

# FIELD GUIDE PARTICIPATORY LEARNING INTEGRATED SOIL FERTILITY MANAGEMENT



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## **About ISFM+**

The Integrated Soil Fertility Management Project (ISFM<sup>+</sup>) is funded by the German Federal Ministry of Economic Cooperation and Development, through the Special Initiative 'One World - No Hunger (SEWOH)'. The key institutional partner of ISFM<sup>+</sup> is the 'Soil Fertility Improvement Directorate' of the Ethiopian Ministry of Agriculture and Natural Resources.

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## INTRODUCTION

Community Level Participatory Planning (CLPP) is a process of planning, guided by the Ministry of Agriculture's Agricultural Growth Plan (AGP)<sup>1</sup>. This involves communities and their institutions being supported to prioritise their own challenges, prepare their own plans, mobilise resources, allocate budget and identify ways in which to implement activities and monitor progress. It utilises existing community based and government and institutional structures, NGOs and the private sector in identifying, planning, implementing and monitoring of activities. Key components of CLPP include:

- Informing/sensitization/ of the community about the participatory planning process
- Problem and Need Identification and Potential/Opportunities Analysis
- Prioritization of community needs and interventions
- Sub project planning /community level investments and farmer group sub projects.

This Integrated Soil Fertility Management (ISFM) field Guide endorses and supports the AGP-CLPP utilising a participatory learning approach (PLA), a process for facilitating and guiding communities and farmers in jointly identifying and prioritising challenges and opportunities, action planning, implementation, learning and review.

The Guide outlines a process that can be used to identify and resolve community-identified priority problems. In this case the emphasis has been placed on improving productivity using ISFM practices

### **The purpose of this guide**

The Guide provides a basis for:

- Involving communities and farmers in a participatory process that acts on community priorities and encourages farmer-to-farmer extension.
- Promoting engagement and collaboration between stakeholders in identifying opportunities and developing approaches with emphasis on the use of an integrated soil fertility management approach for improving food and nutritional security that contribute to improving livelihoods.

The Guide also provides an overview of conventional technology transfer and participatory development approaches, emphasizing the importance of stakeholders working together. As such it is intended that the Guide will better equip development agents with the knowledge to better facilitate the development process.

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<sup>1</sup> Ministry of Agriculture and Natural Resources, Agricultural Growth Program Community Level Participatory Planning (CLIPP), 2010, Addis Ababa, Ethiopia

## CONVENTIONAL VS PARTICIPATORY APPROACHES

Until recently development in much of rural Africa often consisted of farmers and communities being told what to do. Farmers were encouraged to adopt new technologies because they had been developed by scientists, often referred to as “technology transfer”. Those who adopted were seen as innovators and those who did not, were regarded as laggards. The extension agent’s job was to convince farmers of the development potential of new technologies.

Criticism of this approach was based on the lack of adoption by farmers. Critics saw it as top-down, context-less and scientifically orientated. In reaction, scientists re-examined the technologies to determine where the technology might have gone wrong. Unfortunately extension systems still retained a strongly hierarchical structure with field-based extension workers backed by subject matter specialists relying on strong technical messages reminiscent of technology transfer.

Increasingly priority has shifted to encouraging increased community and farmer participation in identifying problems and solutions in an equal partnership with researchers and extension workers and more recently with private sector input suppliers and output marketers. This is sometimes called an innovation systems approach with “Innovation Platforms” established by stakeholders to foster closer links.

During the process of increasing participation, it became clear that farmers were also experimenting and adapting technologies to their own situations. Science was no longer seen as a privileged knowledge set, but one of a number of options from which people can choose. As a result, emphasis moved towards finding solutions that started with farmers, through discussions between farmers, extension workers and scientists. At the same time it was realised that the market, both access to inputs and the ability to sell outputs were critical in ensuring sustainability. As such, “Technology Transfer” contrasts markedly with the use of “Participatory Approaches” (**Table 1**).

**Table 1:** Comparison of conventional technology transfer and participatory approaches

	Technology transfer	Participatory approaches
Main objective	Technology transfer	Building farmer capacity, empowerment
Needs analysis and prioritisation	Outsiders	Farmers, facilitated by outsiders
Role of private sector	Often not considered State provided services	Engagement from the start of the process
Research results	Fixed packages, messages,	Options considered
Farmer response	Adopt, adapt or reject	Choose from basket and experiment
Intended outcomes	Widespread adoption of package	Wider choices, enhanced adaptability and widespread adoption
Main extension mode	Extension worker to farmer	Farmer to farmer
Role of extension	Teacher, trainer	Facilitator, provider of choice

Unfortunately despite growing recognition of the potential for farmer participation, many institutions and individuals still choose to apply methods dominated by technical perspectives.

Since communities and the networks to which people belong play a key role in influencing agricultural practices, it is necessary to understand these and where possible incorporate them into technology development processes. As a result many development organisations have moved from a primary focus on productivity to include concerns about the environment, poverty, food, nutritional and financial security and importantly involving the private sector. This reflects a growing understanding that food and nutritional security, eradicating poverty and protecting natural resources are inseparable goals.

Community based organisations (CBOs) play a crucial role not only in encouraging farmer involvement but also for encouraging farmers to use existing networks or establish new ones. Farmer-to-farmer extension is premised on the belief that for a farmer “*seeing is believing*” and other farmers can be the best educators. Through discussions with other farmers and groups, farmers can be stimulated to try out new technologies.

At the same time, the role of the private sector in supplying inputs and marketing outputs is seen as having a key role in the development process.

