



PROJECT EXPERIENCE SERIES



2

Unlocking Farmers' Potential

Institutionalising farmer
participatory research
and extension in
Southern Ethiopia

Ejigu Jonfa & Ann Waters-Bayer



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November 2005

FARM  **Africa**
Making a lasting difference to Africa's families

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FARM-Africa's **Project Experiences Series** crystallises key experiences and lessons learned during the implementation of its grassroots programmes in Eastern and South Africa. Aimed at international and national NGOs, government staff and research organisations, the series highlights key elements of development programmes, focusing on both successes and challenges for future implementation.

FARM-Africa's **Institutionalisation of Farmer Participatory Research Project** aimed to contribute to the food-security initiatives of the Government of Ethiopia, in particular the Southern Nations, Nationalities and Peoples Regional State, through incorporation of Farmer Participatory Research approaches in those government institutions of research, extension and education that are involved in developing and disseminating agricultural technologies. FARM-Africa strongly believes that agricultural technologies that are appropriate to the farmers' circumstances can be developed if the ultimate users, i.e. the farmers, participate and make decisions throughout the entire research process.

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Acronyms

ACA	Awassa College of Agriculture
AHI	African Highlands Initiative
ARC	Agricultural Research Centre
ATVET	Agricultural, Technical, Vocational, and Educational Training
BoA	Bureau of Agriculture
BoANRD	Bureau of Agriculture and Natural Resource Development
BoPED	Bureau of Planning and Economic Development
CGIAR	Consultative Group on International Agricultural Research
CIAT	<i>Centro Internacional de Agricultura Tropical</i> / International Centre for Tropical Agriculture
DA	Development Agent
DFID	Department for International Development (UK Government)
EARO	Ethiopian Agricultural Research Organisation
ECABREN	Eastern and Central Africa Bean Research Network
FARM-Africa	Food and Agriculture Research Management–Africa
FPR	Farmer Participatory Research
FPR/E	Farmer Participatory Research and Extension
FREG	Farmers' Research and Extension Group
FRP	Farmers' Research Project
FSR	Farming Systems Research
IIRR	International Institute of Rural Reconstruction
M&E	Monitoring and Evaluation
MoA	Ministry of Agriculture
NGO	Non-Governmental Organisation
PADETES	Participatory Demonstration and Training Extension System
PM&E	Participatory Monitoring and Evaluation
PPB	Participatory Plant Breeding
POFT	Participatory On-Farm Trial
PRA	Participatory Rural Appraisal
PROFIEET	Promoting Farmer Innovation and Experimentation in Ethiopia
PTD	Participatory Technology Development
RDCO	Rural Development Coordination Office
REAC	Research-Extension Advisory Council
SARI	Southern Agricultural Research Institute
SMS	Subject Matter Specialist
SNNPRS	Southern Nations, Nationalities and Peoples Regional State
TAU	Training and Advisory Unit
ToT	Training of Trainers
T&V	Training and Visit

Glossary of Ethiopian terms

- Ato** Amharic form of address for a man (Mr)
- Birr** Ethiopian currency, at the time of the project equivalent to about USD 0.11
- enset** *Ensete ventricosum*; also known as “false banana”, provides staple food for about 12 million people in the Southern Region of Ethiopia
- kebele** village area; smallest local government administrative region in Ethiopia, accountable to the *woreda*
- ketena** part of a *kebele*, i.e. a sub-*kebele*
- teff** *Eragrostis tef*; cereal crop widely grown in Ethiopia; the tiny grains are ground into flour, fermented and made into *injera*, a pancake-like bread
- W/ro** *Woizero*; Amharic form of address for married women (Mrs)
- woreda** district; local government administrative area, accountable to the zonal administration; a “special *woreda*” is not part of a zone and is directly accountable to the regional (provincial) government

Executive summary

In 1999, FARM-Africa and partner organisations concerned with agricultural research and development set out to scale up Farmer Participatory Research (FPR) and institutionalise it within the Southern Region of Ethiopia. From 1991 to 1998, FARM-Africa's "Farmers' Research Project" had been operating in a small part of the Region, facilitating FPR on the ground in order to create better understanding between farmers, extension agents and researchers. The follow-on project had grown out of the realisation that conventional agricultural research was not meeting the needs of the majority of Ethiopian farmers. It was felt that, by bringing the formal researchers together with farmer researchers, the capabilities and knowledge on both sides could form a vibrant innovation system that would be more effective in improving the livelihoods of small-scale farmers.

In 1998, government officials, researchers, development workers and farmers in the Southern Region assessed the impact of the Farmers' Research Project. They saw how FPR had helped research and extension services respond better to farmers' needs and how it speeded up the generation and dissemination of appropriate technologies. They saw, too, how being part of the FPR process had helped farmers develop confidence in identifying complex problems, setting priorities, and testing and evaluating options. After this assessment, they asked FARM-Africa to facilitate a process of incorporating the FPR approach and tools into the regular activities of the government organisations involved in generating and disseminating agricultural technologies.

From 1999 to 2003, the European Union funded the project "Institutionalisation of FPR in the Southern Nations, Nationalities and Peoples Regional State". The project partners were the Bureau of Agriculture, the Awassa and Areka Agricultural Research Centres, the Awassa College of Agriculture, the Bureau of Planning and Economic Development and FARM-Africa, working in close collaboration with farmers throughout the Southern Region. The project focused on establishing a wide base of knowledge and skills in FPR – a concept that was expanded during the project to "Farmer Participatory Research and Extension" (FPR/E) – and creating an enabling environment for applying the approach. In a series of courses and experience-sharing workshops, the project trained a large number of government staff in FPR concepts and practices, as well as in methods of training FPR. It supported the implementation of Participatory On-Farm Trials (POFTs) led by farmers. The POFTs played an invaluable role in the process of changing institutions, as they served as a means of both experiential learning and to influence senior officials through field visits to the trials. The project organised regional FPR Fora that brought all the stakeholders together to learn from each other. The presentations by farmers at the Fora were very effective in changing attitudes of other stakeholders towards farmers' capacities and roles in research and communication. The project partners jointly developed popular manuals based on field practice in FPR/E and Participatory Monitoring and Evaluation.

The four years of the project were an intensive learning process for all partners. Over several evaluation events, they identified the key elements that supported the institutionalisation process to be:



- working out a common understanding of the concepts of FPR/E and institutionalisation;
- building on first-hand experience of POFTs in the field;
- ensuring good documentation and wide dissemination of the results;
- setting up multi-institutional support structures; and
- accommodating the dynamics of change at a time of great institutional flux in Ethiopia.

The project faced immense challenges. These included: 1) trying to work within bureaucratic and rigid procedures at the same time as trying to change them; 2) moving beyond “project” thinking to a point where the institutions allocated their own funds to FPR/E activities; and, 3) changing institutional reward systems so that they would favour FPR/E. It proved to be extremely difficult to link up the FPR/E work with effective input-supply systems, so that promising technologies coming from POFTs could be applied by a large number of farmers. Many of these challenges remain today.

Through both the forerunner Farmers’ Research Project and the project to institutionalise FPR, FARM-Africa has been a catalyst for change within Ethiopia’s public research and extension systems. Today, in 2005, FPR/E approaches are key elements in the curricula of Awassa College of Agriculture and the Agricultural, Technical, Vocational and Educational Training colleges. The results from the POFTs (both the technologies and the increased capacities to experiment) are being applied successfully by farmers. By disseminating the results of its work through various documents and mass media, including radio, the project was able to reach a wide audience and increase awareness and understanding of FPR, also beyond the Southern Region.

The experience gained by the project partners generated valuable lessons about the need to: 1) give constant attention to cultivating institutional linkages; 2) nurture a culture of continuous learning within the partner organisations; 3) involve a wider array of stakeholders in agricultural innovation – beyond the conventional triangle of farmer-extension-research; and, 4) strengthen community capacities to drive the FPR/E process.

By 2003, it was clear that complete institutionalisation of FPR/E required more than a project of four and a half years. In this Ethiopian case, institutional instability slowed down progress. Because the government administration was being decentralised and restructured, the project had to deal with high staff turnover, changes in the assigned jobs of individuals, and pressures on and from senior staff to deal with other priorities. By the end of the project, there were still no key decision-makers at high levels in Regional Government who were motivated to champion the institutionalisation of FPR.

Nevertheless, the project managed to establish some essential elements that should be able to sustain the momentum towards institutionalising FPR/E. Widespread capacities in FPR/E have been built in the major stakeholder institutions, including community groups. FPR/E is included in the strategy papers of the key government organisations and has been integrated into the curricula of key educational and training institutions. The Farmers’ Research and Extension Groups created during the project have demonstrated improved ways of organising participatory research and extension and continue to function in most of the farming communities where the project was

active. It is therefore likely that the efforts to transform attitudes and behaviours of all actors in the agricultural innovation system will continue, so that FPR/E can be more deeply integrated into institutions of research, extension, education and training, and in farmers' practice.



Photo: FARM-Africa

Farmer storing potato tubers in diffused light storage



Background

This document reports the key experiences and lessons learned during the implementation of a project called “Institutionalisation of Farmer Participatory Research in the Southern Nations, Nationalities and Peoples Regional State” (SNNPRS)¹ in Ethiopia. The project was carried out from 1999 to 2003 by FARM-Africa and several partner organisations concerned with agricultural research, development and education in the Southern Region. It was funded by the European Union.

FARM-Africa is an international non-governmental organisation (NGO) working in five countries in Africa: Ethiopia, Kenya, South Africa, Tanzania and Uganda. It aims to reduce poverty by enabling African farmers and herders to make sustainable improvements to their well-being by managing their renewable natural resources more effectively. To achieve this goal, FARM-Africa focuses on three thematic areas: 1) pastoral development; 2) community forest management; and 3) smallholder development and land reform. The project in southern Ethiopia came under the third thematic area.

The agricultural sector in Ethiopia

Ethiopia is one of the least developed countries in the world. Its economy depends heavily on agriculture, which accounts for 45% of the Gross Domestic Product and over 80% of exports (FAO 2004). More than 80% of the country’s 65 million people live in rural areas and most are subsistence crop farmers or pastoralists. Pressure on the land is very high: the average landholding per household in the mid- and high-altitude areas is less than 0.5 hectares (Percy, 1997).

The country has considerable agricultural potential because of its vast areas of fertile land, diverse climatic conditions, numerous sources of water and large number of active people. Nevertheless, agriculture has developed slowly because of a range of factors, including erratic rainfall, lack of investment, inappropriate government policies and an unstable political climate.

Since agricultural extension began in Ethiopia over five decades ago, various approaches have been applied. After a community-development approach in the 1950s, an integrated development approach was taken in the 1960s and 1970s, first with a “Comprehensive Package Programme” focused on high-potential areas and relying heavily on external inputs, followed by a “Minimum Package Programme” working through model farmers and peasant cooperatives. In the late 1980s and early 1990s, Training and Visit (T&V) was the main extension approach of the Ministry of Agriculture (MoA), until it recognised that this was not sensitive to the varied requirements of small-scale farmers. In 1995, the MoA put in place the Participatory

1. Commonly referred to as the Southern Region

Demonstration and Training Extension System (PADETES), which combined some aspects of T&V with the Sasakawa Global 2000 approach of bringing science-based technologies to small farms (Worku, 2000). PADETES relies primarily on large demonstration plots, involving farmers in their establishment and maintenance, in order to transfer new technologies.

Also in the mid-1990s, the Government of Ethiopia put agriculture at the centre of its economic policy by introducing the “Agricultural Development Led Industrialization” strategy. This emphasises the close integration of agriculture and industry with its drive to:

- enhance the production and productivity of small-scale farmers;
- assist the development of private-sector commercial farms; and
- improve infrastructure (irrigation works, roads, marketing facilities, input-supply services etc) for effective agricultural development.

Within this policy framework, PADETES was designed to improve agricultural extension by providing training, inputs and services, including credit, with the aim of transforming subsistence farmers into small-scale commercial farmers. In limited areas where rainfall and soils are favourable for the introduced technologies, PADETES brought benefits to some farmers but, in most parts of the country, the approach was not very effective. It put too much emphasis on quantitative achievements – extension agents were expected to meet quotas in terms of the number of farmers they convinced to adopt the technologies. It did not give adequate recognition to farmers’ interests. It could not accommodate the great agro-ecological and socio-economic diversity in Ethiopia. It gave little attention to the issue of markets. Therefore the system came under review and a new “Pilot Extension Programme” was introduced in 2003. This was designed to maximise the impact of PADETES at household level. Originally it focused on pilot households in 52 *woredas* (districts) in the Southern Region. An Extension Communication Guideline was drawn up with a view to reaching more households beyond the pilot ones in the 52 *woredas*. Recently, a “Minimum Package Programme” was developed for food-insecure *woredas* beyond the pilot *woredas*.

