

**The Ethiopian experience in piloting
Local Innovation Support Funds
April 2006 – March 2008**

by

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Acronyms

ARSI-PID	Awareness Raising, Scaling-out and Institutionalisation of PID
ASE	Agri-Service Ethiopia
BoARD	Bureau of Agriculture and Rural Development
CBI	Community-Based Institution
CBO	Community-Based Organisation
CP	Country Programme
DA	Development Agent
DOARD	District Office of Agriculture and Rural Development
EIAR	Ethiopian Institute of Agricultural Research
FAIR	Farmer Access to Innovation Resources
FFS	Farmer Field School
FTC	Farmer Training Centre
ICIPE	International Centre for Insect Physiology and Ecology
ID	Identification
IFAG	Innovation Fund Administration Group
IK	Indigenous Knowledge
ILRI	International Livestock Research Institute
IPM	Integrated Pest Management
ISD	Institute for Sustainable Development
ISWC	Indigenous Soil and Water Conservation
LISF	Local Innovation Support Fund
M&E	Monitoring and Evaluation
MFI	Microfinance Institution
MoARD	Ministry of Agriculture and Rural Development
NGO	Non-Governmental Organisation
NRM	Natural Resource Management
PID	Participatory Innovation Development
PROFIEET	Promoting Farmer Innovation and Experimentation in Ethiopia
PROLINNOVA	Promoting Local Innovation in ecologically oriented agriculture and NRM
PSG	PROLINNOVA Steering Group
PTD	Participatory Technology Development
R&D	Research and Development
SC–UK	Save the Children–United Kingdom

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1 Introduction

Rationale for piloting

Partners in PROLINNOVA–Ethiopia (PROMoting Local INNOVation in ecologically oriented agriculture and natural resource management in Ethiopia), coming from several state and non-state organisations concerned with agricultural research, development and education, had gained experience in identifying local innovations and encouraging farmer-led experimentation. They had also observed that development organisations in Ethiopia were giving increasing attention to farmers' management of resources for development through support to self-help initiatives of communities in different parts of the country. A case in point is the Community-Based Institution (CBI) approach supported by Agri-Service Ethiopia (ASE), the non-governmental organisation (NGO) that hosts the PROLINNOVA–Ethiopia Secretariat. The CBI experience showed that farmers can manage financial resources efficiently by themselves. The idea emerged in the PROLINNOVA–Ethiopia Steering Group (PSG) that, if farmers could have access to funds to support local innovation and could be empowered to manage these funds, they might be encouraged to innovate even more. This idea became clearer and more deeply understood within the PSG when the members discussed an enquiry from the PROLINNOVA International Secretariat whether PROLINNOVA–Ethiopia would be interested in piloting a Local Innovation Support Fund (LISF).

Initially, the PROLINNOVA International Secretariat had selected PROLINNOVA–Sudan to be one of the four Country Programmes (CPs) involved in the Farmer Access to Innovation Resources (FAIR) project to pilot LISFs. However, because of changes in staffing in the NGO coordinating the PROLINNOVA activities in that country, PROLINNOVA–Sudan decided that it could not handle this additional activity at that time. This opened up an opportunity for another CP to take its place in the FAIR project. The Country Coordinator of PROLINNOVA–Ethiopia briefed the PSG on the objectives and major strategies in implementing FAIR. The PSG appreciated the chance to test the feasibility of LISFs in Ethiopia, having recognised the potential to enhance local innovation by giving farmers direct access to funds for locally-mandated research. Such a fund could cover certain risks and could be used to hire support from external resource persons, to link up with other farmer innovators and to share farmers' innovations and research findings more widely.

It was immediately obvious to the PSG that management of a fund for farmer-led research could be part and parcel of the functions of a CBI and similar types of local organisation. Considering the importance of empowering farmers in agricultural research, the PSG unanimously agreed in February 2006 to join the FAIR project. It entered into this pilot with the assumption that, for the LISF to be sustained, it would need to be replenished regularly through government funding, donors, community-based organisations (CBOs) and/or provision of services in kind.

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2. Institute for Sustainable Development (ISD), Addis Ababa, Ethiopia

3. Ethiopian Institute of Agricultural Research (EIAR), Addis Ababa Ethiopia

4. Tahtay Maychew District Office of Agriculture and Rural Development, Wukro Marai, Tigray Region, Ethiopia

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Ethiopian experiences in promoting farmer-led research and development

PROLINNOVA–Ethiopia’s activities in promoting farmer-led research and development (R&D) were built upon various experiences along these lines that had already been gained in Ethiopia. In Tigray Region in the north of the country, Mekelle University had coordinated the implementation of the second phase of the Indigenous Soil and Water Conservation (ISWC–II) project over five years (1997–2001). As it was coordinated by an institution of higher learning, ISWC–II involved a large number of university students, but it also involved many other stakeholders, such as the Tigray Bureau of Agriculture and Natural Resource Development (BoARD) and the Mekelle Research Centre, as well as some NGOs operating in the region. This project made the first steps in trying to institutionalise an approach of promoting Farmer Innovation and Participatory Technology Development within the frontline R&D organisations in Tigray.

In the Southern Region, FARM–Africa, a UK-based NGO, had collaborated with the Regional BoARD in implementing the Farmers’ Research Project from 1991 onwards. It was then mandated by the key agricultural R&D institutions in the Southern Region to coordinate the project “Institutionalisation of Farmer Participatory Research in the Southern Nations, Nationalities and Peoples Regional State” from 1999 to 2002, funded by the European Commission. The executing organisations were the BoARD, the Regional Bureau of Planning and Economic Development, Awassa College of Agriculture (which later became part of Hawassa University), Awassa and Areka Research Centres and FARM–Africa. In line with its original design, this project was phased out and handed over to the regional institutions after three years.

Save the Children–UK (SC–UK) had made good experience in promoting Farmer Field Schools (FFSs) as an approach to help Ethiopian farmers deal with pest infestation through the use of Integrated Pest Management (IPM). In January 1999, SC–UK started work in a small number of districts in North Wollo, Amhara Region. In January 2003, together with the Amhara Region BoARD, it designed a project to institutionalise the FFS approach in that region. The project was phased out in December 2006 and farmers continued to run their FFSs without further external support, generating revenue by selling packed products of botanicals and involving more farmers in the FFSs.

Farmer Field Schools

The FFS approach is meant to stimulate and facilitate an institutional platform of experimentation and innovation, where FFS group members develop solutions and answers to problems facing them. The learning system is based on learning sessions being held in the fields instead of in a classroom and a pedagogy inspired by principles of informal adult education.

Source: ILRI (2003)

In 2003, the Ethiopian Institute of Agricultural Research (EIAR), together with the African Highlands Initiative of the Consultative Group on International Agricultural Research, studied the state-of-the-art of participatory research in the Ethiopian agricultural research system. Some participatory approaches, such as client-oriented research and working with Farmer Research Groups, were being institutionalised within EIAR.

The experiences of Mekelle University, FARM–Africa, SC–UK and EIAR, though restricted to only a few places, had prepared fertile ground for the establishment of the multi-stakeholder platform that was initially known as Promotion of Farmer Innovation and Experimentation in Ethiopia (PROFIEET) and is now known as PROLINNOVA–Ethiopia. The national platform is

linked to subplatforms divided according to dominant agroecological systems and geographical areas in the country: the Ethiopian Typical Highlands Platform, which includes subplatforms in Amhara Region and Tigray Region; the *enset*-based agroecology in the Southern Region (*Enset ventricosum* or “false banana” is a staple food in many parts of this region); the coffee-based agroecology in the west and southwest; and the pastoralist platform in the lowland areas on the periphery of Ethiopia.

