

HARNESSING LOCAL AND OUTSIDERS' KNOWLEDGE: EXPERIENCES OF MULTI-STAKEHOLDER PARTNERSHIP TO PROMOTE FARMER INNOVATION IN ETHIOPIA

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ABSTRACT

Innovation is a process and it is also a function of the interaction of institutions, individuals or groups in a particular domain, which is governed and influenced by policies, norms, institutional and societal culture as well as specific socio-economic contexts. Farmer innovations are also outcomes of indigenous knowledge or outsiders' knowledge, which takes place as a result of informal experimentation and conscious interactions with people and the physical world. Promoting Farmer Innovation and Experimentation in Ethiopia (PROFIEET) is a national learning and advocacy platform of civil society organizations and government institutions involved in research, extension and education. The platform is specifically dealing with creating an enabling environment at local and national level for the promotion of farmer innovation and integration of Participatory Innovation Development (PID) in the major stakeholder institutions. In the past three years, PROFIEET has learnt many lessons that help to strengthen the initiative to support the efforts of innovative farmers and institutions in Ethiopia. This paper deals with the process of forming PROFIEET, the major challenges PROFIEET is trying to address, the basic philosophy and conceptual framework, the major lessons learned and the methodological approach taken by PROFIEET. This initiative is part of the international network for promoting local innovation in ecologically-oriented agriculture and natural resource management (PROLINNOVA). The conceptual discourse and methodological approaches are shared by a number of similar networks in many countries, which are operating under the auspice of this international network.

Key words: farmer innovation, participatory innovation development, NGOs, indigenous knowledge, local innovation

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INTRODUCTION

Farmers in the northern and south-eastern Ethiopian highlands as well as in the dry areas of the south, south-eastern and north-eastern parts of the country (pastoral communities) have long been challenged by food-security problems and severe poverty. In the last few decades, the situation has been getting worse, mainly because of the human and naturally induced environmental problems (soil erosion and degradation) as well as population increase. In response, international aid agencies and the Ethiopian Government have been providing considerable support to these dry areas. The support was in the form of not only food aid but also development programs that aimed at reversing the environmental damage and ensuring sustainable livelihoods. Most of the government-launched development programs and interventions of aid agencies were externally designed and driven. The preconceived interventions ignored the potentials of the local resources and local innovations. Therefore, in many cases, the external support did not lead to sustainable development. Agriculture and rural development activities in Ethiopia, although claims are made that it includes people's participation, have remained delivery-oriented in terms of its extension services rather than encouraging innovation by farmers (Tesfaye 2003).

Ethiopia is a country of ancient and diverse cultures and multiple ethnicities. Traditional land-use systems dominate among the smallholder farmers and pastoralists. Although not well explored and having received relatively little attention by outsiders, Ethiopia is also the home of amazing systems of indigenous knowledge (IK) that helped the people survive under adverse environmental conditions, famine and poverty in general. The historian Richard Pankhurst (1985), who documented the history of famine and resultant epidemics in Ethiopia, states that these were all caused by interconnected natural and socio-economic factors. On the other hand, early Ethiopian civilization serves as evidence for the extent and rationality of IK. The domestication of certain crops like coffee, *teff* and *enset* (false banana) and the development of the bench-terrace system by the Konso people in southern Ethiopia are among the important achievements of IK in agricultural development (Tesfahun 2004). Nevertheless, development practitioners and researchers are not much interested in building on the successful and worthwhile IK practices, nor do they recognize the dynamics of IK as the local people are confronted with new conditions and challenges. According to Tesfaye (2003), the communities' IK on resource management, local institutions and coping mechanisms was not given any attention.

Farmers are seen as recipients of development support from the government and non-governmental aid agencies. There are only very few experiences of non-governmental organizations (NGOs) that systematically and intentionally considered the IK and other local resources in development programs. The technological inputs that have been identified and packaged by outsiders, with little or no consultation of the smallholders, could not respond adequately to local realities. Although some professionals have begun to appreciate the participation of farmers in technology development, many are still trapped in top-down, center-outwards thinking and action, in which researchers determine priorities, generate technologies and transfer them to farmers via extension (Teklu 2001). Millions of smallholders in Ethiopia are practicing agriculture under very diverse, complex and risk-prone conditions. It would be very difficult for the formal research and extension agencies to address every single problem in smallholder farming and pastoralism throughout the country, even if they wanted to.