This extension system assumes the existence of a well-functioning research system generating new technologies that can enhance farmers’ yields and that the farmers can adopt. However, scientists working mainly on research stations, with little or no interaction with the small-scale farmers who make up the vast majority of Ethiopia’s rural population, had difficulties in developing technologies appropriate for their needs and circumstances. The scientists gave too little attention to on-farm and adaptive research. Most of them had little knowledge or skills in participatory research, and little motivation to engage in it. Likewise, most extension workers lacked skills in participatory extension, and the linkages between research and extension were poor. The capacity of formal research and extension was inadequate in the face of the diverse problems of the farming communities living in remote and marginal areas. It was obvious that new approaches were needed to increase household food security and to produce more food for Ethiopia’s growing population.

Farmer Participatory Research in Ethiopia: concept and history

Farmer Participatory Research (FPR) refers to the active participation of farmers and other stakeholders in agricultural research. It values scientists' and farmers' knowledge equally and underlines the complementary nature of both pools of knowledge in both generating and using technologies. In FPR, farmers are recognised as innovators and experimenters and are treated as equal partners with researchers and extension workers, rather than as passive end-users of the technologies (Biggs, 1989). As a complement to conventional on-station research, FPR improves the overall quality of the agricultural research process.

In Ethiopia, interest in farmer participation in research arose in the 1980s, when some of the limitations of previous research approaches – which had been primarily commodity oriented – led the national Institute of Agricultural Research (IAR; now the Ethiopian Agricultural Research Organisation, EARO) to adopt Farming Systems Research (FSR). Initially, the scientists used farmers primarily as informants but, over time, as they learned from practising FSR, they involved farmers more in the actual on-farm research and developed a “research-with-farmers” approach (Franzel & van Houten, 1992).

Farmer Participatory Research (FPR) is an approach to agricultural research that involves farmers at all stages, including decision-making (Sandford & Reece, 1992).

In the 1990s, some donor organisations became interested in participatory approaches that went beyond researcher-initiated FSR to involve farmers in all stages from identifying problems and potential solutions, through experimentation and assessment, to dissemination of the results. They supported several participatory research projects in Ethiopia, including:

- the Farmers' Research Project (FRP) carried out by FARM-Africa between 1991 and 1998 in the North Omo Zone of the Southern Region. As this was the forerunner of the project which is the subject of the present document, it is described in greater detail below;
- the African Highlands Initiative (AHI), an ecoregional programme of the Consultative Group on International Agricultural Research (CGIAR) which began work in eastern Africa in 1995 and focuses on developing participatory research methodologies;
- the client-oriented research projects carried out in Ethiopia by different groups of trainees from the Netherlands-based International Centre for Development-oriented Research in Agriculture (ICRA) since 1997;
- the Indigenous Soil and Water Conservation Programme Phase II (ISWC-II), financed by the Netherlands Government and coordinated by Mekelle University, which promoted Participatory Technology Development (PTD) based on farmers' innovations in land husbandry, from 1997 to 2001;
- the Pastoral Risk Management (PARIMA) project, working with the International Livestock Research Institute (ILRI) with support from the USA, which started in 1997 and uses Participatory Rural Appraisal (PRA) and Participatory Risk Mapping techniques with pastoralists in southern Ethiopia and northern Kenya;
- the PRIAM (Participatory Research for Improved Agroecosystem Management) project carried out by CIAT (International Centre for Tropical Agriculture) with support from the

Rockefeller Foundation, since 1997 – eventually incorporated into the Eastern and Central Africa Bean Research Network (ECABREN); and

- the Participatory Plant Breeding (PPB) project carried out by CIAT at the Alemaya, Awassa and Melkassa Agricultural Research Centres under ECABREN from 1998 to 2001.

In the latter part of the 1990s, some researchers in Alemaya and Mekelle Universities also started to work with farmers in PPB and Participatory Varietal Selection approaches in areas near the universities. In addition, some NGOs had gained experience in combining participatory research with extension, such as in the Farmers Field School approach used by Save the Children UK and the PTD approach used by Agri-Service Ethiopia. Many of the earlier experiences are reported in the proceedings of the national workshop on FPR held in 1992 (Sandford & Reece, 1992).

Although many development practitioners and some scientists in Ethiopia saw a need for farmer participation in research to generate appropriate technologies, most scientists were sceptical. Many of them did not consider participatory research to be proper science at all. They thought that farmer participation put an end to good research; it was rather a better way to transfer technologies, which they did not consider to be the task of research. When FARM-Africa launched the Farmers' Research Project in 1991, this was the attitude that prevailed not only in Ethiopia but also in other countries. Much had been written about farmer participation in research already in the 1980s, especially in the development literature from Europe (e.g. Biggs, 1989; Chambers *et al*, 1989; Farrington & Martin, 1988), but it was not a part of mainstream research anywhere in the world.

The forerunner: the Farmers' Research Project

FARM-Africa initiated the Farmers' Research Project in order to promote FPR as an approach to generating and disseminating agricultural technologies that could increase the incomes of resource-poor families in a sustainable way. Funded by the UK Department for International Development (DFID), the project continued from 1991 through various extensions up to 1998. It tried to increase farmers' participation in research by:

- improving links between small-scale farmers, researchers and extension staff;
- developing a better understanding of how FPR can be conducted in Ethiopia; and,
- enhancing the capacity of NGOs and government organisations to engage in FPR.

The work was carried out in North Omo Zone and two special woredas (Derashe and Konso) in the Southern Region. This Region is very diverse in agro-ecological terms. About 90% of the inhabitants are engaged in agriculture, mainly subsistence mixed farming on fragmented landholdings. Because of the high population pressure at the higher altitudes, where most of the people live, the soils are heavily exploited. Environmental degradation and food insecurity are serious problems.



At first, the Farmers' Research Project worked with other NGOs in the Region, enhancing their capacities to carry out FPR on the ground, and gradually drew in extension and research staff from government organisations. It eventually shifted its focus to working directly with government staff. The experiences made during this forerunner project are documented in the first booklet in FARM-Africa's Project Experiences Series, *Farmer Participatory Research in Southern Ethiopia: The Experiences of the Farmers' Research Project*.

The Farmers' Research Project disseminated information about the process, methods and outcomes of the FPR approach, which thus became better known among numerous individuals. However, the organisations in which these individuals worked did not embrace the approach. One reason was that, although the people working on the ground were enthusiastic, senior officials in their organisations – who are further from the field – had little understanding of the approach and therefore did not actively support it. The Farmers' Research Project gave little attention to specific ways to integrate FPR into the institutions. Moreover, the project worked primarily in only one zone in the Southern Region, whereas most of the institutional policy decisions are made at regional level.

The efforts of FARM-Africa and the other research projects and NGOs in participatory research and extension throughout the 1990s involved small, scattered and isolated groups of people. They were not systematically learning from and strengthening each other. The participatory approaches were not becoming part of the day-to-day work even within their own organisations. When "comparing notes" with each other in workshops convened by FARM-Africa, they began to realise that their efforts would have little impact in the long run if FPR could not be *institutionalised* within mainstream research, extension and education activities carried out by government organisations.

2 The project to institutionalise FPR in Southern Ethiopia

A new project with a new emphasis

In 1998, the major institutions of agricultural research, extension and education in the Southern Region reviewed the Farmers' Research Project (Aresawum *et al* 1998; Dakiye *et al* 1998, Sutherland & Sandford 1998). The outcomes were discussed at a workshop held in Awassa, the capital city of the Southern Region (FARM-Africa, 1999). The participants recommended that FPR be scaled up and integrated into agricultural research and extension by government organisations throughout the Region. They helped map out the practical steps needed to do this and suggested that:

- key decision-makers support the already existing policies that favour FPR, such as decentralisation and emphasis on people's participation;
- the Bureau of Agriculture (BoA) be mandated not only to do conventional extension but also to conduct on-farm trials;
- the institutional leaders play a key role in promoting FPR as a means to improve the effectiveness of their organisations, and build links and create greater awareness of FPR through networking among senior managers and policy-makers;
- more emphasis be put on training frontline Development Agents (DAs) and some regional-level experts who had not been included in previous training courses offered by FARM-Africa;
- more resources be invested in integrating FPR into agricultural research, extension and education; and,
- all institutions involved in technology development and dissemination plan jointly their use of resources so as to integrate FPR.

In a second workshop attended by senior staff of the BoA, the Awassa and Areka Agricultural Research Centres (ARCs), the Awassa College of Agriculture (ACA), the Bureau of Planning and Economic Development (BoPED) and FARM-Africa staff, the recommendations made in the first workshop were elaborated. From the outset, it was stressed that:

- a follow-on project should not just continue doing what the Farmers' Research Project had done thus far;
- the conclusions from the first workshop, i.e. that FPR should be incorporated into the regular research and development work of government organisations, should be endorsed and implemented by government authorities in the Southern Region; and,
- FARM-Africa would support this incorporation if the various stakeholder organisations wanted it to do so, but only on the condition that the Government of the Southern Region clearly indicated its intention to incorporate FPR into its programmes.

Box 1. Key government stakeholder organisations in the project

Bureau of Agriculture (BoA) / Bureau of Agriculture and Natural Resource

Development (BoANRD) Extension in Ethiopia is the mandate of the Ministry of Agriculture (MoA, later re-named the Ministry of Agriculture and Natural Resource Development, MoANRD). With decentralisation in the 1990s, more autonomy was given to the 14 regions in the country. The BoA in the Southern Region became primarily responsible for planning and delivering extension services in the Region, while the MoA focused on developing extension policies and procedures at national level. The BoANRD was established in 2003 to strengthen the provision of extension services by merging the extension activities of the BoA and the government agencies for Natural Resource Conservation and Development and for Coffee and Tea Development. The BoANRD has two departments – Extension and Regulatory – and comes under the Rural Development Coordination Bureau in the Southern Region. By the time the project to institutionalise FPR was launched in 1999, the official government approach to extension was the Participatory Demonstration and Training Extension System (PADETES). The BoA/BoANRD operates through Development Agents (DAs) at the level of the *kebele* (village area), the lowest level of government administration in Ethiopia. These frontline advisors are supervised and supported by extension managers and Subject Matter Specialists (SMSs) at woreda and zonal level. In 2003, a new structure – the Rural Development Coordination Office (RDCO) – was created at woreda level. The deputy head of the RDCO is the head of the Woreda Office of Agriculture.

Awassa and Areka Agricultural Research Centres (ARCs) / Southern Agricultural

Research Institute (SARI) When the project to institutionalise FPR was launched, the Awassa and Areka ARCs were under the administration of the BoA. Prior to that, the two centres had been accountable to the Institute of Agricultural Research (IAR). During the project, the centres became autonomous, with the Areka ARC being accountable to the Awassa ARC. Together, they have a total of 12 sub-centres, each with 1–5 ha for trial plots. Both centres are mandated to do research mainly on root crops. Areka is the national research centre on *enset*, a staple food in the Southern Region. Towards the end of the project, the ARCs were made part of the Southern Agricultural Research Institute, which has the mission to coordinate and support all agricultural research in the Region. SARI is mandated to develop, adapt, improve and introduce agricultural technologies through conventional and participatory means, in accordance with the Region's Rural Development Policy and Agricultural Research Strategy. Its mandate thus includes some aspects of extension. SARI is also responsible for developing ideas on research policy for the Regional Government.

