening the knowledge of the groups interested in monitoring, evaluation, participation and indicators. This refers to recovering the local knowledge with respect to M&E, input that is used to strengthen the concepts of PM&E.
3. Diagnosis and development objectives for livelihood, development objectives and R&D priorities of the groups interested in RD&TT. Reference is made to the collective construction of the local organizations' objectives.
4. Definition of and agreement about the indicators to be used for monitoring. Reference is made to the establishment by consensus of the parameters that will be the subject of the monitoring.
5. Organization of a PM&E committee to direct the definition and use of indicators. This refers to the delegation of roles to a group representative of the local organization implementing the PM&E.
6. Data gathering and analysis of indicators
7. Comments, lessons learned and design of adjustments in RD&TT and PM&E. Reference is made to the analyses of the data obtained in the previous stage.
8. Feedback for RD&TT providers and clients. Reference is made to the socialization of the results of the monitoring and evaluation to the parties interested in the undertaking.
9. Beginning of a new cycle of PM&E with the revision of Step 3.

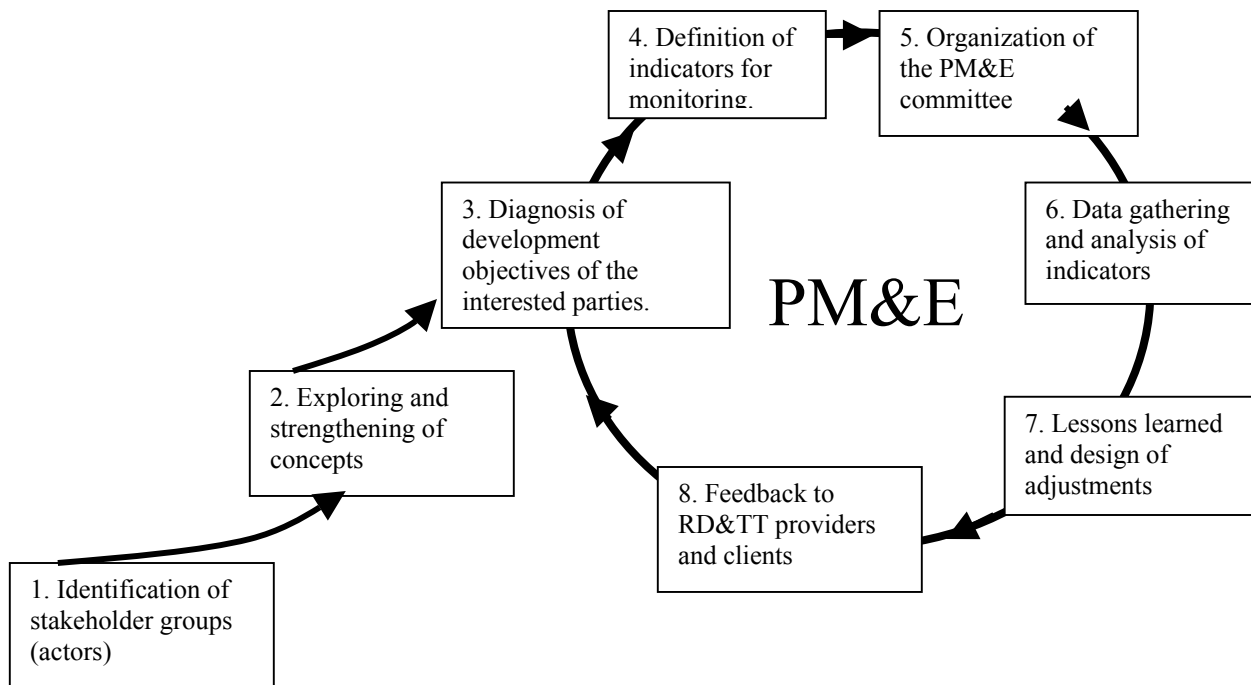


Figure 1. Methodological steps for establishing PM&E in a process of RD&TT.

V. Context of PITA

The implementation of PM&E, as it has been generated in CIAT, should be framed within the particular conditions of SIBTA. It should be noted that the organizational practices developed by the FDTA in strict compliance with the rules of the Competitive Fund for Innovation and the current juncture of requesters and suppliers in Bolivia presents a different, more complex context. Some characteristics of the system that gave rise to the adjustment of the proposed PM&E are as follows:

- The FDTA and the supplier of innovation services sign a contract to begin the activities of the PITA. This contract makes reference to the expected products and results proposed, all of which are summarized in the of the PITA's logical framework and milestones. Similarly, each milestone accomplished requires a document certifying that there are no objections to the quality of the same on the part of the requesters. This is an indispensable condition for the FDTA to approve the disbursement of funds to the supplier to work on the next milestone of the project.
- The requesters' legal representative signs a document where he/she is committed to disbursing 15% of the value of the project in agreement with a plan of payments during the project, as well as a contribution to the total FDTA fund.
- During the execution of the PITA, the FDTA monitors and evaluates the suppliers' actions, basically to ensure that the PITA reaches its milestones and plan of payments to the requesters. The actual M&E process varies according to the strategies of each FDTA; e.g., in Valles, workshops are held where the requesters have the opportunity to make known their impressions with respect to the supplier's performance and the products obtained. These workshops are held once or twice during the PITA.
- During the execution of the PITA, the suppliers basically concentrate on complying with the PITA's milestones and indicators, all based on the contract signed with the FDTA. In agreement with the plan of milestones, the suppliers recur to the requesters for the signature of nonobjection to the milestones that have been finished. Similarly, the suppliers participate in coordination meetings and write financial and technical reports at the request of the FDTA.
- During the execution of the PITA, the requesters should attend the events organized by the suppliers to the extent that the supplier complies with the proposed milestones. The requester's legal representative should sign a document of nonobjection to the finished milestone. Similarly, the requesters participate in meetings or workshops called by the FDTA with the purpose of evaluating the actions of the supplier's personnel and technological supply.

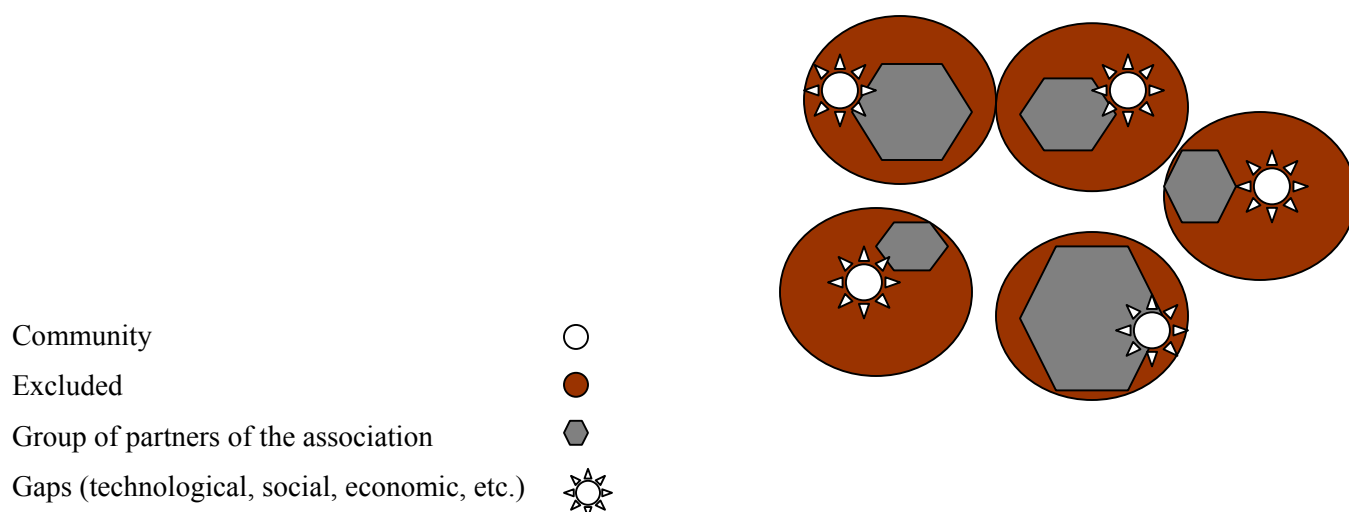


Figure 2. Scheme of the relationship of the communities and associations in the context of the PITA.