On the other hand, there are many innovative farmers (a term that includes pastoralists) in Ethiopia who are trying new ways of doing agriculture and natural resource management (NRM). With these farmers, formal researchers can work hand-in-hand and support them in responding more precisely to their numerous and diverse problems. Development practitioners, researchers and policymakers know only few examples of innovative farmers in Ethiopia so far and this is not because there are only few. Upon introducing sound methods of identifying and supporting innovative farmers and changing the mindset of those who are dealing with research and development (R&D) to appreciate the talents and creativities of innovative farmers, it is presumed that thousands, if not millions, of innovative farmers with their fascinating work may come to the attention of the government and other development actors. The work of Yohannes GebreMichael in the central highlands of Ethiopia has shown that most of the farmers included in his study were innovators to some degree, in the sense of trying out something new in soil and water conservation (SWC), often picking up an idea from neighbours or elsewhere in the world. Two plots cannot even be treated identically by the same farmer, let alone by different farmers (Yohannes GebreMichael 1999).

This paper deals with how NGOs that are passionate about the work of innovative farmers have joined forces with their government counterparts to promote and support local innovation in ecologically-oriented agriculture and NRM. Conceptual notes, methodological approaches, achievements and lessons gained over the past three years are discussed.

BACKGROUND TO PROFIEET

Farmer Innovation in Africa, a book that was based on the extensive work of two Netherlands-funded projects on Indigenous Soil and Water Conservation (ISWC) and Promoting Farmer innovation (PFI) reported that, in the first phase of ISWC covering 27 case studies in 15 African countries (including Ethiopia), it was found that smallholders were maintaining and expanding many indigenous practices of SWC, in contrast to many modern SWC techniques promoted by development projects. The second phase of ISWC looked into the effectiveness of the indigenous and modern SWC practices through joint experimentation, involving farmers, scientists and development agents. Attempts were made to identify and link innovative farmers with scientists as well as to change the attitude of development agents and policymakers to acknowledge the work of innovative farmers in Tigray Region (Reij & Waters-Bayer 2001). The legacy of these projects gave rise to the formation of a national lobbying platform known as Promoting Farmer Innovation and Experimentation in Ethiopia (PROFIEET), which was spearheaded by NGOs and made up of government organizations and NGOs involved in research, extension and education [PROFIEET/PROLINNOVA 2004].

PROFIEET was established at a national workshop held on 25–27 August 2003 to discuss experiences of participatory R&D issues. Representatives from research organizations, experimenting farmers, NGOs, Ministry and Bureaus of Agriculture, Universities and the Commission for Science and Technology attended. Numerous case studies on participatory research and experiences of farmers in experimentation were presented and discussed. The workshop participants agreed to have similar fora periodically, so as to learn more about farmer innovation and farmer-led participatory research. A National Steering Committee (NSC) was then chosen, with a mandate to guide the setting-up and functioning of a national learning and advocacy platform. PROFIEET began to function as a national platform and partner of PROLINNOVA, an international program with a primary goal of integrating farmer-led R&D, with a focus on promoting farmer innovation and local experimentation, into the systems of relevant NGOs, universities and public research and development institutions and thereby making a significant contribution toward attaining food security, sustainable rural livelihoods, poverty reduction and safeguarding the environment.

The NSC made up of people from government organizations – Ministry of Agriculture and Rural Development, Ethiopian Science and Technology Agency, Ethiopian Institute of Agricultural Research (EIAR), Haremaya University, Mekelle University and Debub University – and NGOs – Agri-Service Ethiopia (ASE), FARM-Africa, SOS-Sahel, Institute of Sustainable Development, Pastoral Forum Ethiopia and Sustainable Land Use Forum – oversees PROFIEET. ASE, as secretariat and facilitator of the multi-stakeholder national platform, handles the financial issues, contractual agreements, capacity-building initiatives, proposal writing, soliciting funds, workshop organization, and pilot projects in partnership with the other member institutions and also officially represents PROFIEET in relevant fora. PROFIEET aspires to see attitudinal and behavioural changes among researchers, extension workers, farmers and policymakers to adequately recognize and support the dynamism of IK and PID.

CHALLENGES THAT PROFIEET IS TRYING TO ADDRESS

Although smallholders in the Ethiopian highlands and pastoral communities in the lowlands are sources of diverse knowledge and local innovations, their potential could not be unlocked to the extent possible, because of several confounding challenges. Those are the challenges (briefly summarized below) that PROFIEET has been trying to address since August 2003.

