

THE RIPAT MANUAL

Rural Initiatives for Participatory Agricultural Transformation

*J.M. Vesterager, The Rockwool Foundation, Denmark
D. Ringo, C.W. Maguzu, and J.N. Ng'ang'a, RECODA, Tanzania*



Praise for this book

'This is an excellent, easy-to-follow, step-by-step guide on how organizations working with small-scale farmers should approach their task. This is a "must have" resource book for all extension and rural development practitioners, be they from government or from the NGO sector. For a long time in Tanzania there has not been any such a manual to guide extension work and this will certainly fill the gap.'

*Professor Amon Z. Mattee, Department of Agricultural Education and Extension,
Sokoine University of Agriculture, Morogoro, Tanzania*

'In Arumeru and Karatu districts I witnessed farmers using the RIPAT approach to substantially increase their productivity and incomes in banana production; to improve their levels of innovation, participation, and ownership of their projects; and hence to transform their lives. The approach also addressed the dependency syndrome of the farmers and reinforced their application of the most cherished principle of self-reliance in their own development.'

*The Hon. Isidore Leka Shirima, the former Regional Commissioner
of Arusha, Tanzania*

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The Rockwool Foundation

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The Rockwool Foundation and RECODA

Drawings: Goodwill Manson Chomo, OMEGA Arts, Arusha, Tanzania

This manual is the first version and is very much 'work in progress'. Comments and feedback from users are warmly welcomed and should be sent to:

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About the Rockwool Foundation

The Danish-based Rockwool Foundation was established in 1981. It focuses on two main areas of activity:

- 1) *Research* in socio-economic fields and on current problems challenging modern Western society and developing countries. The aims of this research are to improve the knowledge base for, and the quality of, public debate, and to provide a good foundation for decisions to be taken by politicians.
- 2) *Practical interventions*, carried out with the purposes of generating knowledge and of developing models for lasting and sustainable improvements. The development projects therefore have a strong focus on innovation, documentation, and the spreading of best practice.

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About RECODA

RECODA (Research, Community and Organizational Development Associates) is an NGO based in Tanzania. It was established in 2000 with the aim of bridging the technology gap in development through research, consultancy, capacity-building, and facilitation of community-based projects. In the beginning, RECODA's main activity was consultancy work carried out for various development organizations. Since 2006, RECODA's main activity has been to develop the RIPAT approach. RECODA has three departments:

- 1) *The Community Economic Development Program (CED)*, which organizes the various RIPAT projects and any other projects implemented by RECODA
- 2) *The RECODA Academy Program*, which offers tailor-made courses for rural economic development facilitators to start new RIPAT-like projects and to work on the spreading of development ideas in general
- 3) *The Monitoring and Quality Control Program*, which is responsible for continuous quality checks and for monitoring the implementation of RIPAT projects

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Foreword: The history of RIPAT – until now

Until 2004, the Rockwool Foundation used its resources to support research on topics related to society. This research mostly involved the Foundation's own researchers at the Rockwool Foundation Research Unit and researchers from universities and research associations in and outside Denmark.

The results from the society-related research supported by the Foundation are published in books and papers. These are intended for e.g. the press and politicians to inform themselves on the topics in question; and if they find it appropriate, authorities can use the findings in their policies and administrative procedures.

In 2004, the Board of the Foundation began a discussion of whether the Foundation should also carry out practical interventions to discover whether a specific problem facing society in Denmark, Europe, or on another continent could be resolved or reduced using a clearly-defined new method. This is not an easy way for a foundation to work. First, it is necessary to have a hypothesis concerning a good way to deal with the problem. Then, one has to find a good social entrepreneur who has the management and project leadership skills needed to carry out the intervention. Finally, it is necessary to monitor the intervention and evaluate whether or not it has the benefits hoped for.

The Rockwool Foundation is currently supporting interventions within four different fields. The first type of intervention in which the Foundation became involved concerned efforts to alleviate poverty among rural populations in developing countries.

Earlier, the Foundation had supported a research project conducted by Professor Martin Paldam (1997) of Aarhus University that analysed outcomes from providing development aid. Sadly, the conclusion from that research was that over recent decades, much development aid has failed to produce the intended results. Large-scale agricultural programmes in Africa have been particularly disappointing in terms of producing the desired outcomes. Many reasons for this failure were identified by Professor Paldam and by other economists. The distorting effect of foreign aid on the incentives in the local economies was one of the explanations put forward.

Given these research findings, we at the Rockwool Foundation had good reason to believe that this area would be too big a challenge for us. Nevertheless, we regarded the lack of productivity of the agricultural sector in developing countries to be so important to improve that we wanted to make an effort to address it.

On the basis of the findings of Paldam and other economists, we made it our starting point that we should avoid as far as possible any distortion of the economy of the targeted area. Our hypothesis was and is that the 'donor syndrome' is disruptive to development efforts for the following reason: If it is rumoured in a poor country that somebody has received money or gifts in kind from donors or from the government, people will put their energy into trying to obtain gifts, and stop or reduce their effort to earn their own living. Consequently, we searched for partners who would share our beliefs on this issue.

At a dinner at A.P. Møller – Mærsk A/S in Esplanaden, Copenhagen, in January 2005, I met Mrs Eva Plessing, the 99-year-old widow of the President of the Tanganyika Planting Company (TPC Ltd, previously owned by A.P. Møller). She shared Professor Paldam's view that the outcomes of aid had far too often been poor, but said that she was in contact with a small Danish NGO called PULS (Projekt Ulandshjælp til Selvhjælp).

She believed that this organization was able to make a difference because their assistance was based on the principle of help to self-help.

This was the background for the first visit that my wife and I made to PULS. We met the chair of PULS, Elly Vesterager, and some of her colleagues on the PULS Board in Videbæk in Jutland, Denmark. In the summer of 2005, my wife and I went to Arusha in Tanzania, where we met the management teams at PULS's Tanzanian sister organization, the NGO Help to Self Help (HSH), and their cooperation partner RECODA. Dominick Ringo was and is the Executive Director of RECODA. He has a BSc in agriculture from Sokoine University, Tanzania, and an MSc from ITC in the Netherlands. An agricultural intervention had been developed by PULS/HSH and RECODA, and implementation of this intervention had commenced in 2003. During our stay we visited two of the three projects financed by PULS. They were situated at Manyire in the lowlands on the eastern side of Mount Meru, and at Likamba village on the western side of the same mountain.