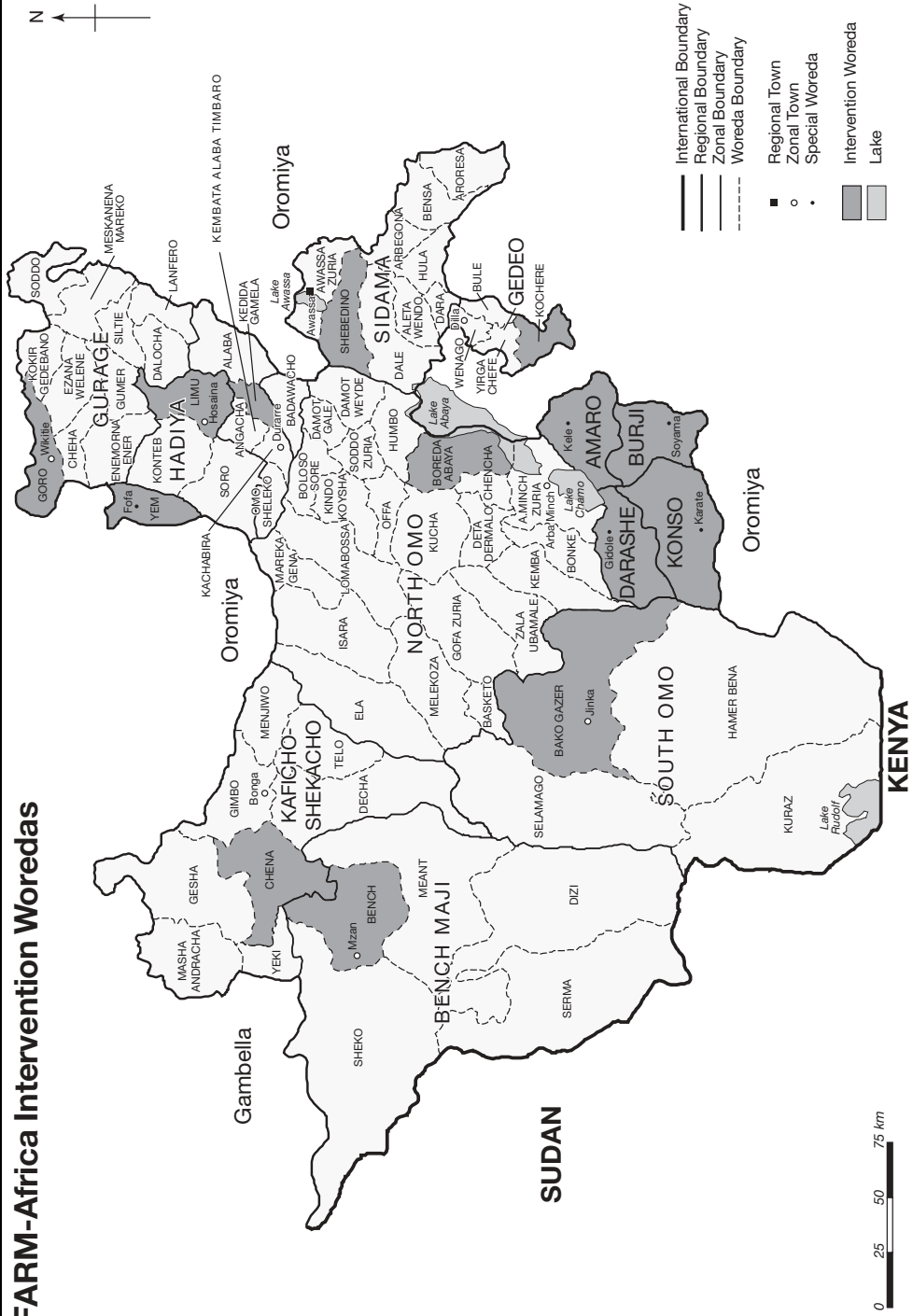
Awassa College of Agriculture (ACA) / Agricultural College of Debu University Awassa College of Agriculture – which became part of Debu University when this was established in April 2000 – is an institution of higher learning that offers diploma, BSc and MSc programmes in agriculture. It seeks to prepare students to meet the country's needs to have manpower qualified in agricultural sciences. ACA is involved not only in teaching but also in agricultural research, which comes under its Research and Extension Coordination Office.

Bureau of Planning & Economic Development (BoPED) / Bureau of Finance & Economic Development

BoPED is one of the main bodies of the Regional Government and is responsible for coordinating the planning and monitoring and evaluation (M&E) of sector bureaux in the Region, as well as the coordination and M&E of NGO activities. BoPED merged in 2003 with the Bureau of Finance to become BoFED.

Figure 1. Map of the project area

FARM-Africa Intervention Woredas



With this understanding, the workshop participants developed a concept note for a new project that focused on facilitating the institutionalisation of FPR tools and approaches in the regular activities of the organisations involved in generating and disseminating agricultural technologies in the Southern Region.

The stakeholder organisations

The project to institutionalise FPR was thus proposed by the key government organisations concerned (see Box 1), which agreed to implement it jointly. As BoPED had the mandate for overall monitoring and evaluation (M&E) of development activities in the Region, it was regarded as a key stakeholder in the project.

Another key stakeholder organisation was, of course, FARM-Africa itself. This new project constellation meant two major changes for this small NGO:

- an expansion in geographical coverage from only a small area to 14 woredas spread throughout all parts of the Southern Region (see Figure 1), which covers about 10% of Ethiopia and has about 12 million people; and,
- a change in role from that of a technical project implementer – doing FPR with farmers and other actors on the ground – to that of a facilitator and backstopper, building the capacity of diverse stakeholder institutions to collaborate with each other and with farmers in FPR and to integrate the approach into their everyday work.

It is noteworthy that, in the planning of this project, farmers were not regarded as key players in institutionalising FPR. Building up FPR institutions among farmers was not included among the activities outlined in the original project document. It was only in the course of the project that the other actors realised the importance of institutionalising FPR also at the grassroots.

The project in brief

The project document outlined seven outputs that were to be achieved by carrying out 27 activities over the period April 1999–March 2002, later extended until September 2003. The outputs and activities are presented in Figure 2 and are described only very briefly here.

A Steering Committee composed of the heads of the partner organisations in agricultural research, extension, higher learning and regional planning was set up to guide the process of institutionalising FPR – a concept that was expanded in the course of the project to “Farmer Participatory Research and Extension” (FPR/E). The Steering Committee, in turn, created a Technical Team, composed of one technical officer from each organisation, to be responsible for day-to-day coordination of project activities. Planning and monitoring by members of these two groups stimulated them to reflect on what changes were needed within their institutions to allow FPR to be practised effectively.

The centre of attention in the institutionalisation process was capacity building. The project ran courses on PRA, Participatory On-Farm Trials (POFTs), Training of Trainers (ToT) and

Participatory Monitoring and Evaluation (PM&E), sponsored staff and partners to attend FPR-related workshops and conferences, and organised travelling seminars for ACA students and staff. It made great efforts to help incorporate FPR, participatory extension and participatory learning approaches into the curricula and teaching in ACA as well as in institutes for training DAs.

The PRA courses were usually linked with diagnostic studies conducted in the field together with farmers, followed by joint design and implementation of POFTs. Each partner organisation decided to conduct its own POFTs with different groups of farmers, so as to gain hands-on experience in the entire process of FPR. Technologies that had been tested and proven by farmers were disseminated through the government extension service and through farmer-to-farmer communication. Wherever necessary, the project tried to help farmers link up with sources of inputs.

In the communities where diagnostic studies had been carried out and POFTs were conducted, the partner organisations encouraged community members to set up Farmers' Research and Extension Groups (FREGs) to coordinate the local research and extension initiatives (Box 2). This was an activity that the project introduced after realising that institutionalisation of FPR/E requires the establishment and strengthening of appropriate forms of farmer organisation.

Gender issues were a focus of discussion within the courses and in the interaction with farming communities. The concerns and interests of both women and men were taken into account in selecting topics of POFTs. Women were encouraged to take active part in the analyses, experimentation, information-sharing and community organisations, such as the FREGs. Monitoring, evaluation and reporting at all levels reflected gender-differentiated data, which were used as a basis for discussing biases and need for further change.

The project organised workshops, seminars and multi-stakeholder fora on FPR/E involving organisations also from other parts of Ethiopia and even from other countries. These meetings were designed to stimulate mutual learning and to create awareness among decision-makers in government organisations and among donors. Still more widespread awareness was created by publishing articles in newspapers, magazines and books, by broadcasting information on the

Box 2. Farmers' Research and Extension Groups (FREGs)

A Farmers' Research and Extension Group is a small group of farmers, usually 5–7, composed of community members who are selected by the community using such criteria as aptitude for research, social acceptance, gender, age and ability to communicate. FREGs have the following roles to play:

- to facilitate smooth contact between farmers, DAs and researchers
- to facilitate and coordinate the efforts of farmers, DAs and researchers in FPR/E
- to support, promote and develop FPR/E in the area
- to initiate the generation and dissemination of FPR/E results and the lessons learnt
- to facilitate farmer field days, evaluations and other meetings on FPR/E
- to help identify and select farmers to carry out POFTs.

radio and by printing and distributing brochures and posters. Policy-makers and other high- and middle-level decision-makers in government institutions were taken to visit examples of FPR/E in the field.

In order to establish a more permanent reference base, the project assisted the partner organisations in building up small collections of publications and other information on FPR/E from various outside sources. In addition, the project partners themselves brought out publications on their experiences and jointly compiled an FPR/E guideline based on these (Ejigu & Pound, 2002). As a means to learn from and improve the FPR/E activities, the project developed and applied a methodology for monitoring and evaluating them jointly. The PM&E guideline issued by the project (IIRR & FARM-Africa, 2001) was based on inputs from the partners after they had taken part in PM&E training workshops.

An important element in enabling learning about institutionalising FPR/E – and thus stimulating the institutionalisation process – was the series of peer reviews and topical M&E exercises carried out regularly by teams of individuals from the major organisations involved: BoA, the ARCs, ACA, BoPED and FARM-Africa.

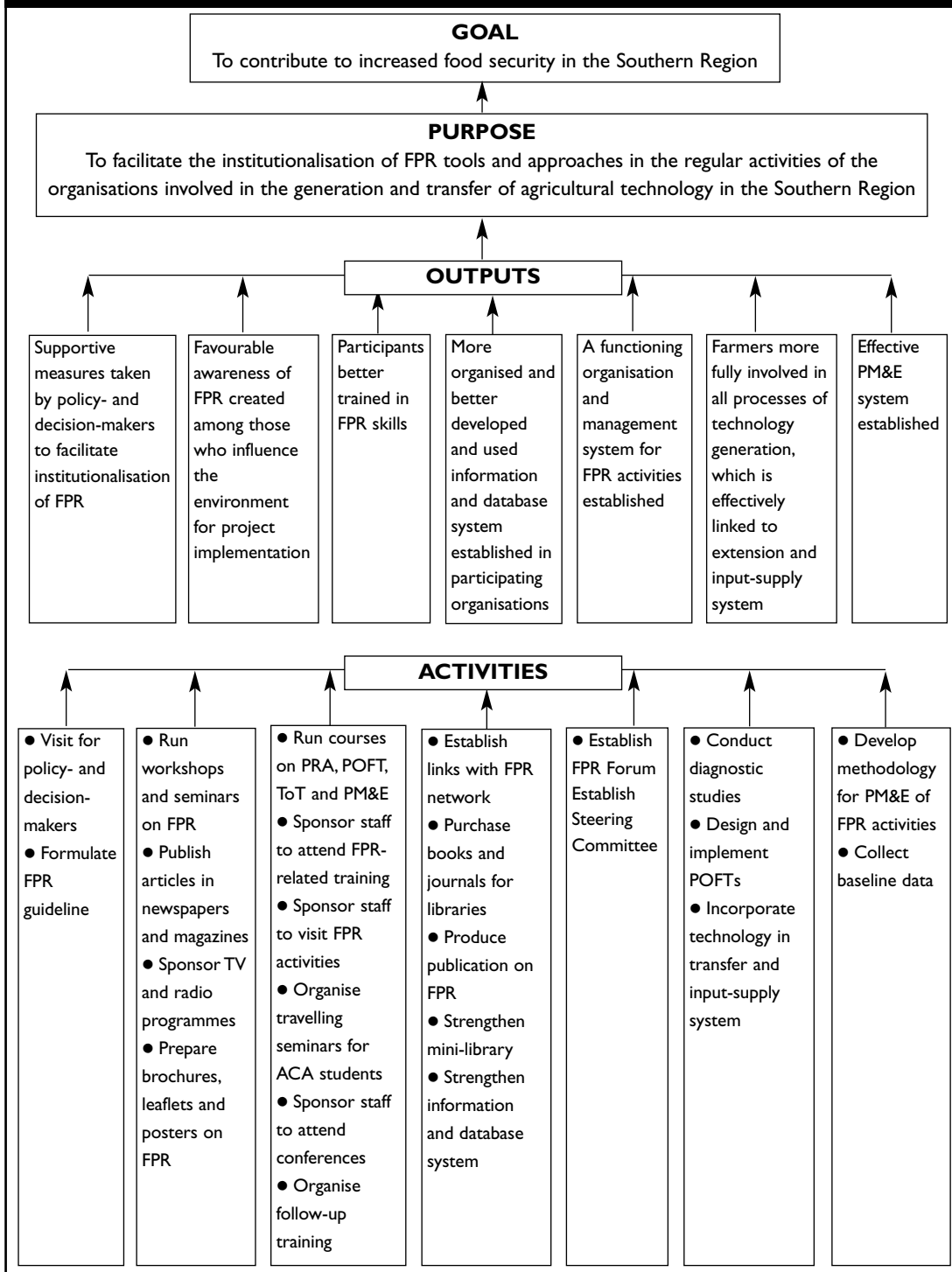
The agreed indicators of success

According to the project document, FPR would be considered “institutionalised” if, by the end of the project:

- staff members at all levels in the concerned institutions had a clear awareness of and appreciation for the concept and philosophy of FPR;
- the staff members had acquired knowledge and developed skills to plan and implement FPR;
- institutional structures were created that facilitate the incorporation of FPR approaches;
- adequate resources were made available in terms of skilled staff, funds and logistical support for implementing FPR;
- effective linkages were created between the relevant organisations and the farming communities so as to enhance coordination and experience sharing; and
- adequate incentives were made available to encourage staff to adopt FPR tools and procedures and to develop respect for farmers’ knowledge and skills.