1. *Lack of accommodative attitude of outsiders* (extension organizations, research organizations, NGOs, donors) to farmers' knowledge, perceptions and values is a major challenge that slows down development and democratization processes in the country. An attitude that acknowledges farmers/pastoralists as having immense potential to change their own world is seriously lacking. The conventional development thinking is based on the assumption that farmers/pastoralists are poor, illiterate and ignorant and, therefore, the formally trained people have to take care of all their development agendas, if those people are to be liberated from poverty. Failure of outsiders to have an attitude of appreciation and recognition of the knowledge and value systems of the farmers, as a source of innovation and inspiration, has resulted in policies and programs that have insignificant impacts to unlock and release the potentials of the local people.
2. *Lack of adequate opportunity for farmers to decide on R&D priorities.* Participation is not only a critical issue of human rights that farmers have to decide on matters that affect their lives and environment; it is also an important dimension of knowledge management. The success of R&D initiatives depends largely on the extent that drivers of the initiatives try to accommodate and utilize the knowledge, interest, convictions, concerns, priorities and resources of the end users. To a larger extent, the experience in Ethiopia shows that R&D agendas have been identified by researchers and experts and approved by peer groups. Farmers' roles have been and still are very passive in technology generation in the formal system. The extension system also formulates and promotes "on-the-shelf" package technologies that result from past research (Tesfaye 2003).
3. *Lack of financial support to promote and encourage local innovation processes* is another challenge that has constrained the development of the local economy and NRM practices. Providing financial support to enhance local innovation processes is indeed one way of expressing outsiders' appreciation of and trust in farmers' knowledge and potentials. Traditionally, farmers in many parts of Ethiopia do not claim for financial or material support from the government and/or aid agencies to improve their innovations. This is mainly because of the long-standing paternalistic tradition of agencies, which have consequently made many farmers undervalue their knowledge and innovations and remain dependant on outsiders' knowledge and technology. Resources that are directed to research and extension programs are entirely controlled by the formal institutions. Funds are provided only to research projects that can meet scientific standards that smallholder farmers cannot come up with. There is no single

example in the formal research and extension system in which either specialized funds are created to support local innovation processes or consciously designed programs are implemented to support them, with the exception of the ISWC-2 project that was coordinated by Mekelle University in Tigray Region from 1997 to 2001.

4. The main purpose of identifying, recognising and providing support to local innovation is to help farmers develop and sharpen their own innovations, so as to help them overcome problems that might not be precisely addressed by the formal research and extension services. However, this does not mean that farmers have adequate answers for every single problem they may face. It is always necessary for farmers to get support of experts, scientists and policymakers to be able to develop their work more quickly. In *Ethiopia, there are very limited skills and experiences in facilitating participatory learning and PID processes*. The attitude and readiness to adopt these approaches is more important than the skills. However, both cannot be easily seen in the systems of most of the R&D organizations in Ethiopia (both public and non-governmental).

The establishment of PROFIEET as a learning forum could make considerable changes in the coming few years to meet these challenges. To this end, PROFIEET is undertaking the following major tasks:

- a) Creating a receptive environment at local and national level to appreciate and promote farmer innovation;
- b) Systematic identification, documentation and promotion of innovations in the Ethiopian highlands, pastoralist communities, coffee-growing areas and *enset*-growing areas;
- c) Making innovation funds available and utilizable by innovative farmers and documenting as well as sharing lessons gained in this regard;
- d) Making the support of scientists and experts possible in a manner of mutual respect and collective learning spirit, to help farmers develop their innovations;
- e) Helping policymakers appreciate the knowledge and innovativeness of the local people and stimulating them to provide sustaining support to the farmers' efforts.

Accomplishment of these tasks demands a clear theoretical and methodological framework, which could provide opportunity for noticeable incremental changes over time, as well as guidance for PROFIEET partners to help them do "theory-informed practices" and run value-driven initiatives.

CONCEPTUAL FRAMEWORK

PFI, which was a project developed by the UNDP Office to Combat Desertification and Drought (UNSO) and supported by the Netherlands Directorate General for International Cooperation (DGIS), is one of the important attempts made to identify and support farmer innovation in East Africa. It was implemented in Kenya, Uganda and Tanzania with local partners, who developed a working definition for the term "farmer innovators". According to the PFI, those farmers who (in local terms at least) have developed or are testing new ways of land husbandry that combine production with conservation (Critchley 1999) are known as innovative farmers. The sister project, ISWC-2, also operated under the same philosophy, but each of the country-level partners developed working definitions of their own. For example, ISWC-Ethiopia defined an innovator as someone who develops or tries out new ideas without the support of the formal extension services. "New" was defined as something that has been started within the lifetime of the farmer – not something that s/he inherited from parents or grandparents. In contrast, ISWC-Tunisia decided to include technologies inherited from parents in the inventory of local innovations. However, as a general guide for action, the working definition for ISWC-2 was: "Farmer innovation is something new to a particular locality, but not necessarily new to the world" (Reij & Waters-Bayer 2001). PROFIEET builds on the experiences of PFI and ISWC-2. Historically and conceptually, PROFIEET finds its

roots in the ISWC-2 Ethiopian project. Therefore, the working definition of PROFIEET for farmer innovators is quite similar to the one developed by ISWC-2 Ethiopia.

