Farmer Participatory Research in Southern Ethiopia

The Experiences of the Farmers' Research Project

Project Experiences Series 1

The Farmers' Research Project, located in Southwestern Ethiopia, is firmly based on the principles of farmer participatory research (FPR).

The overall goal of the project is to increase, in a sustainable manner, the incomes of resource poor families in the project area and ultimately, through example, in Ethiopia as a whole. It aims to achieve this by promoting the use of FPR as a mechanism for generating and disseminating improved and appropriate agricultural technologies.

The project has demonstrated the viability and usefulness of a programme of activities that provide a framework within which participatory research in Ethiopia can be successfully carried out by either GOs or NGOs. The key components of this framework are: (1) diagnostic/ PRA studies, complemented by other research studies; (2) a wide mix of training activities, including formal training in PRA and participatory on-farm trials, and travelling seminars for farmers; and (3) a programme of participatory on-farm trials.

This document outlines the institutional and geographical contexts of the Farmers' Research Project, its objectives and central activities, and summarises the impact of the FPR approach within the project. It will be relevant to a wide audience, including research and extension practitioners, policy makers, donors and students, looking for an example of the practical application of an FPR approach at the field level.

ISBN 1-904029-00-0
£4.00

FARM Africa

Making a lasting difference to Africa's families

FARM (Food and Agricultural Research Management) is a British based NGO whose goal is to reduce poverty by enabling marginal African farmers and herders to make sustainable improvements to their well-being through more effective management of their renewable natural resources.

FARM-Africa seeks to achieve its mission by working in the following manner:

- Innovative, challenging and risk-taking
- Specialised
- Practical and operational
- Catalytic, rather than merely providing services
- Independent
- Acting as a bridge between researchers and farmers
- Building the capacity of people and local institutions in Africa rather than developing parallel structures
- Disseminating practical experience
- Advocacy to improve policy and practice
- Conducting research, when required, that is relevant to practical problems confronting communities

FARM-Africa
9-10 Southampton Place
London WC1A 2EA
Tel: UK 020 7430 0440
farmafrica@farmafrica.org.uk

Farmer Participatory Research in Southern Ethiopia

The Experiences of the Farmers' Research Project

Published by Farm Africa
9-10 Southampton Place, London WC1 2EA

farmafrica@farmafrica.org.uk
www.farmafrica.org.uk

FARM-Africa (Ethiopia)
PO Box 5746, Addis Ababa, Ethiopia

ISBN 1-904029-00-0

Farm-Africa acknowledges the financial support
of DFID in the production of this publication.

Glossary

BOA
Bureau of Agriculture

FARM
Food and Agricultural Research Management

FPR
Farmer Participatory Research

FRP
Farmers' Research Project

GO
Governmental organisation

NGO
Non-governmental organisation

POFT
Participatory on-farm trials

PRA
Participatory Rural Appraisal

This paper is based on the Final Report of the Farmers' Research Project, prepared by Stephen Sandford, in November 1999.

The views expressed in this paper are those of FARM-Africa and do not necessarily reflect the opinions of the Department for International Development.

1 Introduction

In recent years there has been a considerable 'push' towards participatory agricultural research and as a result there is now a wide array of 'participatory' projects as well as a huge wealth of literature discussing the issues of farmer participation in agricultural research activities. However, much of this printed material focuses on the promotion of the rhetoric of participation rather than indicating what different methodologies can be used or how effective combinations of these methods can be achieved.

In this document, the Farmer Participatory Research (FPR) approach is described and a summary of the impact of this approach within the Farmers' Research Project (FRP) is given. In conclusion, the current concerns and activities of the FRP are outlined.

2 Institutional context

The FRP is planned and implemented by the NGO FARM-Africa, and was supported with funds from the British Government's Department for International Development (DFID)

In the Farmers' Research Project FARM-Africa collaborates closely with local organisations, both governmental and non-governmental. Government organisations include the Bureau of Agriculture, which is the organisation responsible for agricultural extension at the regional level and below; the Awassa College of Agriculture, which is the regional centre for agricultural education and training; and the Awassa Research Centre, part of the Ethiopian Agricultural Research Organisation (EARO), which has regional responsibility for conducting agricultural research, the results of which (once approved) are disseminated through the Bureaux of the Ministry of Agriculture. Non-governmental organisations include Concern, World Vision, SOS Sahel and Action Aid. The Farmers' Research Project is staffed entirely by Ethiopians.