The relative success and failure in achieving institutionalisation of FPR during the project period, according to these indicators, and the constraints that had to be dealt with along the way are discussed in the sections on “How the project changed people and institutions” and “Major challenges in the institutionalisation process”. But first, the elements in the project that were most important in moving towards “co-research” in agriculture are highlighted.

Figure 2. Key outputs & activities of the Institutionalisation of Farmer Participatory Research Project



3 Key elements in the institutionalisation process

Reflection by all stakeholders during the mid-term evaluation (Waters-Bayer *et al* 2000), the final evaluation (Waters-Bayer & Teklu 2002) and a subsequent impact assessment (Opondo *et al*, 2003) revealed that the following elements were key to the institutionalisation process:

- finding common working definitions;
- establishing a wide knowledge base;
- ensuring good documentation and dissemination;
- setting up multi-institutional support structures; and
- accommodating the dynamics of change.

Finding common working definitions

Throughout the life of both the forerunner Farmers' Research Project and the new project to institutionalise FPR, the stakeholders repeatedly grappled with the concept of "Farmer Participatory Research" – and this was part of the process of learning from each other and taking ownership of the concept. It started in the workshop organised by the forerunner project in 1992, when the participants came up with a working definition of FPR as an approach to agricultural research that involves farmers at all stages, including decision-making (Sandford & Reece, 1992). And it continued for the next ten years, while project partners gradually moved towards "collegiate research" (Biggs, 1989), in which farmers are recognised as innovators and experimenters and become equal partners of scientists and extension workers.

In the second FPR Forum in 2000, when looking at the processes being experienced in the field, the participants realised that, because FPR is carried out by and with farmers under their conditions, both knowledge development and technology dissemination are taking place at the same time. Therefore, the participants adopted the term "Farmer Participatory Research and Extension" (FPR/E) to describe the approach, although the meetings continued to be called simply "FPR Fora". The Farmers' Research Project had given its main attention to farmers' identification of problems to set the research agenda, but the experiential learning process over the years revealed that FPR is inextricably intertwined with participatory extension. The partners in the institutionalisation project were able to incorporate aspects of extension into further project work but, if the concept of participatory extension had been considered from the outset, the project could have included more specific activities related to this.

Likewise, the concept of "institutionalisation" was repeatedly discussed while designing and launching the project; at various workshops and other meetings involving the different actors; and during the numerous evaluation exercises over the years. These discussions led to a better understanding of the concept and contributed to the institutionalisation process. The general

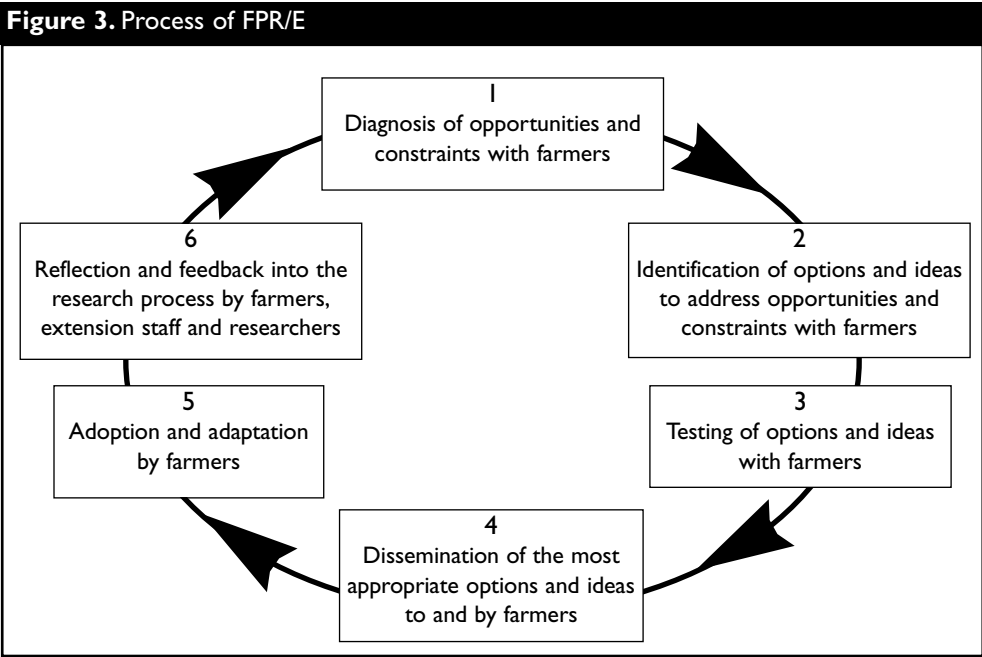
consensus (Box 3) was that institutionalisation of FPR means the incorporation of FPR tools and approaches into the government organisations of agricultural research, extension and higher learning, with FPR ultimately becoming part of normal activities. Later in the project, the partner organisations realised that institutionalisation also includes anchoring FPR/E within grassroots institutions of rural communities, which could continue a farmer-led process and draw in research and extension staff to support local efforts.

Box 3. 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: Sutherland (2000)

Before trying to promote the FPR approach on a wider scale, it was necessary for each of the partner organisations – BoA, ACA and the two ARCs – to test and practice it at the grassroots in a small pilot area. Conventional attitudes towards farmers’ participation in research can change only through first-hand experience of how FPR works and seeing evidence of its impact. Therefore, rather than preaching the approach within the various organisations, FARM-Africa encouraged the partners to learn about FPR by doing it themselves. FARM-Africa had itself taken this approach during the Farmers’ Research Project. The staff – working together with NGOs, government organisations and farmers in the project area – had gone through all six steps in the process of FPR/E (see Figure 3) and thus developed in-depth knowledge of the



approach, as well as skills in applying it within the Ethiopian context. Without having had this experience in doing FPR/E, it would have been impossible to consider institutionalising it. As one of the pioneers in FPR/E in Ethiopia, FARM-Africa gained the confidence and provided the evidence to be able to catalyse a change in attitude towards this approach within government bodies. Similarly, staff members in each of the organisations involved in the institutionalisation project needed to test and practise the approach themselves – to learn by doing – and to use their own examples as a basis for learning and stimulating change within their organisations.

Establishing a wide knowledge base

The process of FPR/E revolves around building, assessing and sharing different types of knowledge. In order to institutionalise FPR/E, a wide base of knowledge in the approach and methods had to be established within the stakeholder organisations. The methods should serve not only to help “outsiders” (scientists and DAs) understand farmers’ problems and opportunities; they should also – and even more importantly – enable farmers to understand their own resources, constraints and opportunities. Capacity building in FPR/E should enable the staff in agricultural services to facilitate such processes in ways that strengthen farmers’ confidence and ability to take the lead in local agricultural research and development activities. FARM-Africa therefore set up a strong training programme to increase knowledge of FPR/E and to enhance facilitation, communication and planning skills both in government organisations and in farming communities.

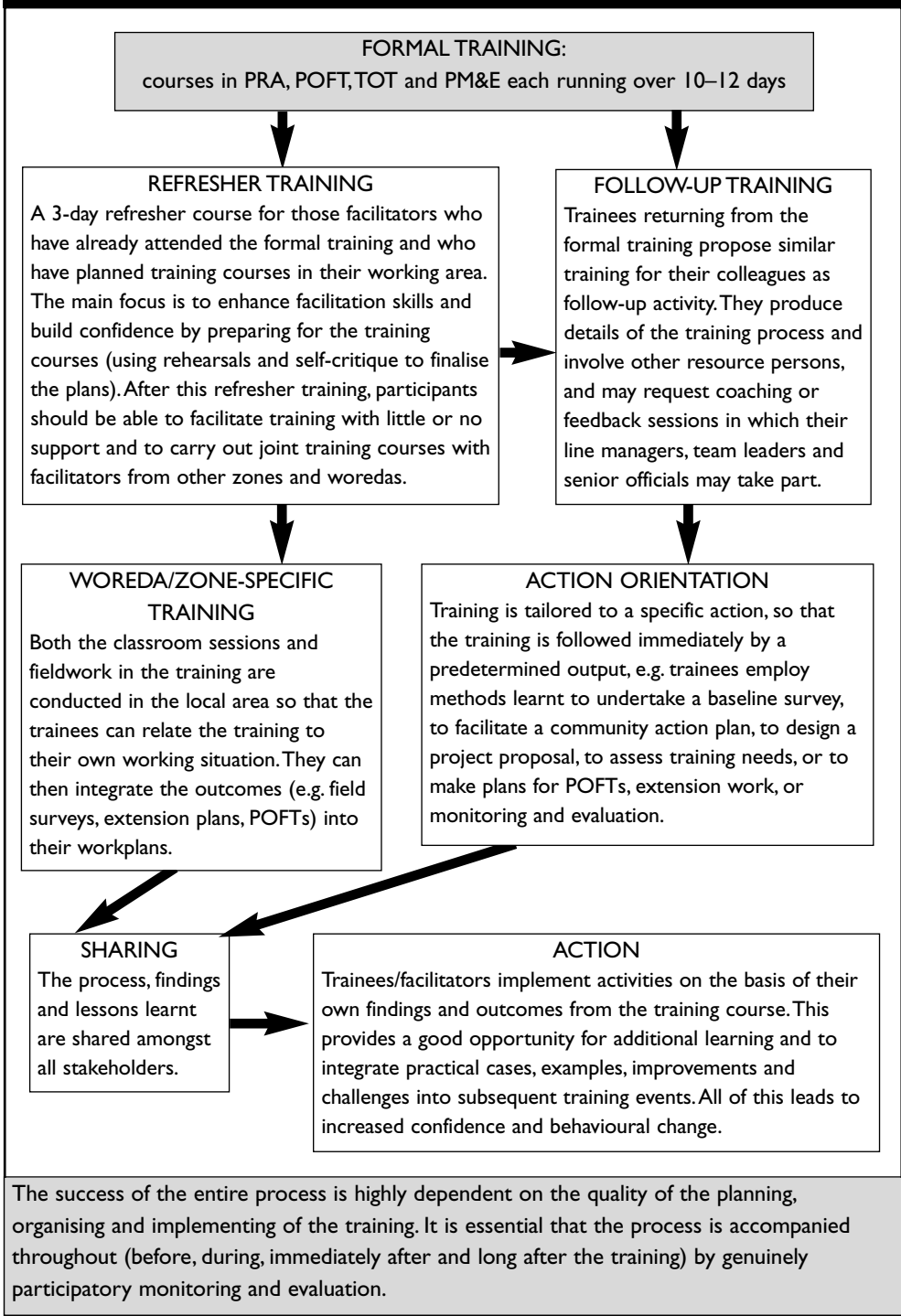
The courses in PRA, POFTs, ToT and PM&E each lasted about 10–12 days, including both classroom sessions and practical fieldwork. The participants were encouraged to make critical reviews. Their assessments, as well as findings from monitoring in the field, were incorporated into the training process (Figure 4). Immediately after the training, the participants were expected to carry out follow-up activities in their working areas, involving other colleagues. They also gave feedback at woreda level in the presence of senior members of the Office of Agriculture, SMSs and officers from the Rural Development Coordination Office (RDCO), so as to spread awareness of FPR/E even more widely within the government system.

The fora, workshops and field visits organised by the project also played an important role in spreading knowledge about FPR/E. They provided opportunities for diverse experiences, from both within and outside the project (including experiences from abroad), to be shared and discussed. During these events, farmers’ contributions about their own POFTs were very effective in making clear what farmer participation is and opening the eyes of scientists and policy-makers to farmers’ capacities to do research. In addition, the project supported staff from the partner organisations to attend national and international fora related to agricultural research for development.

Ensuring good documentation and dissemination

To complement these learning opportunities and support continued implementation of FPR/E, the project published the *Farmer Participatory Research and Extension Guideline* (Ejigu & Pound, 2002). Intended for trainers and practitioners in farming communities, public institutions and

Figure 4. FARM-Africa's participatory training process to institutionalise FPR/E



NGOs, it introduces the concept and principles of FPR/E, highlights the key elements in the process, and presents various tools that can be used at different steps. Practical cases and examples are included from the project areas and elsewhere. FARM-Africa disseminated this publication widely. It is complemented by training manuals that have much the same content but a more practical format for handy reference (Box 4).

Box 4. FPR materials produced by FARM-Africa

- Farmer Participatory Research and Extension guideline
- Participatory Monitoring and Evaluation guideline
- Training manual series on PRA, POFTs, PM&E and ToT
- Video films on:
 - PRA (*available in English and Amharic*)
 - Institutionalisation of FPR in the Southern Region (*available in English only*)
 - Benefits of the institutionalisation of FPR in the SNNPRS (*available in English and Amharic*)

According to the final evaluation and the impact assessment, the documentation and dissemination of the experiences made during the project contributed to enhancing knowledge in FPR/E at various levels in agricultural research, extension, teaching and policy-making. The printed materials that were distributed during and after major training events, including the results of their evaluation, enabled the government staff to plan, organise and implement participatory training themselves. The documents made it easier to include important new stakeholders, such as the Agricultural, Technical, Vocational, and Educational Training (ATVET) colleges established in 2002, because ready-made reference materials tailored to the Ethiopian setting were available. The collaboration of different stakeholders in compiling the documentation served in itself as a means of stimulating joint reflection and learning. The documents and their production helped increase all players' understanding of the importance of continually reviewing approaches on the basis of practice as part of an interactive and never-ending learning process.