## **Participatory learning approaches**

This Participatory Learning Approach (PLA) is a process for improving the effectiveness of development. Fundamental principles include: acceptance that farmers are both “practitioners” and “experimenters”; Extension Agents are “facilitators” of change; local communities “own” demonstrations and experiments and there is recognition of local or “indigenous” or local knowledge and farming practices.

This requires

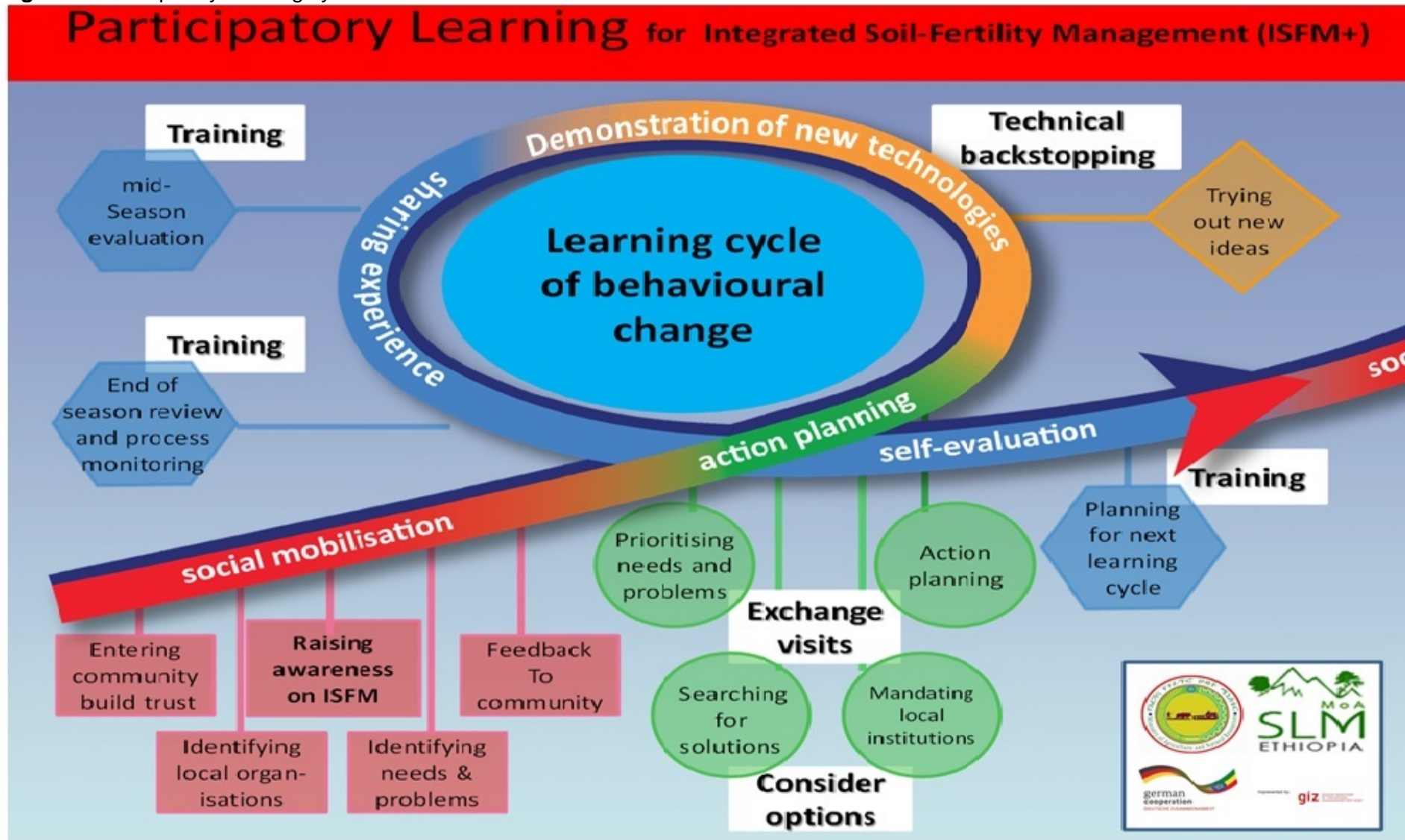
- Engaging communities for planning and action for development.
- Developing equal partnerships between farmers, development agents and the private sector learning from each other, contributing their knowledge and skills.
- Strengthening farmers’ problem-solving, planning and management abilities.
- Promoting farmers’ capacity to adapt and develop new and appropriate technologies.
- Encouraging farmers to learn through experimentation and demonstration, building on their own knowledge and ideas, blending these with new ideas through action learning processes.
- Recognising that farmers are not homogenous groups but consist of various social groups often with differences in interests, resources and capabilities.
- Encouraging the poor and marginalised to participate in the process.
- Facilitation of this process by development agencies.

The PLA has four key phases often tied to the agricultural season that move from initial community engagement to one of action planning, implementation and on to assessment and learning which assist in setting new technologies and innovations in place. This learning cycle can be repeated over many seasons as joint learning takes place. This four phase learning cycle of PLA (Figure 1) comprises:

- **Phase 1: Community engagement and social mobilisation** – entering a community and building trust, identifying local institutions, facilitating communities' analysis of their situation, creating awareness, identifying needs and problems, challenges and opportunities.
  - **Phase 2: Community action planning** based on a search for solutions and mandating community based institutions and farmers to test the opportunities identified.
  - **Phase 3: Implementation** - trying out new ideas through farmer experimentation and demonstration.
  - **Phase 4: Sharing experiences, learning lessons and reviewing the process** allowing modification in subsequent learning cycles and promotion of findings.
- Facilitation and capacity development are crucial components during all phases.