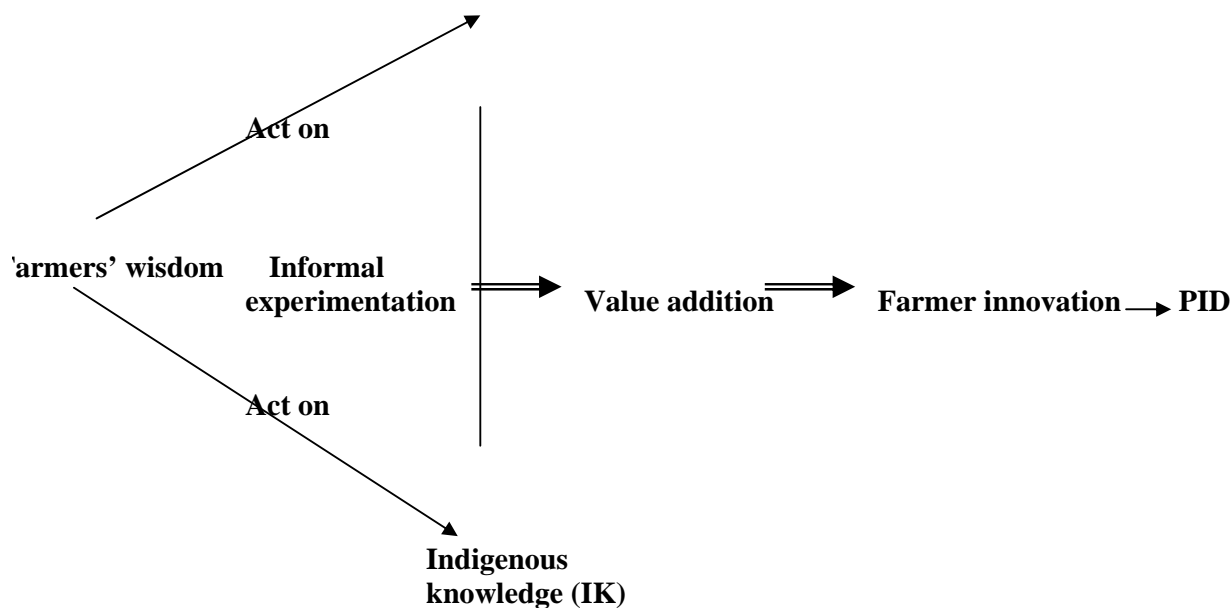
According to PROFIEET, the term “innovative farmers” refers to those who have tried or are trying out new but value-adding agricultural or NRM practices, using their own knowledge and wisdom but also through appropriation of outsiders' knowledge, often called scientific. Without contradicting the recognition of IK as an important asset of development, PROFIEET believes that innovative farmers are not those who are using IK as it used to be during their ancestors' time. They are farmers who act on IK and/or outsiders' knowledge by conducting informal experiments and making the knowledge more usable or better fitting to their own realities. Therefore, the main focus of PROFIEET is not on IK as a static asset, but on the dynamism of IK that could bring in new values to the users. Innovative farmers are not like the model farmers who are intentionally trained by extension workers on specific and pre-determined technologies. Innovativeness is the capacity of individuals or groups to look into given situations from different angles and make new values out of the situation, without affecting the broader environment negatively. Therefore, those farmers who have been trained by extension workers may also be recognized as innovative, when they are dealing with the incoming knowledge/technology by improving it or making it fit the local situation or blending it with pre-existing practices or technologies and ending up with a new way of using it. Essentially, the term “innovative farmer” is not given to a certain social or economic group in the community, but to those farmers (regardless of their sex, wealth status or age) who are trying to add value to existing practices through creative engagement and experimentation and with a passion to seek changes that have economic, social and environmental significance.

Farmer innovation is also a way of life for poor Ethiopian farmers who are being challenged by the ever-changing environmental, policy and market situations in the country. For them, innovation is not academic work or an extracurricular activity. Rather, it is an inherent characteristic of those who are striving to make a living out of the difficult situation they are in. Almost every single farmer who is living in such challenging circumstances has to innovate in order to survive. Farmers, especially resource-poor ones, continuously experiment, adopt and innovate (Chambers *et al* in Critchley 1999). Farmer innovation is a product of farmers' informal experimentation. Whether we provide them the support or not, farmers are always trying out something new. Ayelech Fikre, an innovative woman in the central highlands of Ethiopia, when asked to explain what makes her do all the fascinating work on her own, said: “*The problem [soil erosion and difficulties of getting more land] taught me to do all these activities. Otherwise I could not survive* (Million 2001).