2 Starting up the LISF pilots in Ethiopia

Selecting the pilot sites

The original idea of the PSG had been to choose a pilot site in each of the five areas in which subplatforms were being built up. The main criterion for site selection was the availability of a nearby NGO that is a member of PROLINNOVA–Ethiopia and could support the development process in which the piloting of the LISF would be embedded. This was important because the NGO would have to play a vital role in coordinating and following up on the work in the pilot site. The history of the area in relation to promoting innovation, such as presence of already identified farmer innovators and farmers’ experience in participatory technology / innovation development (PTD/PID), was also considered. Of the five sites originally foreseen, the PSG decided to exclude three, because there were no deeply committed NGOs connected with PROLINNOVA–Ethiopia at those sites. The small amount of funding available was also a major reason for confining the pilot to only two sites. Therefore, the PSG decided to start pilot activities with the Tigray Region highlands subplatform and the *enset*-based subplatform in the Southern Region, and later possibly expand the activities into the other three areas.

The pilot areas were selected according to the following combination of criteria:

- Different agroclimatic zones, farming systems and sociocultural conditions
- Drought-prone and chronically food-insecure areas with high dependency on food aid
- Some deep-rooted experiences of the R&D actors in recognising indigenous knowledge (IK) and local innovation
- Presence on an NGO belonging to the PSG in the area.

ASE and the Institute for Sustainable Development (ISD) expressed interest in piloting LISFs in their operational areas. ASE was already active in Amaro Special *Woreda* (District) of the Southern Nations, Nationalities and Peoples Region (commonly known as the Southern Region) and ISD was active in Tahtay Maychew *Woreda* near Axum in Tigray Region in northern Ethiopia. In both areas, there were some stakeholders trained in participatory research and documentation of innovation, thanks to earlier activities: the PTD work supported by ASE in Amaro and the ISWC–II project in Tigray. Moreover, ASE had been working with FFS groups in Amaro and had helped establish CBIs there.

In both areas, the sources of income for the smallholder households include livestock, crops, fuelwood, daily labour, crafts, and food-for-work and cash payments through the World Bank-supported Productive Safety Net Programme, mainly for improving community land and infrastructure. Profiles of the two pilot areas are given in Section 4.

Clarifying modalities of implementation

Even after pilot sites had been chosen, it took some time for PROLINNOVA–Ethiopia to start up the FAIR project, because the implementation modalities were not clear to the coordinating NGOs in each pilot site, nor were they clear to the PROLINNOVA–Ethiopia coordinator. It was therefore necessary for the international coordinator of the FAIR project to come from South Africa to Addis Ababa in April 2006. He shared the experience of the PROLINNOVA–South

Africa programme in starting up the FAIR project there, and discussed in detail the implementation guidelines with the FAIR coordinators of ASE's Amaro Programme Office, ISD staff and members of the PSG. The visit by the overall coordinator of FAIR marked the real beginning of the planning process for piloting LISFs in Ethiopia.

Feasibility study

Immediately after this visit, a consultant to make an initial feasibility study for piloting LISFs was selected from four local consultants who responded to an advertisement made on the ASE notice board. In addition, the PSG had done some "head hunting" in order to broaden the choice of candidates. The criteria for choosing the consultant included: i) overall experience in rendering consulting services with special reference to innovation, farmer participatory research or related issues; ii) the soundness of the technical proposal, mainly evaluated according to the methodology proposed; and iii) the financial proposal. The terms of reference for making the feasibility study were based on those suggested by the overall FAIR coordinator.

The feasibility study for piloting the LISF had the following major objectives:

- To find and analyse in-country experiences with decentralised funding mechanisms for farmers and communities and their support agents, designed to support innovation and R&D activities, and to draw lessons for piloting LISFs;
- To review the institutional, legal and financial structures related to agricultural R&D in order to assess the longer-term feasibility of LISFs and to identify the best overall set-up that would enable regular replenishment of the funds in the future;
- To develop clear recommendations on how the LISF pilots should best be implemented in terms of geographic coverage, partner organisations, farmer involvement, financial sustainability, management and – particularly – monitoring and evaluation (M&E).

The consultant discussed the assignment and expected outputs with the PSG members. He reviewed relevant materials from PROLINNOVA–Ethiopia, PROLINNOVA International Secretariat and other organisations, programmes and projects in Ethiopia. He discussed with individuals in relevant organisations at federal, regional, district and subdistrict (*kebele* in Amaro, *tabia* in Tigray) level. However, few institutions had well-organised written documents that could convey some lessons from experiences with community-managed funds. Guided by a checklist, the consultant held detailed focus-group discussions with farmers, elders, youth, women, community leaders (in the *Kebele* Administration, CBOs, cooperatives and traditional institutions), FFS members and farmer innovators.

The consultant gave a debriefing on the findings to ASE staff in the Amaro area and ISD staff in Tigray. Then he presented his findings at a meeting in Addis Ababa involving various stakeholders, such as the Ministry of Agriculture and Rural Development (MoARD), EIAR and other members of the PSG. The workshop participants raised numerous issues emerging from the study, particularly concerning local organisation. The fact that farmers in Amaro were already organised into CBIs meant that it would be relatively easy to transfer the innovation fund to be managed by them. Such legally-recognised local organisations did not exist in Axum. What would be the approach there? The issue of promoting formal organisation of farmers was debated, as ISD feared that members might form an elite apart from the broad mass of smallholder farmers. Finally, ISD agreed to help farmer innovators organise themselves into an association to manage the fund in the Tigray pilot area.

The feasibility study revealed that there were enabling conditions for stimulating local innovation and experimentation in smallholder agriculture in Ethiopia as a whole and in the selected pilot areas in particular:

- The decentralisation policy of the Government of Ethiopia helps to develop local self-determination and assurance of good governance as an enabling environment.
- Local innovation is acknowledged by the agricultural office at district level and by some of the Development Agents (DAs), if not all.
- Research and extension services are being decentralised to local level; this should facilitate joint experimentation efforts of farmers, researchers and DAs.
- The Federal and Regional Governments are giving more attention to low-external-input agriculture and organic farming.
- The Government's financial pool system at district level facilitates transparency, effective and equitable planning, and avoidance of duplication of efforts.
- Some NGOs are in the process of institutionalising local-innovation and PID approaches into their regular work and are promoting the establishment of CBOs.
- Living under drought-prone conditions with many risks and uncertainties, rural communities have traditionally organised themselves into different informal groups, as joint efforts are often more effective than individual efforts.
- Community exposure to different development committees, cooperatives, micro-finance institutions and training on FFS and PID had prepared the communities for piloting the management of local research funds.
- Legalisation of local organisations is not difficult; all that is needed is the name of the organisation, internal rules and regulations, and a minimum of five founding members.

3 Main partners in conducting the pilot

The main coordinating partners in piloting the LISFs in Ethiopia were selected by the PSG on the basis of their experience in facilitating farmer participatory research and their commitment to backstop the piloting activities.

Agri-Service Ethiopia (ASE) is an indigenous, non-governmental, non-sectarian and not-for-profit development organisation that was established in December 1969. It is one of the oldest NGOs in Ethiopia. ASE has a mission to work with poor communities in rural Ethiopia towards attaining food security, protecting and rehabilitating the environment, and providing adequate social services. Enhancing the capacity of communities through training is a cross-cutting task of ASE. At present, the NGO is working with 45,000 households. ASE had already used the FFS approach to support experimentation on different priorities of the communities with which it is working. However, the focus had been on introducing the FFS approach rather than on ensuring that the FFSs would continue and have significant impact on the livelihoods of the communities concerned. ASE regarded the piloting of an LISF as an opportunity to re-visit the FFS approach. Through the course of piloting and discussing their experience with an LISF, the community members and ASE could redesign the FFS approach to ensure sustainability. Some lessons could also be drawn from SC-UK's experience with FFSs for IPM.