3 Geographical context

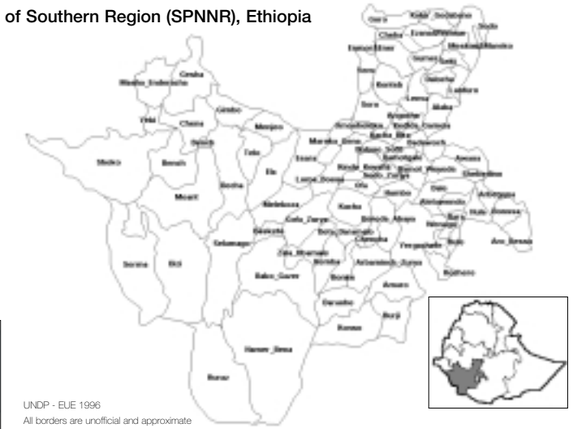
Ethiopia is one of the world's oldest nations and one of the few in Africa that was never colonised. It is one of the least developed countries in the world. Its economy is heavily based on agriculture, which accounts for more than half of GDP, 80% of total employment, and 90% of exports (CIA, 1999).

Over 80% of Ethiopia's 57 million people live in rural areas, with the bulk of these people being engaged in subsistence farming or pastoralism. Pressure on the land is very high with an average landholding per household in the mid/high altitude areas in the region of only 0.2 to 0.6 hectare (Percy, 1997).

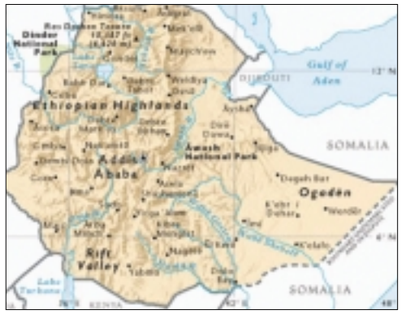
Ethiopia has great agricultural potential because of its vast areas of fertile land, diverse climate, generally adequate rainfall, and large labour pool. Despite this potential however, Ethiopian agriculture has remained underdeveloped. Due to a range of factors, including drought, which has persistently affected the country since the early 1970s, a poor economic base, inappropriate government policies, and an unstable political climate, the agricultural sector has performed poorly.

In the 1990s Ethiopia underwent a process of regionalisation as part of its decentralisation process. There are now 14 regions in the country, mostly based on ethnic divisions. With regionalisation came new roles for the Ministry of Agriculture. At the central level, the Ministry's activities are focused on national policy issues, and co-ordinating and facilitating activities at the regional level. The Regions now have much more autonomy than before, as have the Zones within the Regions (Percy, 1997).

Administrative Weredas of Southern Region (SPNNR), Ethiopia



UNDP - EUE 1996
All borders are unofficial and approximate



4 Project objectives

3.1 Project area

Agricultural extension began in Ethiopia in the 1950s, and various approaches have been taken over the decades. An integrated development approach in the 1960s and 1970s was followed by the adoption of the Training and Visit (T&V) system which became the main extension approach that was used by the Bureau of Agriculture, although it was later recognised to be insensitive to the varied requirements of small farmers. The present government extension system agreed upon between central and regional levels is based on the package approach and is called the 'Participatory Demonstration and Training Extension System' (PADETES). This system combines technology transfer and human resource development, and promotes the participation of farmers in the research process (Percy, 1997). However, there are several weaknesses in this approach, such as the promotion of inappropriate technology, insufficient on-farm and adaptive research, continuation of inappropriate promotion criteria for research and extension staff (i.e. based on scientific publications), poor research and extension linkages, and the lack of "real" participation of farmers (Misgana, 1998). Due to a range of biases (class, gender, literacy and location), the majority of small farmers have derived limited benefits from this programme.

The Farmers' Research Project is based in Southwest Ethiopia, in the North Omo Zone and Derashe and Konso special weredas[1] (page 5). The project area covers approximately 30,000 square kilometres and includes a wide diversity of natural environments, with altitudes ranging from 600m above sea level in the south to approximately 4000m in the centre, with respective annual rainfalls ranging from approximately 400mm to 1600mm. The area is home to c. 3 million people who face a multitude of problems related to poverty and low agricultural productivity.