- To be able to gain access to a PITA, the requesters should be organized entities; therefore the requesters organize associations of producers (e.g., Association of Producers of Hot Chili Peppers and Peanuts-APAJIMPA; Avaroa Provincial Association of Producers of Milk-APPLA) in a given geographic area. These associations are stakeholder groups of two or more communities of farmers, which means that there are families of farmers excluded by the system for different causes (opportunity, poverty, etc.). Then, within the communities there are families that are beneficiaries of PITA and others that are not. Moreover, as the PITAs require reaching sufficient beneficiaries (more than 100 families), the associations group families from more than one community. In that sense, these stakeholder groups name a governing board that has the legal representation of the partners before the suppliers and the FDTA.
- The gaps generated between the beneficiaries and the excluded are different in nature. They can be **technological** in the sense of access to new “knowledge and inputs” (technology based on inputs such as varieties or knowledge such as integrated pest management). They can also be **economic** due to the effect of the use of the technology. Surpluses are generated that were not possible before and that permit a different allocation to improve the people’s quality of life. The **social** differences that are generated represent another component of the gap. Some examples are the different degrees of empowerment between both parties, differences in well-being in the communities, the use municipality co-participation funds to pay the 15% contribution to the FDTA “basket” fund, etc.

Adaptations of the PM&E to the PITA

PM&E was adapted to the needs of application in the context of the PITAs. Figure 3 shows the generic methodological process of implementing PM&E in the context of PITA (the numbers bear a direct relation²⁰ on to the order of the steps); while Figure 4 provides greater detail about the “moment of reflection,” which we feel is the key point in the process.

²⁰ Union: grouping formed for the defense of the common economic interests.

1. **Collective construction of the future situation.** Referred to by the farmers as a “dream,” more technically vision, goal, development objective or product of sustainable livelihood. The families of beneficiaries construct their dream, responding to the question “Where do we want to go?” and “why?” For the families that make up APAJIMPA, their dream is: *“Improve our production in quality and quantity, improve the system of commercialization, and increase our income to improve the living conditions of our associates and communities.”* This construction is carried out with the representatives of the stakeholder groups (partners presidents of each community that forms part of the association) due to the fact that the associations bring together many families (1200-600), which makes it very difficult to construct a common dream. On the other hand, the dream of the association revolves around its needs; in other words, with more weight on the economic variables (quality, commercialization, income, etc.). It is quite different from constructing an objective at the community level, where the variables with the most weight are social (food security, well-being, etc.) and where a majority of its components participate.

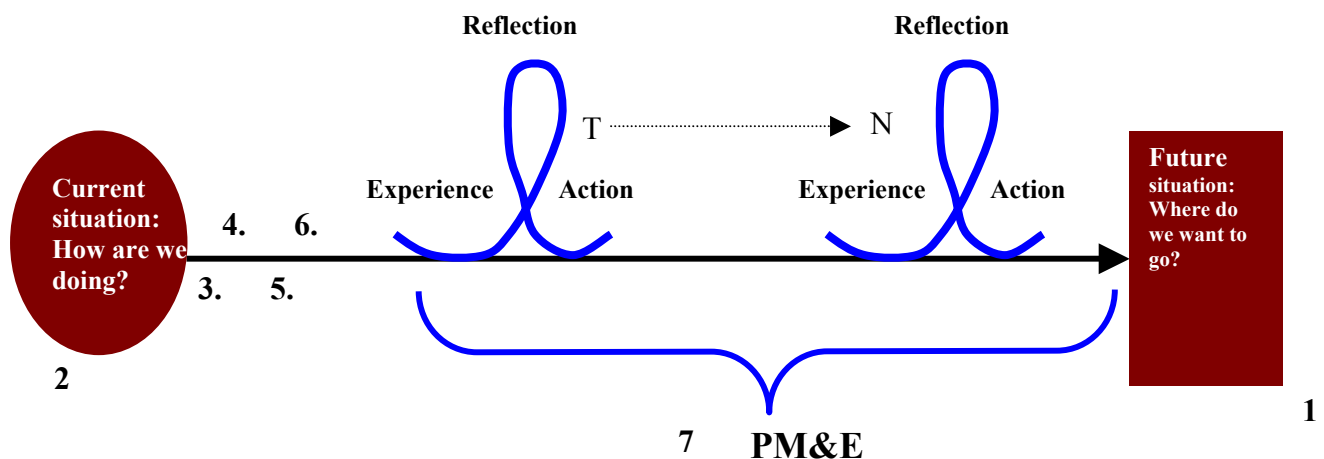


Figure 3. Process of establishing PM&E in the context of PITA.

2. **Analysis of the current situation.** In this stage, the partners answer the question: How are we doing? Partners and the FOCAM facilitators plan events where tools of Participatory Rural Diagnosis (e.g., participatory making, problem trees, focal groups, cost-benefits) are used to generate a form of baseline that helps the partners determine the effects of PITA’s work and how these contribute to the attainment of the association’s dream.
3. **Local knowledge about M&E.** In this stage the local conceptualization of monitoring, evaluation and participation is explored, in addition to the mechanisms and methods used for this purpose in settings such as the association, the union²⁰, etc. The inputs identified are used later in the implementation of the PM&E system so that a totally alien process is not inserted; rather elements that will improve the existing system are inserted. As the Association is a new organization, the partners are not clear as to the processes of how to carry out the M&E although it is in the Association’s bylaws.

4. **Analysis of actors (importance and influence).** Given that the Association's actions are mostly economic, it is indispensable for the partners to identify the actors and their importance and influence with respect to the processes in which their organization is involved. On the other hand, the analysis of actors is also done within the Association, trying to identify the different levels of well being that exist. All this work is necessary to ensure that all the important, influential groups and the different levels of well-being can participate effectively in the Association's PM&E system.
5. **Socialization of the scope of the PITA.** When the beneficiaries of the PITA establish the M&E system, it is indispensable that all the partners of the requesting entity know the work that PITA will be doing. It is worth noting that the partners should be able to explain the expected results that PITA seeks when we say the farmers "*should understand PITA's promises well in order to be able to implement better controls.*" Unfortunately, in all the cases in which FOCAM is working directly with PITA's requesters, they did not even know the origin or the meaning of PITA, much less the specific "promises" that they bring for their organization.
6. **Construction of the activities and indicators.** In this process the Association's partners generate indicators with respect to the desired progress of the PITA (process indicators), as well as indicators that show the progress with respect to the dream (impact indicators). For each indicator, the partners construct formats to obtain the information, which are revised periodically (in accordance with the meetings previously set by the associations). In the case of the process indicators, these may be monthly or every two months; in the case of impact indicators, opportune moments are set for that purpose; e.g., at the middle of the crop cycle (they evaluate the suppliers' knowledge and the technical validity of the technological proposals) and at the end of the cycle (evaluating the effect of the technology on economic aspects and how it brings them closer to their dream).
7. **Implementation of PM&E.** This stage consists of three steps, which are related to the theory of Paulo Freire²¹ and Kolb's²² learning cycle. The first, referred to as "**experimentation,**" which in terms of M&E, is the process whereby the beneficiaries of PITA "have the experience" of working together with the supplier in PITA's activities. In this stage, the beneficiaries monitor the process indicators (activities of PITA) and use the formats generated in Step 6. These formats are the subject of analysis in Step2, referred to as "**reflection,**" where the governing board of the associations and the representatives

²¹ Paulo Freire was born September 19, 1921. He grew up in the Northeast of Brazil where his experiences deeply influenced his life work. The world economic crisis forced Freire to know hunger and poverty at a young age. He recalls in Moacir Gadotti's book, *Reading Paulo Freire*, "I didn't understand anything because of my hunger. I wasn't dumb. It wasn't lack of interest. My social condition didn't allow me to have an education. Experience showed me once again the relationship between social class and knowledge" (5). Because Freire lived among poor rural families and laborers, he gained a deep understanding of their lives and of the effects of socio-economics on education.