The results spoke for themselves. While the surrounding fields were mainly planted with maize, giving low yields, the project farmers we visited had in a short time been able to produce crops of bananas which, unlike maize, can feed a household throughout the year, and which also have a greater value as a cash crop.

This was very close to what the Board of the Rockwool Foundation had been looking for. PULS and RECODA had focused on giving only training, and no gifts or handouts. The banana suckers provided to the project farmers had to be paid for by giving the same number of suckers to each of three other farmers, thereby initiating spreading. The two partners had been concerned that the cost of the intervention per household should be as low as possible. Furthermore, everything possible had been done to encourage the farmers to assume ownership of the project, so that progress would continue after the end of the three-year project period when assistance from RECODA would stop.

Negotiations took place with RECODA during the subsequent months concerning a larger project, which was given the name RIPAT 1. It offered more technologies than the PULS projects, but the approach was to a large extent similar to that in the three PULS-financed projects. RIPAT 1 involved 16 groups, each group consisting of 30–35 interested farmers; the groups were located in eight different villages. This project was carried out over the period 2006–2009.

The name RIPAT was at that time proposed by RECODA; it appeared on their draft project description in 2005 as an acronym for Rockwool Initiative for Poverty Alleviation in Tanzania. Later, when we realized the great prospects for this type of intervention, we decided that RIPAT should instead be an acronym for Rural Initiatives for Participatory Agricultural Transformation.

During the first two years of RIPAT 1, PULS took responsibility for the day-to-day contact with RECODA. Quarterly telephone meetings were held between PULS, RECODA, and the Rockwool Foundation, and all major decisions on activities, strategies, and adjustments were made through intensive (and often lengthy) discussions between the three parties. However, after Elly Vesterager's son, Jens M. Vesterager (PhD, Agronomy), was appointed Programme Manager for Food Security at the Rockwool Foundation in 2008, it was decided that PULS should no longer be involved in the communications between RECODA and the Foundation.

An important milestone for RIPAT was the appointment of Elin Schmidt as President of the Rockwool Foundation in spring 2007. Elin devotes a great deal of her energy to

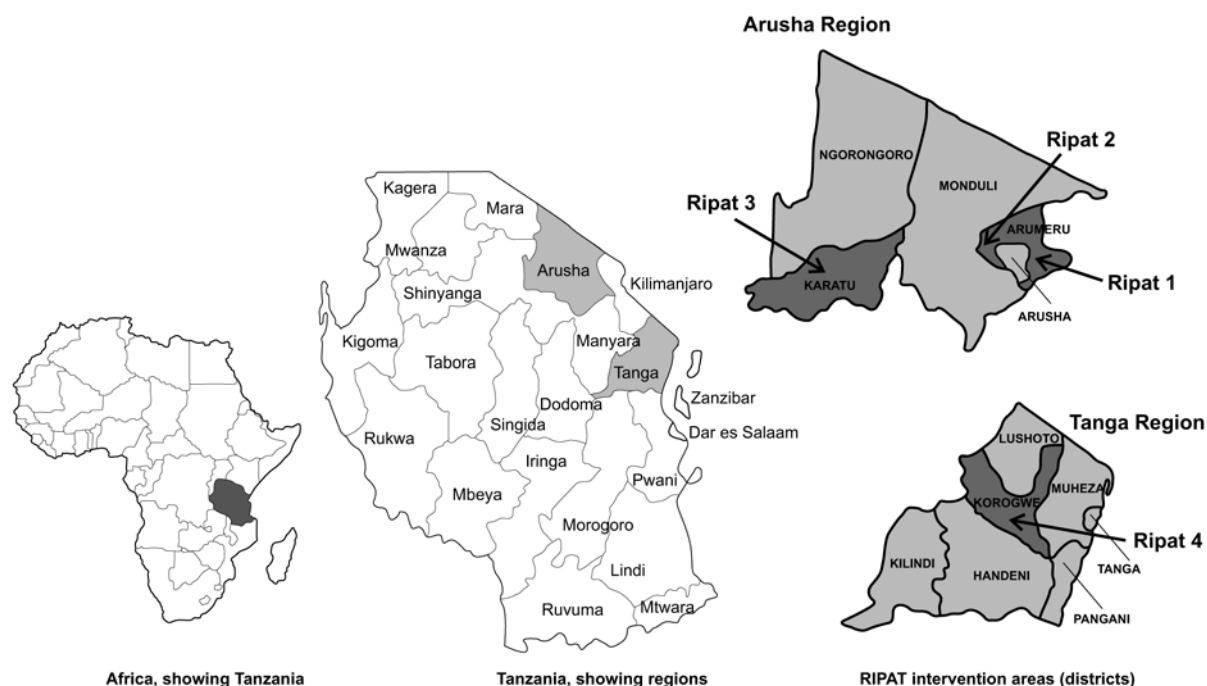


Figure 0.1 Map of the RIPAT 1–4 project areas

RIPAT and the Foundation's other interventions, both in chairing the quarterly telephone meetings and in visiting the project sites with the people responsible for day-to-day management.

RIPAT 2 and 3 were approved by the Foundation Board in 2008. The site for RIPAT 2 is on the leeward side of Mount Meru, in Arumeru district. This is quite a dry area, mainly populated by WaMasais, and we feared that the aridness of the area would mean that productivity gains would be difficult to achieve. For this reason RIPAT 3, located in Karatu district, an area with a more agriculture-friendly climate, was approved at the same time. Due to a severe drought during the first project years, both projects were extended to four years.