ASE strategically uses the CBI approach as part of its phasing-in and phasing-out strategy in development interventions related to integrated food security. The idea is that, before other project activities start, a CBI representing the community is established to be involved in identifying problems, planning, implementation, monitoring and evaluation. After the project is phased out, the CBI is expected to carry on activities as a local NGO. According to ASE (2005), the objectives of establishing CBIs are:

- To promote participation and self-reliance;
- To encourage local people to lead their own development;

- To assure sustained development after the withdrawal of the project; and
- To ensure that the voices of the poor and women are heard through an accountable institution.

The overall aim of ASE is to help CBIs in the long term to generate their own income, link directly with donors and gain support from local government. As a step in this direction, ASE had set up Community Development Funds, which a community could access as a block grant to run development activities initiated and designed by the CBI.

In Amaro Special *Woreda*, the area in southern Ethiopia where an LISF was to be piloted, nine CBIs had been established in different *kebeles* where ASE has been working since 2002. The CBIs had formed a union at district level, which had gained legal recognition in 2006. The process of establishing CBIs was as follows: The community selected an *ad hoc* committee to coordinate the different project activities identified by the community. The criteria for selecting committee members included: spatial distribution (for representation of different villages), wealth rank (with the intention of including also poorer members), gender (with the intention to empower women) and age (elders with deep experience and youth with dynamic innovations). ASE gave this committee the necessary training in planning and managing resources and in concepts of coordination. In 2005, the community had evaluated the *ad hoc* committee, removed some poorly performing members and added other people to make up a total of 16 members, out of which 12 were men farmers and four were women farmers, to serve in the committee for another two years.

Within each CBI, different subcommittees were established to deal with, e.g. health and water, training and education, natural resource management (NRM) and tsetse-fly control. Nine of the 16 committee members are in the subcommittees, together with other community members in each of these, so that – in total – there are 20–25 people involved in the various committees in each pilot *kebele* in Amaro. In each of the nine *kebeles*, the CBI selected three people to represent it in the district-level general assembly, which includes a total of 27 people (14 men and 13 women). This general assembly is the above-mentioned union that was legally registered. The prerequisites for legalisation were fairly simple: name of organisation and its objectives, a committee established in the name of the members, and written internal rules and regulations.

Institute for Sustainable Development (ISD) is an indigenous NGO that was established in 1995 with the objective of working with rural communities to improve their livelihoods through ecological land management for sustainably increased crop production and rehabilitated environment. ISD is a member of the Third World Network, an international grouping of organisations and individuals involved with development issues. ISD has a mission to foster sustainable development through research and awareness creation. In Tigray, it promotes low-external-input and organic farming and farmer innovation as part of its routine activities. It works through the government structure at the grassroots level and has different projects throughout the Region. It also works closely with Mekelle University and the Tigray Agricultural Research Institute. ISD had been encouraging local innovation processes through training events, workshops and exchange visits. However, it had not given much attention to the systematic organisation of farmers, either to help each innovator organise small groups in his/her locality or to help farmer innovators establish a network. Indeed, as mentioned above, ISD had some reservations about promoting formal organisation of farmer innovators. It was more interested in supporting informal networking by innovators through creating opportunities for mutual learning among farmers.

Over time, other organisations also became involved in some way in piloting the LISFs. In the case of Amaro, people from the Southern Institute of Agricultural Research, Hawassa University, the District Office of Agriculture and Rural Development (DOARD) and the International Centre for Insect Physiology and Ecology (ICIPE) have visited the farmer

innovators and advised them on possibilities of improving the procedure, structure, type of the materials used and design of their experimentation. In the case of the pilot near Axum, the Tahtay Maychew DOARD, Axum University, Axum Agricultural Research Centre and Mekelle University play similar roles.

The PSG is the overseeing body that advises and decides on the overall activities of the FAIR project. The PROLINNOVA–Ethiopia Secretariat facilitates and coordinates the project activities and works closely with the focal persons in the coordinating NGOs in Amaro and Tigray. The PROLINNOVA–Ethiopia coordinator reports on the progress of the piloting activities at the regular PSG meetings and distributes the reports to the PSG members by e-mail.

4 Description of the areas where the pilots are conducted

Profiles of the districts and sites

Tahtay Maychew District is located in Tigray Region in northern Ethiopia near the historic town of Axum. It is 145km from the capital city Mekelle. It has 17 *kebeles* with about 110,000 people in total, of which about half are female, living in about 20,000 households. This district is known as one of the most drought-prone areas of Tigray: more than 80% of the households are not self-sufficient in food production. Moreover, problems of land erosion, drought, armed conflict and poor soil fertility are chronic. Mixed crop-livestock farming is the backbone of household livelihood. Most households have only 0.5 ha or less, and there are many landless households, especially among the young adults.

More than 95% of the District's budget comes from the Regional Government. Although the Regional BoARD encourages low-external-input farming, the district's three-year strategic plan (2005–07) suggested that food security in the area would be achieved through "modern" agricultural techniques in cropping, irrigation, animal husbandry, and soil and water conservation. Most of the District budget for agricultural development goes toward capacity building, but it also includes promoting model farmers, exchange visits and annual awards to 10–20 farmer innovators, of which 30% are to be women household heads. This approach was developed during the ISWC–II project, in which the BoARD played a strong role.

The pilot *kebeles* – namely Akabi-Saate and May-Barzyo – are located in Tahtay Maychew District, where ISD has been working since 1996. Since the identification of local innovations during the ISWC–II project, these two *kebeles* were known to have many innovative farmers.

Amaro Special District is located in the Southern Region 205km from the regional capital Awassa and has 34 *kebeles*. Like Tahtay Maychew District in Tigray, Amaro District is drought-prone. More than 98% of its budget comes from the Regional Government. However, the Amaro area differs from Tigray in terms of farming systems and cultural practices. Livestock husbandry is more dominant than crop production. Coffee and *enset* are the major cash crops, and *enset* is the main food crop in the farming system. This perennial crop is grown primarily for the large quantity of carbohydrate-rich food found in the stem and underground bulb. About 15 million people – more than 20% of the Ethiopian population – depend on *enset* for food, fibre, feed, construction materials and medicines. The Southern Region is especially well known for its high production and utilisation of *enset*.

Since Amaro District is chronically affected by drought, the Productive Safety Net Programme is widely applied. The low level of development and the poor marketing services in this area can be attributed to its remoteness and the poor physical and socio-economic infrastructure. The nearest bank is about 70km away from the district capital. ASE works in nine of the 34 *kebeles*, which account for 50% of the total population of the district. Each *kebele* has its own CBI to facilitate the development activities supported by ASE. Other

grassroots organisations in the *kebeles* include microfinance institutions (MFIs), cooperatives and various traditional institutions dealing with social and economic issues. The LISF is being piloted in two *kebeles*: Gumule and Kelle. Gumule *Kebele* has a total of 720 households with an average of six persons per household. The average land holding per household ranges between 1.5 and 2 ha. The characteristics of Kelle *Kebele* are similar.