Setting up multi-institutional support structures

In 1999, when the project began, existing government structures for carrying out research and extension already favoured the integration of FPR/E. Agricultural extension structures were in place all the way down to the level of farming communities, where over 10,000 DAs were working. The Region had two research centres and 12 sub-centres with a total of 120 researchers, not counting technical assistants and fieldworkers. It was important to mesh these existing structures with the support structure for the project, so that the key players would take active part in the process of institutionalising FPR/E and would not regard it as something outside of their core work. Therefore, the project's Steering Committee was composed of the heads of these stakeholder organisations. These, in turn, set up a Technical Team of technical staff from each of their institutions to attend to the day-to-day business of institutionalising FPR/E.

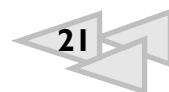
Although all the organisations had agreed on the importance of institutionalising FPR/E, the Steering Committee functioned poorly, i.e. did not hold regular meetings and did not always follow up decisions made at meetings. The Committee members, holding high-level offices, were over-committed and had other pressing business, particularly the challenges of decentralising government administration to woreda level and the consequent staff and organisational changes. The Committee could devote little attention to actually steering the project. In contrast, most members of the Technical Team were active and worked well together, e.g. in planning joint training activities. This additional structure proved to be very important for the institutionalisation process.

In the farming communities, the FREGs played a leading role as support structures for facilitating FPR/E. The diverse and complex situations in which most small-scale farmers live demand the mobilisation and coordinated use of resources and knowledge from both government and community institutions. The FREGs were mandated to lead the local research and extension process, bringing together different actors (farmers, DAs and sometimes also scientists) to do effective FPR/E. Through time, they assumed the responsibility to mobilise the actors themselves by organising field days, farm visits and other forms of farmer-to-farmer communication. They were supported in this work by the kebele authorities, some of whom were FREG members.

Accommodating the dynamics of change

The Ethiopian institutional landscape has been in a state of flux since the early 1990s, when a process of decentralisation started. The regional Bureaux have gained more decision-making powers, while the bodies at the federal level, such as the MoA, deal with national policy issues and coordinating and facilitating activities at regional level. Decentralisation and restructuring of government administration continued throughout the project period. New institutions emerged and some institutions merged at regional level. Administrative boundaries were changed: some woredas were combined and others split. The woredas gradually gained more power to plan and to allocate budgets, and some specialists from the regional and zonal levels were transferred to the woreda level. Staff in all government bodies had to spend a great deal of time attending an even higher number of administrative meetings than normal.

These changes led to high staff turnover in the government offices. Some people who were already familiar with FPR/E were moved to other positions and replaced by staff with little or no knowledge of the approach. This slowed down the institutionalisation process, as the newly assigned individuals – especially those in senior positions – did not support FPR/E until they became aware of its benefits. Therefore FARM-Africa had to respond flexibly, to include new people in what should have been “refresher” training, and to target the new institutions and staff in its communication and information work. Here, the workshops – and especially the field visits – played an important role. The heads of extension and of the newly established RDCOs at woreda level were invited to join in order to generate their enthusiasm and gain their support for the ongoing process of institutionalising FPR/E. As all of these activities were



organised and carried out by government staff, with FARM-Africa playing only a facilitating role, the newcomers learned about FPR/E directly from staff in their own institutions.

When the project to institutionalise FPR began, the MoA was giving a nine-month course to train DAs in agricultural practices and extension work. Because the decentralisation to woreda level created a need for a much larger number of extension workers with a higher level of technical training, the course was upgraded to a three-year diploma programme offered by the newly established ATVET colleges. These provided training for new students as well as for those who had completed the nine-month DA course. The project adjusted its programme accordingly: it made great efforts to include participatory approaches in the curricula of these colleges and to give instructors practical training so that they could apply these approaches themselves, also in the way they taught.

During the course of the project, the partner organisations recognised that also the elected government representatives needed to be brought behind the approach. Hence, members of the Regional and Woreda Councils were invited to FPR Fora and involved in PM&E training and monitoring visits.

The project also paid attention to new policy initiatives. It encouraged incorporation of FPR/E into the Agricultural Research Strategy and Extension Communication Guideline which the Southern Region drew up in 2003. The Guideline was intended for scaling up PADETES, which had been focused during the Pilot Extension Programme on individual households. The project helped incorporate a group approach to extension. As most of the individuals involved in developing these two documents had been active in implementing FPR/E, they could reinforce the project's messages.

Stakeholder interaction in FPR/E – how it worked in practice

Before examining the changes that the project brought about in people and institutions in the Southern Region, an example should make clear how the stakeholders interacted in practice. The case relates to FPR by farmers producing potatoes in Hadiya Zone. This example is meant to help the reader, in a report which otherwise deals with institutions at a large regional scale, to discern what the regional aggregates actually mean on the ground. Further details about the methods and tools used in the process can be found in the FPR/E Guideline (Ejigu & Pound, 2002).

Identifying constraints and opportunities

In August 2001, a team of 16 people from the BoA and Awassa and Areka ARCs conducted a diagnostic study together with farmers in Lemu Woreda of Hadiya Zone. The team included DAs working at village level within the woreda. In preparation for this, the team had been trained in using PRA methods to make a participatory analysis of farming systems, to identify priority problems and opportunities, and to plan POFTs. At the end of this training, the team had produced a diagnostic survey plan that outlined the purpose, expected outcomes and methods to be used, and a corresponding checklist. The team members divided up into two groups, one focusing on socio-economic issues and animal husbandry, and the other on natural resources and crop husbandry.

Before starting the fieldwork, the two groups met with woreda officials and members of kebeles from different agro-ecological zones within the woreda. The team introduced itself and explained the purpose and process of the diagnostic survey. At this first meeting, the woreda officials and kebele members selected Tachignaw Ambecho Kebele as the study area because they judged that its farming systems were fairly representative for the woreda. This kebele has ten sub-kebeles called “ketena”.

The team then held a meeting with the kebele administration and, on the following day, with community members. These identified 30 farmers (three from each ketena) to represent the community. Five of these were women. Together with the 30 farmers, the team started the diagnostic study using PRA methods. On the first day, they focused on the overall situation in the study area. In a wealth-ranking exercise covering 20% of the households randomly selected from the total of 663 households in the kebele, key informants identified three socio-economic groups differentiated according to local perceptions of wealth. Women-headed households made up 13% of the 133 households included in the wealth ranking. Household samples were drawn from each wealth group for further analysis of their socio-economic situation, access to natural resources, and animal and crop husbandry practices. Community members drew up lists of local problems and, together with the team, identified and prioritised those that research could address. These included disease-resistant potato varieties, new wheat and forage

varieties and – of particular interest to women – onion varieties and labour- and fuel-saving stoves (FARM-Africa & BoA, 2002).

At a meeting of the community representatives to review the findings of the diagnostic study, the project staff introduced the concept of POFTs and facilitated discussion about their purposes. The community identified 50 farmers (five from each ketena) who were known to be interested in trying new things and were willing and able to carry out POFTs and to report back to the community. These farmers – 31 men and 19 women – were asked to implement the proposed POFTs on behalf of the community. They received the external inputs (e.g. seed, fertiliser) free of charge, while they gave their own resources – above all, their time – to carry out the trials and share information about them with other farmers. The 50 farmers selected seven from their midst, including two kebele leaders, to form a FREG at kebele level. FREG members were given the responsibility for the overall implementation, monitoring and evaluation of the POFTs, as well as for facilitating sessions for feedback to other farmers and liaising with research and extension staff. They were offered no additional incentives for this service to the community.

The trial on potato varieties

One of the proposed POFTs was “*an evaluation of improved potato varieties that are tolerant to late blight disease and give better yields than the local ones*”. In this part of Ethiopia, potato is a major food crop both for household consumption and as a source of income. A local potato variety had been grown for decades, but was severely affected by late blight disease. Because the yields were low and the tubers small, many farmers had abandoned potato growing. During the participatory analysis, the farmers proposed trying out new potato varieties that are more disease-tolerant and higher-yielding than the local one, and evaluating these varieties on the fields of a few farmers.

The project staff travelled outside the Southern Region to discuss the problem of late blight disease with scientists at Holeta ARC, the centre that coordinates the National Research Programme on Potato. The scientists suggested four new varieties of potato – namely, Menagesha, Tolcha, Wachacha and Genet – as “best bets” to be tested alongside the local variety. Ten of the 50 farmers volunteered to conduct the potato POFTs in their own fields, while the other farmers volunteered to carry out other trials. The ten farmers all lived in the same kebele and belonged to the “medium wealth” group. Four of them were women. When designing the POFTs, the farmers and the ARC and BoA staff discussed the importance of similar management so that it would be possible to recognise what difference the treatments made. Some management practices such as spacing were based on recommendations from the scientists. Other practices such as land preparation and weeding were determined by each farmer, who agreed to apply the same practices on all treatments on his or her farm.

The potato varieties Menagesha, Tolcha, Wachacha, Genet and the local Sako variety produced tuber yields of 199, 149, 121, 165 and 60 quintals per hectare, respectively. The local variety was more highly infested by disease than were the new varieties. Farmers regarded the varieties

Menagesha and Genet as being more tolerant of the disease than the others. Although the local variety tasted better and was in higher demand on the market, it had the lowest yield (because of the disease). Among the new varieties, farmers preferred the taste of Wachacha and Tolcha. Farmers' evaluation also indicated that Menagesha has an added benefit: honeybees like its flowers. These results quickly attracted the attention of other community members and created high demand for the new varieties right after the first year of the trial. The farmers suggested that the spacing recommended by scientists (60 x 60 cm) was too narrow for Menagesha and should be increased to 80 x 80 cm (FARM-Africa, 2002).

Addressing farmers' new research questions

The ten farmers who had been involved in the trial continued comparing the new varieties on their own and came up with a new research question. With their local variety, farmers used to grow two potato crops per year, using tubers harvested from the previous season. The most favoured new variety, Menagesha, produced more per unit area in one season than the local variety produced in two seasons but, when the farmers tried to plant Menagesha in the second rainy season, they found that it took a very long time to sprout. They concluded that it can be harvested only once a year. This raised another question – about storage to be able to keep seed potato for planting the following year. Because landholdings are very small, farmers cannot store potatoes in the field; they need the land for other crops.

To address these questions, the project organised a visit to Holeta ARC, so that scientists and experimenting farmers could share experiences. A total of 26 people (14 farmers including FREG members and 12 persons from the woreda, zonal and regional agricultural offices, ACA and FARM-Africa) visited the research centre. They learned:

- why the new variety takes so long to sprout: because it has a longer dormancy period than the local variety;
- about the principles and techniques of longer-term storage of tubers for seed and for food, and how to construct the store; and
- the factors to be considered in selecting tubers for planting, i.e. seed potatoes.

The farmers were motivated by:

- witnessing the research undertaken by Holeta ARC and farmers, and how they work closely together; and
- receiving seven quintals of the new potato varieties for multiplication purposes; the project bought these planting materials and, after harvest, the farmers repaid potato seed in kind for distribution to other farmers.

Disseminating the results

The ten farmers continued the potato-variety trial in the following season. At the same time, six of the farmers who had visited Holeta ARC multiplied seed potato and constructed diffused-light storage for it. These farmers were middle-aged or older men; only one woman

had joined the trip to Holeta and she had not shown interest in multiplying seed potato. The FREG members took on the responsibility of organising distribution of seed potato after harvest, while the extension staff provided technical advice and facilitated sharing of information with other farmers in and beyond the kebele. Together with the FREGs and experimenting farmers, the DAs continued the evaluation of trial results and organised field days. In addition, customary communication through normal social interaction, such as when visiting relatives, during joint work and at other chance meetings, helped spread what was learnt in the trials. As a result:

- farmers gained technical knowledge and skill in multiplying and keeping tubers for both food and planting, based on practical experience;
- farmers (males) earned more through sales of seed potato;
- from the POFTs of just a few farmers, the knowledge and technologies were disseminated at different levels: within the kebele (Tachignaw Ambecho), outside the kebele to five others in Lemu Woreda (Lareba, Anelimu, Shecha, Haise and Ambicho Gode) and to a kebele in another woreda (Soro) – all while the POFTs were still in progress;
- informal means of sharing information facilitated wider dissemination of the preferred potato variety and the diffused-light store technology, demonstrating the potential of communication methods beyond those of formal extension;
- extension staff took on the roles of facilitating the information-sharing process and giving technical advice, rather than imposing their views;
- scientists from the research centres could apply their technical knowledge while participating in the diagnostic study to analyse the situation, the problems and the opportunities; when identifying alternative technologies for testing; and when drawing conclusions from both on-station and on-farm trials;
- the role of farmers combined both research and extension activities.