In 2009 we realized that there were indications that RIPAT was producing outcomes of note which deserved to be analysed and documented. Consequently, economists at the Rockwool Foundation Research Unit, researchers from the Departments of Anthropology and Economics at the University of Copenhagen, and experts from the National Advisory Service, Uganda, the UN Food and Agriculture Organization (FAO), and the Danish Institute for International Studies (DIIS) were asked to evaluate RIPAT. This was five years after the initiation of RIPAT 1. The evaluation was intended to be based primarily on quantitative and qualitative impact data collected from the RIPAT 1 project, but also on qualitative data collected from the subsequent three RIPAT projects. It might be asked why we have not carried out a quantitative evaluation of RIPAT 2, 3 and 4; the reason is that it is quite expensive.

The later RIPAT projects were modified in the light of experience and the wishes of the farmers. Some elements were taken out, where these proved not to be cost effective or wanted, and better elements were introduced.

RIPAT 4 was started in 2011 in Korogwe district, once again an area with reasonably reliable rainfall. In this project, training in microfinance for saving groups according to

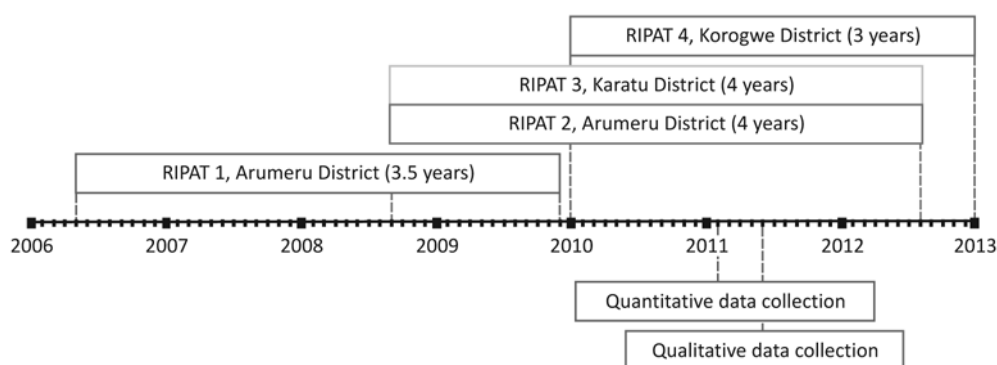


Figure 0.2 Timeline for RIPAT 1–4 interventions and data collection

the VSLA manual was made part of the intervention from the start of the project; such training had not been provided until late on in the first three projects.

In addition, spreading of the technologies to farmers outside the 20 RIPAT groups by means of extension officers and especially gifted farmers (called super-farmers) after both categories had undergone training in the RIPAT procedures through the RECODA Academy, was part of RIPAT 4 from the middle of the second year, while spreading in RIPAT 1, 2 and 3 was first initiated in the last part of the projects.

Six years have now passed since the start of RIPAT. Both organizations involved now believe that the time has come to share our experiences and give the wider world an insight into what we have done and into the early findings of the experts.

Coinciding with the publication of this manual, we are also publishing a book entitled *Farmers' choice – Evaluating an approach to agricultural technology adoption in Tanzania*, which presents the RIPAT evaluation as mentioned above.

The purpose of this manual is twofold. One aim is to encourage authorities and NGOs to follow it step-by-step, including the procedures mentioned for quality control. The other aim is to inspire authorities and NGOs to use *elements* of the principles set out in the manual in their work with rural agricultural interventions.

It is the hope of the Rockwool Foundation's Board and Management that we have now come so far with the documentation of the RIPAT methodology and of its benefits that authorities in developing countries as well as other donors and aid organizations would like to develop their own RIPAT projects based on the evidence presented. With many users of the approach in the future, it will be possible to further refine the methodology and improve the benefit-to-cost ratio. This first edition of the RIPAT manual is therefore likely to be succeeded by later editions incorporating the results of further development of the approach.

It has been decided to make references in this manual to the specific conditions pertaining in Tanzania, although our objective is to describe a method of bridging the technological gap for small-scale farmers that will be applicable in all developing countries. We believe that it will be easier for users of the manual to work out how to implement the approach when specific examples are provided rather than only general formulations, even when those examples relate to a different area or country.

Finally, we would like to mention that in the development of the RIPAT concept, we have been inspired by a number of other procedures and manuals for rural transformation. We want here especially to mention Mr Hugh Allen's work on village savings and loan associations (VSLAs) and the manual he has produced for this concept. Training

in VSLA microfinance has, as mentioned above, been one of the elements in all four RIPAT projects. The Rockwool Foundation has also sponsored a three-year VSLA project in Karonga district in Malawi where 3,000 households have been trained in the VSLA methodology. The Rockwool Foundation Research Unit and researchers from Oxford University and the University of Southern Denmark are now investigating the impact of this project.

Having experience with both the VSLA and with the RIPAT methodologies, we want to mention that the complexity of RIPAT is much higher than in VSLA. Therefore we urge organizations who want to implement RIPAT not to skip the manual's chapter 6 on monitoring and quality control. By including it, they will be able to discover if their implementation is running well or if, for example, outside assistance would be advantageous.

It is the hope of the Rockwool Foundation that with the publication of this manual and the evaluation report *Farmers' choice: Evaluating an approach to agricultural technology adoption in Tanzania* we will have made a contribution to the advancement of small-scale farming in developing countries.

Tom Kähler
Chairman, the Rockwool Foundation, December 2012

How to use this manual

Target group

This manual has been prepared for the use of development organizations that wish to implement RIPAT (Rural Initiatives for Participatory Agricultural Transformation) or RIPAT-like projects, and particularly for the use of the facilitators. The facilitators are the people in direct contact with the participating farmers. Their work is to teach and give training in new farming technologies and to facilitate participatory learning in the groups established for the project. Local government extension officers working with farmers should also be trained so that they can apply the RIPAT concept.