Figure 1: Participatory learning cycle





## **PHASE 1: COMMUNITY ENGAGEMENT**

### **ENTERING A COMMUNITY, BUILDING TRUST AND CREATING AWARENESS**

For any development activity to be owned by a community, three key conditions need to be in place:

- Real motivation and enthusiasm within the community to resolve their problems, and
- Effective community institutions which can support the process and take it forward
- Creation of awareness of the need for integrated soil fertility management practices

Without these there is limited chance that development will be sustained without continuous external support. To motivate people it is necessary to identify and address their key concerns. Only people themselves can effectively identify, clarify and prioritise these concerns and find solutions. This will require awareness creating activities of the possibilities outside their immediate knowledge.

It is important to understand that a community is not homogenous and consists of different types of households and institutions with different roles and responsibilities. Local institutions may well have their own deficiencies but identifying those which can take a lead in promoting the development process and building their capacity to develop and implement action plans responding to local communities' priorities will be a key step in this process.

The first step is for partners to meet, discuss and agree with as many of the community local leaders as possible the participatory approach to be taken and to gain their support for the process. This is likely to involve group and individual discussions.

Such meetings are intended to provide information about:

- The community, on how local people derive their livelihoods, the different types of households in the community based on access to resources, local institutions, and the crops that people grow and livestock they keep, and
- Natural resource problems with which they are faced, existing coping mechanisms and institutions within the community who might have an interest in solving the priority problems.
- Other practices aimed at creating awareness on how land degradation, soil fertility and human health problems can be resolved.

Participants at such meetings should include community leaders, men, women and young people. After initial introductions where the purpose and format of the meeting is agreed, group discussion to identify any differences in perceptions, followed by feedback and further discussion during a plenary provides an appropriate and time saving process (Box 1).

It is important to select times when people are not overly busy, such as planting and harvesting time, avoiding market days and other times when the community has other priorities. Also timing should be convenient for women so that they can attend. Discussions can be arranged over a number of days, taking not more than say 3-4 hours in each day, starting each day by recapping what was said and agreed on the previous days. It is also important to ensure that the person calling the meeting is respected by all, so that not only his/her friends attend.

**Box 1:** A typical programme for community engagement, situation analysis and action

### **planning meetings**

#### **Day 1**

Plenary discussion: Introductions and agreement of the purpose and structure of the meeting

#### *Group discussions*

- Identification of local institutions
- Understanding livelihoods, farming systems (crop, livestock and soil fertility practices)
- Understanding the different types of farmers or households
- Understanding challenges/problems/needs and prioritization
- Raising awareness on the links between soil health, crop, health and human health

Plenary report back from each group

#### **Day 2**

#### *Group discussions*

- Identifying causes of the problem
- Establishing existing coping mechanisms
- Raising awareness of possible opportunities

Plenary report back providing feedback and raising awareness

#### **Day 3**

Searching for solutions and selecting options for testing

Mandating local institutions and selecting lead/host farmers

Planning action

The components that make up the situational analysis typically include:

### **IDENTIFICATION OF COMMUNITY BASED ORGANISATIONS**

Local institutions or CBOs, rather than individuals acting on their own, should be mandated to undertake actions agreed by the community. Preferably these should be existing ones or alternatively new ones formed especially for the task. The latter should only be considered if there are no suitable existing CBOs. Most communities have CBOs such as a development council, savings and credit clubs, edirs and ekub, farmers' associations, women's or youth groups. Experience has shown that new institutions are often not sustainable and can be hampered by other CBOs that may feel that this is their responsibility. Strengthening an existing institution is a good means of developing local capacity. Undertaking an institutional analysis can identify local institutions.

### **UNDERSTANDING FARMING SYSTEMS (CROP, LIVESTOCK AND SOIL FERTILITY PRACTICES)**

A detailed analysis of farm activities will help to understand how the majority of rural communities survive. However within a community meeting, it will be difficult and time consuming to undertake a detailed farming systems analysis, although this can be initiated by asking a group of farmers to prepare a cropping or livestock production calendar. Initially, however, it may be better to identify the range of crops and livestock that people grow prioritising these in order of importance for providing food and nutritional security and cash from sales. Understanding the strengths and weaknesses of existing soil fertility practices is important as this provides the base on which to build.

Gender and age perspectives should also be identified by asking men, women and younger people to undertake the activities separately. At the same time and within the same groups, people can be asked to identify and prioritise the main challenges they have with their crops, livestock and soil; fertility management practices).

Transect walks, mapping exercises and historical time lines are other tools that can be used both to provide detailed information on challenges and help in raising awareness about them.

## **LIVELIHOODS ASSESSMENT**

Livelihoods analysis provides a better understanding of the different ways in which households derive a living, the numbers or percentage involved in the community, who in the community is involved, the relative importance of each in providing either food or cash, the trends over the years and reasons for these trends. This helps to identify the most important livelihood activities and highlights any concerns that people may have in any of these activities.

### **IDENTIFICATION OF DIFFERENT TYPES OF FARMERS**

In any community there are differences in wealth, status, and access to resources. It is important to understand these differences and ensure that poor or marginalised people are involved in the development process. It is important to identify the criteria that local people use to determine differences (for instance, access to land, cattle, implements, housing, number of wives etc.)

A resource or wealth ranking exercise can provide the basis for a detailed assessment of the priority needs for different types of household in the community. If the needs of articulate and better-off people only are considered, others are likely to withdraw from the process. This can easily happen, if the community is regarded as a homogenous group of people. The initial resource ranking can serve as a reference for monitoring and evaluation of the project at later stages.