Another important dimension of the concept of "farmer innovation" is that it embraces not only technological innovation, but also new ways of managing livelihood in general, which may include new ways farmers do networking, communication, institution building, information management, planning, accessing resources, marketing etc. This means farmer innovation is all about new ways of doing agriculture and NRM. That newness entails values that may bring about changes in quality of life.

As a learning and advocacy platform, PROFIEET adopts the following schematic presentation to explain the conceptual framework of farmer innovation:

**Outsiders' (scientific)
knowledge**



MAJOR ACHIEVEMENTS AND WORK IN PROGRESS

In 2003, the major achievement of PROFIEET was to organize a national workshop to discuss relevant experiences in Ethiopia as well as to formalize the establishment of PROFIEET as a national learning and advocacy platform. PROFIEET studied the experiences of various institutions in the country that are engaged in farmer participatory research. This study provided opportunities to identify and map out the connections between various stakeholders for future collaboration. The most interesting part of the workshop was the live presentation by farmers on their work and the subsequent reflections by various groups (farmers, extension workers, researchers, policymakers) on how they feel about each other and what necessary actions need to be taken to improve linkages and mutual learning. The output of the workshop was used to design a country proposal on awareness raising, scaling out and institutionalization of PID in the systems of the major stakeholders.

As member of the international **PROLINNOVA** program, PROFIEET organized the first international workshop of **PROLINNOVA**, which was held in Ethiopia in 2004. This workshop brought together numerous people with similar experiences from all over the world and also created a good opportunity to pass messages to Ethiopian policymakers at different levels. The extensive media coverage of the workshop and participation of high-level officials in the opening and closing events as well as throughout the workshop offered a good chance for PROFIEET to stimulate further discussions with the relevant bodies. Numerous meetings were held with relevant government bodies to discuss the need for collective learning about the approach and its institutionalization.

Shaping and consolidating PROFIEET as a platform was not easy, institutions with different and sometimes conflicting perceptions and philosophies about R&D had to be accommodated, so that their work could be turned to the benefit of farmers. PROFIEET believes that such a learning experience has to continue, and can be achieved through joint practice of PID. Most of 2005 was used to discuss institutional arrangements, draft guidelines, prepare proposals and seek donors.

By 2006 PROFIEET had defined its working areas by identifying major agro-ecological zones in the country and adopted a strategy of establishing regional fora to coordinate the work on the ground. Since then, PROFIEET has been implementing its work in four broadly categorized agricultural systems, which include the typical highlands (mixed cereal-based crop-livestock

farming), the coffee-growing areas of the south and southwest, the *enset* and other root crops growing regions (*enset* is a false banana type of plant that provides staple food for millions of people in the southern region) and the pastoral areas in the northeast, east and southeast of the country, where livestock production is the major source of livelihood. To initiate the PID work on the ground and facilitate the formation of the regional platforms of PROFIEET, three workshops were carried out: in Axum for the Ethiopian highlands, in Jimma for the coffee-growing zone and in DireDawa for the pastoral zone. Each workshop had two parts. The first one was training on the concept of PID and the second involved identifying and planning PID activities. Each of the three workshops was preceded by a day-long seminar to share the concepts of farmer innovation and PID with the relevant NGOs and public institutions in the regions. In each region, the facilitating agencies selected ten innovative farmers and invited them to make presentations in the workshop. Each workshop selected three innovations and designed joint experimentation on them, involving farmers, formal researchers and extension workers. Detailed accounts of the innovations are documented in the first innovation catalogue produced by PROFIEET. The following are the cases of farmer innovation selected at the three workshops to be explored further in PID:

Innovation from coffee-growing zone:

- Farmer-made hydroelectric power
- Manually-operated dry coffee pulper
- Coffee plant rejuvenation techniques

Innovations from the northern Ethiopian highlands:

- Rotary water up-lifter from hand-dug well
- Reducing water-logging problems through digging underground canals
- Improving “modern” beehives by making queen excluder out of local materials, reducing number of frames, and making queen delivery possible

Innovations from the pastoralist zone:

- Mixing camel, goat and cow milk to avoid curdling
- Pollen transfer of papaya by hand
- Repulsion of retained placenta in cows.

Policy dialogue and lobbying are very important aspects of the initiative. PROFIEET believes that audiovisual documentation plays a vital role in promoting farmer innovation and sharing the basic philosophy of the platform. To this end, most of the farmer innovations identified by the three regional platforms have been documented by professional film-makers. As part of its educational and advocacy work, PROFIEET plans to transmit the work on the innovations in collaboration with the state media and to initiate a panel discussion in the media about how to support the innovations developed by farmers.