Cooperation with local government

A RIPAT project involves collaboration with local government authorities, village leaders, and agricultural extension officers. This to ensure support for and local ownership of the development intervention and to promote continuation of the project and further spreading to the wider community after the end of the intervention. An important part of this manual is therefore focused on guiding the implementing organization (IO) in these areas. So far, RIPAT has only been implemented in northern Tanzania, and the manual therefore uses examples that are specific to a Tanzanian context in terms of government administrative structures and the local infrastructure in general. However, the manual is also intended to be applicable for IOs working in other developing countries, where the set-up may be somewhat different; we believe that it should not be too difficult to adapt the manual accordingly.

Guidance on an approach – not specific farming technologies

A RIPAT project seeks to bridge agricultural technology gaps in a given environment by introducing a 'basket' of improved technologies to groups of farmers. However, this manual is not a step-by-step guide on how to implement improved agricultural technologies; rather, it is a guide to RIPAT as an approach, i.e. the steps to be taken in starting an agriculturally-based help to self-help project – establishing and organizing groups, and thereby developing group members' capacity to emerge from poverty through increased farm productivity.

The starting point for a project is not the introduction of technologies but the sensitization of farm communities and individuals to the possibility of taking charge of their own development and emerging from poverty and food insecurity by their own efforts, and the mobilization of communities and individuals for the achievement of this goal. The new technologies introduced as part of the project will help them to do this, but only after they have decided that this is what they want and are willing to do.

Supplement the guide with technical manuals

The specific farming technologies included in a given RIPAT project depend on the farming system and agro-ecological environment in the targeted area. The RIPAT projects implemented to date have included several improved crop and livestock technologies, and also the village savings and loans concept. This manual is therefore not a stand-alone resource book. The IO should combine this general manual with detailed technical manuals for specific technologies available from other sources. Many good technical training manuals on improved farming practices are available, and several can be downloaded from the Internet free of charge. In Appendix 3 we have provided a list of some of the manuals which might be found useful.

Structure

This manual is divided into three parts.

Part 1: Guidance primarily targeted at the implementing organization

This section gives the background to the RIPAT approach and describes how a RIPAT project should be organized, including the roles of the main actors. It also sets out the steps to be taken during the preparation of a RIPAT project, which involves researching the targeted communities and preparing a relevant 'basket of options' for the targeted farmers. Finally, it explains the processes of sensitizing communities to the need for change and of mobilizing farmers to form groups.

Part 2: Guidance primarily targeted at group facilitators

This section provides guidance on how to function as a group facilitator (GF) in general when working with groups of farmers. It sets out the steps for organizing the groups, for ensuring that they have good leadership, and for developing a solid group constitution. It describes how group activities and the learning process can be facilitated over the project period. This part of the manual also includes guidance on how the learning can be anchored in the communities by training resource persons, called super-farmers, as well as on how exchange of information between groups and spreading of technologies can be promoted.

Part 3: Guidance on monitoring and quality control

This section provides tools for monitoring key parameters and guidance for how to include quality control measures throughout project implementation. The monitoring information is provided by the groups and is collected by the IO staff, whereas the information used for quality control is collected by third-party quality controllers to ensure impartiality.

Part 1

Guidance to the implementing organization

CHAPTER 1

An introduction to RIPAT and its main elements

RIPAT (Rural Initiatives for Participatory Agricultural Transformation) is a participatory extension approach that aims to close the agricultural technology gap as a means of improving livelihoods and self-support among rural small-scale farmers. A typical RIPAT project targets eight to ten villages. Two groups are established in each village, each group being made up of 30–35 farmers selected from the ‘lower middle class’ in the community. Most RIPAT projects to date have operated in eight villages and thus with sixteen groups, and this is the number of groups that will generally be referred to in this manual. RIPAT transfers a ‘basket’ of agricultural technology options, including various crops and livestock, to these groups in a way that allows for joint, experiential, participatory learning. Each individual farmer chooses which options to adopt on his or her own farm. The project relies on close collaboration with village leaders and local government authorities to ensure not only immediate and sustainable adoption of the technologies among the RIPAT farmer groups, but also subsequent adoption by non-RIPAT farmers in the local communities.

RIPAT – a combined ‘top down’ and ‘bottom up’ approach for technology transfer

Agricultural extension has long been seen as key to enhancing agricultural development by improving the delivery of information, inputs, and new technologies to farmers. Two rather different approaches have dominated in the past: Training and Visiting and Farmer Field Schools.

The classic Training and Visiting concept (‘top down’)

The Training and Visiting (T&V) programme was a way of organizing ministry-based extension. It was basically vertical, one-way communication for transferring information to farmers. The flow of information was:

- > Researchers develop the ‘right’ technology.
 - > Extension agents transfer the message.
 - > Preselected master farmers take the message and adopt it.
 - > The wider community sees and copies.

The main role of the extension agents was to teach and train the master farmers. It was assumed that these master farmers would adopt the blanket recommendations and extension messages, and that other farmers in the communities would copy from them. However, the impact of the T&V method has been disappointing in much of Africa (Anderson *et al.*, 2006; Gutam 2000).

In Africa, soil, climate, and socioeconomic conditions can vary enormously over just short distances. Consequently, the most suitable farming methods and technologies vary from village to village and even from plot to plot. Therefore, the 'one size fits all' type of recommendations promoted by the T&V method often failed to benefit farmers.

The Farmer Field School (FFS) concept ('bottom up')

The FFS concept evolved in response to the shortcomings of the T&V approach, and it has spread to many countries across Africa. The FFS methodology is characterized by applying a distinctive 'bottom up' approach. It is a group-based participatory method of learning, technology development, and dissemination based on adult learning principles.

The farmers make all the decisions in the FFS, guided by the facilitator. The facilitator is not a teacher; he/she takes a 'back seat' role, guiding the learning process but without imposing solutions. The FFS approach does not focus on technology transfer *per se*, and many of the technologies transmitted in a FFS come from the members themselves. The approach is largely based on the sharing of information and on developing new locally-appropriate solutions to local problems by building on the learning that has taken place.