### **IDENTIFICATION OF LOCAL COPING MECHANISMS AND AWARENESS RAISING**

In seeking how to resolve problems, people need to build on their own knowledge and existing practices and in this case soil fertility management practices. This can help to build awareness and start to explore practical solutions to the identified problems of land degradation. This can be done by identifying:

- The methods of which people are aware and from where this knowledge came.
- Who in the community are using these methods? Gender differentiation of responsibility for deciding which methods are used and who does the work would also be appropriate.
- The advantages and disadvantages of each method, and
- Trends in the use of such practices and the reasons for this.

At the same time there is opportunity for awareness-raising. Within the Sustainable Land Management Programme, this is detailed in a “Field Guide for Integrated Soil Fertility Management”<sup>2</sup>.

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<sup>2</sup> Sustainable Land Management Program Training Series. Field Guide on, Integrated Soil Fertility Management. Number 14.

## **PHASE 2: ACTION PLANNING BY THE COMMUNITY**

### **PROVIDING FEEDBACK AND RAISING AWARENESS**

Whilst the findings from the community engagement and situation analysis are important for outsiders to know the community, the results are even more important for the community themselves. Providing feedback provides opportunity to raise awareness of the cause of problems and reflection on possible solutions and which CBOs can play a role.

Feed back to the community will:

- Motivate people to become involved in an action orientated development process,
- Give opportunity for poorer and disadvantaged groups to express their views.

Effective community participation requires the community to conceptualise their problems and develop their own ideas of dealing with them. Phase 2 requires:

- Feedback to others in the community of the needs and challenges identified during Phase 1.
- Awareness-raising of the underlying causes of problems and possible solutions to land degradation and soil fertility problems.
- Identification of possible CBOs to help take forwards some of these solutions.

This is best achieved in community workshops by nominated members of each group providing reports from their groups. After this it is important to:

- Agree a schedule of activities to be undertaken in addressing the challenges.
- Agree on criteria and indicators, which will enable the community to see whether their work is really leading to an improved situation.

### **SEARCHING FOR SOLUTIONS**

Once the causes of the priority problems are better known, it will be easier to identify possible solutions. Fresh solutions to old problems need to be generated by blending suggestions from both community members with development organisations. It is here that the development agents' roles become increasingly important. The use of appropriate extension material will assist in creating better understanding.

However the search for solutions should also build on people's own knowledge. There may be traditional knowledge, which may have been forgotten. This can be identified, perhaps from older members in the community and tried out again. However the search is not limited to peoples' existing knowledge. They may have heard of solutions and ideas which other farmers' practice or which other organisations might know or bring to the area.

Options are for exchange visits to innovative farmers, neighbouring communities or research stations, which are all likely to generate more ideas. This allows farmers to see first-hand how others have successfully dealt with problems. Such visits need to be planned and communities need to choose their own representatives, based on ability to report back so that everyone can benefit and not just the one who has travelled. Another approach is the use of a mother, daughter and granddaughter approach (sometimes called mother-baby trials) in the research process to raise awareness and encourage farmers to test those research options applicable to their own environments and management conditions (Table 2).

**Table 2:** Mother, daughter and granddaughter trial characterisation

<b>Trials</b>	<b>Type of research</b>
<b><u>Mother trials</u></b> <i>Includes all options selected by researchers with input from farmers</i>	<i>On-station, researcher managed</i>
<b><u>Daughter trials</u></b> <i>Best bet options and local innovations selected by farmers</i>	<i>On-farm researcher managed with significant input from farmers</i>
<b><u>Granddaughter trials</u></b> <i>Options selected by farmers</i>	<i>On-farm farmer managed with no input from researchers</i>

This approach can be used successfully, where mother trials are established either on the research station or land especially set aside within the community. Such trials can be visited by farmers and extension workers from adjoining areas who can select options they consider best for their circumstances and subsequently establish daughter trials on their own farms. Mid and end of season evaluations involving many other farmers and facilitated by the extension agents, should result in other farmers testing some of the technologies on their own, this being the granddaughter stage.

### **MANDATING LOCAL INSTITUTIONS**

Once possible solutions have been selected, actions can be taken forward by mandated CBOs. Development agents should guard against becoming drivers or owners of the process. There needs to be a consensus about which CBOs are used. If people feel that a local CBO is weak, options on how to strengthen it need to be agreed. If a new institution is created it should also be supported, for example by improving leadership and communication. It may be necessary to encourage establishment of farmer research groups or by building on existing 1:5 schemes.

If the leaders of selected CBOs agree to take responsibility in the presence of others, this helps to create commitment and accountability. At a later stage leadership and communication training should be provided for key community members.

### **LEAD FARMERS AND GROUPS**

One approach is to work with lead, host or model farmers, selected by the CBOs they represent, to undertake the piloting, testing and demonstration of new technologies. Regular feedback from the lead/model farmer to the group will ensure the groups' involvement in planning and implementation and encourage a process of further farmer-to-farmer testing and adaptation. The responsibilities of lead/model farmers and the group also need to be agreed (Box 2).

## Box 2: Potential roles and responsibilities of CBOs and Lead/model farmers

### Potential role of CBOs

- To formerly adopt the programme into their activities.
- To appoint a person(s) responsible for reporting on progress and identifying issues/problems that affect the programme. This is likely to be the Lead Farmer.
- To encourage participation by other farmers in trying the new techniques.
- To invite the extension worker to attend meetings on a regular basis.
- To arrange field days that cover all farmers.
- To evaluate the control methods at the end of the season and plan for the new season.

### Potential responsibilities of lead/model farmers include:

- Motivate other farmers to try out new technologies.
- Assist with the project planning process using participatory methods.
- Assist the Extension Agent in training the Group and other farmers.
- Supporting the production of improved seed or nursery material in a system of community seed production
- Host mid and of season evaluations of the test plots and demonstrations.
- Ensure that information is disseminated to the community at large.
- Hold regular meetings with other farmers and present concerns to the Group and EA.
- Facilitate co-ordination between the Group and the EA.