²² David Kolb grew up in the New York City suburbs, with interludes here and there, and eventually received his PhD in philosophy from Yale University, and is the author of *The Critique of Pure Modernity: Hegel, Heidegger and After, Postmodern Sophistications, Socrates in the Labyrinth*, Currently he is writing a combination book/hypertext about place and community that discusses the nature of places, and disagrees with some attacks on today's new kinds of places, in particular themed places and suburban sprawl.

(presidents) of the stakeholder groups in the communities are convened to “make decisions” as to the reorientation or the strengthening of PITA’s activities. These decisions are made in the Step 3 of the implementation of PM&E; which is, the “**action.**” Taking action has to do with the feedback of the process to the actors (e.g., the suppliers or the FDTA); in the former case, negotiating the reorientation of activities and in the latter, informing about the performance of the supplier and complementing the M&E of the FDTA with qualitative information from the viewpoint of the requesters.

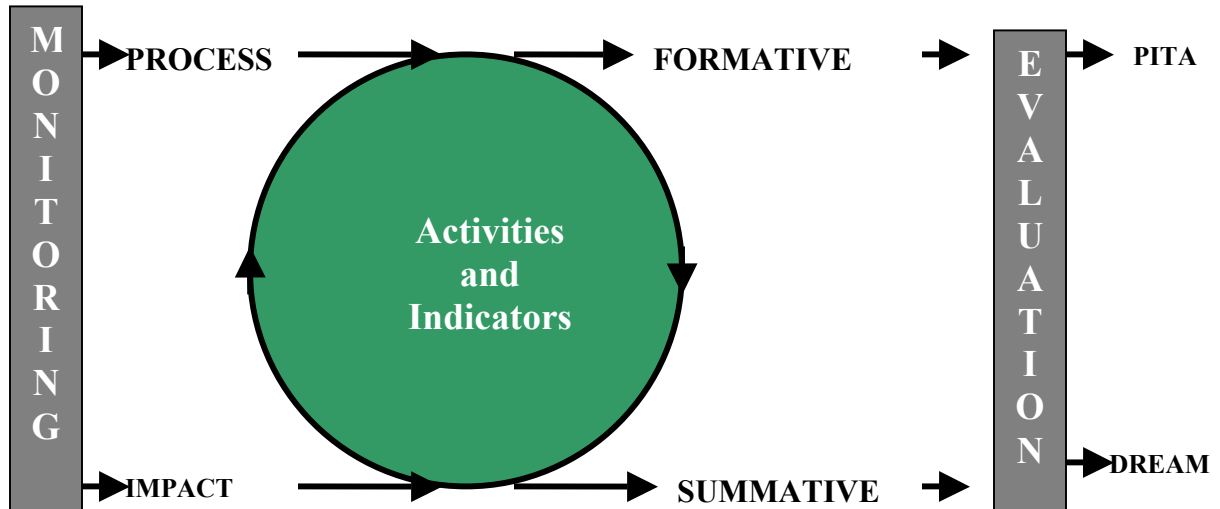


Figure 4. Moment of reflection within the PM&E process.

This process is also applied when the monitoring of PITA’s impact indicators is done. The difference lies in the frequency of the moments of reflection; that is, the monitoring of the process indicators and formative evaluation with respect to PITA’s products have a monthly or bimonthly frequency; while the monitoring of the impact indicators and summative evaluation with respect to the dream are done twice during an agricultural cycle.

Figure 4 refers to the moment of reflection that is generated in the PM&E. As explained previously, the establishment of M&E is parallel to processes and impact. By processes is understood those events, products, projects, etc. that will contribute to the attainment of the dream (impact); e.g., the activities of a PITA contribute to improving the knowledge about the control of a pest, but parallelly this contributes to the strengthening of the people in their human, social and financial capital, which will have repercussions on achieving the dream of improving their quality of life (impact).

Conclusions

- The collective construction of the dream at the level of the communities is completely different from the dream at the Association. The former is mostly concerned with social variables (poverty and well-being); the latter with economic variables (income and commercialization).
- The implementation of PM&E in the context of the PITA requires a parallel application of monitoring PITA's activities (process) and impact, due to the fact that its contributions are only a part of the farmers' families dream.
- The application of the continuum "experimentation-reflection-action" provides the component of learning to the focus and, therefore, sustainability. In other words PM&E is taken as a learning process, by means of which the facilitation helps the beneficiaries of PITA "discover" concepts and applications, which redounds in sustainability of the process.
- As stakeholder groups are PITA's beneficiaries, the effect of PITA is creating gaps in relation to the nonbeneficiaries who are found in the same communities.
- More complex challenges arise when the organizations decides to adopt the principles and practices of PM&E and find that there can be widespread repercussions (Guijt et al., 1998). The interest in PM&E is growing to the point where the organizations understand that they have to learn more about the internal processes and external impacts if they are to develop better.
- PM&E requires considerable resources in both time and effort. Data collection and analyses in PM&E appear to have less priority than urgent production activities. It has also been proven that the results tend to be underutilized and rarely influence decision-making (Probst, 2002).
- As an institutional innovation in the system, PM&E has proven to be efficient by permitting the requesters to make themselves heard in the project of which are beneficiaries. From the viewpoint of the suppliers, PM&E represents something more than "control" (usually manifested by small or recently formed entities), but its value has also been recognized as a tool that enables them to do their work better (manifested by more consolidated entities). The FDTAs also have expectations with respect to the results of applying PM&E in the PITAs.

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Developing capacity in CIAT to carry out social network analysis

Researchers: Boru Douthwaite,²³ Nina Lilja,²⁴ Douglas White²⁵
Collaborators: Valdis Krebs,²⁶ June Holley²⁷

Highlights

- Two senior staff trained in the use of InFlow social network mapping software and its application to strengthening rural innovation ecologies

Rationale

Fostering rural innovation requires improving the capacity of rural innovation systems to innovate. Social network analysis (SNA) is a tool that allows researchers and other actors in rural innovation systems such as farmers and NGOs to visualize the linkages that already exist and identify ways to improve their networks. SNA is a key component in the proposal that PRGA and IPRA sent to BMZ, called “Strengthening Rural Innovation Ecologies.” The Rural Innovation Institute wishes to develop its capacity in quantitative and qualitative research approaches in innovation and knowledge management research. For these reasons Boru Douthwaite and Nina Lilja spent three days in Athens, Ohio in September learning how to use and apply the software. Funding came from USAID linkage funds.

Objectives

1. Train CIAT scientists in computer-based tools for SNA and knowledge management.
2. To train CIAT scientists in the application of these tools to research and foster rural innovation and knowledge management.
3. To link with USA researchers who are actively developing and applying innovation theory to underdeveloped areas in the USA and explore with them the applicability of their approaches to developing countries and vice versa.

Partners

The Appalachian Center for Economic Networks (ACEnet) is a nonprofit organization in southern Ohio that is networking with others to create a healthy regional economy, with particular emphasis on the poor. ACEnet focuses on food/agriculture and technology to help entrepreneurs start and expand innovative businesses. ACEnet uses three complementary strategies of (1) linking small businesses with high value markets; (2) creating a network of firms and service providers within communities; and (3) enabling community small business assistance programs to work collaboratively and learn from each other’s experiences. In short, ACEnet’s activities are extremely relevant to CIAT’s work.