Typically, the FFS curriculum focuses on one topic (e.g. integrated pest management, animal husbandry, soil and water management, or conservation agriculture). The learning topic is chosen by the group, and the curriculum follows the natural cycle of its subject. Frequently, an FFS is facilitated for one growing season/agricultural cycle only – sometimes for two. For further reading see Braun and Duveskog, 2008; Gallagher *et al.*, 2006.

The RIPAT approach – a combination

The fundamentals of the FFS concept are applied in a RIPAT project, albeit in a modified form. The RIPAT approach is largely a combination of elements of the 'top down' and 'bottom up' approaches. The following are among the key differences between the RIPAT and FFS approaches:

- In RIPAT, the subjects of learning are largely pre-defined, not decided exclusively by the individual groups. The starting point for each of the 16 groups in a typical RIPAT project is the 'basket of options'. This basket is made up of a number of improved technologies that are available to the groups. The basket of options is designed during the project preparation phase through participatory rural appraisals (PRA), and is hence based on combined input from farmers (bottom up) and technical experts (top down).
- The RIPAT approach includes training and teaching. The basket of options is largely composed of new technologies previously unknown to the farmers. To enable farmers to fully understand the concepts and underlying principles associated with these technologies, teaching (top down) is combined with hands-on practical and adult reflective learning (bottom up). This procedure ensures that the new technologies are modified by local knowledge and are thus moulded to local conditions. The RIPAT group facilitator guides the farmers in carrying out the demonstrations and trials, but the farmers do the practical work themselves. Thus,

in RIPAT, the facilitator takes more of a ‘front seat’ role in the technology transfer than in the FFS approach – but even so, he/she is never the leader of the group.

- The classic RIPAT project runs over three or four growing seasons/agricultural cycles – i.e. for considerably longer than a typical FFS. Due to the relatively large range of technologies in the basket of options, one season/cycle is not sufficient to ensure that farmers gain adequate knowledge and capacity to master them. Moreover, since a RIPAT project aims to establish permanent and robust groups with good leadership, more time is required for training the groups in leadership, in working with a group constitution, and in keeping group accounts.

Since 2006, four RIPAT projects have been initiated in northern Tanzania, targeting 34 villages and around 2,200 families. These RIPAT interventions were recently researched, and the results of the research have been published in a book entitled *Farmers’ choice – Evaluating an approach to agricultural technology adoption in Tanzania* (Lilleør and Lund-Sørensen, 2013). In the book, a number of authors analyse and evaluate the RIPAT approach to introducing technology to small-scale farmers, which takes its starting point in the idea that one size does *not* fit all. For detailed information about RIPAT please refer to the book. More information on the history of RIPAT is also provided in the foreword to this manual.

The RIPAT approach is founded on three cornerstones:

1. creation of a vision of a better future through the careful *sensitization* of communities to the potential for change and the *mobilization* of farmers to take charge of their own development;
2. establishment of farmer groups with *good leadership* to enable the transfer of appropriate agricultural technologies through participatory demonstrations and reflective learning techniques;
3. *close collaboration* with local government authorities, village leaders, and government agricultural extension officers to ensure the continuation of the project and further spreading to the wider community.

RIPAT: where, for whom and when

In principle, the RIPAT approach should be applicable in most agriculturally-based communities. However, it has been found through experience that the RIPAT approach works best in areas and with people that have the characteristics described below.

The RIPAT approach works best in areas

- *where farmers live relatively close to one another* – Scattered households with long distances from homes to the group plot can make it difficult for some farmers to attend group meetings on a weekly basis. Preferably, the distance from homes to the group field should not exceed 5 km
- *with relatively good conditions for agriculture* – Areas with very harsh, dry climatic conditions and poor opportunities for rainwater harvesting and/or irrigation are very challenging
- *where the population is settled* – The participating farmers must be permanently resident and have crop and livestock production as a part of their livelihood.

The RIPAT approach works best for people

- *with access to land* – People need to be able to practise what they learn at the group demonstration plot on their own farms. Landless people will not fit well into the programme
- *who are willing to work* – Poverty alleviation requires a strong will and persistence to bring about change
- *with a cooperative mind-set* – Participants must be willing to collaborate in a group, learn from their peers, and share ideas and information.

The detailed selection criteria are described in Chapter 4, Step 4. The requirement that group members must have land available for use will probably mean that the weakest households in a village will be under-represented in the project. It is not advisable that the richest farmers in the village are included; they tend to be less motivated for group work, and the implementation of the selection criteria will normally mean that the richest farmers are excluded.

When to initiate a RIPAT project

Timing is a key element in agriculturally-based projects. In areas with a monsoon climate (dry and wet seasons), it is best to start a RIPAT project some 2–3 months before the rainy season sets in and intensive agricultural activities begin. This gives the project staff ample time to organize the groups, teach the first lessons, and prepare land for the group activities. It also encourages and motivates the group and the community if at the end of the wet season there is visible evidence of the project activities in the form of a harvest. Hence, a project should not operate for too long before hands-on activities commence and tangible results can be expected.

In RIPAT projects to date, the village savings and loan concept has been introduced towards the end of the project period. However, it might be advantageous to include this activity at an earlier stage – or even to start with it. Through their savings in the scheme, group members can accumulate funds for procuring agricultural inputs in the way that they have learned during the training sessions.

Key elements and characteristics of the RIPAT approach

1. The group

All knowledge, technologies, and inputs are channelled through the group, which forms the platform for training and information-sharing. The group consists of 30–35 individuals all from different households who have common interests. In learning and trying out something new, it is often useful to work together with other people who are in the same situation as oneself. This generates a feeling of group strength and courage. The groups meet weekly during the first year for training and for the practical sessions and are led by democratically-elected leaders whose role is to organize and lead group activities and to act as stewards for group property. Leadership skills are developed; groups come to understand better the qualities of a leader, and this knowledge is also used to help them select leaders in other contexts. Groups are trained and helped in working, solving problems, and making decisions together. Training in group dynamics



A RIPAT group in action

promotes a sense of unity and cooperation, and group members learn to work together in harmony. It is intended that groups should stimulate development within their village, and even outside. They are trained in how to develop a voice and negotiating ability in the community, and undertake advocacy work in their village on behalf of their members.