[1] A 'wereda' is the local government equivalent to a district

The overall goal of the project is to increase, in a sustainable manner, the incomes of resource poor families in the project area, and ultimately, through example, in Ethiopia as a whole. It aims to achieve this by promoting the use of Farmer Participatory Research as a mechanism for generating and disseminating the improved and appropriate agricultural technologies needed to raise incomes sustainably.

In order to fulfil the project's aims the Farmers' Research Project strove to achieve the following outputs:

- Create better linkages and understanding between farmers, researchers and extension staff;
- Develop a better understanding of ways in which farmer participatory research can be conducted in Ethiopia
- Enhance the capacity of GOs and NGOs to enable farmers to undertake farmer participatory research
- Stimulate and encourage the incorporation by GOs and NGOs of farmer participatory research into their own organisational activities.

5 Farmer Participatory Research in the Farmers' Research Project

The Farmers' Research Project (FRP) developed a comprehensive framework of activities through which it promoted a participatory approach to undertaking agricultural research with local farmers. The key elements of this framework were:

- Diagnostic, participatory studies complemented by additional, specific research studies;
- Training programmes, both formal and informal, for institutional staff as well as local farmers; and
- Participatory on-farm trials, i.e. research trials that take place in a farmer's field, and which are managed and evaluated by the farmer him/herself.

These activities were supported by a programme of internal monitoring that served to assess and re-direct project activities. The progress and results of these project components are discussed below.

Box 1: What is Farmer Participatory Research*?

Farmer Participatory Research refers to the active involvement and participation of beneficiaries (farmers) and other stakeholders in the agricultural research process. This approach evolved as a response to earlier agricultural research methodologies (on-station research and Farming Systems Research) that were found to be unsatisfactory in producing appropriate and sustainable research results for the target beneficiaries. A common classification used to identify the various types of participation in agricultural research is provided by Biggs (1989): contractual - where researchers contract with farmers to obtain land and services; consultative - where researchers consult farmers about their problems and then develop solutions for them; collaborative - where researchers and farmers collaborate as partners in the research process; and collegiate - where researchers work to strengthen farmers' informal research and development systems, and where farmers are given scope to apply their initiative and specialised knowledge throughout the research process. FRP represents an attempt to move towards collegiate research, recognising farmers as innovators and experimenters, and treating them as active and equal partners with researchers and extensionists (rather than merely passive end-users of technologies). The aims and objectives of FRP include the following:

- Increase the understanding of the complexities and dynamics of local agricultural and socio-economic systems;
- Identify priority problems, constraints and opportunities;
- Identify, develop, test and implement new technologies and techniques (based on the knowledge and research capabilities of local communities and institutions; and
- Stimulate and strengthen the experimental capacity of farmers to analyse their situations and develop relevant, feasible and useful innovations;

The reasons for promoting FPR can be classified into three groups (Van Veldhuizen et al, 1997): 1) pragmatic objectives: to increase the efficiency and effectiveness of research through increased adoption rates of technologies and techniques, and reduced research and extension costs; 2) ethical objectives: to increase equity and ensure that stakeholders, especially the resource-poor, play a role in activities that affect them; and 3) political objectives: to empower the poor and strengthen their bargaining power. The literature documents a wide array of methods that can be used to facilitate a FPR approach to agricultural research and it is now commonly appreciated that a combination of methods is the most beneficial in providing a holistic approach to FPR. Methods include:

- Participatory on-farm trials
- Group/community meetings/workshops/discussions
- Case studies with individual households/farmers
- Study tours (to other farmers' fields and research stations)/exchange visits
- Participatory Rural Appraisals (PRAs).

PRAs can be described as a set of approaches and methods that enable local people to express and analyse their realities and conditions, and to plan, implement, monitor and evaluate their activities. PRA emphasises processes that empower local people and employs a wide range of methods such as: matrix scoring to compare things; map drawing to show the location of important local features and resources; flow diagrams to indicate system linkages, and causes and effects; and seasonal calendars to illustrate annual variations in important factors, such as food availability and labour wages (Blackburn and Chambers, 1996).

What is important for all of the above methods is the manner in which they are applied, and this depends, to a large degree, on the nature of the dialogue that can be established between researchers/extensionists and farmers. The use of participatory methods requires researchers to re-examine their own knowledge bases and attitudes and to cultivate a willingness to treat farmers as equals, with respect for their concepts, detailed technical knowledge and research capacity, and to acknowledge them as experimenters and innovators

But does it work?