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Orgnet is a management consultant company and the developer of InFlow, a software-based, organization network analysis methodology that maps and measures knowledge exchange, information flow, communities of practice, networks of alliances and other networks within and between organizations. This technique allows managers to understand less tangible social associations and relationships via systematic analysis that produces quantitative and graphical results. Orgnet is working with ACEnet to apply these approaches to help communities identify their innovation networks and how they can be strengthened.

Next steps

1. Fulfill the commitment to train other CIAT staff in the InFlow SNA software and its application.
2. Analyze collaborative networks at CIAT.
3. Adapt and apply the technique for use with rural communities.

Participatory monitoring and evaluation in a rural economic organization in Chuquisaca, Bolivia

Researchers: Juan Fernández R.²⁸; Walter Fuentes²⁹; Edson Gandarillas³⁰

Introduction

The importance of implementing a participatory monitoring and evaluation (PM&E) system in rural productive organizations lies in the need for a methodological tool that can make available information on the progress being made in the activities programmed in each of the components that form part of a project or undertaking. These should be generated by the beneficiaries themselves in order to contribute to the accomplishment of the organization's objectives as well as those of the specific projects being executed.

The majority of people, in one way or another, conduct M&E activities in their daily lives. Each one has his/her own system or method, depending on the complexity of the activities being carried out and on the proposed objectives. In groups of people and above all in the organizations of agricultural and livestock producers, putting M&E systems into practice is much more complex. According to Hernández (2003), this complexity is due to the following reasons:

- ✓ There are various actors that have different viewpoints, expectations and visions, particularly if they belong to different social classes, communities, cultural contexts or ethnic groups, etc.
- ✓ In a group or collective project, the activities are more complex; there are many tasks to be done and sometimes the different individual actors lose an overall perspective of what they want to evaluate.

According to Reuben (2003), PM&E provides more complete and in-depth information, increases transparency and renders accounts, reinforces the commitment to implement corrective changes, the shared learning improves the performance of the institutions that deliver services and the effects of the same, and increases the sense of ownership, autonomy and organization.

The purpose of this article is to show the progress made in a process of implementing a PM&E system in the Association of Producers of Hot Chili Peppers and Peanuts in the Municipality of Padilla (APAJIMPA), Department of Chuquisaca, Bolivia.

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Materials and methods

Location and characteristics of the zone of study

The municipality of Padilla is located in the Province of Tomina in the Department of Chuquisaca, 187 km from the city of Sucre. The main highway communicates it with Monteagudo, Camiri (Department of Santa Cruz) and Yacuiba (Department of Tarija) (Moya, 2003). The agroclimatic characteristics of valleys predominate; nevertheless, there are subtropical and barren upland (*puna*) areas.

The principal crops are potatoes, maize, hot chili peppers and peanuts. These last two stand out for their profitability and their potential for increasing demand for both the national market and for export to countries such as Argentina, Uruguay and Paraguay. On a lesser scale common beans, wheat and barley are grown. The technological management of the crops is, however, inadequate, especially for peanuts.

The municipality of Padilla was selected as a pilot zone by the project FOCAM based on the following relevant aspects: presence of Projects of Applied Technological Innovation (PITAs), financed by the Foundation for Agricultural and Livestock Technological Development of Valles (FDTA-Valles), their degree of poverty (moderate) is 85-95% (INE, 1999), and the presence of rural economic organizations (OECAs).

The Association of Producers of Hot Chili Peppers and Peanuts of the Municipality of Padilla (APAJIMPA)

APAJIMPA is a producers' organization that has a Board and an Expanded Board. The Board meets regularly on the 18th of each month and, the Expanded Board, every two months. According to the bylaws, the Board should be renewed each year; however, considering that to be a very short time and in order to provide continuity, it was recommended that they be changed every three years (HECOP, 2001).

The organization provides direct service to its members in the commercialization of their products and sale of agrochemicals at wholesaler-supplier prices. The organizational structure of the association consists of the assembly, the Board and the Expanded Board (Fig. 1). In the last group, representatives of 24 member communities participate.

Figure 1. Meeting of the APAJIMPA Expanded Board, with the participation of community representatives.



APAJIMPA is implementing the PITA to increase the production and improve the postharvest handling of hot chili peppers in the valleys of Chuquisaca (Phase 2 begun in October 2003) and to improve the productivity and competitiveness of the agroproduction chain of peanuts in the Municipality of Padilla (as of December 2003).

Process of implementing PM&E in APAJIMPA

- *At the organizational level.* The methodology used in the implementation of the PM&E was proposed by the IPRA Project of the International Center of Tropical Agriculture (CIAT), with adaptations to the social context and the PITA. The methodological steps that comprise the PM&E for research, development and technology transfer (RD&TT) are the following:
 - ✓ Identification of groups interested in RD&TT
 - ✓ Exploring and strengthening the knowledge of the groups interested in monitoring, evaluation, participation and indicators
 - ✓ Diagnosis and milestones for livelihoods, development objectives and R&D priorities of the groups interested in RD&TT
 - ✓ Definition and agreement on the indicators that will be monitored
 - ✓ Organization of a PM&E committee to direct the definition and use of indicators
 - ✓ Gathering of data and analyses of indicators
 - ✓ Commentaries, lessons learned and design of adjustments in RD&TT and PM&E
 - ✓ Feedback for suppliers and clients of RD&TT
 - ✓ Beginning of a PM&E new cycle with the review of the third step

The FOCAM³¹ project has agreements of interinstitutional cooperation with the FDTA-Valles, PROINPA Foundation and the Municipal Government of Padilla. Within that framework, a letter of understanding was signed with the Valles Foundation in October 2003 so that FOCAM supports the implementation of PM&E in the PITA on peanuts and hot chili peppers in the municipality of Padilla.

Once the cooperation and coordination between FOCAM and the institutions committed to the aforementioned PITAs was formalized, the process of action training was begun with the

³¹ FOCAM means promoting changes and is the short name of the project “Participatory monitoring and evaluation (PM&E) for rural innovation in Bolivia.” FOCAM intends to balance the demand for agricultural research from the low-resource farmers with the supply of agricultural and livestock research so that this research responds more clearly to the target population.

APAJIMPA Board on the process of implementing the PM&E system. For this purpose, the ordinary meetings of the APAJIMPA Board were taken advantage of. The process of action training contemplates the following steps:

- ✓ Definition of relevant concepts. The concepts objective, monitoring, evaluation, participation, activities and indicators were constructed collectively and participatively.
 - ✓ Determination of APAJIMPA's objective. Brainstorming was done on the basis of the following questions: Why are we organized as APAJIMPA? Where do we want to go as an organized group of producers?
 - ✓ Analysis of the key words (or key phrases) and results in the objective chain to identify the principal activities to be done in order to reach the proposed objective
 - ✓ Identification of indicators by objective in order to evaluate the quality of their execution
 - ✓ Preparation of monitoring formats, which are the responsibility of the Board.
- *Strategies for implementing PM&E in the communities.* To implement PM&E systems in all the “member” communities, the 24 communities were divided into four sectors or subzones, in each of which the action training was done, using the same approach with promoters and community representatives (presidents) to the Association.

The trained promoters who are implementing the PM&E together with the community president of APAJIMPA were initially named by their communities and trained by PROINPA to support the training and technical assistance in the crops of peanuts and hot chili peppers. In the implementation of PM&E, however, some promoters were designated by the members of the community to carry out activities specific to PM&E.

The people who received training had the obligation to implement the PM&E or contribute to its implementation in their communities. To facilitate and support the additional effort made by the promoters, FOCAM provided them with working material consisting in a shoulder bag, flashlight and folder for recording the data. The use of these materials was regulated by the Board, promoters and members of APAJIMPA. The use of the materials is for exclusive use in implementing PM&E. If for any reason one of the promoters or presidents that received the materials resigns, they should be returned to the community to turn them over to the new promoter or president.