2. *The group field*

The group field is the classroom and the centre for learning. The group members acquire the plot(s) for demonstration, and learn by doing the practical hands-on exercises under the guidance of the facilitator. Farmers discover, discuss, analyse, and make decisions in connection with each technology, and they compare traditional practices with the improved technology promoted.

The curriculum follows the natural cycle for each technology step-by-step. The curriculum for a specific technology is complete when the farmers have undertaken all the practical sessions during the production cycle. The inclusion of perennial crops and livestock technologies in the basket of options requires that facilitation takes place over periods longer than one year. Once a year the entire community is invited to visit the group field.

3. *Ownership by participants and authorities*

Full ownership of the project by the communities and farmers concerned is promoted through careful sensitization of the communities to the potential for change and through the mobilization of farmers to take charge of their own development. A 'yes we can' attitude is promoted from the outset and throughout the project in order to encourage participants and to prepare them for change. The acceptance by farmers of the idea that they will have to pay for inputs, the use of livestock solidarity chains, and the obligation placed on farmers to redistribute planting materials to others in the village, all promote a sense of project ownership and of a help to self-help concept, and these factors also increase the cost effectiveness of the project. Training of super-farmers (SFs) and the involvement of the village government and the agricultural extension officers all promote the spreading to other farmers.

4. *Situation analysis*

A thorough analysis of the situation in an area is a prerequisite for offering suitable development initiatives. Since RIPAT focuses on agriculture, it is especially important to have an in-depth understanding of current farming practices, of seasons with their main activities, and of the local soil, water, and climate conditions, in order to identify appropriate solutions. Information is gathered by visiting villages and holding focus-group discussions with farmers and individual interviews with village leaders, agricultural extension officers, and other key informants.

5. *Basket of options*

On the basis of the situation analysis and hence input from both farmers and experts, a suitable basket of options is designed which includes a variety of technologies that are believed to improve the food security and poverty situation. The use of locally available resources is emphasized in the selection of technologies. Farmers decide for themselves what technologies are relevant for them to implement in their own fields. A number of points concerning each technology are presented and discussed with the farmers, including economic analyses, in order to help the farmers choose the most viable options from the selection offered.

6. *Teaching, training and facilitation*

RIPAT includes the transfer of knowledge from competent facilitators to farmers. New technical knowledge is added to the farmers' existing knowledge. In order to bridge the technology gap, the group facilitator (GF) teaches and trains farmers in, and facilitates their learning and understanding of, the various issues concerned. Training is usually both theoretical and practical. First, the facilitator teaches the group in the technical principles of, and the basic science behind, the steps in implementing the technique. Then he/she guides the farmers through the practical steps, thus giving them understanding and skills. The farmers' experience is used in conjunction with the explanations given of the scientific principles behind each practice, and any lack of knowledge on the farmers' part is remedied during the training. Problems and challenges are tackled as they arise during the natural agricultural cycle; farmers learn to make management decisions, and where necessary, technologies are adapted to suit the local conditions.

7. *The implementing organization*

The implementing organization (IO) has detailed knowledge of the local project setting, and has responsibility for ensuring good collaboration and coordination with local government institutions – especially with extension officers (EOs) and any other organizations working in the area. The IO ensures quality group facilitation and timely availability of project inputs (seeds, tools, animals, etc.).

8. *Independent monitoring and quality control*

A RIPAT project should include the involvement of an independent body that will carry out continuous quality control, in order to check whether the standards laid down in the plan are being achieved in practice. However, group members, project managers, and the IO should also carry out monitoring and evaluation to learn of, reflect on, and act upon any discrepancies between goals and achievements with regard to the activities implemented.

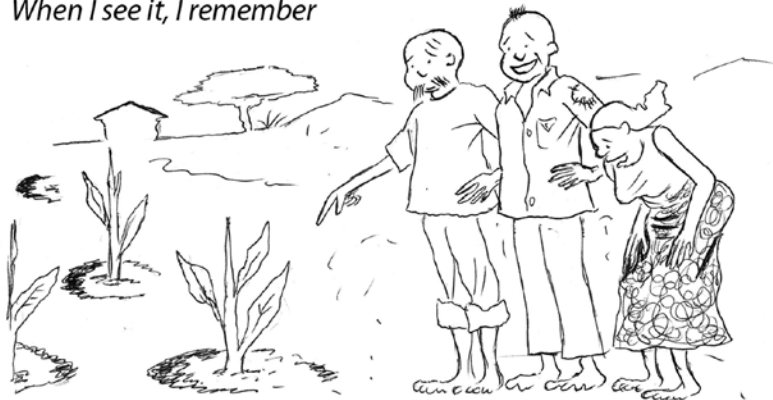
9. *The RIPAT name and logo*

The RIPAT name should only be used for projects that are implemented in accordance with this manual. All RIPAT projects must include the monitoring and quality control processes outlined in Chapter 6 to ensure a high standard of implementation. Implementing organisations applying the stipulated quality control can use the RIPAT name and logo.