In general, the activities being facilitated by PROFIEET fall under three major categories. The first one comprises the DGIS-supported activities, which aim at identifying innovative farmers in various agro-ecosystems and initiating PID. The second activity, just started recently, is the DURAS (French-government) supported project on Farmer Access to Innovation Resources (FAIR). The third set of major activities includes the diverse work related to PID being carried out by member institutions in their own domains. These activities are not centrally planned and coordinated by the PROFIEET secretariat but are part of the overall efforts of PROFIEET to accomplish its mission. These include formation and strengthening of Farmer Field Schools (FFSs), facilitating farmer participatory research, organizing training on PID-related methodologies, and using various fora to advocate for change towards supporting farmer-led R&D processes in institutions of formal research, extension and higher learning. PROFIEET has prepared a more

comprehensive country-level proposal that aims at systematic awareness-raising, scaling out and institutionalization of PID and is seeking financial support from interested partners. Preparatory work has been done to sign an agreement with Action Aid-Ethiopia to implement part of this proposal.

MAJOR LESSONS LEARNED

1. In most cases, local innovations in agriculture and NRM are not so visible unless one takes time to ask questions to the farmers in a learning spirit. Identifying local innovations is therefore the most important but also difficult task until the involved agencies developed experience in this.
2. PID can be best implemented if researchers or subject matter experts are involved in the process right from the beginning. However, researchers that could collaborate with farmers in PID are not adequately available in most parts of the country. Therefore, it is imperative to encourage the extension workers of the Ministry of Agriculture and NGOs to play the role that researchers should play.
3. A multi-stakeholder process to promote farmer innovation is a very slow process in terms of seeing results on the ground. However, this multi-stakeholder approach is extremely helpful to ensure institutionalization of the approach, sustainability and ownership.
4. Institutions involved in the multi-stakeholder process must be engaged in partnership projects, which will be essentially part of the program that feeds into the overall goal of PROFIEET. This will be very helpful to improve participation of the member institutions as well as to improve collective responsibility and ownership of results, benefits, resources and risks.
5. Setting up a national platform from the start versus starting with provincial platforms at very local level and then forming the national body at a later stage are two different strategies that have their own strength and limitations. Setting up a national body at the start creates difficulties to connect to the grassroots dynamics, because many of the NSC members are drawn from agencies in the capital city. Otherwise, if some of the members come from the regions (provinces), bringing them every time for a meeting makes it very expensive or the chance of having "no regular meetings" will be high. When a strong body is formed at national level, it will have better opportunities for advocacy, information communication with the rest of the world, fund raising etc. On the other hand, if the network is started at regional level, the chance of involving those agencies that are directly working with farmers will be higher. They can demonstrate good results in a shorter period of time. However, the possibility of communicating with policymakers at national level will be remote. PROFIEET, learning from its experiences in the past, is trying to include both types of structures, with a plan to strengthen the regional bodies to be self-reliant and autonomous entities.
6. In a multi-stakeholder process, the level of internalization of the approach by the stakeholders affects the speed of the process in moving the agenda forward. It sometimes happens that only a few organizations participate actively in the process, even though all might express an interest in it. This holds the danger that the platform appears to be the "show" of only a few institutions.
7. Constituency building is a function of a clear and well-articulated mission as well as effective demonstration of the work on the ground. Therefore, constituency building is important only after the platform has enough to share with others. Early work in constituency building otherwise may take the form of a baseless campaign that ends up with frustration and mistrust. However, it is also important to reasonably communicate information about the initiative, using different types of media. Otherwise, those relevant stakeholders who have greater energy and

resources to advance the initiative may remain too far from the process, just because of lack of information.

8. Conflicts are inevitable in a multi-stakeholder platform like PROFIEET. One of the functions of the platform should be to manage or transform conflicts. There must be transparent rules, procedures and guidelines in place from the very beginning, and members must be able to understand those rules and regulations. A culture of expressing frustrations has to be encouraged and developed in the platform, and the meeting must feel responsibility to respond to the frustration of members as soon as it is manifested. However, even if all precautions are taken, conflict of interests will continue to happen. Therefore, the best thing to do is to become accustomed to live with differences, as long as they do not block progress to achieve the goals of the platform.
9. The working modalities and organizational cultures of NGOs and government agencies are different. Government agencies follow very bureaucratic financial and administrative procedures and are therefore less flexible. NGOs observe laws and procedures, but the system is generally more flexible and it is much easier to make things move faster. The coalition of these two different systems is not easy to manage, and experience has taught us that an NSC of this nature spends considerable time discussing procedural issues and less time may be spent discussing ideas and concepts.