Thus, farmers, extension workers and scientists were able to reflect, learn and feed back results into a continuing research process.

5 How the project changed people and institutions

The project exerted considerable influence within each of the major stakeholder groups or organisations involved and – even more importantly – on the linkages between them. Examining each stakeholder group or organisation separately can shed light on the progress each has made towards institutionalising FPR/E and the slightly different routes they took.

Changes at farming community level

According to the impact assessment made at the end of the project (Opondo *et al*, 2003), the enhanced knowledge and skills in FPR/E and the resulting adoption of new technologies had positive socio-economic, cultural, environmental and food-security impacts in the farming communities. During the four years of the project, 2540 farmers in 14 woredas throughout the Southern Region were directly involved in carrying out diagnostic studies, conducting POFTs and taking part in FPR Fora, workshops, farmer-to-farmer training, visits and field days. Although the impacts are easiest to measure among these farmers, there were considerable “spill-over” effects in terms of enhanced knowledge and information within the wider community.

Moreover, many farmers in other communities outside the project areas became aware of FPR/E through national radio broadcasts about the project experiences, often conveyed directly by experimenting farmers. In response to the radio broadcasts, farmers from both within and outside the project areas expressed – in person and in writing – their appreciation of farmers’ participation in research and extension and their interest to be involved.

Among individual farmers, the impacts of the project varied according to their degree of involvement in project activities. In general, however, the assessment team noted that the project had led to the following outcomes:

- **Farmers have more positive attitudes towards outsiders**, including DAs and scientists. They value the direct contact with these professionals in the course of FPR/E. They feel that DAs and scientists recognise farmers’ abilities, not only from working together with farmers in the field, but also from seeing how well farmers can share their experiences with great confidence at workshops and FPR Fora. They see DAs as “partners rather than persuaders” (Opondo *et al*, 2003).
- **Farmers are better able to experiment with and evaluate different options** through field activities such as diagnostic studies and POFTs, and to advise other farmers. Some farmers have initiated their own experiments to find ways to address the problems they face and have even started applying their knowledge in experimentation and extension in sectors other than those covered during the project. For example, some farmers have started their own trials on natural resource management on eroded patches of land (Box 5).

Box 5. Taking the initiative to experiment

Farmers in Yebu village in Kedida Gamela Woreda have problems with soil fertility. One farmer started experimenting on his own with two options to improve soil fertility – compost and chemical fertiliser – in his wheat and teff plots. Applying what he had learnt when taking part in POFTs, he allocated the treatments on plots of equal size (about 5 x 3 m) and observed the differences between the treatments. His initiative bears witness to his confidence to carry out systematic experiments and to seek solutions to problems himself.

Source: Opondo *et al* (2003).

In the process of FPR/E, farmer-to-farmer communication has been enhanced, and the communities that were involved continue to share and apply new technologies with little or no external support.

- **Farmers are more open to technological change.** The opportunities to discuss with outside experts and to carry out POFTs sharpened farmers' criteria in technology selection and encouraged them to incorporate their indigenous knowledge. By testing and evaluating technologies themselves, they have become more involved in research and extension and have selected and applied technologies that fit their circumstances and increase production and household income. They also adopted improved practices that reduce production constraints, such as using sanitary measures to control bacterial wilt in enset and integrating new forage species and different crop varieties into their farms. Women are using technologies that reduce their workload, such as fuel-saving stoves (Box 6).
- **The new technologies selected by farmers during POFTs led to positive economic impacts,** such as improved yield, which increased the well-being of the farm families directly involved in the trials. A marginal analysis of using a new disease-tolerant and high-yielding potato variety revealed that, for each Birr invested, the farmers could get back almost 25 Birr in value of production (Opondo *et al*, 2003). With their increased income from successful trials, farmers could obtain productive assets such as oxen (e.g. Box 7). Because the farmer-tested technologies addressed priority problems in the area, they had a large impact on the wider farming economy.
- **Some technologies adopted during FPR/E activities helped fill the food deficit** experienced by many households in the project areas. For example, the adoption of new potato and wheat varieties led to a twofold increase in crop yield and food availability at household level. Improved facilities for storing potatoes made it possible for farmers to plant and harvest earlier. They can thus make better use of the rains, and the earlier harvest

Box 6. An experimenting woman's assessment of cookstoves

"I can now cook many foodstuffs at a time without much difficulty using this improved stove. It consumes less firewood. It is also clean. The stove I used before was very tiresome and produced a lot of smoke that affected our health. We were suffering from eye diseases due to the smoke, and children as well as chickens faced fire hazards with the local stoves. Thank God we can now use such a better one."

W/ro Zenebech Mekonen, Limo Woreda

Box 7. Impact of a new wheat variety on the household economy

A woman farmer in a village in Lemu Woreda selected seed from high-yielding plants of the wheat variety HAR 1899, after comparing it with local and other varieties in a trial on her farm. She saved some of the seed for further sowing and sold the rest to other farmers as a source of seed. By the end of the season, she had gained an income of Birr 800 (almost USD 90), with which she bought an ox to use for ploughing.

Source: Opondo *et al* (2003).

shortens the annual critical period of food shortage. The use of improved forage varieties increased the draught power of the oxen for crop production and led to higher production of milk and meat for the household.

- **Rural women's position has been strengthened.** Involvement of different categories in the farming communities (women and men from different wealth classes) in POFTs has increased women's capacity to identify problems in farming, talk about their constraints, set priorities and manage on-farm trials, and has given them greater access to information about new technologies. It was noted, however, that the poorer men and women farmers did not benefit as much as the better-off farmers, who could carry out several trials with different technologies.
- **The FREGs play an invaluable role in the FPR/E process.** Joint action by the FREG has led to a stronger sense of togetherness in the community. The FREGs deliver voluntary services in mobilising farmers to carry out research and extension activities and in linking farmers with government institutions. Where extension staff helped FREGs come together and learn from each other, the performance of these groups has continued to improve. SARI and BoANRD view the formation of the FREGs as an important step towards better representation and stronger participation of farmers in the Research-Extension Advisory Council (REAC) – a multi-institutional platform designed to forge links at regional level under the SARI Secretariat. There is thus good promise that the FREGs will increase farmers' demand on government research and extension services.

In summary, the positive impacts of institutionalisation of FPR/E at the level of farming communities are seen in the farmers' increased knowledge and skills in FPR/E, their more positive attitudes towards working with scientists and DAs, their heightened confidence in interacting with them in research and development, the greater involvement of rural women in decision-making about local problem-solving, and the formation and good functioning of the FREGs. According to the impact assessment, this has laid the foundation for continuation of farmer-led research and extension after the project, but formal research and extension bodies still need to give active support to build on these achievements.

Changes in government organisations

FARM-Africa's efforts to facilitate integration of FPR/E were focused primarily on the government institutions of research, extension and education that had planned the project. However, the project partners also recognised the need to include relevant institutions that

were newly emerging, and decided to give attention not only to the ACA but also to the ATVET colleges. As the extent of institutionalisation of FPR/E differs between the different kinds of organisation involved, each is discussed separately here.

Bureau of Agriculture

Both the final evaluation team (Waters-Bayer & Teklu, 2002) and the impact assessment team (Opondo *et al*, 2003) found an appreciable level of awareness and knowledge of FPR/E in the BoA/BoANRD. As of 2003, the technical staff members could run FPR/E training courses on their own and, as a result, the number of FPR/E facilitators at various levels within the Bureau was still increasing. This impact became evident during the course of the project: according to the plan, 21 PRA training events were to be conducted by FARM-Africa project staff, but six of them were actually conducted by BoA staff with only minimal support (in monitoring and funding) from the project. Through the initial training, the capacities of the government staff had been developed to such an extent that they could quickly become training facilitators themselves.

The BoA developed capacities in carrying out diagnostic studies, POFTs and participatory extension planning. Officials at woreda, zonal and regional level in the BoA were involved in the FPR Fora, workshops and field visits and became familiar with FPR/E concepts and principles. The feedback on FPR/E work that the trained staff organised for their colleagues and superiors at woreda level was also important in raising the general level of awareness within the BoA. The knowledge gained through practice brought about changes in the attitudes of both technical and management staff members, who deliberately incorporated FPR/E into their work. Managers noted marked differences between those staff members who were directly involved in the FPR/E and those who were not, particularly in their respect for farmers' interests, their ability to plan and monitor their regular activities, their reporting procedures and their joint planning, e.g. in organising training.

The achievements in incorporating FPR/E into the BoA/BoANRD can be summarised as follows, according to the assessment made in 2003.

- Training sessions that imparted knowledge and skills in FPR/E were attended by 908 participants from the BoA. Staff members gained deeper awareness by taking part in FPR Fora, workshops and field visits, listening to radio broadcasts, reading project publications, and watching and discussing video films on FPR/E.
- Most of those who attended the courses can undertake FPR/E with farmers without external support. Over 50 BoA staff members from woreda level facilitated PRA, POFT, ToT and PM&E training; their trainees included not only their extension colleagues but also instructors from ACA and scientists from research centres.
- BoA staff members who were directly involved in implementing FPR/E have reportedly changed their attitude towards working with farmers: they appreciate farmers' knowledge, recognise farmers as equal partners and want to continue using participatory approaches in their regular work; some are conducting diagnostic (PRA) studies on their own initiative.
- The BoA was so attracted by the FPR/E approach that it organised a regional workshop to compare POFTs and the "on-farm trials" that DAs had been carrying out for

demonstration purposes. This review led to a decision by the BoA to adopt the POFT process rather than to continue with on-farm trials controlled by the DAs.

- The BoA adopted participatory approaches in planning extension from the bottom up and drew up an Extension Communication Guideline that allows considerable space for participatory approaches. This is reinforced by an extension policy that favours participatory planning as part of the decentralisation process. The trained staff members apply FPR/E methods and tools where they regard these to be appropriate in their extension activities.
- The newly appointed woreda heads, who had not benefited from the awareness-raising workshops at the outset of the institutionalisation project, became more supportive of FPR/E after their involvement in feedback sessions, PM&E training and field visits to farmers' trials. This increased their interest to integrate FPR/E methods and tools into the strategic planning process for rural development.
- In some of the project woredas, staff members are undertaking FPR/E-related activities using their own personal or institutional resources. For example, they are disseminating POFT results, training other staff and research students, and organising briefing sessions on FPR/E activities.
- In some zones in the Southern Region, the BoA has taken steps to disseminate experiences from the single project woreda in each zone to the other woredas in the zone, so as to "scale out" the FPR/E approach.

Agricultural Research Centres

During the project to institutionalise FPR, a total of 94 participants from Awassa and Areka ARCs attended the four FPR-related training courses (PRA, POFT, ToT and PM&E) and were involved in diagnostic studies, POFTs, FPR Fora and joint monitoring visits to project sites. As a result, they became more knowledgeable about FPR/E and most scientists began to recognise the importance of indigenous knowledge and its incorporation into formal research. Some scientists also recognised that innovative ideas can be generated by the farmers themselves. The ARCs increasingly used results of participatory diagnostic studies to guide the research agenda according to farmers' priorities, and considered participatory methods during their annual meetings to review and plan research activities. By the end of the project, most researchers in the two centres regarded FPR as complementary to on-station research. Many took up the idea of working with FREGs and set up similar groups at their sites of on-farm research. SARI prepared its strategic plan after consulting with stakeholders, including farmers, on their problems, interest and priorities (Opondo *et al*, 2003).

The Region's Agricultural Research Strategy drawn up in 2003 underscored the importance of participatory approaches. The concept of a REAC to bring together the diverse stakeholders in agricultural research and extension – including farmers – appeared when EARO started to develop its strategy at national level in the 1990s. A similar structure was to be set up in each region; this gradually became operational in the Southern Region, and the institutionalisation project had a positive influence on this process. In the Agricultural Research Strategy, it is proposed that REACs be set up around each research centre and sub-centre in the Region, and that FREG representatives take part in the REACs. Farmers will then be able to bring in their views at various levels.



In addition to the work with FARM-Africa, SARI has been gaining experience with participatory research approaches under other initiatives, such as the PPB activities in collaboration with CIAT. This has also contributed to making the researchers open for FPR/E. A good indication of its commitment is that SARI allocated part of its own budget to the project-related FPR/E activities that continued after the project ended.

Agricultural colleges and training centres

The ACA instructors became familiar with FPR/E through the various training events and their participation in FPR Fora and workshops. The travelling seminars that the project organised for the instructors and students gave them the opportunity to meet experimenting and innovating farmers and to appreciate farmers' knowledge and creativity in managing complex and diverse situations. During seminars, lectures and other meetings, they shared these experiences with other students and instructors in the college and thus spread awareness about FPR/E. Those who were directly involved in FPR/E activities have positive attitudes towards incorporating the approach into the teaching programmes. Some of the steps they took to institutionalise FPR/E in ACA included:

- incorporating PRA approaches and tools as a subject in "Research Methods", a final-year course offered by the Plant Production and Dryland Agriculture Department;
- giving students the opportunity to engage in FPR as part of their senior research project, a final-year course: students produce a report on their work, which they defend at seminars with senior students and instructors; and
- launching by ACA of an "operational research" project that employs FPR/E methods and is based on lessons gathered from the institutionalisation project.