- *Use of participatory techniques.* During the process of motivation and implementing the PM&E system, the following techniques were used: brainstorming; dynamics such as “gallina ciega” to understand and reflect upon the terms of PM&E and “playing roles” to understand and reflect on the term participation; sociodramas; and drawing situations they have lived. All these techniques were accompanied by a process of reflection by the facilitator, members and promoters, who related the content of these techniques with their daily lives.

Results

PM&E in the context of the APAJIMPA Board

Four short (approximately 1.5 hours each) workshops were held over a four-month period, taking advantage of the meetings of the Board and the Expanded Board that are held monthly. The progress made in the training process was as follows:

- Collective, participatory construction of the following concepts with APAJIMPA:
 - ✓ Objective: Accomplishment or goal that a person or a group wishes to reach
 - ✓ Monitoring: Following up on the things that the group has decided to do
 - ✓ Evaluation: Score the good or the bad that we have done in our community and in the work with the institutions. This should also be done during the implementation or execution of a project, at key moments to see whether we are on the way to accomplishing what we planned.
 - ✓ Participation: Commitment to an undertaking, project, etc. True participation lies in taking part in the decision-making.

After defining each term, the concept (PM&E) that evolved as a result of the participatory process was the following: ***PM&E is a permanent, active, consensus-oriented and participatory accompaniment of programmed activities subject to evaluation to ensure the accomplishment of the objective laid out.***

The objective constructed for APAJIMPA was: ***Improve our production in quality and quantity, improve the system of commercialization, increase our income in order to improve the living conditions of our associates and communities.***

Then the following concepts were defined:

- ✓ Activities: the actions that are undertaken to accomplish the objective laid out.
- ✓ Indicators: signs that indicate the extent to which we are going in the direction of accomplishing the proposed objectives.

To identify the activities that are key for reaching the organization's objectives, the following question was asked to those present: What does it mean or how can we improve our production in quality and quantity? The brainstorming in this respect was:

- **Activities fundamentally related to the members of APAJIMPA**
 1. Through the integrated management of our crops
 2. Using good seed
 3. Applying the technologies disseminated by PROINPA
 4. Planting ecotypes according to the agroclimatic sectors of the zone
- **Activities fundamentally related to the supplier PROINPA**
 5. Backstopping and training promoters in the communities

6. Permanent monitoring of the application of technologies transmitted by the supplying institution
7. Appropriate technologies provided or implemented for drying hot chili peppers
8. Promoting the formation and consolidation of small businesses
9. Monitoring of promoters

This list of activities reflects the farmers' perception with respect to PITA. Later, in a meeting among the supplier, the Board and FOCAM, the relevant activities with which the supplier should comply to reach the products indicated in the project were identified (Table 1) and that these contribute to the accomplishment of the organization's objective.

Table 1 shows the indicators of the degree of compliance with the activities foreseen in the project (PITA Peanuts), reached by consensus between suppliers and the APAJIMPA Board: These "process" or "intermediate" indicators, which add to the data obtained by the evaluations done by farmers in the activities developed in the communities, provide valuable information that will enable the Board to take decisions that contribute to the success of the projects.

Table 1. Format for monitoring the peanut project by the APAJIMPA Board.

Activities	Indicators	Dates	Responsible
- Training promoters-representatives of the communities to the peanut project in crop management technology - Training members of the peanut project in the communities about crop management technology	- 24 promoters trained - 2 training events per crop cycle - A course per community per month - No. of farmers trained	- By cycle The date and number vary according to the community	PROINPA technical team, peanut project PROINPA technician assigned to the community
Technical assistance in field	- no. visits per month* - no. farmers visited	Each month	PROINPA technician assigned to the community
Establishment of validation plots of calcium sulfate	10 plots established	July 2005 evaluation trials	PROINPA technical team, peanut project APAJIMPA Board
Implementation of technology demonstration plots	At least 1 demonstration plot implemented per community	January 2005	PROINPA technical team, peanut project
Strengthening of the training done by mass media Radio programs - Bulletins for farmers	- Five radio programs - no. of times each program is repeated - Five bulletins - 500 copies of each bulletin	1 slot per month during the cycle 1 summary bulletin per training session	PROINPA technical team, peanut project PROINPA technical team, peanut project
Implement a sheller and three roasters in Padilla	Plant installed	July/2005 subject to space	PROINPA technical team, peanut project Pablo Moya

Activities	Indicators	Dates	Responsible
			(technical consultant)
Contact with potential buyers	- Contacts established with at least 3 organizations - At least 2 meetings between producers and potential buyers	July/2005 July/2005	PROINPA team, peanut project APAJIMPA Board
Transformation - Identify at least one line of transformation of peanuts - Include the peanuts in the school breakfast	Line of transformation identified Take the necessary steps before the corresponding authorities, done	July/04 April/05	PROINPA team, peanut project APAJIMPA Board
Participatory diagnosis of the organization	Diagnosis done	July/05	Team, peanut project
Prepare strategic planning	Strategic planning of peanut project in APAJIMPA, updated	July/05	Team, peanut project
Training in administration and accounting	5 members of APAJIMPA, trained	At the end 11/04	APAJIMPA Board Team, peanut project

The number of visits to be carried out in each community varies according to the number of members that participate in the peanut project and the stage of the crop. Thus, for example, in the community of La Ciénega, two visits will be made because the number of members in the peanut project is 47, and the technician should visit each farmer at least once.

The information contained in Table 1 constitutes a guide or general information for APAJIMPA to monitor the principal activities by components. To record the information, they have a notebook for exclusive use of PM&E, where they note the details of the monitoring done, the positive and negative aspects and the observations.

To the extent that the process of implementing the PM&E system in the organization advances, they will evaluate the indicators so that they can visualize the degree of satisfaction and compliance of the proposed objectives by the association. In this way they will be in a position to evaluate the impact of the intervention process for the projects in the zone.

Recording primary information

In the process of action training at the level of communities (by sectors), the following progress was made: There are formats for recording the M&E process, generated participatively during the training process. The procedure for recording information on the formats is as follows: After the training done by the technician of the supplying institution, the participants in the event

“grade” the development of the same and make suggestions.³² Table 2 gives an example of format used to evaluate the training activities of the supplier.




Table 2. Format for monitoring the training activities in the communities.

Community...Padilla.....

Activity...Organizational strengthening workshop Date... 17/05/04




Responsible...

Indicator ...Degree of learning

			Positive Aspects	Negative Aspects	Suggestions, Recommendations
×	×××××× ×××××× ×××××× ××××	×	Learn a new methodology of planning	* I did not understand well * The SWOT procedure was done too quickly.	* Explain more slowly what was done with the SWOT cards * Get us to participate more
Total 1	22	1			

As this format was filled in after a training course in Padilla, the promoter of this community should take this information to the meeting of the Expanded Board, where they will construct a consolidated table as shown in Table 3.

Table 3. Consolidated information of participatory evaluations of training activities.

Community	Training Activity				Conclusions/ Recomendations
San Julián					
Mojotorillo	Organizational Strengthening Workshop	1	22	1	Some have not understood the procedure of the SWOT methodology
La Ciénega	“ “	1	4	15	
Etc.					
Total		2	26	16	

The total reflects the perception of the “quality” of the activities done in all the communities. This consolidated report is socialized every two months at the meetings of the APAJIMPA Expanded Board.

Thus far no consolidated reports have been made because the process has just begun. Nevertheless, during the accompaniment, it was observed that the promoters are complying with their task to facilitate the filling out of the evaluation formats.

³² The community president or the promoter writes a synthesis of recommendations based on the comments made by the participants about the scoring that they did.

As for the relevance of the recording of information by the local actors, D'Arcy (1993) stated that the gathering and analysis of the information are done in the community; thus the information is available at the time of making decisions. When the information is opportune, the possible problems can be identified, and the solutions can be found soon.