### A Lead/model farmer should act as:

- **A group advisor** – helping to strengthen the group leadership, organisational and planning capacities.
- **A participatory trainer** – teaching group members basic technical skills through a Farmer Field School Approach, and
- **A link person** - facilitating communication between the group and the Extension Agent.
- **A seed/nursery producer in a system of community based seed production**

## **ACTION PLANNING**

After clarifying the possible solutions and CBO responsibilities, concrete actions need to be agreed and planned. The most promising options are selected, agreed and a decision made on how and who should try them. A time plan of action needs to be agreed. At this stage the community should be able to define the nature of support they expect from development agents.

In some cases potential solutions identified by the community can be an existing technology, where implementation is mainly linked to the organisation of material and labour. However, in most cases potential solutions are not so clear and new ideas have to be tested and adapted to suit local conditions. This is likely to arise after awareness raising on alternative soil fertility management practices.

## PHASE 3: IMPLEMENTATION AND FARMER EXPERIMENTATION

### TESTING AND DEMONSTRATION DESIGN

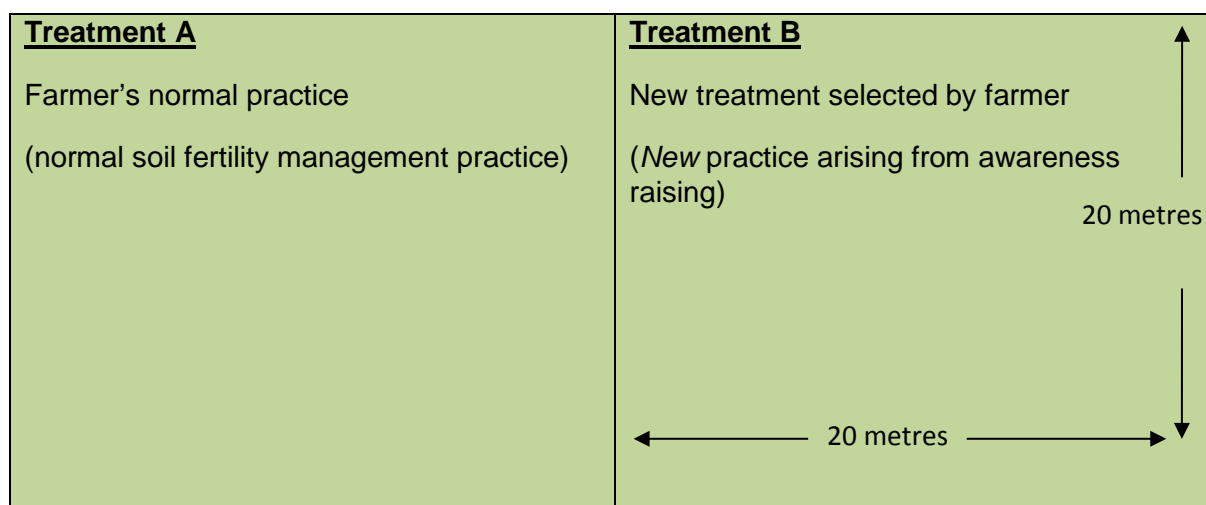
To see whether a new technique is better than the usual practice a comparison is needed. An easy way of doing this is putting the two, side-by-side, in the same field so that both areas are of approximately equal size. It is also necessary to make sure that management practices are similar. This requires:

- Using soils of a similar type (unless different soil types are being tested).
- Using the same seed and same plant spacing (unless comparing varieties and/or spacing).
- Planting both areas of land on the same day (unless comparing planting dates).
- Applying the same amount of fertiliser (unless comparing different fertiliser or manure application rates).
- Weeding on the same day in the same way (unless comparing different types or times of weeding).
- Harvesting at the same time.

The researcher/extension agent should act as a facilitator and encourage the selected CBOs and lead farmers to experiment with the new ideas, guiding farmers to conduct simple comparisons between local practices and new techniques.

In many cases, a simple paired plot design where the new technique is placed side-by-side with normal farmer practice in the same field can be an easy way of comparing the performance of the two by farmers themselves (Box 3).

**Box 3:** A typical paired plot layout (showing typical dimensions)



The same plots can be used to measure yields and growth parameters and at the same time a series of paired plots from different farms can be used for a more detailed statistical analysis.

### LEARNING

Farmers will often share their experiences informally with each other. This process of learning can be encouraged by good facilitation. Learning in this way is critical to the success of the process, lending itself to using the plots for training in a "Farmer Field School" approach (Box 4).



#### **Box 4:** Using test plots for training and demonstration

The training area for the other farmers in the group can centre on the lead farmer's test/demonstration plot with other farmers encouraged to try the technique on a plot of their own. In this situation, the field becomes a teacher, providing most of the training materials, such as soil, plant, pest and other real problems. Farmers are usually much more comfortable in a field situation than in a classroom. The lead/model farmer should ensure that other farmers know the date and time and attend training sessions at key stages during the crop cycle. This includes:

- Identifying and marking out the plot
- Preparing the land for sowing
- Applying fertilizer, lime and manure or compost or other treatment
- Sowing the crop
- Weeding
- Comparing the effect of the new treatments with the farmer's normal practice
- Harvesting
- Evaluating the impact of the new treatment in increasing yields or reducing inputs.

Immediately after each training session, other farmers can undertake the same work on their own plots.

Observing the trials helps to identify the reasons why a certain practice performs better or worse than another. When crops are grown with two different practices, side-by-side, the differences are usually easily visible. The crops may be earlier, larger or more pest resistant. Such observations should be recorded so that they are not forgotten and can be analysed in more detail in the future. A record sheet allows experiences to be shared with others. This is part of the monitoring and evaluation process.