Local institutional set-ups in the pilot areas

Amaro. Because CBIs had already been established as legal entities in Amaro, the farmer innovators were in a position to be able to handle the fund themselves directly through these local institutions. The Fund Management Committee is composed of members from two FFSs (one in Gumule and the other in Kelle *Kebele*), the CBIs of these two *kebeles* and the district-level CBI union. The Committee has five members: three male and two female farmers. They were elected by members of the two FFSs and the district-level CBI as persons whom are trusted in terms of honesty and knowledge in managing funds.

The Fund Management Committee opened a dedicated bank account under the Amaro Special District CBI's account and called it the *Yefetera* (Innovation) Fund. After the Committee has approved an application to the fund, it writes a letter to the District CBI for endorsement to withdraw the required amount of money from the MFI, called "PEACE". This was established in November 1999, with the support of ASE, in the district capital, Amaro Kelle, within half an hour's walk of the two *kebeles*. PEACE holds the LISF money in the Yirga Chefe Branch of the Commercial Bank of Ethiopia, about 70km from the district capital. MFIs are meant to ease the financial constraints facing rural communities so as to help them change their lifestyle and system of production. In many cases, the MFIs – which operate as businesses and make some, although minimum, profit – use the group-collateral approach, whereby farmers have to organise themselves into groups to gain access to credit.

Axum. In the pilot area near Axum, there were no formally organised farmer groups or CBOs to manage the LISF for innovation and experimentation. Therefore, the PROLINNOVA–Ethiopia coordinator, the programme coordinator from ISD and five DOARD staff members from Tahtay Maychew *Woreda* brought together a group of 17 innovative farmers (12 male and 5 female) to discuss the idea of an LISF and how it could be managed. The farmer innovators had been identified by DAs and extension supervisors from the DOARD who had closely observed any new ways of doing things that local farmers had developed.

At this meeting, the PROLINNOVA–Ethiopia coordinator explained to the Axum farmers the experiences of the Amaro farmers with CBIs and FFSs. The Axum farmers appreciated these approaches, which had laid the basis for organising a Fund Management Committee in Amaro. The Axum farmers discussed at length the possibility of organising themselves into a legal entity. Initially, however, they decided to use the bank account of ISD and only later to try to open their own account. The 17 farmer innovators elected a Fund Management Committee composed of four men and one woman from their midst. Based on their prior experience with financial management committees in the framework of other projects, they said that five was a suitable number of committee members. Indeed, in any development activity in Ethiopia, this is the usual size of a local management committee. They trusted that the farmers they elected could discharge their duties well. They defined the roles of the Fund Management Committee as: i) screening the applications; ii) approving them; and iii) arranging that the funds be made available to the farmer researchers.

In both areas, staff members of the coordinating NGO served as facilitators to channel the funds coming from the FAIR international project coordination. In the case of Axum, the money went through the ISD bank account in Addis Ababa. In the case of Amaro, it went through the ASE bank account in Addis Ababa and then the PEACE MFI to the district CBI.

Like in Amaro, MFIs have a wide coverage in Tigray Region, including Tahtay Maychew *Woreda*. There is also a Commercial Bank of Ethiopia in Axum, about 20km from the two pilot *kebeles*. For the farmer innovators in the Axum area, the problem was not that financial institutions were lacking but rather that the farmers were not organised into a legal entity, which would allow them to deposit and withdraw money and make other bank transactions.

5 Experience in piloting the LISFs

Introducing the concept of LISF

The PROLINNOVA–Ethiopia Coordinator briefed the two NGOs that would be coordinating the pilots, as well as other local partners such as staff from the local research institutes and the DOARD, on the basic concept of the LISF and the implementation procedure. At each pilot site, he likewise explained this to the agricultural experts and the DOARD Head. Then, the NGO coordinators of the LISF pilots in each area went with experts from the DOARD to introduce the concept to the farmer groups that would be involved in the piloting.

In **Amaro**, farmers from two *kebele*-level CBIs and FFSs and the district-level CBI met in September 2006 at the CBI district office for a discussion on the concept of a LISF. The PROLINNOVA–Ethiopia coordinator explained the main aims of piloting LISFs and the general procedure for implementation. The farmers liked the idea, as they already had experience with FFSs and they needed resources to strengthen their FFSs so that they could continue to undertake research to solve their problems. They proposed that members of the Fund Management Committee be representatives from the two *kebele*-level CBIs, the two FFSs and the district-level CBI. Accordingly, the five committee members were elected from all the members in the CBIs concerned. Farmers showed keen interest to play an active role in managing the fund and undertaking research by allocating reasonably sized grants to research applications coming from farmers. They proposed that the research be carried out by different teams focusing on different priority topics in their communities, especially the problem of tsetse flies causing animal disease.

At the meeting near **Axum** in January 2007, the ISD staff informed the farmers that the LISF could be used for local experimentation, strengthening innovator networks, training or other needs such as organising themselves into an association and gaining legal recognition. The farmers raised various issues related to fund management and LISF implementation. They wanted to know how the funds would be channelled to them. They discussed how to buy the equipment needed for the experiments, asking who would help them make purchases and how they would know the prices of the equipment so that they could draw up a budget for the application. The PROLINNOVA–Ethiopia coordinator, together with the Axum LISF coordinator and experts from the DOARD, tried to answer all the farmers' questions as well as possible, which was not easy because this approach was new to everyone, including the coordinator.

After the Axum farmers appeared to understand the objectives and procedures of piloting the LISF, the PROLINNOVA–Ethiopia coordinator encouraged them to undertake their research. The farmers thanked the donors of the project and ASE for giving due recognition to farmers as researchers. They said that the fund allocated to them to manage by themselves would inspire them to be more innovative in tackling their day-to-day problems.

During these initial discussions at both sites, the PROLINNOVA–Ethiopia coordinator raised the issue of setting criteria for deciding to whom the grants would be allocated. He introduced the general concept of criteria and gave some suggestions. These were further developed by the farmers taking part in the two meetings. The farmers stressed the importance of allocating funds to experimentation and innovation that could solve priority problems identified by the farmers in their respective areas. The general framework for criteria that was developed during the discussions at both sites included:

- Technical feasibility
- Idea owned / driven by applicant(s)
- Preferably some demonstration of prior innovation by the applicant(s)
- Idea is replicable amongst the poor and vulnerable
- Value addition achievable through LISF support
- Willingness of farmer researchers to adhere to the plan and share their findings.

How farmers applied for and used the LISF

The PROLINNOVA International Secretariat had designed a grant application form on the basis of initial experiences of PROLINNOVA–South Africa. The PROLINNOVA–Ethiopia coordinator sent this form to the NGO staff coordinating the Axum and Amaro pilots for comment. The Axum coordinator made only some minor editorial comments.

In **Axum**, the Fund Management Committee and DOARD staff jointly announced the call for applications for LISF grants to farmers in all the villages in the two *kebeles*. This was done at development meetings convened by the DOARD. The message was also communicated from farmer to farmer at meetings of traditional institutions for saving and mutual aid, at the market and in the churches. No written announcement was made, as the farmers and DOARD staff thought it was more effective to convey the message orally.

The LISF coordinator from ISD reported that some farmers found it difficult to fill in the form and therefore just wrote their applications on a plain sheet of paper, including all the information indicated in the form. Out of the total of ten applications submitted and approved, five of them were made on the form and five simply on a sheet of paper.

The Fund Management Committee accepted research applications from any farmer from the pilot *kebeles*, both from inside and outside the Committee. In other words, the Committee members could (and did) approve applications for themselves. Some Committee members proposed a high budget and actually approved and received more money, whereas others made relatively low estimates of the cost of their research and received less money.