The project also worked together with the Wolaita Soddo Training Centre to introduce FPR/E into the nine-month training for DAs. This centre was transformed in late 2002 into an ATVET college (diploma level), one of three in the Southern Region, the other two being in Dilla and Mizan-Teferi. The project, working closely with the BoANRD, then had the opportunity to incorporate FPR/E into the curricula of all three ATVET colleges. The project's training in FPR/E stimulated considerable interest among the ATVET instructors, who recognised the relevance of the participatory methodologies not only as a subject for their students, but also as a way to improve how they teach. The instructors found that this led to better interaction between them and their students. This, in turn, encouraged them to strengthen further the FPR/E component in the ATVET colleges. The instructors feel well equipped to guide their students through a participatory learning process. FPR/E is given as a regular course in all three ATVET colleges in the Region.

Thus, FPR/E has been incorporated into the key institutions of agricultural education and training, and – according to the impact study – the relevant teaching can continue without project support. As most of the students who graduate from ACA and the ATVET colleges join the research and extension institutes in the Southern Region, the number of staff members who are aware of and can practise FPR/E will continue to rise.

Changes in linkages

Collaboration between stakeholders is key to FPR/E. Therefore, the type of impact that is most important for sustainability of this approach is the strengthening of linkages between the major stakeholders: farmers, extension workers, scientists, educators and trainers, and government administrators.

The project created stronger links between the stakeholders involved in generating and disseminating agricultural technologies through:

- the formation of the Steering Committee, made up of the heads of the BoA, the two ARCs, ACA and BoPED; and particularly the formation and operation of the Technical Team, made up of technical staff from each of these organisations;
- the FPR Fora organised at regional level, which brought together farmers, staff from the different government organisations and individuals also from outside the Region to share and discuss experiences in FPR/E;
- the training activities, participatory diagnostic studies and POFTs, which created an environment for action learning by professionals from different institutions and facilitated interaction and communication around FPR/E;
- the field activities and visits to POFTs, which brought together government officials, farmers, researchers and extension staff to learn from work on the ground; and
- the peer reviews and M&E exercises carried out jointly by members of the different institutions.

For the government partner organisations, the project to institutionalise FPR/E was their first opportunity to work jointly on a project. It created a space in which they could recognise their complementary capacities and learn about managing linkages for mutual benefit. This changed their attitudes towards each other and towards farmers. Interaction between BoA staff and farmers improved. For example, the staff responded readily to farmers' requests for support in controlling mole rats and onset bacterial wilt and joined them in seeking solutions. Similarly, researchers from SARI began to work more closely with farmers through POFTs, field days etc. The field experience demonstrated how collaboration increases the capacities of all involved and makes their work more effective. This stimulated discussions about how to strengthen the links.

By the end of the project in 2003, many people in the partner organisations had gained skills in FPR/E through direct implementation in the field or at least had become aware of FPR/E through their involvement in other project activities. They wanted to continue integrating this approach into their own institutions. However, they were concerned whether the links between institutions could be maintained. With this in mind, the project laid the foundations for the "Research-Extension-Farmer Linkage" strategy developed by the Research and Extension Division within SARI. The functional framework for this strategy includes issues related to FREGs, as well as responsibilities to establish and manage REACs. Both of these mechanisms are expected to strengthen links in the future.

6 Major challenges in the institutionalisation process

Although the project made considerable progress from 1999 to 2003, it could not claim to have fully institutionalised FPR/E within the Southern Region within that period. At the highest levels in political and administrative structures in the Region, many decision-makers were still not aware of the concepts and principles of FPR/E and its implications for the operations of the government institutions involved. The major challenges with which the project grappled are still challenges today in 2005.

Dealing with bureaucratic and rigid procedures

The implementation of the project was slowed down by the fact that it had to work within cumbersome bureaucratic government procedures, at the same time as trying to change these procedures to make them more flexible and amenable to participatory approaches to research and extension. For example, funds from the project budget were transferred to the different stakeholder organisations to support the field activities that they had planned within the framework of the project. This meant that the funds had to pass through the financial procedures in the respective organisations, as well as complying with the procedures of FARM-Africa for the European Union. The project frequently experienced delays in settling accounts which caused, in turn, delays in the transfer of the next payment of funds and delays in the implementation of activities on the ground. The project was not able to influence the fund disbursement and accounting procedures in the government bodies, which will continue to constrain the flexibility and responsiveness needed to support FPR/E activities. The project did not devote sufficient attention to studying the changes required in financial and other management procedures and to seeking and applying lessons from elsewhere with respect to transforming bureaucracies.

Allocating institutional funds to FPR/E

One of the agreed indicators of having institutionalised FPR/E was the availability of adequate institutional resources in terms of skilled staff, funds and logistical support for applying the approach. The skills and the interest of staff working at lower levels in research and especially in extension were raised sufficiently to allow the approach to be applied widely. However, logistical problems of physically reaching the farmers (transport, allowances) persisted throughout the life of the project and, by its end, relatively few resources were being allocated from the institutional budgets to FPR/E activities. It did not prove possible, during the four years of project implementation, to convince the majority of agricultural policy-makers and Ministers of Finance in the country and the Southern Region that FPR/E brings value for money, and is effective and efficient in reducing poverty and food insecurity and in improving farmers' incomes. This task remains to be done, and will require the concerted efforts of all proponents of FPR/E both inside and outside of government services.

Making reward systems that favour FPR/E

Despite the reflection that took place within the stakeholder organisations about creating enabling conditions for FPR/E, substantial changes in the reward systems have not yet been made. Near the end of the project, the evaluation (Waters-Bayer & Teklu, 2002) found that ACA was considering including research work with farmers as one criterion for promotion and that BoA was considering various types of incentives such as prizes, certificates of appreciation and further education for staff members who engaged in FPR/E. There were no signs of change in this respect in SARI, where the pressure to comply with the conventional “scientific” reward system has not been overcome: published papers in double-refereed journals are still considered more important than producing research results that are useful for farmers and contribute to alleviating poverty.

Integrating participatory research and extension with input supply

When experimenting farmers had tested and approved certain technologies, such as new sorghum or cotton varieties or forage grasses, the project partners experienced difficulties in scaling up the research outputs to benefit a larger number of farmers. This was partly due to the fact that the technologies being tested came primarily from research stations, and farmers selected them for testing without having made a realistic assessment of the local opportunities and constraints, which include input-supply systems. Rarely were farmers encouraged to experiment with ideas – whether from other farmers or from formal research – for which they knew that the inputs would be available if the trial was successful. Moreover, the evaluation of the trials often did not include cost-benefit analyses, which would have been extremely important in view of the fact that the external inputs for the trials were provided by the project free of charge. If farmers have to make the efforts of obtaining the inputs themselves, the relative advantages of alternatives may differ.

On the other hand, when farmers have tested new and promising technologies and are interested in incorporating them into their farming systems, more attention needs to be paid to farmer-based systems of multiplying seed and to linking farmer organisations with private-sector input providers. Thus far in Ethiopia, the government still tries to retain control over input supplies, particularly of fertiliser, and intensive policy lobbying will be necessary to open up the market and to link the results of FPR with the supply of the new inputs needed to apply the results. Strengthening farmer organisations such as FREGs may be one way to increase this pressure.

Finding political champions

FARM-Africa is a relatively small NGO that does not have a great deal of political clout. A project facilitated by such an NGO to institutionalise an approach to research and extension throughout an entire Region needs one or more champions at a high political level. The formation of the Steering Committee was an attempt to gain the backing of people at the highest levels within each of the stakeholder organisations, but this structure did not function well. At the outset of the project, the heads probably had only a vague idea of what institutionalising FPR/E would entail and how far-reaching the changes in their organisations would have to be. During implementation of the project, other priorities took precedence.

BoPED, which had been regarded at the outset as a key stakeholder because of its responsibility for overall M&E of development activities in the Region, took little interest in the project. By the end of the project, there were still no key decision-makers at high levels in the Regional Government who were motivated to champion its institutionalisation.

Sustaining the momentum

In 2003, it was clear to all that FPR/E had not yet been fully incorporated into the day-to-day work of the institutions involved. The achievements were, however, commendable, particularly in view of the fact that the project operated during a period of instability resulting from administrative restructuring. It managed to take strategic steps to cope with the numerous changes in the government organisations. It established some essential elements that should be able to keep up the momentum towards institutionalising FPR/E: the widespread building of capacities in FPR/E, its inclusion in the strategy papers of the key government organisations, its integration into the curricula of some educational and training institutions, and the formation of the FREGs at the level of farming communities. It is hoped that, as a result, the efforts to transform norms, attitudes and behaviours will continue so that FPR/E can be more deeply integrated into institutions of research, extension, education and training, and in farmers' practice. However, the only structures currently in place that could keep up the momentum of stakeholder interaction in FPR/E – the REACs – are not yet strong.

7 Key lessons from the project

In the combined efforts of the BoA, BoPED, the ARCs, ACA, FARM-Africa and – in the final year – the ATVET colleges to institutionalise FPR/E in the Southern Region, all partners went through an intensive learning process. Even though full institutionalisation of FPR/E has not yet been achieved, the project brought about considerable change and laid a strong foundation for continuing the process. The lessons have been documented in a variety of ways (see Box 4 and Annex 1) and should provide useful support into the future, not only for the Southern Region but also for similar efforts elsewhere in Ethiopia and beyond. Some of the key lessons from this project are related to issues of time requirements, institutional linkages, breadth of stakeholder involvement, maintaining a learning culture to improve quality and strengthening local organisational development.

Institutionalising FPR/E demands time and flexibility

The process of institutionalisation is complex. It requires change in individuals and, through them, change in institutions. The latter requires, in turn, change in organisational policy and a deliberate strategy to support FPR/E, to build human capacity to apply the approach, to develop mechanisms that encourage people to apply it and to modify organisational structures so as to accommodate increased participation (Sutherland *et al*, 2001). This is a long-term process. Moreover, institutionalisation of FPR/E involves not only one but rather multiple institutions with different cultures, regulations and procedures. It has to look at change also in relations between institutions, which are learning and transforming themselves at different paces. The planning of a project to institutionalise FPR/E should allow sufficient time to accommodate this.

Direct interaction between farmers, extension agents and scientists is a must to change the attitudes of all towards the roles of farmers in agricultural research and extension. However, reflection on these experiences and their implications for the way people and institutions work is equally important, so that the changes in the attitudes of individuals can lead to deliberate steps to incorporate FPR/E into the institutions. Changes in essential aspects of the relevant organisations, such as in policy, organisational structures and operational procedures, can be stimulated by creating situations that foster positive attitudes among technical and management staff towards FPR/E and by facilitating reflection on the approach, its effects and its implications. This learning process needs to take place at all levels within an organisation, not only at the top level of management and among the people working at the grassroots. The intermediate levels, if not given equal attention, can create a barrier to progress.

While deliberate and careful steps – with sensitivity to inherent organisational resistance to change – are needed to foster positive attitudes towards FPR/E under the best of circumstances, the instability of the institutional environment caused by administrative

restructuring in Ethiopia made the task even more difficult. Decentralisation of decision-making powers within government institutions favours participatory approaches towards research and extension, and is to be welcomed. However, these dynamics had not been sufficiently well foreseen during project planning. The project staff had to invest additional efforts and time to deal with the new structures and staff and to win their support. For the institutionalisation of FPR/E, it is important to create a long-term framework that includes space for flexibility during institutional change to allow for parallel external changes – and to set in place effective mechanisms within and between the institutions to be able to respond quickly to the changes.

The six indicators of institutionalisation of FPR/E that were specified at the outset of the project – related to awareness and appreciation of FPR/E, relevant knowledge and skills, supportive institutional structures, availability of adequate resources, effective linkages, and adequate incentives to engage in FPR/E – all proved to be essential, but the time needed to achieve them was underestimated. A more deliberate strategy would have been needed especially to address the issues of allocating sufficient institutional resources and giving recognition and other incentives to apply FPR/E.

Linking institutions needs constant attention

Participatory research and extension requires the joint efforts of all actors who are involved in technology generation and dissemination. However, in the current institutional set-up in the Southern Region, although various institutions collaborated to implement this particular project, there is still a high tendency to work in isolation, largely because of the physical and functional separation of the institutions. Still today, much of the collaboration between them depends on the willingness and initiative of individuals. Institutional collaboration is not yet firmly in place.