From practical experience in many different countries and in many different sectors (animal health, IPM, soil and water conservation, etc.) the farmer participatory approach to research activities has proved effective in developing and adapting new technologies, both within NGOs and within formal research organisations (Sutherland, 1998). The current popularity of the FPR approach represents a fundamental shift of attitudes and approach in the agricultural research and development process. Within an FPR approach, farmers' needs and demands become the driving forces, and the constraints of the systems are the ability of the support services (research, extension and input-supply) to respond effectively to these demands. It often requires a complete reversal of both the information and the staff incentive systems. For example, information systems have to become sensitive and responsive to variations (across space and time) in demand from below, and staff should be rewarded for their ability to listen to, and act on, farmers' demands, relaying these to their colleagues and superiors. The change in procedures and normal values required to implement this switch is formidable, and represents a considerable challenge to advocates and practitioners of FPR.

*Further information on FPR can be obtained from:

Books: Okali, Sumberg and Farrington (1994), Farmer participatory research. Rhetoric and reality; van Veldhuizen, Waters-Bayer and de Zeeuw (1997), Developing technology with farmers - a trainers guide for participatory learning; Chambers (1997), Whose reality counts? Putting the first last.

Newsletters: LEISA, AgREN (ODI), and PLA Notes.

Websites: The British Library for Development Studies (http://www.ids.ac.uk/blds); The Participation Group at the Institute of Development Studies (http://www.ids.ac.uk/ids/particip/index.html)

5.1 Research studies

Between 1991 and 1998 the FRP published 38 reports of different research studies*. These studies and their reports were primarily aimed at creating a better understanding, by researchers and extension staff, of the local farming systems and their constraints and opportunities.

Many of the reports relate to diagnostic studies, i.e. studies that describe the farming systems being practised by different rural communities and analyse their constraints and opportunities. These diagnostic studies were undertaken using Rapid or Participatory Rural Appraisal (RRA/PRA) techniques and involved 10-12 days spent in the field studying the farming systems in question. Despite being very useful for the identification of farming conditions and constraints, it was felt that the prioritisation of these constraints was not something that could be easily or usefully done in this time, requiring a longer period of discussion within and between the community and outsiders of different professions, before sensible judgements could be reached about priorities and best bets.

The project also conducted many (22) other studies defined as topical or special studies. Topical studies are in-depth studies of the production, consumption and marketing of particular commodities or inputs, and examples of technical pamphlets include sweet potato production, small-scale poultry keeping, and indigenous mole-rat control methods.

Special studies are described as in-depth follow-up studies on particular problems that have been identified in diagnostic or topical studies, such as the reproductive problems of local cattle.

All reports have been distributed widely, both within and beyond the Southern Region of Ethiopia. The Farmers' Research Project believes it has a clear view of whom it is trying to target with these publications, and the kind of message they are attempting to put across. However, they also recognise that careful follow-up is required in order to understand how these publications can be improved and to ensure their targeting strategy is appropriate.

The beneficiaries of these studies and their reports can be divided into three broad groups. Firstly, those involved in the research studies gained professional knowledge and expertise from their direct participation in these activities. Secondly, through a broad distribution of the reports, many others, most notably research and extension staff, have gained a better understanding of the area's agricultural systems and constraints. The publications have also stimulated a shift in attitudes about participatory approaches and how to conduct research with farmers and have led to project collaborators reformulating their existing plans and the design of new proposals. It is interesting to observe that several of the project's collaborators undertook further diagnostic studies as a direct result of being involved in these project activities. The third group of beneficiaries is the local farmers, as through these studies the support services (i.e. research and extension) have become better informed of their needs and constraints, as well as more aware of more appropriate methods of working with them.

*For details of these publications please contact FARM-Africa.

5.2 Training activities

The FRP organised a wide range of training activities, including:

- Formal training courses for research, agricultural extension and development staff of GOs and NGOs;
- Workshops for research, agricultural extension and development staff of GOs and NGOs;
- Visits by senior/middle-ranking officials of GOs and NGOs to see field activities;
- 'Travelling seminars' by students to see field activities;
- Formal training courses for farmers;
- Workshops for farmers;
- Travelling seminars by farmers to other farming areas, research stations, etc.

These activities had a variety of objectives, depending on the nature of the event and the people involved. For example, the training events for GO and NGO staff were primarily aimed at enhancing their personal and institutional capacity to conduct farmer participatory research, whereas training events for farmers were partly aimed at creating better knowledge about the ways in which FPR can be conducted in Ethiopia, and partly at fostering better linkages and understanding between farmers, researchers and extension staff.