Changes in the perception of the APAJIMPA Board with respect to PM&E

At the onset of implementing PM&E through the training activities, the APAJIMPA Board paid no attention to PM&E. However, at present they consider it to be an indispensable “tool” for accomplishing their objectives as an organization, given that the results of the M&Es done, enables them to give feedback to the technicians of the supplying institution of the PITA, as well as among themselves.

With respect to the importance of implementing PM&E in the organization, IDS (2000) indicates that PM&E is not just the use of participatory techniques in a context of conventional M&E. It is more a matter of rethinking radically who initiates and executes the process, and who learns or benefits from the results. In this respect, Coupal (2000) states that the goal of the PM&E is quadruple:

- ✓ Strengthen the capacity of the local beneficiaries of the project to reflect, analyze, propose solutions and act
- ✓ Learn, readjust and act, taking the corrective measures that are imposed to obtain results such as add or delete activities or change their strategy
- ✓ Render accounts at all levels: the collectivity, organization and people in charge of getting the project off the ground and financing it
- ✓ Celebrate the successes and take advantage of them

Principal difficulties

- One of the main difficulties for implementing PM&E in the context of the APAJIMPA Board, is that the members live in very disperse places. After the meetings, they rarely meet to exchange criteria, and the monthly meetings are not sufficient to control all the activities that the projects imply.
- The number of topics considered in the meetings of the APAJIMPA Board is very large so that the Board requires a rapid analysis of the same. This was one of the reasons why they assigned so little time to deal with PM&E.
- In some communities the *sindicato* leader does not form part of the PITA so he/she gives little importance to these activities, as is the case of PM&E. At the same time, in some communities there is a lack of leadership by the community representatives to PITA.

Positive aspects

- Agreements to interact and coordinate the work with respect to the process of implementing PM&E were reached among the supplier, the APAJIMPA Board, FOCAM

and the Municipal Government of Padilla. Nevertheless, APAJIMPA would like greater participation in their meetings by the last entity.

- APAJIMPA decided to include the application of PM&E in their bylaws and create a “space” for the representatives of the communities to present ample reports at the meetings about the PM&E process in their localities. This important progress is due to the interest shown toward PM&E by some leaders of the organization.
- There are agreements and good coordination with the FDTA-Valles to build a database on the M&E process done in the PITA. This could also provide valuable information to the M&E Planning System (SIPSE) of the Valles Foundation.
- There is an “openness” and good coordination with the technicians of the supplying institution for implementing PM&E, both in the APAJIMPA Board and in the communities. Nevertheless, a greater commitment is expected through the component “Organizational Strengthening” for greater attention and analysis of PM&E in APAJIMPA’s meetings.

Conclusions

- In the context of the rural area, where the farmers-actors directly linked to the adoption of innovations, take their time to adopt or reject the technologies, the notion of process should be understood in its true magnitude. This means undertaking training processes that include the use of simple terms, repeating the number of times necessary to make a concept or idea clear, using logic and giving local examples.
- When the farmers are convinced that they are truly the protagonists and “owners” of the projects, they become interested and see the need to implement PM&E systems. Once they appropriate the PM&E system, they feel they have more capacity to participate in development processes from their family level to their economic and *sindicato* organization.
- The strategy taken between the Board and FOCAM to train promoters by sectors (groups of communities) not only made it possible to train the promoters, but also the *sindicato* leaders and farmers in general. In this way it was possible to minimize the distances and strengthen the local capacity.
- Implementing PM&E requires investment in resources (fundamentally human and time) at the onset of the process until there is empowerment by the members, promoters in the communities and the Board at the Association level.
- In many cases the PITA covers several communities and therefore members; thus in order to establish PM&E systems, it is important to generate and adapt strategies to each context.

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Knowledge-sharing methodologies for pro-poor agricultural innovation: From PITAs to marginal farming communities in Bolivia

This project contributes to IPRA's project results:

1. *PR approaches, analytical tools, and indigenous knowledge that lead to the incorporation of farmers and other users' priorities in R&D agendas developed for interested institutions..*
2. *Professionals and others trained as facilitators of PR.*
3. *Material and information on PR approaches, analytical tools, indigenous knowledge, and organizational principles developed.*

Vicente Zapata³³

The newly organized Bolivian Agricultural and Livestock Technology System (SIBTA) faces the challenge of bringing the poorest of farmers into the technological development process. This process takes the form of two types of projects that are financed by means of external funding³⁴: the Applied Agricultural Technology Innovation Projects (PITAs) and the National Strategic Innovation Projects (PIENs).

Although this system is open to capturing a wide range of technological demands from farmers, the PITAs reach only privileged groups of organized farmers who are able to pay or have the power to find support to provide the matching funds that enable them to be beneficiaries of such projects (financial ceiling of US\$100,000). A major difficulty for many poor farmers to gain access to technology is their null organization and inability to pay the 15% of the total project costs. Moreover, the technology transfer (TT) processes use vertical communication models in which the key actors are groups of technology-service providers, and farmers play a secondary role. An initial review of PITAs concluded or ongoing reveals that participating farmers do not have an active (participatory decision-making) role in constructing the knowledge they need to apply to overcome poverty.

This project is engaged in gathering field-based evidence for policy formulation. A set of Bolivian actors coming from the Foundations for Agricultural and Livestock Technological Development (FTDAs), the Board for Technological Development (DDT) of the Ministry for Rural Agriculture and Livestock (MACA), agricultural technology service-providing agencies and farmer leaders are jointly finding methods to improve access of marginalized farmers to agricultural innovation. To this end, the project is identifying a set of “knowledge-sharing methodological arrangements” useful for responding to the technological knowledge needs of farmers not yet benefiting from PITAs but who demand the knowledge generated therein.

Three methodological arrangements will soon be tested at seven sites within the four agroecological regions where the respective FDTAs have PITAs under way or are expanding

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³⁴ SIBTA operates thanks to two sources of funding: an IDB loan to Bolivia and matching funds from a pool of European donors.

original PITA results to other farmer groups demanding such knowledge. To derive understanding of principles and practices for rapid inclusion of the poor, the project is leading the networking among the key actors of the SIBTA system. It is expected that exchanging methodologies, experiences and lessons learned will promote change towards the formulation of new norms vis-à-vis the forthcoming review of the SIBTA law. Other project outcomes include the content analysis of PITA results in terms of their relevance to be included in the project's knowledge-sharing process, the organization of knowledge-sharing facilitator teams that include farmers and PITA providers to apply and evaluate the methodological arrangements; the production of methodological guides to describe ways to apply these arrangements; and the presentation of the new knowledge-sharing schemes to promote the establishment of systematic scaling-out processes through FTDA's to SIBTA actors.

Background

Three central objectives of SIBTA are:

- ✓ Contribute to reducing social and regional inequalities in terms of access to technological development
- ✓ Guarantee active participation of key actors in the demand and supply of RD&TT services
- ✓ Consolidate its own institutional development in a sustainable way

DfID-FIT expects that the research being financed in Bolivia will achieve maximum expected impacts. Through lessons learned on how to improve pro-poor RD&TT, it should contribute to pro-poor policy formulation and investment in Bolivia.

CIAT has been working on three fronts in Bolivia, all of them geared to ensure stakeholder participation in rural innovation:

- ✓ Pioneering work carried out by IPRA with PROINPA resulted in the creation of a large number of CIALs in very poor communities. Based on their needs, farmers in poor communities have been able to do research to identify agricultural production alternatives that result in increased production and income.
- ✓ In 2002-2003 CIAT dedicated time and effort to identifying key partners who could join in future agricultural innovation and natural resource management developments. With a group of seven institutions and groups, CIAT formed a Consortium for Rural Development in Bolivia (CIDERBO). Members of this group are now participating in the Water Challenge Program and others have joined the Support Group of FOCAM (the "Promoting Changes Project") in order to provide guidance and support to CIAT initiatives in Bolivia.
- ✓ Finally, FOCAM supports the creation of a pro-poor, demand-driven system for agricultural R&D. Toward this end, the project is working to enhance the ability of organized groups of small farmers to (a) express their demands and convey feedback from PM&E of research and TT products; (b) adapt new technologies to local requirements through the application of PR and TT strategies and methods; and (c) draw on relevant products from R&D service providers—all this within the framework of the Bolivian SIBTA. Major partners in this project are SIBTA, the FTDA's and a large variety of institutions including NGOs, universities and municipalities.