The establishment of an inter-institutional Steering Committee and a Technical Team and the direct participation of the staff of the concerned institutions in the FPR Fora were designed to improve institutional links. However, inter-institutional structures such as steering committees often function poorly, as members may see their role in the committee as an added task and give it lower priority compared to work within their own institution. The project created an environment in which the difficulties associated with the functioning of such common platforms could be discussed, and generated a readiness to see how the institutional linkages might be maintained and strengthened. Certainly, an important move in this direction is the setting up of REACs linked to research centres. Now, in 2005, these Councils are operating and have been allocated some budget, although perhaps not enough to be able to bring all REAC members together regularly at the different levels.

Any project attempting to institutionalise FPR/E should give particular attention to participatory assessment and learning about mechanisms to build and maintain multi-stakeholder partnerships. This process will have to be continued to ensure that the REACs fulfil their function and become stronger.

A learning culture needs to be nurtured

Improved farmer participation in research and extension cannot be achieved merely by applying particular methods and tools; it depends on how these are applied – on the attitude that participants have towards each other and the way they treat each other while applying the methods and tools designed to enhance participation. There are no standardised rules and procedures in participatory approaches. Instead, guiding principles need to be internalised. Experiential learning resulting from grassroots application of these principles leads to development of better skills in participatory research and development.

During and after the project, a large number of government staff members – especially those working directly with the farmers – improved their application of FPR/E methods and tools and thus improved their understanding of FPR/E by learning from their experiences in the field. Frequent interaction between the various stakeholders is necessary to realise how best to apply FPR/E and how to improve institutional linkages to support the process. This is a gradual and iterative process that must be carefully planned; good FPR/E cannot come out of a “hit-and-run” training course. The learning can be enhanced by an effective system of internal reflection and peer review to ensure the quality of FPR/E on the ground and to assess and improve the progress towards institutionalisation. During the project, this happened primarily through the FPR Fora. Ways must still be found to continue this mutual learning process.

Agricultural innovation involves a wide array of stakeholders

A project to institutionalise FPR/E should continuously examine the composition and relevance of the partners involved and should seek linkages with other stakeholders who can play important roles in the production-to-consumption chain, such as artisans (e.g. toolmakers), rural technology centres, input suppliers, processors, traders and marketing institutions. It is not sufficient to address only bio-physical problems; also issues related to access to information and other inputs and access to market have to be taken into account. Community-led trials can include testing innovative ways of adding value to agricultural products or different ways of accessing and sharing information in order to find out what is most time- and cost-effective for the community. These are only two of many possible examples, and in each of them the stakeholders and potential partners of farmers in FPR/E would not be limited to agricultural scientists and extension workers.

About halfway through the project, the importance of winning over the elected government representatives was recognised, and members of the Regional and Woreda Councils were invited to events that would make them aware of FPR/E activities. Activities designed to convince these stakeholders of the merits of FPR/E should have been planned into the project from the start, as they play a key role in creating the policy conditions that could encourage agricultural innovation.



Photo: FARM-Africa

Herders at dusk

Community organisational capacities must be strengthened

In promoting FPR/E, it is vital to build community members' capacities to take the initiative in analysing their situation and seeking ways to solve their problems and to grasp new opportunities. The research and development process should be driven by the farming communities, who actively seek relevant information and partnerships. A FREG can play an important role in managing this process, if the group is cohesive and has strong leadership. Such a group at community level not only stimulates and manages local FPR/E, it can also strengthen the influence of farmers on policy-making at village and higher levels. It can provide qualified farmer-researchers as representatives in platforms designed to link farmers, extension workers and scientists, such as the REACs.

When the project was planned, it did not include activities related to local organisational development so as to institutionalise FPR/E at the grassroots. During the course of the project, the partner organisations began to recognise the importance of establishing and strengthening FREGs as community organisations. The project ended before the FREGs could strengthen themselves through PM&E of their functioning. In a future project of this kind, attention should be given to local organisational development from the outset, and activities designed to enhance group governance, leadership, and ownership of research and development initiatives should be incorporated.

8 Looking ahead

Although the project ended in 2003, FARM-Africa has remained committed to continuing support to institutionalising FPR/E in a number of ways. FARM-Africa's recently established Training and Advisory Unit (TAU) provides training and advice in FPR/E and its continued institutionalisation at various levels. The TAU works in several parts of Ethiopia, e.g. in building capacities of government staff under the Pastoral Community Development Project. It is giving increasing attention to integrating FPR/E into institutions of higher learning and training and is promoting the approach through other FARM-Africa projects in Ethiopia. The TAU continues to produce training manuals on FPR/E that should contribute to improving the way it is implemented. In addition, the FPR/E guideline and the video films that the project produced on PRA, institutionalisation of FPR, and benefits of the institutionalisation of FPR in the SNNPRS are being distributed to support future FPR/E work.

Government organisations and NGOs with which FARM-Africa interacted during the years of the Farmers' Research Project and the subsequent institutionalisation project are likewise continuing to explore, apply and learn from FPR/E methods. EARO is in the midst of an institutional learning process, guided by AHI and ASARECA (Association for Strengthening Agricultural Research in Eastern and Central Africa). This started off with examining examples of FPR, for which the FARM-Africa work in the Southern Region served as a case study. A promising finding in this study is that the researchers involved in FPR have "developed a feeling of satisfaction" (Tilahun *et al*, 2004) – this is an important source of motivation to engage further in participatory research. However, deeper institutional change will still be needed to enable and motivate a large number of researchers and DAs to engage in FPR/E.

With this in mind, FARM-Africa has been collaborating with another NGO, Agri-Service Ethiopia, in the formation of a national platform called PROFIEET (Promoting Farmer Innovation and Experimentation in Ethiopia). This is trying to scale up participatory approaches to agricultural research and development that build on farmers' informal experimentation and innovation. It is an NGO-led initiative that seeks to engage all relevant stakeholders in learning about institutional change so that such approaches can be integrated into agricultural research, extension and education throughout the country. The work of FARM-Africa in the Southern Region has provided on-the-ground examples and field-based documentation, including guidelines that can support the work of PROFIEET partners – research centres, extension agencies, universities and other NGOs throughout Ethiopia. FARM-Africa will continue to feed its insights into this ongoing process of action-learning. These platforms at national and regional levels should be able to reinforce the institutionalisation of FPR/E in the Southern Region and elsewhere in Ethiopia.

The experience of FARM-Africa in the Southern Region has shown that, particularly in order to anchor FPR/E as a community-led approach, it will be necessary to give more support to farmer organisations by building skills in organisational development, leadership, group facilitation, communication, resource mobilisation and management, and conflict resolution. During the project to institutionalise FPR/E, it was an ongoing discussion whether more emphasis should be given to building capacities in government organisations versus community-based organisations. FARM-Africa fully recognises the need for institutionalisation in both spheres. In the continuing efforts of numerous organisations within Ethiopia to institutionalise participatory approaches in agricultural research and development, it will be a vital role of FARM-Africa – based on its experience in the “Institutionalisation of Farmer Participatory Research” project – to ensure that, in addition to promoting change in government institutions, sufficient attention is given to organisational development among farmers.

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Annex I. Main project achievements in institutionalising FPR

Printed and audiovisual publications

- *Farmer Participatory Research in Southern Ethiopia: The Experiences of the Farmers' Research Project*. Project Experiences Series 1. London: FARM-Africa
- An FPR/E guideline was prepared and issued in English and Amharic
- An PM&E guideline was compiled and published
- An video film on institutionalising FPR/E was produced and distributed
- Five posters, two leaflets and several brochures were produced on four subject areas
- A case study written by several project stakeholders was published in the book *Advancing Participatory Technology Development: case studies on integration into agricultural research, extension and education* (IIRR / ETC EcoCulture, 2003)
- Four articles on the project were published in Ethiopian newspapers
- A 10-minute radio programme on FPR/E was sponsored and aired each Monday on Radio Ethiopia for a period of nine months
- 30 diagnostic survey reports were published

Enabling access to resources

- 24 sets of 29 training books and 19 sets of 26 other books were procured and distributed, mainly to mini-libraries
- 21 mini-libraries were established in woredas and zones, and 16 persons trained in library management
- Equipment (computers, fax machines, photocopiers etc.) was procured and distributed to partner organisations
- The FARM-Africa team, assisted by an external technical advisor, compiled and distributed a list of international institutions and networks related to FPR/E with which partner organisations might take up contact

Training courses/workshops

- 116 government officials took part in two awareness-raising workshops organised by the project
- A visit to FPR activities at project sites was organised for 21 participants from the stakeholder institutions
- 552 people were trained in PRA in 21 events
- 312 people were trained in POFTs in 12 events
- 229 people were trained as trainers (ToT) in 9 events
- 101 people were trained in PM&E in four events
- Three people (government and project staff) were trained in FPR in Ethiopia
- Six project staff members took part in short-term visits abroad to FPR-related activities
- 123 students and their instructors from ACA took part in five travelling seminars

- 15 people were sponsored to attend international conferences on FPR-related topics
- 17 follow-up training courses were conducted for 116 participants
- 279 people, including farmers, took part in four FPR Fora

Participatory research, review and monitoring activities

- 38 diagnostic surveys were conducted
- 64 POFTs were conducted (50 by BoA, 12 by the ARCs and two by ACA)
- Two exchange visits involving 28 farmers and 14 SMSs were conducted for FREGs within the Region and one visit for farmers (14) and SMSs (11) was conducted outside the Region (Holeta ARC)
- In addition, 112 farmers took part in farmer-to-farmer visits on mole-rat control, sanitary control of enset bacterial wilt and fuel-saving stoves to improve POFT implementation and adoption of technologies
- Activities related to new potato varieties and storage techniques, forage species, chickpea varieties, improved stoves and sanitary control of enset bacterial wilt were incorporated into the regular work of the government organisations, at least in the woredas involved in the respective POFTs. Other crop varieties (wheat, teff and composite maize) were disseminated through farmer-to-farmer exchange of seeds and by other means.
- A baseline study and a PM&E study were conducted
- Three peer reviews and several topical monitoring visits were carried out by multi-institutional teams

FARM-Africa publications

Project Experiences Series

1. Farmer Participatory Research in Southern Ethiopia: The experiences of the farmers' research project

FARM-Africa, 2001

ISBN: | 904029 00 0

2. Unlocking Farmers' Potential: Institutionalising farmer participatory research and extension in Southern Ethiopia

Ejigu Jonfa & Ann Waters-Bayer, 2005

ISBN | 904029 06 X

Policy and Research Series

1. Key Experiences of Land Reform in the Northern Cape Province of South Africa

Alastair Bradstock, 2005

ISBN | 904029 02 7

2. Soil Fertility Practices in Wolaita Zone, Southern Ethiopia: Learning from farmers

Barry Pound and Ejigu Jonfa (eds), 2005

ISBN | 904029 03 5

3. Supporting Land Reform in South Africa: Participatory planning experience in the Northern Cape Province

Alastair Bradstock, 2005

ISBN | 904029 04 3

4. Land Reform and its Impact on Livelihoods: Evidence from eight land reform groups in the Northern Cape Province of South Africa

Alastair Bradstock, 2005

ISBN | 904029 05 1

Working Paper Series

1. The Eastern Cape Smallholder Support Project: An assessment of the revolving fund

Richard Ewbank, 2004

2. Goats: Unlocking their potential for Africa's farmers

Christie Peacock, 2005

Other publications

Reaching the Poor – A Call to Action: Investment in smallholder agriculture in Sub-Saharan Africa

FARM-Africa, Harvest Help and Imperial College London, 2004

ISBN | 904029 01 9

Delivering Affordable and Quality Animal Health Services to Kenya's Rural Poor
FARM-Africa, 2003

Farmers Dairy Goat Production Handbook
B. Kaberia, P. Mutia and C. Ahuya, 2003

Strategy Towards 2015: Innovative solutions for Africa's rural livelihoods
FARM-Africa, 2003

Farmer Participatory Research and Extension Guideline
Ejigu Jonfa and Barry Pound (eds), 2002

PDP Best Practices Series (5 booklets)

Helen van Houten (ed), 2002

The Mobile Outreach Approach

Natural Resource Management

Camel Husbandry and Production

Animal Health

Microenterprise Development

Improving Goat Production in the Tropics

Christie Peacock, 1996


ISBN 0 85598 269 1

Videos

Goat Story – Alleviating poverty for farmers with little land in Kenya
FARM-Africa, 2000

Home on the Range – Talking to Ethiopia's pastoralists
FARM-Africa and SOS Sahel, 2004

FARM-Africa's publications are available at www.farmafrica.org.uk. For further information please email info@farmafrica.org.uk.



FARM-Africa's mission is to reduce poverty by enabling marginal African farmers and herders to improve their well-being through more effective and sustainable management of their natural resources. FARM-Africa was established in Kenya in 1985 and now operates in five African countries: Ethiopia, Kenya, Uganda, Tanzania and South Africa. FARM-Africa designs and implements development projects and has extensive specialist expertise in the following areas: goat husbandry, participatory forest management, pastoral development, farmer participatory research, land reform, community-based animal health delivery systems and micro-credit.

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