Between 1991 and 1999 FRP organised a total of approximately 80 training events, involving approximately 2,300 people. Of these events, 21 were formal courses for GO and NGO staff, 16 were workshops for GO/NGO staff and 20 were travelling seminars for farmers.

The bulk of FRP's training activities was based on the provision of two standard, formal courses for GO/NGO staff in PRA and participatory on-farm trials (POFT). Both courses centred around the complementary use of classroom based theory and analysis, and field based practice and experimentation, with course participants being able to put the theories they learned in the classroom into practice in the field.

The most important observation from FRP's training activities has been the transformation of the attitudes of the trainees to agricultural research and extension. To quote the words of one trainee:

"Before training I considered myself as if I knew more than the farmer about his situation. I was conducting surveys and research on the farms without consulting the farmer. I undermined his ideas, views and experiences. But after the training, my understanding has completely changed. Now I believe that the farmers do know their problems better than anyone else".

Some GO/NGO trainees have trained others in their respective organisations, thereby extending the knowledge and skills they obtained from their FRP training, and there are already some examples of the practical application of FPR by some of the collaborating organisations, representing an important behavioural shift in their approach. For example, the PRA task force of North Omo Bureau of Agriculture has been active in carrying out diagnostic surveys, and has also run training courses in PRA methods (in addition to the PRA training run at the same time by FRP) and trained over 90 people in PRA methods

between 1995 and 1996. The Awassa Research Centre has started testing farmer participatory research methods and has proposed two more pilot projects to further investigate ways of institutionalising the approach. The Awassa College of Agriculture staff has carried out diagnostic surveys using RRA, and some staff members have trained and enabled their students to undertake investigations using the PRA tools.

However, it has been acknowledged by the FRP that the practical application of the knowledge acquired during GO/NGO staff training has largely been limited to the individuals trained rather than to their institutions. The majority of FRP trainees came from the 'middle' level of professionals whereas if senior officials, who often lack awareness of participatory approaches, had been trained this may have led directly to more resources becoming available for participatory activities. The FRP recognises that it has not significantly influenced policy makers and managers in the collaborating organisations, particularly in the Bureau of Agriculture and the Awassa College of Agriculture, to adopt more participatory tools and techniques to implement projects and programmes. These weaknesses have become the current focus of the FRP (see Sect. 7). With regard to training events for local farmers, travelling seminars have proved to be the most appreciated, and indeed many farmers with whom the project has developed a relationship consider these to be the most useful activity in the whole project. Farmers mention the direct practical impacts of travelling seminars, for example, starting up a community-based tsetse control programme and constructing moisture-conserving terraces as a consequence of observing similar successful programmes in other regions. Although these activities are very popular with the farmers they are an expensive training activity, as they normally last 4-5 days with farmers being transported in project vehicles and spending intermediate nights away from home. This therefore severely limits the potential replicability of the activity.

Farmers have also reported the benefits of other training activities, such as the adoption of new technologies or management techniques, and farmers participating in the PRA training reported that they had expanded their knowledge and understanding of local problems. Many farmers involved in training activities reported that they had shared information with other farmers, and a few trained farmers took on a training role, motivated to defend new technologies and demonstrate technologies to other farmers. However, farmers also commented that some training activities raised interest and/or suspicions among neighbouring farmers, highlighting the importance of communicating to local farmers through community structures to ensure everyone is informed about project activities.

5.3 Participatory on-farm trials

Participatory on-farm trials (POFTs) are research trials that are conducted on a farmer's field, and managed and evaluated by the farmer him/herself. The FRP considers POFTs to be an essential part of any research process, fulfilling the following objectives:

- Test technologies and practices under the resource constraints and management levels experienced by farmers, and provide important feedback about farm-level constraints and problems;
- Monitor how farmers adapt technologies/practices to achieve a better "fit"; and
- Complement existing farmer experimentation and enhance farmers' experimental capabilities.