## PHASE 4: SHARING EXPERIENCES

### MONITORING AND EVALUATION

Monitoring and evaluation <sup>3</sup> (M&E) should be an integral part of any testing and demonstration process and the earlier it is incorporated into programme activities the better. M&E allows farmers, and development agents to ensure that the learning process is addressing community problems and their livelihoods are actually improving. This requires the use of indicators as signs of change. These need to be relevant, easily observable, verifiable and accurate

M&E helps to assess performance, to share results and experiences with others, to learn from achievements and mistakes and develop capacity to perform better in the future and to fulfil reporting obligations. M&E should help in constantly reviewing the demonstrations, reflecting, learning and re-planning. Information requirements should be kept to a minimum. Choosing a few practical indicators which quickly and effectively provide accurate information can achieve this. M&E indicators should be easily and quickly recorded with maximum community involvement in both collection and analysis (Box 5).

**Box 5:** Participatory monitoring and evaluation.

- 1 Start M&E as early as possible, and no later than when the activity has been selected.
- 2 Agree why M&E needs to happen.
- 3 Agree what is to be monitored and evaluated.
- 4 Identify practical indicators for this, which can be measured.
- 5 For each indicator agree a scoring mechanism and agree who will collect the information and when.
- 6 Agree how the information is to be recorded.
- 7 Practice the methodology.
- 8 Have regular monitoring sessions, when information can be collected and discussed.
- 9 Facilitate regular evaluation sessions.

M&E from a community perspective needs to enable the community to become involved in joint learning by sharing ideas and experiences and reflecting on the success and failures of the research undertaken. Informal sharing of experiences among neighbours and friends is unlikely to be sufficient in making the information available to everyone in the community. Within most agricultural projects, this requires two more formal steps.

- A mid-season evaluation and monitoring of the new practices being tested, usually in the form of a local field day or learning occasion.
- An end of season evaluation where the whole process can be evaluated and plans made for the coming season.

At the same time exchange visits to other areas, other farmers and research stations will motivate people to consider new practices in the following season.

### MID-SEASON MONITORING

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<sup>3</sup> Monitoring refers to the collection and analysis of information to compare progress of an activity with an original plan. Evaluation is the periodic assessment and review of the extent to which medium and long term objectives have been reached.

In the middle of the season before crops mature, farmers with the help of development agents should organise to monitor the field performance of the technologies that have been tried. All farmers in the community can be invited to visit the experiments and demonstrations with each host farmer presenting his/her trial and his/her views to date. This helps to share the knowledge, build confidence through presentation as well as encouraging farmer-to-farmer extension.

After everyone has had a chance to look at the different technologies, it is important to analyse the findings. Often it can help for men, women and young people to do this separately so that any differences in perspective become apparent. This assessment can be done using participatory tools, in:

- Identifying a list of the advantage and disadvantages of each treatment.
- Establishing the most important criteria (for example, cost, labour requirement, effect on overall risk, effectiveness, material availability, and yield).
- Scoring each of the technologies using a matrix of technologies and criteria by putting up to three stones (or crosses) in each criterion box. The higher the score the better the technology.

### **END OF SEASON EVALUATION**

Once the “experiment/demonstration crop” is harvested, conclusions can be reached and decisions made with regard to additional promotional activities to be undertaken the next season. This requires:

- Confirming the advantages (benefits) and disadvantages (costs and risks) of each practice
- Agreeing which of these can be valued
- Agreeing these values
- Comparing each new treatment with the farmer practice by assessing any increases in the value of the crop or crop residue, less any increase (or decrease) in costs. Costs should include both purchased and household supplied items.

### **PROCESS REVIEW**

Ideally a few months before the start of the new season a review and planning workshop needs to be organised with the community. This should review the whole process, assessing it against the planned activities and the indicators for success, which farmers suggested during the planning phase. This includes criteria like leadership, strengthening of CBO organisational capacities as well as participation of everyone including the poor in the process. This analysis normally leads to the next cycle, which starts, again with issues of community engagement, the community reviewing their goals and objectives and developing an action plan for the next season.

As part of the process review and planning activities for the new season exchange visits to other areas, other farmers and research stations will create further awareness and motivate people to consider new practices for the following season.

## ACKNOWLEDGEMENTS

This guide builds on a number of years of experience working with communities and farmers across a number of sub Saharan Africa countries, linking research and extension in a continuous process of learning and development. It draws on and updates earlier guides, notably:

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# ANNEX 1: PARTICIPATORY LEARNING PHASES, ACTIVITIES AND KEY ISSUES

## PHASE 1: COMMUNITY ENGAGEMENT AND SOCIAL MOBILISATION

Activities		Key Issues	
1	Entering the community	<ul style="list-style-type: none"> <li>Meeting local leaders</li> <li>Making yourself known and accepted</li> <li>Familiarisation with the community</li> <li>Identifying how the community functions</li> <li>Building trust with the community</li> </ul>	<ul style="list-style-type: none"> <li>Who to contact?</li> <li>Who are the leaders?</li> <li>What are existing community livelihood and coping strategies?</li> <li>Are there any conflicts within the community?</li> </ul>
2	Identifying CBOs and other institutions working in the community	<ul style="list-style-type: none"> <li>Identifying potential local partners for future activities, both within and outside community</li> </ul>	<ul style="list-style-type: none"> <li>What are the roles and responsibilities of local organisations? How do they derive their mandates? How are they organised? What are their strengths and weaknesses? How do they solve problems or conflicts?</li> <li>What external organisations are working with the community? Who is doing what? How do they interact?</li> </ul>
3	Providing feed back to the community	<ul style="list-style-type: none"> <li>Creating transparency and building confidence</li> <li>Initiating a platform for dialogue within the community and between partners</li> </ul>	<ul style="list-style-type: none"> <li>Ensuring community involvement</li> <li>Clarifying mutual roles and expectations</li> <li>Establishing any differences in perception between different groups in the community</li> <li>Agreeing a way forward</li> </ul>
4	Raising awareness	<ul style="list-style-type: none"> <li>Facilitating a common community understanding of their existing situation and opportunities for improvement</li> <li>Building local confidence and capacity to bring about change</li> </ul>	<ul style="list-style-type: none"> <li>What are people's visions for the future?</li> <li>What are the obstacles in bringing about change?</li> <li>How does gender affect decision making?</li> <li>Where do people see opportunity to bring about change?</li> </ul>
5	Identifying needs, problems and opportunities	<ul style="list-style-type: none"> <li>Identifying and mobilising people's own interests and common objectives</li> <li>Identifying challenges and opportunities</li> </ul>	<ul style="list-style-type: none"> <li>How do needs/problems differ according to sectors in the community?</li> <li>What are the root causes of problems?</li> <li>Can a value chain analysis be used?</li> <li>What opportunities can be identified?</li> </ul>

## PHASE 2: ACTION PLANNING

Activities		Key Issues	
6	Prioritisation of challenges and opportunities	<ul style="list-style-type: none"> <li>• Prioritising problems of different social groups</li> <li>• Identifying challenges and opportunities for goal achievement</li> <li>• Creating a platform for development</li> </ul>	<ul style="list-style-type: none"> <li>• Are there different needs felt by different groups in the community?</li> <li>• How to deal with a variety of different priority needs?</li> <li>• Are all relevant stakeholders making a contribution?</li> </ul>
7	Searching for solutions	<ul style="list-style-type: none"> <li>• Undertaking a value-chain analysis of specific commodities</li> <li>• Identifying a range of solutions suitable for different resource groups</li> </ul>	<ul style="list-style-type: none"> <li>• Who can assist in finding solutions?</li> <li>• What solutions are locally available?</li> <li>• Who should look for other options?</li> <li>• Are solutions in reach of local people?</li> <li>• Will the solutions solve the problems effectively?</li> </ul>
8	Mandating local organisations	<ul style="list-style-type: none"> <li>• Empowering CBOs through community mandate</li> <li>• Enabling CBOs to recognise and play their role</li> <li>• Ensuring responsibility and accountability</li> </ul>	<ul style="list-style-type: none"> <li>• Which organisations are most suitable and capable?</li> <li>• What are the roles and expectations of the different CBOs?</li> <li>• Which organisations need to be strengthened?</li> <li>• Are governance and management guidelines necessary?</li> <li>• What kind of networking between organisations should be encouraged?</li> <li>• Is there any opposition to the mandate?</li> </ul>
9	Elaborating an action plan	<ul style="list-style-type: none"> <li>• Providing guidance for implementation</li> <li>• Serving as a management tool</li> <li>• Determining the resources and level of support required</li> <li>• Developing criteria and indicators of success</li> <li>• Ensuring all partners know what is happening</li> </ul>	<ul style="list-style-type: none"> <li>• Who does what, when and how?</li> <li>• What are the costs involved?</li> <li>• How is the budget allocated?</li> <li>• Who provides which resources?</li> <li>• What risks are involved?</li> <li>• When do we need feedback and on what?</li> <li>• Whom should be informed and when?</li> </ul>

### PHASE 3: IMPLEMENTATION - TESTING - EXPERIMENTATION - DEMONSTRATION

Activities	Key Issues
10 Trying out new ideas	<ul style="list-style-type: none"><li>• Use and link the knowledge of all actors in developing solutions</li><li>• Encouraging people to learn about new technologies through experimentation</li><li>• Enhancing people's creativity, knowledge base and ability to innovate</li><li>• Generating new options and solutions</li></ul> <ul style="list-style-type: none"><li>• How to encourage maximum local involvement in the experimentation?</li><li>• What support is required from outsiders?</li><li>• How to organise competitions for the best leadership, management, knowledge sharing and communication?</li></ul>

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## PHASE 4: SHARING EXPERIENCES

Activities	Key Issues	
11 Mid-season evaluation	<ul style="list-style-type: none"> <li>• Assessing how activities are proceeding</li> <li>• Adjusting the action plans according to circumstances</li> <li>• Sharing ideas and providing feed back</li> </ul>	<ul style="list-style-type: none"> <li>• Is the implementation according to plan? Does this need to be adjusted?</li> <li>• Who is involved? Has anyone dropped out or objected to the plans?</li> <li>• Were the resources allocated sufficient?</li> <li>• Are other support measures required</li> </ul>
12 End of season evaluation	<ul style="list-style-type: none"> <li>• Reassessing findings of mid season evaluation</li> <li>• Comparing yields achieved</li> <li>• Undertaking a participatory budget on experiment results</li> </ul>	<ul style="list-style-type: none"> <li>• Which options have showed the best results?</li> </ul>
13 Process review	<ul style="list-style-type: none"> <li>• Reviewing and monitoring the action learning process</li> <li>• Identifying the strengths, weaknesses and errors so they can be corrected in future</li> <li>• Analysing the lessons learnt</li> </ul>	<ul style="list-style-type: none"> <li>• Who should be involved in the evaluation process?</li> <li>• Have the activities undertaken in the learning cycle addressed the solution to the identified problems?</li> <li>• What improvements can be made for the next learning cycle?</li> <li>• What lessons can we learn?</li> </ul>
14 Planning for the next learning cycle	<ul style="list-style-type: none"> <li>• Identifying new areas which require action</li> <li>• Addressing new problems which emerged out of the first learning cycle</li> </ul>	<ul style="list-style-type: none"> <li>• Are the solutions suggested sufficient or do we need new ideas?</li> <li>• Was the initial problem analysis sufficient or do we need to know more?</li> <li>• What other areas do we need to tackle?</li> </ul>