Of the ten applications submitted by Axum farmers, seven were submitted by men and three by women. The Fund Management Committee was the decision-making body in both screening the applications and managing the fund. They did the screening without interference or advice from the DOARD staff. The Committee sometimes asked applicants to improve their proposals by filling in gaps or trimming back the proposed budget. In the end, they approved all ten applications. All the grants went to individual farmers, not to groups.

The Head of the District Office of Natural Resources, together with DOARD experts, facilitated communication among all 17 farmers in the group of innovators and, when necessary, advised them how to fill out the application form. He faxed the decisions of the Committee together with the approved proposals to the ISD head office in Addis Ababa and then made a follow-up telephone call to the programme coordinator in ISD to inform him that the proposals had been sent. In Tigray, the secretary of the Fund Management Committee kept the original applications in a simple box file in his home.

ISD transferred the money approved for the grant to the Axum Bank in the name of the grantee farmer and informed the facilitator, a DOARD expert, how much money was sent and for whom. The facilitator, in turn, informed the individual farmer, who then went to the bank to collect that amount, showing his or her identification (ID) card. All male grantees already had ID cards but, in some cases, the women farmers did not have such a card, because they had previously not regarded it as important, seeing as they seldom went far beyond their homes. Anyone can obtain an ID card by making a written request to the *Kebele* Administration, but most of the rural women in Tigray cannot write.

The grantee was responsible for using the money to carry out the research as proposed, collecting receipts for all purchases and sending them to ISD by post or hand-carried, e.g. when someone from ISD head office travelled to Axum. This way of handling the financial documents functioned without problems.

In Axum, the LISF grant was made available in the same area as PROLINNOVA–Ethiopia had already made grants available to the Tigray BoARD and ISD to facilitate PID activities: farmer-led experimentation supported by BoARD and ISD staff. In some cases, the PID involved the same farmers as were involved in piloting the LISF. This caused some confusion among all involved. Especially the farmers found it difficult to differentiate between support provided through the PID grant and support provided through the LISF. In any case, the farmers usually associated both schemes with the local NGO facilitating the activities (rather than with the PROLINNOVA multi-stakeholder platform in the region or country) and sometimes even only with the coordinator from the facilitating NGO.

The size of grants received by individual farmers through the LISF scheme ranged between USD75 and USD285. This was about the same range as the amounts that individual farmers had received through the PID scheme. However, the latter involved formal researchers or other stakeholders in further developing the local innovation, and they sometimes included costs of replacing the local materials used by the farmers with what the scientists regarded as more efficient materials or equipment, but these were also more expensive. In contrast, the experimentation supported by the LISF was carried out by the farmers more or less on their own, with only light backstopping by DOARD and ISD staff.

The Fund Management Committee decided to allocate a large part of the LISF – an amount equivalent to USD1350 – for establishing a “Knowledge Management Centre”, intended to serve as a showcase for displaying several of the farmers’ innovations in one place.

In **Amaro**, the Fund Management Committee announced possibilities to apply for farmer-led research grants by posting papers about the LISF on various poles and houses in three *kebeles*, namely Gumule, Kelle and Zekesso. The announcement was also made at different development forums organised by the DOARD. However, all the applications submitted came from groups of farmers in the two FFSs in Gumule and Kelle *Kebeles*. This was because only the Gumule and Kelle FFSs had been involved in the initial discussion of the LISF concept. The research teams that applied for LISF grants were usually made up of 3–5 farmers. They submitted the applications to the secretary of the Committee, who is responsible for keeping the records. The farmers in Amaro used the original form for all their applications and did not seem to have any major problems with this procedure.

The Fund Management Committee did not screen all the applications at one time, compare them with each other and prioritise them. Instead, they met once a week or every two weeks in the District Office of the CBI to look at any research proposal(s) submitted by farmers during that period. They did this together with ASE staff based in Amaro, who gave advice on issues related to cost of materials so that the Committee could decide on the amount of money to be approved. The ASE staff sometimes advised also on technical issues. To decide whether or not to approve the farmers’ applications, the Committee used the criteria that had been developed during the discussion with all farmers at the initial meeting when the LISF had been introduced to them.

The Committee members discussed with all farmers in both FFS groups what amount of the LISF to give to a Farmer Research Team in cash and what amount to provide in the form of materials and equipment, e.g. gloves, protective eyeglasses, mortar and pestle, to be purchased by ASE in bulk in Addis Ababa.

As the FFSs had already been doing experiments with botanicals before the LISF pilot started, ASE assumed that many of the farmers' applications would go along these lines. It therefore purchased a stock of suitable materials and equipment. However, the ASE staff members facilitating the LISF pilot are aware that, over time, the Fund Management Committee should learn to acquire the inputs for experimentation on its own, so that the farmers will be less dependent on ASE in the future.

Indeed, almost all the farmer innovators in Amaro did choose to experiment with preparing blends of plant extracts. They wanted mortars and pestles to crush the plant material. From their prior experience with ASE-facilitated FFSs, they were convinced that they needed gloves and eyeglasses to protect them from any possible toxic effects of the plants on their hands and eyes when they crushed the leaves and other parts of the plants.

After approval of an application – sometimes several at once, sometimes one at a time – the two signatories, i.e. the chairperson and cashier from the Fund Management Committee, wrote a letter for the District CBI Committee to endorse, so that the Fund Management Committee could draw money through the CBI account from the PEACE MFI to support the farmers' research.

Unlike the Axum case, in Amaro, most of the research proposals were submitted by groups of farmers who had formed Farmer Research Teams. The amount of money approved per proposal by the Farmer Research Teams ranged between USD220 and USD310.

A total of 21 applications were submitted from both sites, and 20 of these were approved. The applications of three women were approved on an individual basis. The Committee approved the applications of seven individual men (one of them had two applications approved) and nine groups, composed mainly of men but some including also women.

Types of farmers' research supported through the LISF

During the initial meetings in the two pilot sites to discuss the piloting of the LISF, the farmers identified problems on which they wanted to do research.

In **Axum**, the farmers identified and grouped their priority problems into three broad categories:

- Lifting of groundwater and its rational use
- Beekeeping and honey production
- Ethnoveterinary medicine and plant protection.

Facilitated by the coordinator of ISD work in Axum and by DOARD staff, the farmers discussed various possible approaches to solving these problems, foremost being the innovations developed by local farmers. This discussion helped in setting priorities for research applications to be approved. One criterion for approval suggested by farmers was that the potential solution not be too expensive for local people to apply.

The Axum area in central Tigray is known for water scarcity and periods of moisture deficiency during the growing season. The group of farmer innovators at the initial meeting saw this problem as one of the priorities to be addressed. It is also a focus of the Tigray Region BoARD. In addition, many farmers in the area keep bees as a source of cash revenue to cover household expenses. The group of farmer innovators also regarded this as an important area of research. The BoARD had distributed "modern" beehives to replace the traditional ones, but the introduced hives are relatively expensive and farmers sometimes complain about irregularity of the beehive structure, such as undersize and oversize of some parts, e.g. the queen excluder and the frames. Some farmer innovators had already managed to construct productive beehives out of local materials, and the group wanted to

explore further the possibilities of these hives. Group members had various ideas about how to reduce the cost of hives and, at the same time, increase honey yields and quality. Similarly, in various other aspects of farming, local people came up with interesting new ideas to explore further.

The Fund Management Committee approved the following research proposals because of their importance in solving major local problems or opening up interesting new opportunities:

- Development of improved water-lifting technology
- Control of stalk borers, shoot flies and termites using blends of botanicals
- Rat control using blends of botanicals
- Methods of trapping rats
- Production of papaya fruit using compost at various depths of planting
- Improved construction of beehives using local materials (two proposals)
- Managing reproduction of bee colonies
- New method of sieving honey
- Construction of Knowledge Management Centre to develop different types of beehives.