Photo: Dominic Harcourt-Webster

Between 1991 and 1999 the FRP was involved, to some degree, in 39 participatory on-farm trials, involving over 400 farmers. In each case FRP had a partner organisation since it has no mandate to set up its own independent linkages with farmers. The degree of involvement varied from high intensity, involving a substantial amount of FRP staff time in the field, to low intensity 'very hands-off', in which FRP simply gave some advice on trial design or analysis of results to a collaborating GO or NGO. Twenty-six of the trials were general crop variety and forage species adaptability trials. Four trials tested methods of enhancing soil fertility without agro-chemicals (using compost and alley cropping) and four trials involved testing agro-chemicals for pest control or soil-fertility enhancement. About 60% of the trials involved crops for human food, and about 30% involved forages (livestock feed). The remainder involved cotton (North Omo has a very important traditional spinning and weaving industry) and fuel-saving stoves.

The adaptation POFTs were extremely popular with farmers because they gave them access to a range of planting material to experiment with. In contrast, the usual procedures of the agricultural extension service would, at best, only give them access to one species/variety selected by the professional experts. These adaptation trials, together with the PRA and POFT training that normally preceded them, built an entirely new kind of relationship between farmers and extension staff.

A project stakeholders' assessment exercise in 1997 reported that 92% of the participating farmers said that they had benefited from taking part in the POFTs, and 78% said that there was a consequent positive change in their life. A large proportion (78%) of the POFT farmers had adopted at least one of the technical results, and in almost all cases they stated that the technology had led to livelihood improvements in household income, food security or safety. Regarding technology development, a smaller but significant proportion of the farmers reported technology adaptation and conducting their own research in order to develop technology, mainly in the area of pest control. With respect to the development of farmer research capacity, as a result of the POFTs, nearly all farmers had a wider choice than before of technologies that they could use to address a specific problem. Most of them were able to lay out and manage conventional on-farm experimental plots and evaluate technologies using participatory ranking. A few were also actively conducting their own experiments.

Practically all of the participating farmers reported interest from their neighbouring farmers in visiting the trials, and over half (64%) reported that at least one neighbour had started applying the new technology or technologies. However, FRP is not able to tell with any satisfactory degree of precision how many farmers in the vicinity of trial locations have adopted the various technologies being tested. Many of the farmers with variety trials, forage trials, stove trials and mole rat trials had multiplied the technology for

their own use, and some of these were also supplying other farmers. A few were actively demonstrating technology to other farmers. Nearly half of the non-participating farmers had shown an active interest in the POFT programme, and three-quarters of them regarded the POFTs as important and useful, and were willing to participate in the program, if asked. In some areas, notably the cotton growing zones, farmers had started requesting technology supply (e.g. cotton seeds, bean seeds, fruit tree seedlings) through their peasant association and the Bureau of Agriculture.

Box 2: A note on farmer selection for participatory on-farm trials

Voluntary selection may be the most common approach to the selection of participating farmers for on-farm research. However, farmers' disposition to volunteer is influenced by their expectations of the project and their past experiences with other projects, as well as the level of resources they have available. On the other hand, a "participatory approach" to the selection of farmers may lead to the selection of an unrepresentative sample of farmers, as local elites and interest groups can monopolise the process to the detriment of other community members. Therefore, it is often useful to have a purposive sampling procedure, based on an understanding of the local social structure. Ewell (1988) states that selected farmers need to be representative of the target group, willing to collaborate and accessible, and Sutherland et al (1998) suggest that material incentives for farmers to participate should be reduced to a minimum, so that the desire for new knowledge becomes the main motivation for farmers to become involved.

In many cases it may be advisable to conduct research through community structures and activities, in order to avoid victimisation of participating farmers or the creation of inter-household jealousies and to increase widespread acceptance of the process (Hagmann et al, 1997). However, it should be remembered that the criteria for the selection of group members is equally as problematic as deciding the criteria for the selection of individual farmers.

In relation to the comments above on farmer selection (Box 2), FRP made considerable efforts to get a "representative" sample of different social (e.g. male/female household heads) and economic classes (e.g. different wealth classes) among its trial farmers. In spite of those efforts, it has not undertaken any significant amount of analysis of the different up-take rates or impacts of the various technologies tested on these different social and economic classes. It also proved less successful in finding a method of selecting and training "research" farmers to act as links with neighbouring farmers.

6 Overall impact of the Farmers' Research Project and the FPR methodology

Farmer Participatory Research is defined as research in which farmers play leading decision-making roles in identifying and designing research as well as in implementing and evaluating it.

The FRP sought to increase the sustainable incomes of resource poor households in the North Omo zone and Derashe and Konso special weredas in Southern Ethiopia, by promoting farmer participatory research as a cost-effective method of generating and disseminating improved agricultural technology.