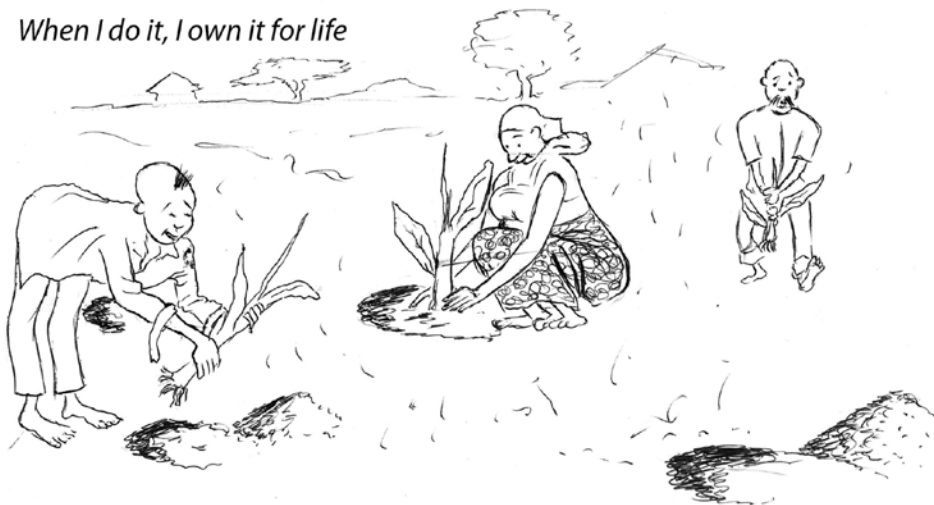
When I hear, I forget



When I see it, I remember



When I do it, I own it for life



CHAPTER 2

The organization of a RIPAT project and the roles of the main actors

Project organization

A typical RIPAT project targets eight villages. Two groups are established in each village, each group consisting of 30–35 farmers. This gives a total of 16 groups per project comprising approximately 500 farmers. The implementing organization (IO) may implement several RIPAT projects simultaneously, perhaps with staggered starting dates. Each project has a designated Project Manager (PM) and a team of two or three group facilitators (GFs). The PM and the GFs train the groups. Initially there will be three GFs, but later the number may be reduced to two. The GFs employed by the IO should preferably have complementary technical and pedagogical competencies so that they can work as a team in facilitating the various project elements. Hence, a group will typically be visited by several facilitators over the three-year project period to ensure that all elements related to group dynamics, capacity-building, and farming technologies are thoroughly covered. Figure 2.1 shows a typical organizational chart.

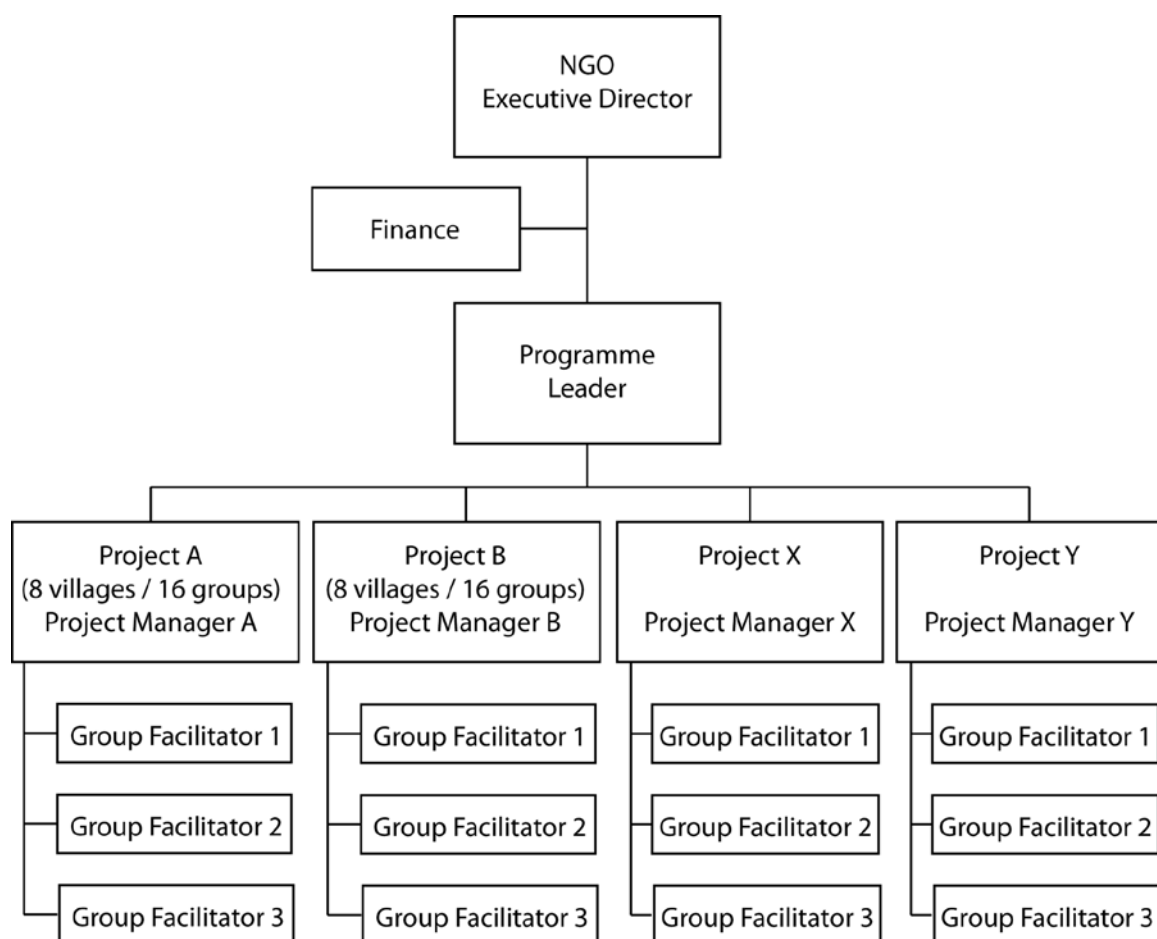


Figure 2.1 Typical organizational chart

Roles and responsibilities

Executive Director

Apart from acting as the overall leader of the IO – and hence being the person ultimately responsible for the employees and project activities, the Executive Director (ED) must constantly take time to nurture the organization's relationship with the local government authorities in the districts where the organization's RIPAT projects operate.

The ED must seek to influence the policies adopted by high-level government staff by keeping policy-makers and technical staff informed about the progress of RIPAT. This work largely takes the form of explaining about RIPAT in important forums such as district and regional consultative committees and district councils, organizing field visits, and inviting representatives of local authorities to RIPAT events and meetings. These activities should be supplementary to the local advocacy work carried out by the Programme Leader (PL), the PM, and the GFs.