CIAT, through its experiences with FOCAM, is aware of the limitations of the poorest farmers to access technological knowledge. Organizational, system-normative and economic factors inhibit poor farmers to participate in the SIBTA actively. It is therefore necessary to develop knowledge-sharing methods based on a synthesis of good local practice and proven participatory extension approaches (e.g. CIALs, Farmer-to-Farmer and Farmer Field Schools) that can be assimilated by the FTDA's themselves to ensure that poor farmers have access to new knowledge and technology. The participative creation and testing of such methods is the objective of this project. The TT approaches will be developed with successful PITAs so that their research results can be shared with resource-poor farmers for whom the results are relevant.

Research questions

This project intends to respond to the following research questions:

- ✓ What type of methodological arrangements—alternative to the traditional TT methodologies—can be designed and applied that facilitate access of marginal farmers to technological innovations?
- ✓ Are these new ways to share knowledge with marginal farmers easy to apply by local knowledge-sharing teams and cheaper for beneficiaries?
- ✓ Can field-based evidence regarding the previous questions sensitize the SIBTA decision-makers to promote the inclusion of research findings and recommendations into the new SIBTA law?

Literature review on extension methodologies

Technology transfer is the process whereby existing knowledge, facilities and capabilities developed under an R&D funding system are utilized to fulfill public and private needs (FLC, 1999). As one of the forms of agricultural extension, TT is part of a knowledge system that includes research and agricultural education. FAO and the World Bank call it AKIS/RD: Agricultural Knowledge and Information Systems for Rural Development. Scholars in this field suggest that the three elements of the triangle: transfer, research and education should be treated as a system, not as separate entities (Eicher, 2001). Linking these with farmers also requires systematic planning; however much has been written on implementing AKIS/RD linkages, especially in research and extension (Kaimowitz, 1990; Prey and Echeverría, 1990; Crowder and Anderson, 1997) without any significant results. In this age of change, a promising idea appears to be promoting linkages through incentives that promote cross-institutional activity between AKIS/RD systems and farmers. AKIS/RD systems link people and institutions to promote learning, share and use agriculture-related technology and knowledge. According to the *AKIS/RD Strategic vision and guiding principles* (FAO/World Bank, 2000) the system integrates farmers, agricultural educators, researchers and extension workers, enabling them to harness knowledge and information from various sources to improve farming and rural livelihoods. The relationship between agricultural extension and research is very close for the knowledge that is transferred usually comes from adaptive and applied research. In a strict sense the main purpose of agricultural extension is to disseminate information to raise the production and profitability of the farmers. Nevertheless, an extension system should also encourage the empowerment of farmers, including participation in program planning and decision-making.

Several areas need to be defined when dealing with the concept of agricultural extension: (a) the technical aspects of extension that concern knowledge and information delivery and (b) the level of organization reached by farmers. In the case of SIBTA, organization along with the capacity to share the cost of PITAs is a requisite that must be met in order to access innovation. A long tradition in agricultural extension is group promotion and organization; in fact one of the ways to promote people's participation in development is through rural development associations (Van Keck, 1990).

In his *Guide on Alternative Extension Approaches*, Axinn (1988) describes eight approaches to extension and their criteria for success:

- ✓ the general agricultural extension approach, in which success is measured in terms of the rate of take-up of the recommendations and increases in production
- ✓ the commodity-specialized approach, whose success is the increase in production of a given crop
- ✓ the training and visit approach where success is measured by increases in production of the particular crop covered by the program
- ✓ the agricultural extension participatory approach, where success is measured by the numbers of farmers actively participating and benefiting and by the continuity of local extension organizations
- ✓ the project approach in which short-term change is the measure of success
- ✓ the farming systems development approach in which the success criterion is the extent to which farmers adopt the technologies developed by the program and continue using them over time
- ✓ the cost-sharing approach, where success is measured by the farmers' ability and willingness to share the costs of extension organizational units, either personally or through their local government
- ✓ the educational institution approach, where the measure of success is the attendance of farmers in the school's agricultural extension activities

Agricultural extension involves many different approaches and methodologies. Methods differ according to content areas, and it is delivered through a variety of institutional arrangements. It can be argued that no single approach best suits extension development in all circumstances.

The role of governments in providing extension services has been significantly reduced during the last decade. Privatization and shortage of resources on the technology-development side have crippled the State's capacity to reach poor farmers. Extension in many cases is conducted by NGOs, many of whom do not have the knowledge capabilities to respond to farmer needs adequately. SIBTA, through the development of PITAs and PIENs, is bound to make an important contribution to knowledge sharing and application. Globalization has occurred with the speed of telecommunications. Alongside, there has been a "power shift" (Mathews, 1997) from public sector dominance to private sector hegemony. A new paradigm towards market-driven reforms with an agrobusiness orientation has resulted from this, severely affecting the funding and delivery of agricultural and rural extension. This has had an impact in terms of the way public sector extension is conceived and practiced. Several questions need to be addressed: Who will pay for rural extension services? Who will deliver these services? Who is to be served?

How will they be served and for what purposes?

At this juncture, farmers need to be convinced that extension services and the knowledge they generate and communicate are valuable for income generation and for improving their livelihoods. Accompanying resource-poor farmers in the development and adoption of appropriate technology may bring them the opportunity to increase productivity and income; and in some cases it may slow down rural-urban migration. Through extension services farmers may (a) be able to intensify and diversify their farming systems, (b) have more chances to enter the market economy, (c) be encouraged to practice agricultural sustainability, and (d) organize themselves around their mutual production interests (Swanson, 1997).

There is a growing consensus that to create a “demand-driven” technology system, farmers must be directly involved in identifying problems, establishing priorities and carrying out on-farm research and extension activities (Rivera et al., 2000). Extension approaches include:

- ✓ FFS was originally associated with promoting IPM work at the grassroots level to advance the principle of stakeholder participation in decision-making with a view to giving full responsibility to stakeholders for program development. Quizon et al. (2000) provide an interesting perspective on FFS as an alternative problem-solving approach
- ✓ Farming systems development (FSD) began in the 1980s as Farming Systems R&D. On-farm research was seen as a link between farmers, researchers and extension people (Collinson, 1984). This approach has a dual character. Sometimes it is hailed as a multi-institutional team approach; at other times it is considered a production-oriented approach (Berdegué, 2000)
- ✓ Distance education tools to extend information are another approach to extension. Computer-based distance education can also promote learning-by-doing. Distance learning is a major development in information and communication technologies (ICTs) and is already a leading instrument for extending information and knowledge.
- ✓ Socioeconomic and Gender Analysis (SEAGA)

The AKIS/RD vision is supported by nine guiding principles: economic efficiency; a careful match between the comparative advantages of organizations and the functions they perform; clear spread of costs; careful assessment and optimal mixing of funding and delivery mechanisms; pluralistic and participatory approaches; effective linkages among farmers, educators, researchers, extension workers and other AKIS stakeholders; building human and social capital; and sound M&E. The other principles are more related to program management: participation of stakeholders in decision-making, cost efficiency, human development and training, and social resource enhancement. Throughout, participation is both a development philosophy and an instrument (Nagel, 1992). As a philosophy it describes the action by which all participants are involved in attaining a common goal. As an instrument, it focuses on involving stakeholders in decision-making such as situational analysis, planning, implementation and evaluation.