The FRP has demonstrated the viability and usefulness of a programme of components/activities which provide a framework within which participatory research in Ethiopia can be successfully carried out by either GOs or NGOs. The key components of this framework are: (1) Diagnostic/ PRA studies, supported by other research studies; (2) a wide mix of training activities, including formal training in PRA and POFTs, and travelling seminars for farmers; and (3) a programme of participatory on-farm trials.

The Farmers' Research Project has had considerable success in raising the awareness and improving the technical capacity related to farmer participatory research, in the collaborating governmental organisations, i.e. the Bureau of Agriculture, the Awassa Research Centre and the Awassa College of Agriculture. It has brought about a huge, positive change in attitudes to local farmers and their farming systems among research and extension staff, coupled with the spread of practical experience in the use of farmer participatory research methodologies.

Through the range of activities promoted by FRP (i.e. training events, publications, POFTs) research and extension staff have also become much better informed about local agricultural systems, their rationale and their constraints. The approaches and tools used have found their way outside the project area, to many other areas of Ethiopia, and it is hoped that this report will further stimulate the spread of experience from the Farmers' Research Project.

In summary, the lessons learnt from the Farmers' Research Project include:

- The need to work closely with local governmental and non-governmental organisations if a project approach is to become institutionalised within local structures.
- The importance of adopting a multi faceted approach to FPR
- The importance of continuous and regular monitoring and evaluation
- The importance of combining theoretical training with practical hands-on sessions
- The need to involve senior level staff in training events, in order to affect the management of local organisations and their policy towards FPR.
- Participatory on-farm trials can be effectively used to stimulate the adoption and adaptation of technologies by farmers and to strengthen farmers' experimental capabilities; it is important to monitor how these technologies spread to other farmers
- The importance of creating links with the wider community of farmers,to encourage dissemination of information.

7 Looking ahead

A new phase of the Farmers' Research Project is now running (1999-2002). Entitled 'Institionalisation of Farmers' Participatory Research in the Southern Nations, Nationalities and Peoples Regional State', and financed by the European Union, it is a follow-on from the project described in this document.

The new project phase extends the activities of the earlier project to farmers and institutions in the nine zones and five special weredas of the Southern Region. The weredas selected for project implementation are Bako-Gazer, Bench, Boreda-Abaya, Chena, Goro, Kedida Gamela, Kochere, Limu and Shebedino. The five "special weredas" are Amaro, Burji, Derashe, Konso and Yem (see map, page 5).

The project purpose is to facilitate the institutionalisation of FPR tools and approaches in the regular activities of the organisations involved in the generation and transfer of agricultural technology in the Southern Region of Ethiopia. The adoption of these approaches will contribute to the Region's food security.

The institutionalisation of FPR involves the 'routine incorporation of practices that actively engage farmers in a decision-making role, in the identification and prioritisation of production constraints, defining and testing of potential solutions, and selection and adoption of agricultural technologies that enhance agricultural production and productivity' (Sutherland as quoted in Sandford, 1999).

Lessons learned in the past have been incorporated into the new project. For example, the lack of significant influence on policy makers and managers noted in section 5.2 (page 9), has been addressed by increasing opportunities for policy and decision makers in relevant regional bodies to be exposed to on-site FPR, and to be involved in formulating and issuing guidelines for FPR activities.

Demonstration and dissemination are keywords to the successful institutionalisation of FPR. Within the new project, the extensive reproduction of successful activities from the former (e.g. POFTs), and the potential of farmer research groups as a new component in FPR exemplify the importance of documenting the experiences gained by this project, which has much to offer to other people and organisations interested in introducing participatory research and extension into mainstream organisations.

FARM-Africa is currently evolving strategies to enable lessons learned and technical best practices identified from this and its other projects, to be more widely disseminated in both print form and through extended use of its website.

8 References

Biggs, S. (1989) Resource-poor farmer participation in research: a synthesis of experiences in nine national agricultural research systems. OFCOR Comparative Study Paper No 3. The Hague, Netherlands: ISNAR.

Blackburn, J and Chambers, R (1996) The power of participation : PRA and policy. IDS Policy briefing, Issue 7. Brighton, IDS.

CIA (1999) The world factbook 1999 - Ethiopia. http://www.odci.gov/cia/publications/factbook/et.html

Ewell, P.T. (1988) Organisation and management of field activities in on-farm research: a review of experience in nine countries. OFCOR - Comparative Study No. 2, ISNAR.