## ANNEX 2: FACILITATION AND COMMUNICATION SKILLS

Farmers' involvement as decision-makers rather than components of the farming system is central to participatory learning. The literature abounds with inconsistent and sometimes confusing jargon, which has given rise to a number of similar approaches, which have a great deal in common. These include:

- Participatory development (or extension) approaches
- Participatory learning and action research
- Participatory research approaches
- Participatory research and extension approaches
- Participatory technology development

Underlying all of these is the acceptance of the central role that farmers could and should play, if given opportunity. This places particular emphasis on their participation through a process of situation analysis, needs and opportunity assessment, setting of a research and development agenda, setting of indicators, planning and implementation, monitoring and evaluation of results. In this way farmers can also play a key role not only in research but also in the dissemination of research findings.

Participatory learning can be seen as a continuous process, starting with different stakeholders (researchers, extension agents, farmers and commercial organisations) sharing experiences, pooling their knowledge and resources and planning together. This requires commitment and agreement by each stakeholder to follow-up on what was agreed during discussions. Too often researchers still use participatory methods for extracting information without committing to the underlying principle of acting together. Close association and co-ordination is likely to promote adoption and further research, leading to wider scaling up

**Box 6:** Some basic principles involved with participatory processes

- Learn from different stakeholders and involve them in key stages of the process. Value their knowledge and skills.
- Do not waste peoples' time in obtaining an excess of detailed information, which will waste time and hide important issues. *Qualitative information is often more useful than elaborate statistics obtained through time consuming questionnaires.*
- Ensure that the least articulate people, often women, and marginalized members of the community are able to contribute and to benefit.
- Cross-check information by checking with different people and use different participatory tools to cover the same issue.
- Link research with development action.
- Local communities must make as many as possible of the decisions involved.
- The process should be gender sensitive. Women are often disadvantaged and this imbalance needs to be recognized and initiatives that reduce this inequality encouraged.
- The use of participatory tools should not be seen as "an end in itself" but should always lead to concrete activities implemented in the community. It should be seen as finding solutions together for the community.
- Activities should be sustainable and continue after outside support has ceased.

A facilitator's main tasks and responsibilities include assisting local communities and groups to

- Analyse their situation and their problems, in seeking solutions.
- Implement, monitor and evaluate their activities.
- Establish links with other groups and institutions, which may be able to provide support.

Good facilitators play a neutral role, do not themselves or allow others to dominate meetings, encourage all to express their views, ensure meeting's objectives are met and follow up agreed actions. It is important that facilitators have the respect and trust of the community with which they are working. This in turn requires good communication skills (**Box 7**), with emphasis on facilitation and not teaching.

#### **Box 7: Communication and facilitation skills**

A facilitator's task is to inform, promote, assist, support, help, and monitor.

To fulfill this task, communication skills are important. This can be both **verbal** and **non-verbal** through body language.

**Body language:** This refers to the way in which we behave, the messages given by our bodies, when we interact with others. Good body language is important in ensuring successful communication. When a facilitator sits on a chair when others are sitting on the ground, this establishes a relationship of authority rather than equality. For instance sitting at the same level and forming a circle, makes it easier to establish a relationship of equality and trust.

**Verbal communication:** What we say and how we say it can hamper or facilitate communication. Giving orders, threatening, moralizing, criticising and giving advice are all communication blocks. On the other hand, there are communication aids, which help to create a climate of confidence. Passive listening (letting others talk), giving acknowledgement, door openers and paraphrasing can improve communication.

**Use of diagram, symbols and drawings:** Participatory techniques involve lots of drawing, because they are excellent communication aids, helping to involve others in discussion

A large number of participatory tools are available for assisting in collecting and analyzing local information and situations (Box 8). The tools allow facilitators and community group members to communicate effectively during the process. Their appropriate use allows the community to better understand itself identify problems and potential solutions.

**Box 8:** Some key participatory tools and their uses include

- Livelihoods analysis
- Resource (or wealth) ranking to identify different farmer types
- Institutional analysis
- Seasonal calendars
- Gender analysis
- Flow diagrams
- Ranking techniques
  - Preference ranking
  - Pair-wise ranking
  - Matrix ranking
- Causal diagrams/tree diagrams/cause-effect/means and ends
- Mapping
- Participatory budgeting/gross margin analysis

Different tools can be used in different circumstances, depending on the type and amount of information required. However, over-use can be time consuming and it is highly unlikely that there will be time to use all of them. They should therefore be carefully selected and not just used because of availability or familiarity. Participatory tools are like a carpenters' toolbox. Certain tools can only be used in specific situations, while others may have more than one use. It is important to plan carefully information collection and decide which tools to use (**Box 9**).

**Box 9:** Some key principles in using participatory tools

- Define the objectives carefully.
- Define those topics, which need analysis.
- Identify the key areas of the research.
- Identify the sources of information for each topic area.
- Select the research tools, appropriate for each topic.
- Adapt these tools if necessary.
- Prepare the practical and logistical aspects carefully. Make appointments, gather existing research material to avoid repeating work that may already have been undertaken.
- Arrive on time for meetings.
- Where practical have a trial run with colleagues.
- Introduce yourself to local communities and leaders.
- Be aware of and comply with local customs and protocol.
- Follow the basic participatory principles, and use appropriate facilitation and communication skills.
- Be flexible, listen and be prepared to change the approach, if required.