METHODOLOGICAL FRAMEWORKS

Participatory Innovation Development (PID) in agriculture and NRM is the overarching methodological approach which PROFIEET is using to operationalize the theoretical discussions presented in the previous section and to address the above-mentioned challenges. PID is a farmer-led and expert-supported innovation development process, which mainly takes a local innovation as a starting point. It is basically a collaboration of farmers, extension workers and researchers, in which farmer innovators who are already trying out new things take the lead. The process emphasises not only research but also application of the results, primarily by those involved in the PID activities. Others could learn from the experiences of innovative farmers and may be motivated to try out and see how the new ideas work in their own situation. The goal of PID is not to scale up the farmers' technologies that come out of PID, the way the transfer-of-technology approach does. Rather, it is to scale out the spirit of innovativeness so that all farmers could be encouraged to try new things that work in their own realities. PID has its roots in Participatory Technology Development (PTD) and it is still sharing most of the tools and methods used in PTD. For many people, PID is indeed a synonym for PTD. However, some of the new values of PID over PTD include:

- a) In PID, outsiders seek to work with those farmers who have tried or are trying out something new and thus are already in the midst of an innovation process. Innovative farmers are not just "participating" in the process; they are recognized as lead researchers as well as primary users of the innovation;
- b) PID is not only about technical innovations but addresses all kinds of new ways of thinking and doing things (social, institutional, cultural, economic etc) that may help to improve the lives of farmers.

Thus far, the PID activities have not been strong in capturing and developing the new dimensions of institutional, social and economic (e.g. marketing) innovations. The following description therefore seems to be skewed to technological innovation, but without totally ignoring the other forms of innovation performance. Moreover, the way this methodological approach is framed in this paper may not reflect the experiences in the real-life situations, as many PID initiatives may emerge

spontaneously without waiting for stepwise implementation to take place. For the sake of sharing experiences on PID, a summarized description of the stepwise procedure and phases is given below.

Getting started: Building relationships and discussing partnership for participatory R&D with grassroots institutions, including farmer organizations:

- a) Identifying the social organizations involved in innovation in the area
- b) Assessing their interest and experience in working with farmers
- c) Choosing the most influential local institutions and discussing their interest in PID
- d) Discussing with farmer organizations/groups and finding out what kind of support they are getting and would like to get from outsiders as well as assessing how they would like to develop the new initiatives they have.

Discovering things to try out:

- a) Studying the agricultural innovation subsystem, with a focus on farmer innovation initiatives and discussing findings with relevant stakeholders, including farmers. The purposes of organizing such meetings is to create more interest and enthusiasm among the stakeholders and to stimulate interest and commitment of stakeholders to develop some of the local innovations with farmers
- b) Supporting farmers and extension workers to conduct a more exhaustive survey to identify the type of local innovations that most impress the local farmers, who decide which of the innovations should be shared with others and which should be considered for further exploration (**local innovation-based experimentation**). In this particular activity and most of the following steps, community learning fora such as FFSs or other groups of farmers who are dealing with R&D should spearhead the process
- c) Supporting farmers to analyze problems related to agricultural and NRM practices and identifying researchable issues that the farmers want to challenge with the support of others (**problem-based experimentation**)
- d) Giving farmers opportunities to visit and learn about technologies in the formal system and developed by farmers elsewhere, to choose those technologies they think are worth examining more closely and testing in their own reality (**trying out new ideas of others**).

Designing experiments and communication strategies:

- a) Farmers set a priority and choose those innovations that should be developed further and those new technologies that should be tried out in their own situations. The number of experiments to be tried by each farmer group or individuals at any one time should be few so as to help the farmers focus on the most important ones. Farmers can also keep the remaining researchable topics to carry them out over time. Group innovations and individual innovations should be sorted out at this stage, and farmers can make their own suggestions on how to try them out.
- b) Inviting “experts” (researchers and extension workers) to the farmers' meetings for designing the experiments. Farmers present how they intend to try something out and what criteria for evaluation they plan to use and what type of data they want to collect. The inputs of the experts in terms of making the methods simpler and more valid, as well as the possible support they can provide in collecting data is discussed and planned. The plan of action for the experiments should indicate when, how and where and by whom the progress of innovation development will be monitored. Sometimes, experts may be involved in conducting laboratory analysis or literature studies to bring in information and knowledge that support the process.
- c) Designing communication strategies to share those innovations that other farmers in the area may like to learn about. These are innovations the farmers think could benefit others, or others can be encouraged to try them in their own situations.