Hagmann, J., Chuma, E and Murwira, K. (1997) Kuturaya: participatory research, innovation and extension. In Van Veldhuizen, L., Waters-Bayer, A., Ramirez, R., Johnson, D.A and Thompson, J. Farmers' research in practice. Lessons from the field. London; IT Publications.

Misgana, L.O (1998) Critical review of the extension package popularisation programme of Ethiopia with reference to Oromia regional state. Dissertation, MSc in Agricultural Extension, AERDD, University of Reading.

Percy, R (1997) Gender and participation in agricultural development planning: lessons from Ethiopia. FAO Women in Development Service, Rome. Working document.

Sandford, S (1999) Final report of the Farmers' Research Project in the North Omo zone and Derashe and Konso special weredas of the Southern Nations, Nationalities and Peoples Regional State of Ethiopia. Internal report of FARM-Africa. Addis Ababa, Ethiopia, FARM-Africa.

Sutherland, A (1998) Participatory research in natural resources. Socio-economic Methodologies. Best Practice Guidelines. Chatham, UK: Natural Resources Institute.

Sutherland, A., Martin, A and Salmon, J. (1998) Recent experiences with participatory technology development in Africa: practitioners' view. ODI Natural Resource Perspectives No 25.

Van Veldhuizen, L., Waters-Bayer, A and de Zeeuw. H. (1997) Developing technology with farmers. A trainer's guide for participatory learning. London; ZED Books Ltd.

Other FARM-Africa projects

Community Oriented Rural Development Project (CORDEP), Tigray region, Ethiopia
This project works with local communities to help them to improve domestic water supply. The project carries out participatory research with farmer groups and GOs. It is also helps to build the capacity of local communities to deliver animal health care, to improve the productivity of their local goats and to undertake soil and water conservation work.

Goat Project, Amhara, Oromia and the Southern regions, Ethiopia
This project concentrates on the poorest families, in particular women. It helps them to acquire goats and learn to manage them effectively. It also helps these families to build on their new found wealth through better nutrition and family planning.

Land Use and Farm Forestry project, the Bonga project and the Chilimo project, Ethiopia
The aim of these projects is to introduce new ways of managing community and state forests in a participatory and sustainable manner. The projects work with the bureau of agriculture and local communities to develop and implement participatory forest management plans.

The Ethiopian Pastoral Project (EPP), Afar region, Ethiopia
This project aims to enhance the capacity of camel owning communities to plan and manage their own development through training programmes in small business management and animal health care.

The Konso Capacity Building Project, Southern Region, Ethiopia
This project is designed to develop the potential of the Konso Development Association, a local NGO, to give the Konso people the capacity to plan and manage their own development and in turn to mitigate the effects of periodic droughts.

The Pastoralists Development Project (PDP), Marsabit, Moyale and Samburu districts of North Eastern Province, Kenya
The PDP has been operating in the north of Kenya for 12 years. It is working with pastoral groups, local NGOs and GOs to help pastoral communities to manage better their health, their livestock and their available resources by training community members as paravets, as traditional birth attendants and as community health volunteers.

The Meru Dairy Goat and Animal Health Care Project, Meru and Tharaka Nithi districts of Central Province, Kenya
This project's purpose is to increase the productivity of local goats through better management, access to sustainable healthcare and genetic improvement systems and to increase the productivity of local cattle through better access to sustainable healthcare.

The Babati Agricultural Development Project, Babati district, Arusha region, Tanzania
FARM is assisting groups of farmers in Bashanet division to increase the productivity of their natural resources. The project is improving the productive performance of local goats, helping three villages to conserve their forestry resources and teaching primary school children soil and water conservation and forestry techniques.

Capacity Building in Community Natural Resource Management, Northern Cape Province, South Africa
This project is working with communities in the Northern Cape who have benefited from the government's land reform programme. FARM, in partnership with the Departments of Agriculture and Land Affairs, is working closely with communities and their institutions to help to increase the productivity of their natural resources.

Small Holder Support Project, Eastern Cape Province, South Africa
FARM, in close collaboration with the Department of Agriculture, is working with farmers and farmer groups to increase the productivity of their agriculture. The project and the DOA will be devising new ways of delivering extension advice to small-scale farmers.

For more information on these projects, please contact FARM-Africa.