In **Amaro**, the two FFSs wanted the research funded under the LISF to give attention to the problems that had been prioritised by people in their respective areas during community-based situation analysis facilitated by ASE. These problems were tsetse fly, *enset* bacterial wilt, crop pests in *enset*, *enset* decortication techniques, molerats, rats, termites and other household pests. Trypanosomiasis, and the tsetse fly that transmits it, is the major problem in livestock-keeping, which makes an important contribution to livelihoods in Amaro. Various applications related to tsetse fly were therefore submitted by different farmer groups. Ten applications made to the Fund Management Committee dealt with the following topics:

- Control of tsetse fly using repellent botanicals (two different experiments)
- Combating tsetse fly using botanicals that can kill the fly
- Treating cattle infected with trypanosomiasis
- Controlling bacterial wilt in *enset*
- Controlling red worm in *teff* (an indigenous cereal)
- Controlling termites
- Managing molerats
- Managing household pests like cockroaches and bedbugs (two different experiments).

An eleventh application was for an experiment with botanicals to treat human disease. The PROLINNOVA–Ethiopia coordinator informed the farmers that the Ethiopian Health Research Policy does not allow administration of herbal or any other medicines for research purposes without consent of the National Ethical Clearance Committee. The farmers then abandoned this idea, as they thought it would be too difficult to obtain the clearance.

As had been suggested by the FFS members at the initial meeting about the LISF, the applications were made by Farmer Research Teams rather than individual farmers. The Fund Management Committee approved all ten applications related to agriculture and the household environment, as these all addressed major problems in the area. The FFSs arranged exchange of information between the 3–5 members of each Farmer Research Team. It drew up a timetable for the team members to explain their experimentation and findings to the other members of the team and to discuss the challenges encountered and how to deal with them. These team discussions usually take place about once every three months. Advisors from ASE and the Regional BoARD visit the FFSs occasionally and discuss with the farmer researchers.

Box 1: Examples of farmers' research supported by the LISF

In **Axum**, a woman farmer, Yibeyen Assefa, submitted an application entitled "Construction of beehives using clay soil and mud". The aim of her research was to replace the wooden materials in the introduced "modern" beehive with local materials that are readily available in the area. She wanted to see if, by using local materials, she could obtain better quality and yield of honey at lower costs compared to the introduced beehive. As justification for doing this research, she stated that the modern beehives are too expensive for her and most other people in her community. She pointed out that wood is costly in her area and that cutting wood harms the environment. She uses clay soil, ash and cowdung to make her "improved modern" beehive. The dung is for plastering the beehive like cement. The inside structure is very similar to that of the modern hive: she uses wooden frames for deposition of the honey by the bees. She lives in the highlands where it is sometimes cold, and she assumes it will be warmer for the bees inside her hive than inside the introduced one, because the materials she uses help retain heat. From her experiment, she expects a better yield of honey. She has put the bees inside her hive and monitors honey production by observation.

In **Amaro**, a group of farmers submitted a proposal entitled "Control of tsetse fly using repellent botanicals". The group is made up of three men: Muhammad Abduwahid, Solomon Wonago and Teklu Nasir. They are trying to find an inexpensive and sustainable method of controlling tsetse fly, because the synthetic pesticides are very expensive and farmers fear that these pesticides may be dangerous for human health and the environment. The farmer researchers wanted to experiment with three botanicals which they call after the names of the three plants in the local language. They proposed crushing the leaves of each plant and rubbing the extract on the skin of the cattle, and also experimenting with a blend of the three extracts applied in the same way. Through their experimentation, they have found that the botanicals are effective in repelling the tsetse flies, but these treatments are not as persistent as the synthetic pesticides. The main problem is that the substances applied are washed away when it rains. The farmers want to conduct further research to deal with these problems and thus improve their own innovations.

The current status of the farmers' research

In Axum, almost all of the proposed research has been completed. When the M&E team from ISD and DOARD visited the pilot site in December 2007, the farmers could demonstrate their findings. Some of their technologies are ready for scaling up and will be important for solving problems of high priority to many farmers in the area.

In Amaro, the Farmer Research Teams within the FFSs frequently exchange ideas among themselves about further ways of developing their innovations. They have come up with intermediate findings from their research, but continue experimenting on the basis of suggestions received from each other and from visitors. For example, farmers in Amaro who are doing research on botanicals to control tsetse flies were visited by a couple of scientists from ICIPE. The scientists advised them about methods for testing the efficacy of the botanicals in controlling the fly, e.g. suggesting that the farmers apply the extracts to the thorax rather than abdomen or legs of the animals. The farmers greatly appreciated the scientists' advice and adjusted their experimentation accordingly.

6 Monitoring and Evaluation (M&E)

The team that is monitoring and evaluating the LISF pilots is made up two members of the PSG and the PROLINNOVA–Ethiopia coordinator. At each pilot site, the coordinator from the facilitating NGO joins the M&E team. The team visited Axum from 28 June to 1 July 2007 to assess the status, progress, outputs and outcomes of both the PID and FAIR activities. The group of farmer innovators that is managing the LISF in Tahtay Maychew *Woreda* informed the M&E team that the group has forwarded a request to the District Administration for formal rights to use the piece of land where they have started to set up their Knowledge Management Centre to serve as a showcase of local farmers' innovations. They had received consent from the District Administration in principle, and the process of formalising their land-use rights was underway.

In September 2007, the M&E team was joined by the PSG Chair and the external advisor to PROLINNOVA–Ethiopia to make a second visit to the farmers in Tahtay Maychew *Woreda*. Also the Dean of Agriculture in the recently established Axum University and the Head of the Axum Research Centre joined the team. They saw the farmers' experimental work in the field and discussed at length with the farmer researchers. They observed that, although the farmers were carrying out some interesting work, such as comparing the advantages and disadvantages of different types of beehives, the innovation process and findings were not being recorded by anyone, neither by the farmers nor by the DOARD or ISD.

In December 2007, staff members from ISD and the DOARD visited all the farmers in Tahtay Maychew *Woreda* who had received LISF grants. They discussed with the farmers about the overall management of the fund. The farmer innovators said that the financial support from the LISF has very much inspired them to solve their problems through their own innovation. They said it was the first time that they were managing a fund by themselves. However, the M&E team observed that, because the Fund Management Committee decided to allocate relatively large amounts per experimenting farmer, only a small number of farmers could benefit from the LISF. The team suggested that the ceiling for the grants be lowered in order to be able to motivate many more farmers to be innovative with small amounts of money.

The Fund Management Committee in Tahtay Maychew *Woreda* has planned to monitor and evaluate the performance of each grantee farmer. It has drawn up a schedule to visit each experiment and to observe and discuss how the research funds have been used and what outputs were achieved. The Committee says that, if a farmer's experimentation has not been done well with respect to fund utilisation, the farmer will not be eligible to receive further support from the LISF. This step is very important to make farmers aware that the funds should be used in the proper way.

The M&E team had planned to visit the Amaro pilot site in January 2008, but could not because of security problems related to ethnic unrest in the area. Instead, in the regional capital Awassa, it met with three farmer representatives specifically elected by the FFSs in Amaro to talk with the M&E team. These farmers described in great detail how they had organised themselves, how they were managing the LISF and how farmers supported by this fund were carrying out experiments on various topics. They also gave their views on external scientific support and on documentation and sharing of their experience and results.