Experimentation:

- a) Farmers carry out experiments on similar or different topics (innovation/ problem/ technology-based participatory adoptive research) and report progress as well as results to the farmers' group that meets periodically. Evaluation criteria agreed by the group at the start of the experiment are used to discuss the progress and results. The experimenting farmers are responsible for keeping records of their work. In case they are illiterate, the group facilitators can help them do the recording.
- b) Group innovations or experiments are those that are attended by more than two people in a fixed location. The group members have the opportunity to come together to follow up the experiment and discuss the progress periodically. They have more chances to make changes and adjust to the local realities, if need be, in the course of the experiment. Major events of the experiments as well as the final results are presented in the community learning forum for discussion.
- c) External experts provide support to the individual or group innovators in the course of the research. The community learning forum and the facilitating agencies must make sure that the expected support from experts is gained. The forum can use an innovation support fund (if available) to meet the costs of the experts, if need be.

Sharing results:

- a) Those local innovations that the community learning forum has decided to share with the farming community in the area are shared by organizing farmer field days, farmer-to-farmer visits, innovation market days or through other means that the group may chose and design.
- b) Completed work of the farmers are celebrated first in the community learning forum by inviting more farmers and other stakeholders in the locality.
- c) A farmers' workshop organized at local level can be another forum for sharing the results more widely with other farmers.
- d) Extension workers and researchers join hands with the innovative farmers to present results of the farmers' work at higher level in conferences and workshops.
- e) The PID facilitators support farmers to document the process and the results and find several ways to share the experiences with other farmers and field practitioners also elsewhere in the country.

Sustaining the process: This is about ensuring that the PID exercise becomes a culture of the community and the local government. Appreciation of farmers as well as outsiders is very important in order to secure sustaining support so that PID can continue to improve farmers' livelihoods. The following are some activities that may help to sustain the process:

- a) Training of extension workers in PID and helping them facilitate PID with farmers and with the support of the local government or other donors
- b) Organizing purposeful visits for influential government officials as well as people from NGOs to expose them to the work of innovative farmers
- c) Making special efforts to recharge the local innovation support fund to continue supporting local innovation processes in the area
- d) Encouraging farmers to think about ways of self-financing their PID work to achieve self-reliance and self-confidence
- e) Organizing events to recognize innovative farmers, innovative and supportive extension agents as well as senior officials of government and NGOs, who have been supportive of the idea and contributed to the achievements.

CONCLUSIONS

The process of building up PROFIEET has been slow but worth the effort. Even though PROFIEET is only recently coming up with cases of PID to show, the institutional strength and the recognition that PROFIEET is gaining is encouraging. New donors and more partners are showing interest to

work with PROFIEET. The assistance PROFIEET is enjoying from the PROLINNOVA international support team in terms of capacity-building, soliciting funding, and lobbying and advocacy at international level is very helpful. But clearly, PROFIEET is a national affair that is managed and directed by Ethiopians to meet the collectively set goals.

One of the limitations of the learning platform is, however, that it has not yet managed to bring farmers into the governance system. Lack of an organized body of smallholder farmers at national level is the main reason why they are not in the NSC. The currently flourishing coffee cooperatives of smallholders at national level may offer an opportunity for PROFIEET to consider inclusion of farmers in the governance system.

In Ethiopia, it is not common to see a platform comprising both NGOs and public institutions. PROFIEET could be one of those few experiences in the country. Despite its challenges in connection with differences in institutional culture, the joint learning forum has become an important avenue to learn from each other. A more receptive and respectful spirit is being developed between NGOs and the government organizations. It is also important for PROFIEET to involve the private sector. The associations of agricultural producers or chambers of commerce that are operating at national or regional level and that might be interested in supporting the causes of smallholders can be approached to work in partnership.

PROFIEET as a platform has launched a new learning front on "Farmer Access to Innovation Resources" (FAIR). A Local Innovation Support Fund (LISF) is a blocked sum of money that will be available for farmers to use to develop their innovations, bringing in also external support that they deem necessary. PROFIEET is working with this new idea in collaboration with other PROLINNOVA partners in Africa and Asia. In Ethiopia, two pilot LISFs were launched recently, one in the extreme south (Amaro) and one in the extreme north (Axum) of the country. These pilots will provide lessons on how farmers could access resources for innovation and how such resources could be recharged from various sustainable sources.

PROFIEET is committed to strengthening the regional platforms, which will be the functional organs of the learning and advocacy platform. The national body will be more engaged in advocacy work, fund-raising, documentation, communication and related work. In the upcoming strategic-planning meeting of PROFIEET, clear strategies are expected to be designed on how to make the regional platforms more strong and self-reliant. The strategic-planning meeting shall also review past performance and re-design the strategies accordingly.

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