Narrative summary of the Project

Goal

SIBTA, FDTAs, service providers and farmers will improve the access of the poorest farming communities to agricultural innovation by means of policy debate for including the poor in agricultural innovation based on evidence provided by this project

Purpose

Poorest farmers in four agroecological regions will use relevant technological knowledge by means of participatory, locally grounded knowledge-sharing mechanisms

Outputs

- Institutional platform (FDTAs, DDT, SIBTA, partners and stakeholders) agreed upon, including participants' responsibilities at each level, to ensure sharing of knowledge-management strategies and results
- A digital document dedicated to knowledge-sharing methodologies and their application in marginalized contexts making reference to gender equity and ethnic issues dealt with by the Project
- Knowledge facilitators trained to apply knowledge-management approaches incorporating technical knowledge from PITAs
- Knowledge-facilitation methods, tested participatorily, prove their capacity as TT instruments among poor farmers in the project's area of influence.
- SIBTA, MACA and DDT leaders, as well as partners and stakeholders—sensitized about the potential of methods tested and their applicability—propose adjustments to norms and policies.

Project milestones and deliverables

Dates	Milestone	Deliverables
30 June 2004	Agreements with Foundations, DDT and technology service providers formulated, and conditions for technical cooperation within the project agreed upon	Signed documents endorsed by CIAT, partners and collaborators
Sept. 2004	Document on knowledge-sharing methodologies applicable to Bolivia prepared	CD with a review of methodologies for distribution among partners and stakeholders
Dec. 2004	Three proposals for methodological arrangements designed, and an experimental design for comparing methods defined	Document that describes the methodological arrangements
Feb. 2005	Manual on knowledge-management strategies available, and seven teams of knowledge facilitators trained	Copies of manual available for distributing among partners and stakeholders
Mar.-Sept. 2005	Experimental application of methods completed First M&E reports available by July 2005	Written reports on the application of methods available for distribution. M&E reports available
Oct. 2005	Analytical and evaluative report about the methods, the performance of knowledge facilitators, and adoption results completed	Copies of document available for distribution
Nov. 2005	Synthesis of case studies covering content, methods, experiences and instruments completed	Document published and distributed among partners and stakeholders
Dec. 2005-Feb. 2006	Two final workshops conducted with higher education actors and SIBTA to prompt proposals for applying successful practices in the System's rules and regulations	Reports of workshops and final analysis prepared and distributed

First methodological steps

The project started in April 2004. During the period 1 April-30 June, the Project Coordinator and his Bolivian counterpart (Eduardo Nogales) were dedicated to two different kinds of activities: (a) socializing the project among different stakeholder groups and (b) organizing the project "platform." In both activities, face-to-face encounters were preferred to Internet dialog by most of the counterparts.

The socialization of the project took place in a variety of forums that included project coordinator meetings with the four executive directors of the FTDA's, two workshops to exchange ideas about the project with FIT project coordinators and other groups of stakeholders, convened by the Bolivian FIT Coordinator, Miguel Angel Pedregal; several encounters with the DDT and with the FIT Program Coordinator as well as visits paid by the Bolivian Coordinator to groups of six technical assistance-service providers that included negotiation of their participation.

The socialization process was a difficult task. Several stakeholders and some collaborators understood this project as “a quick way to replicate a PITA”; others thought the project would contribute its resources to Foundations so that they would be able to repeat successful PITAs to wider farmer audiences. Some were hesitant to collaborate given their understanding that the project would provide mechanisms for farmers to access PITAs for free. It was an interaction-intensive task to help everyone understand that this project was interested in improving the quality of the methodological relationship between technical- service providers and farmers in order for the latter to improve their quality of learning and adoption. Improving methods and knowledge-sharing strategies was a less threatening goal for some of the foundations’ leaders. The fact that foundations would have better tools to reach larger audiences in a more efficient way and could incorporate recommendations on the use of these tools by technical-service providers and new tools to monitor the results of PITAs was widely accepted as a project goal.

The institutional platform was organized around the four FTDAAs. Technical personnel, financed by FIT 8, are carrying out the planning, M&E of activities along with the PITA service providers. Both the FTDAAs and service-providing groups have agreed to host the project in terms of the use of their physical premises and other facilities. The Bolivian project coordinator is in close contact with these people to keep track of activities and provide support to forthcoming events. The Program for Research on Andean Products, (PROINPA), given its extensive experience with FFS and Agricultural Research Committees (CIALs), was invited to work on a set of knowledge-management methodological guidelines, which will be inputs for training knowledge-sharing facilitators. Agreements have been reached to make payments to both the FTDAAs and the technical assistance-service-providing agencies for their participation in the project. Nearly £40,000 will be invested in the participation of partners and collaborators in this project.

It is important to note at this early stage of the project that charges for FTDA and technical-assistance providers are higher than initial estimates. The same is true for the number of trips and initial investments made in setting up the institutional platform. This fact has forced us to reduce the budget for other activities such as workshops and publications. We hope to be able to find additional funds to cover for the tight budget we presented in this first sixth-month report.

Current Project status

At the end of the first reporting period, all actors are on stage and ready to initiate the learning process. Beneficiary farmers are expecting to start as soon as possible, but in several sites we will have to wait for the planting season. The service providers expect that the new methodologies to be field tested will improve their work from here on. Many nonparticipating service providers have asked to attend the training sessions. The FTDAAs have made all the necessary administrative decisions to hire a professional to carry out the planning, M&E of the project at the field level.

During the months of August-September a review of literature was conducted to cover topics such as the training of facilitators, facilitation and leadership, participation, participatory action-research, poverty, FFS, farmer-to-farmer methodology, AKIS, strategic extension and other related topics.

The study PROINPA will conduct (Synthesis of knowledge-sharing methodologies and a proposal for new methodological arrangements) will provide us with additional up-to-date literature in our area of interest: “Pro-poor RD&TT methods and methodologies.”

FIT 8 as a research endeavor has also been promoted among the project’s stakeholders. FTDA leaders demonstrate their eagerness to reach efficient and quick solutions to agricultural innovation. One of these leaders suggested implementing the extension methodologies the project was expecting to evaluate in a particular macroregion. This perception shows how important it is for development agents to use innovative ideas to improve their work, but at the same time lessens the appreciation for research as a basic tool for decision-making in development processes.

There are a good number of assumptions and risks to be dealt with throughout the project implementation. These have been identified at each level of objectives in the log frame. The following are outstanding:

Risks and assumptions

- It is essential to the success of this project that the different actors involved—including municipal authorities and farmer groups and associations—be willing to participate in an institutional development process that demands:
 - ✓ commitment to incorporate the projects activities into the agendas of FTDA’s, DDT, service providers and farmers
 - ✓ collegiate attitudes on the part of FTDA’s and service providers to share knowledge generated by their PITA’s
 - ✓ willingness of marginalized farmers to enter the technological innovation cycle
 - ✓ a collaborative attitude on the part of service providers and PITA farmers to engage actively in knowledge-facilitation activities for marginalized farmers
- A major assumption regards the quality of knowledge that stems from the PITA’s that have delivered results. Each one of the PITA’s technical reports to be used in the project will be evaluated according to their technical and scientific quality in collaboration with Bolivian experts. The corresponding evaluation may suggest the need to include additional information before its content is translated into didactic material to be included in the knowledge-sharing processes.
- A limitation this study has is the limited number of PITA’s completed or under way; therefore results will be analyzed as case studies from which hypotheses can be later formulated.
- During different meetings held with SIBTA actors, a concern was expressed in terms of the Project’s creating new amplification mechanisms without taking into consideration SIBTA’s norms and procedures. In a continuous dialog with partners and stakeholders ample explanations have been given about the true objectives of this project. The central quest is to test new knowledge-sharing arrangements, which in turn can be later used by the technical and professional personnel to disseminate knowledge applying user-friendly approaches.

This is research on methods to improve access to technological knowledge by poor, marginalized farmers. The people responsible for this project expect that the new methodological arrangements will be efficient and easy to use so to raise the interest of the SIBTA system to include them in the norms and procedures to propose and execute PITAs.