Farmer researchers from Amaro discuss with the M&E team

External advisor: You are doing the research on your own, but the LISF could also support joint experimentation. Would you be prepared to use the money to pay for scientists to come, e.g. to cover their per diem and transport costs?

Farmer: We organise experience-sharing visits among farmers, and we get technical support from the agricultural extension service,

ASE staff member: We brought in scientists from ICIPE to know how to experiment further. They gave advice. We will help you identify scientists, if you think it would be effective.

Farmer: We did not come across problems in experimental support. We rely on support from ASE.

External advisor: ASE is currently making the links between farmers and scientists. What happens when ASE is no longer there?

Farmer: We are still at an infant stage in our experimentation. We have not exhaustively exercised our own knowledge. We are not currently seeking support from other experts and scientists, but in future it is an important point to include in our plan.

External advisor: How do you share your experience with others?

Farmer: We do this during FFS meetings. We advertise our experiences to the members. At a farmers' national exhibition recently, we presented our activities. Many people were excited to hear what we are doing. They asked: where is your poster, where are your brochures, so we can read and understand? They were even asking for our phone number and asking where our village is, so that they could come to visit us. We have allocated a budget for sharing experience with neighbouring farmers, for their travel to see our work. We should also conduct a workshop.

External advisor: Is there any way you could document your work so that it could be shared more widely than in face-to-face meetings of farmers?

Farmer: ASE is documenting our work. We have to find a way to see what ASE is writing and check if this is what we want to say to the world. The documentation needs to be translated into Amharic. Then it could be used throughout Ethiopia. It would be better if we could share our experience through radio and newspapers. We need a video document in which all members of the FFS can express their ideas, not just we three. The video could be shown at exhibitions.

Source: field notes, Ann Waters-Bayer, 19 January 2008

7 Impact at community / farmer level

The farmer researchers say that the recognition they have been given in having access to a research fund they can manage by themselves has inspired them to continue to innovate in order to solve their problems. Joint action by the Fund Management Committee and the farmer innovators is reportedly leading to a stronger sense of togetherness in the community, especially in Amaro. By allocating funds for local research, the Committee is mobilising individual farmers to come together to learn from each other and this, in turn, is improving the performance of the farmer innovators.

The farmer researchers have come to value the direct contact with outside professionals who advise them in conducting their own research. They feel that the scientists and DAs recognise the farmers' abilities, not only from seeing the farmers' experiments in the field, but also from seeing how well the farmers can share their experience with great confidence at

workshops and exhibitions. The farmers involved in the LISF pilots now see DAs as “partners rather than persuaders”. In other words, the farmers have developed more positive attitudes towards both scientists and DAs.

The LISF has also had significant impact in strengthening existing FFSs and stimulating the formation of new ones. The LISF in Amaro has given the CBIs and Farmer Research Teams in the FFSs some valuable experience in working together to prioritise and conduct locally relevant research. Farmers in Amaro are now highly motivated to work together in FFSs.

The farmers in the innovator group piloting the LISF in Tigray have started to think about what such a fund means to them, and how it can be better managed and used. They agreed with the suggestion of the M&E team that only relatively small amounts should be made available to individuals so that more farmers can be motivated to develop their ideas further. They realise that too few farmers in their area know about the possibility to obtain support for experimentation and innovation development through the LISF. That is why eight of the ten applications made and approved came from members of their group, and the other two from a former member of the group. They are aware that they need to find a way for the fund to continue and to become more widely known, so that a larger number of farmers can benefit over a longer period. One suggestion they made was that the LISF should be transformed at least partly into a revolving fund. If farmers obtain funds to develop something through which they profit as individuals, then they should be expected to pay the money back. However, if the money is used for the benefit of the group, for example, to visit places to gain new ideas or to take part in workshops or exhibitions, then it should not have to be paid back.

8 Challenges encountered

A major challenge encountered in implementing the FAIR project was due to lack of clarity regarding implementation modalities. There was a long delay in receiving instructions about this from the international coordinator. The national coordinator should have been informed of the modalities from the outset. For example, it was only at a fairly late point in time that he was told to provide written agreements between the PROLINNOVA–Ethiopia host NGO and the organisations that facilitate the LISF activities in the two pilot sites. Such delayed communication has made project implementation time-consuming and frustrating.

The lack of legal recognition of the group of farmer innovators piloting the LISF in Tigray was also a problem. This meant that the farmers could not manage the fund by themselves and had to ask the facilitating organisation, ISD, to withdraw money for them from a bank in Addis Ababa, about 900km from the pilot site. The communication between Tigray and Addis Ababa was by fax supplemented by telephone. The transferring of funds to the grantees and of receipts from the grantees to ISD was done successfully, but it would have been easier and more appropriate had the farmer group managed the funds on its own.

There are also some worrisome issues regarding governance of the funds, for example, the fact that the Fund Management Committee members in Tahtay Maychew *Woreda* are granting funds mainly to themselves. Especially in the case of this pilot LISF in Tigray, other community members do not seem to be well informed about the existence and use of the LISF and about the outputs of the farmers’ experiments. Transparency and accountability to a wider community of farmers will need to be ensured in order to justify the use of project funds and later public funds for farmer-led research and innovation. The situation in this respect is much better in Amaro, where the LISF is being managed within the framework of established and well-functioning CBIs.

9 Major lessons learnt

The major lessons learnt from this initial piloting of LISFs in Ethiopia are the following:

- The LISF-supported efforts are, on the one hand, centred on building effective mechanisms for identifying, documenting, vetting and promoting local innovations and, on the other hand, on ensuring organisational and financial sustainability of locally managed research funds.
- LISF documentation needs to show clearly the social and economic mechanisms through which this support for local innovation leads to improved wellbeing of poor people, even though it may take some time before the impacts can be observed.
- In order to promote local innovation, it is vital to build community members' capacities to take initiative in analysing their situation and seeking ways to solve their problems and to grasp new opportunities. The R&D process should be driven by the farming communities, who actively seek relevant information and partnerships. Farmer Research Groups organised at community and district level can play an important role in this process, if the groups are cohesive and have strong leadership. Such groups not only stimulate and manage local innovation; they can also strengthen the influence of farmers on policymaking at village and higher level. This experience can build the capacities of farmer researchers to be well-qualified representatives in platforms designed to link farmers, extension workers and scientists, such as the Research, Extension and Farmers Advisory Councils that have been set up throughout Ethiopia.
- LISFs are more feasible and likely to be more sustainable where farmers are already organised, as they can then more easily manage the funds and the research. The CBIs that had been set up with facilitation by ASE prior to piloting the LISF already had experience in managing their own resources for development, including funds acquired from donors. They served as good entry points for piloting LISFs.

10 Towards institutionalisation of LISFs

The process of institutionalisation is long and complex. It requires change in individuals and, through them, change in institutions. This requires, in turn, change in organisational policy and a deliberate strategy to sustain an LISF mechanism and to modify organisational structures so as to accommodate it. Moreover, institutionalising LISFs within the landscape of agriculture research and extension in Ethiopia involves many institutions with different cultures, regulations and procedures. It has to look at change also in the relations between these institutions, as well as with farmer groups and organisations. All of these institutions are learning and transforming themselves at different rates.

Institutionalisation

Institutionalisation is a process through which new ideas and practices are introduced, accepted and used by individuals and organisations so that these new ideas and practices become part of the "norm". Institutionalisation of a new approach involves change and development within the targeted organisations. It is more than a policy or intention, more than a strategy or plan, and more than an activity or method.

Source: Ejigu Jonfa & Ann Waters-Bayer (2005)

In addition to the efforts being made to make local administrations and government institutions operating in Axum and Amaro aware of the process, outputs and outcomes of the LISF activities, similar activities have been incorporated into a new project being carried out

under the umbrella of PROLINNOVA–Ethiopia. A pilot Local Innovation Fund at district level is one component of the Awareness Raising, Scaling-out and Institutionalisation of PID (ARSI-PID) project, which was designed by PROLINNOVA–Ethiopia and is being funded by ActionAid to integrate PID into the national extension system. Since recently, Farmer Training Centres (FTCs) have become the pillars of the national system. The government has posted three DAs specialising in crop production, animal production and NRM to each FTC. The ARSI-PID project seeks to transform the FTCs into Farmer Innovation Centres and enhance the capacities of the DAs to facilitate local innovation systems. The concept and strategy for this project was discussed in detail with various stakeholders such as EIAR, universities and NGOs in Ethiopia.

The ARSI-PID project has started in Amhara Region and the Southern Region, in each case, in three FTCs in each of three pilot districts, i.e. in a total of 18 FTCs. The first steps were consultation workshops in Bahirdar and Awassa, the capitals of the two regions. Intensive discussion on PID and its role in extension helped create awareness among officials in the regional BoARDS and win their consent to undertake the pilot activities. These consist of:

- Making the FTCs functional on the basis of the new learning model
- Organising refresher training for the DAs after thorough assessment of progress of current extension work in the FTCs
- Identifying, characterising and documenting local innovations at *kebele* level
- Improving the capacity of the district to manage innovation (e.g. training in networking, managing digital databases and sharing innovations; provision of computer and printer)
- Establishing a Local Innovation Fund at district level
- Facilitating a Local Innovation Forum at district level
- Organising annual Local Innovation Fairs at district level
- Facilitating demand-driven participatory research
- Organising a learning and sharing workshop in each region
- Organising a national learning and sharing workshop
- M&E, including twice-yearly participatory review and reflection at district level and project evaluation by outsiders.

Specifically with respect to establishing Local Innovation Funds at district level, the main idea is to empower farmers to manage research funds. Learning from this component in the ARSI-PID project will enrich the learning from the LISF pilots under the FAIR project. The intention in the ARSI-PID project is that the local governments will assume responsibility for the decentralised research funds. Accordingly, in Year 1 of the project, 100% of the Local Innovation Fund will be covered by the project; in Year 2, 25% by the local government and 75% by the project; in Year 3, 50% by the local government and 50% by the project; and in Year 4, 100% by the local government. An Innovation Fund Administration Group (IFAG) has been set up with members from the relevant government departments (e.g. DOARD), representatives of farmer innovators, NGOs and others. The IFAG is meant to receive proposals from farmers for technical or socio-institutional innovation initiatives, submitted through the FTCs, and to provide financial and technical assistance to the initiatives.

The ultimate aim is to institutionalise LISFs within the national agricultural extension system. The PROLINNOVA–Ethiopia coordinator and the facilitating NGOs in the two regions discussed these ideas at length with district-level officials, who expressed great interest in adopting the PID approach and management of Local Innovation Funds at the FTCs. The district officials receive detailed reports from the DAs and visited farmers involved in the FAIR project while doing their regular monitoring of government extension activities. They were convinced at seeing the farmers inspired by the LISF to undertake research focused on their own priority problems at the pilot sites of the FAIR project.

In addition, during the second phase of the FAIR project, PROLINNOVA–Ethiopia plans to

expand the LISF pilots with a view to: i) improving LISF management and the outputs of LISF-supported farmer-led research by overcoming some of the challenges encountered during the initial piloting activities; and ii) making more systematic efforts to institutionalise LISFs in Ethiopia. With the additional funding expected in the coming years, the PROLINNOVA–Ethiopia Steering Group plans to include at least one additional pilot site: Enebse sar Medir District in Amhara Region in central Ethiopia. Like Amaro, this is one of the operational sites of ASE. The CBI established at Enebse sar Medir serves as a role model for other CBIs. The continued pilots in Amaro and Axum and the additional LISF pilot in Enebse, together with the pilots with Local Innovation Funds under the ARSI-PID project, will provide experience that can inform other districts and other regions.

11 Conclusions and outlook

The piloting of LISFs is yielding encouraging results in terms of the heightened aspiration of farmers to carry out research and innovation using funds they are managing themselves. The DOARD has also expressed its satisfaction with this approach during discussions with the experimenting farmers and with the LISF coordinators at national and pilot-area level. Both the DOARD and local farmers regard the LISF support to be very important for active innovators like Kes Malede in the Axum area of Tigray, who have many good ideas but sometimes cannot try them out because of shortage of funds.

Local innovation is broadly perceived as constituting a major underutilised potential for development and rural poverty reduction. The LISFs contribute to using this potential more effectively. They encourage local innovators to continue to experiment and generate knowledge within a broad spectrum of areas, including improved agricultural and processing tools, NRM, ethnoveterinary practices, and innovative ways of organising themselves and doing business. The relevance of local innovators as a source of knowledge and locally adapted solutions is particularly high for resource-limited farmers who cannot afford or who have little or no access to relevant advisory services.

Farmers are innovating in technologies within the scope of their resources and within a short- to medium-term perspective. Their primary interest is to address their typical biophysical constraints: pests, diseases and weeds. That is why half of the innovations selected for support through the LISFs are concerned with crop and animal protection. LISFs create an environment conducive to recognising and promoting IK and endogenous innovation, signalling to rural communities that their contributions to science and technology are valued by society. This induces still more local creativity. A challenge to incorporating such IK and endogenous innovation into formal R&D activities is the often localised nature of the practices, which may not always be easily scaled up. However, the approach to stimulating local creativity through LISFs can and should be scaled up.

Farmers who are involved in piloting LISFs have become encouraged to have more interactions with outsiders not only with regard to research and innovation but also with regard to fund management. The increase in farmers' knowledge and skills in managing research funds, the positive attitudes they have developed towards working with scientists and DAs, their heightened confidence in interacting with them in R&D, the greater involvement of farmers in decision-making about local problem-solving, and the formation and improving functioning of the Fund Management Committees bear witness to the potential of LISFs to empower farmers and improve their livelihoods.

A local consultant commissioned by the Addis Ababa office of the Food and Agricultural Organization of the United Nations (FAO) to review the national agricultural extension system recommended that the PID approach be incorporated into the system, which currently lacks a truly participatory element at grassroots level. He suggested that the PID experiences

made in the framework of FFSs supported by NGOs, if grafted with the functional approach of the Government of Ethiopia's extension system, could lead to an improved and comprehensive system that can operate effectively and efficiently at both grassroots and higher levels (Habtemariam 2007). An international consultant commissioned by the World Bank office in Addis Ababa supported the local consultant's recommendation and cited the experience of PROLINNOVA–Ethiopia to be shared within the national extension system. Similarly, the World Bank-supported Rural Capacity Building Project being coordinated by the MoARD has included an Advisory Service Development Fund to support rural communities' development plans, as well as orientation for district-level decision-makers in participatory approaches and for district extension officers to be able to make regular assessments of ongoing local innovations. The ARSI-PID project under the PROLINNOVA–Ethiopia umbrella, which is aimed at institutionalising the PID approach within the FTCs and includes district-level funds to support farmer innovation, has been embraced by regional and district-level decision-makers in the pilot areas. This all shows that the concepts of PID and LISFs to enhance local innovation processes are gaining momentum in policymaking about agriculture and rural development. The conditions for institutionalising LISFs thus appear to be very conducive.

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