Programme Leader

The Programme Leader (PL) has overall responsibility for the RIPAT project(s). An important task for the PL is to educate and guide the PMs and the GFs so that they can provide quality training to the groups. Furthermore, the PL has the task of monitoring the progress of all projects and the work of the PMs and GFs, upgrading their competencies as necessary, and dismissing any personnel who are not performing well. The PL is fully responsible for the logistics of the procurement of project inputs (seeds, tools, animals), for allocating GFs with the right knowledge to the different assignments, and for planning the visits and training sessions in all the groups in the project. He/she conducts training and regular staff meetings with the PMs, is responsible for the development and administration of project policies, and ensures that all grant requirements are met in a timely manner.

Project Managers

The PM has the overall day-to-day responsibility for project support and training for the 16 groups in the eight villages under the individual project. He/she functions as the site manager if the project is operated from a local branch office. The PM coordinates the work of the GFs who have been assigned to the project. He/she supervises project activities and personnel, conducts regular (weekly) meetings with the GFs, prepares project reports to the PL, administers the local project budget covering, for example, travel and meetings, ensures daily feedback sessions on fieldwork, and liaises with the PL on potential villages for spreading the RIPAT approach, working closely with the local government and extension officers.

Group facilitators

The group facilitators (GFs) are the people in direct contact with the participating farmers. Their work is to teach about and give practical training in new farming technologies, and to facilitate participatory learning by the members of the groups established for the project. It is difficult to provide a clear profile of a GF. Having the right personality and attitude is often more important than the person's educational background and level of qualifications. Some GFs may have university degrees; some may be

recruited from development organizations or from the government extension service. Typically, a GF should have a diploma in a relevant field of development such as extension, social sciences, agriculture, or rural development. A GF should have experience in working with people in rural areas and a passion for promoting rural development through help to self-help. They need both technical and pedagogical competencies.

- *Technical.* Since RIPAT provides farmers with a basket of options, the groups need facilitation in the application of several technical disciplines covering both livestock and agriculture. The RIPAT project also includes training in group leadership, management of group funds, and usually group microfinance. One person may not have expertise in all of these topics, and therefore the team of GFs and the PM will typically complement one another in the facilitation of the 16 groups in a RIPAT project. Each group will typically be visited by various GFs and the PM over the three-year project period to ensure that all subjects are appropriately covered.
- *Pedagogical.* A GF should not only be a technically competent person but also have good pedagogical skills. This will enable him or her to create an environment which is conducive for learning and the sharing of ideas, and where everyone feels welcome and important. The GF must be trained in adult learning and in preferred learning situations. It is also important that the GF understands group dynamics and can ensure that the groups grow and develop. The GF should be able to detect when the group is not at ease with a given activity and when there are potential conflicts in the group that need attention to prevent them breaking out. It is important for the GF to understand the characteristics of the culture in the area where the project is being implemented, and to know how to interact with different individuals in the communities.

Involving the local government system and extension officers

The government has the responsibility for creating an environment that is conducive for community development and that can facilitate project activities. Plans and policies have been developed to combat poverty and food insecurity, and structures and employees to work with rural communities are in place in most districts. It should be made clear to the relevant government authorities that RIPAT works to *support* government efforts in this regard. The aim is to ensure the continuation of favourable economic development beyond the lifespan of the project.

The RIPAT project must work closely with the District Agricultural and Livestock Development Officer (DALDO). At village level, collaboration may differ from one village to another, depending on the availability of local government extension officers (EOs). In some areas there is an EO stationed in each village, but quite often there is only one EO available to cover an entire ward (typically consisting of two to four villages). The attitudes of EOs towards collaborating with RIPAT can vary between great interest and reluctance.

In principle, the EOs are mandated to work with villagers on all issues related to agricultural development. They should 'extend' new technologies to the farmers. However, quite often the EOs are not sufficiently trained in the new technologies, or

their knowledge is out of date. And, as mentioned in the introduction, RIPAT involves a combination of ‘top down’ and ‘bottom up’ approaches for effectively bridging technology gaps – an approach with which the EOs may not be familiar. Since a RIPAT project only covers perhaps 10% of the households in a village, it is important to involve the EOs as much as possible in the intervention so that they can learn about the technologies and continue the intervention after project closure with the remaining 90%. For this reason, the EOs are invited to participate in the weekly RIPAT group meetings as much as possible. But the project does not have any control over the daily work of the EOs, since they are responsible to the government authorities.

Typically, the EOs sit in at RIPAT group meetings, listening, learning, and contributing with their input when relevant. They do not have any say in the decisions of the group, since they are not group members. The EOs cannot give orders to the group. During project implementation, the group is trained and mentored by the GF – not by the EOs. Any direct involvement by an EO in the RIPAT groups should always be coordinated and agreed with the GF and/or the PM. But to avoid misunderstanding, the collaboration with local government must be well organized from the outset, with clear decision-making processes and lines of communication. It is also anticipated that the EOs will collaborate with the super-farmers (SFs) in leading the process of dissemination of RIPAT technologies to other villages. The specific areas where EOs are involved in a RIPAT project are listed in Box 2.1.

Box 2.1 Specific areas involving the extension officers in RIPAT projects

- *Situation analysis.* The DALDO is involved in the selection of villages for RIPAT projects, and participates in the situation analysis as a key informant and provider of secondary information.
- *Project launch.* The EOs are involved in the community sensitization and mobilization processes and participate in the formation of groups.
- *Follow-up activities.* The EOs participate in the group meetings and training sessions as much as possible, in order to learn. They are sometimes asked by the PM to follow up on specific project elements such as the progress of solidarity chains, farmer-to-farmer training, and technology spreading within the villages (in a RIPAT project, all participating farmers agree to train three other local farmers in what they have learned through the project).
- *Advisory services.* As a part of their general work, EOs provide agricultural advisory services in the villages; this work complements the promotion of improved farming techniques through the RIPAT project.
- *Scaling up after project completion.* Because they have learned and gained experience from RIPAT projects, it is expected that the extension officers will lead the scaling up of interventions to non-RIPAT farmers and to other villages. This activity could be undertaken in collaboration with the RIPAT SFs.

CHAPTER 3

Pre-project activities

There are several planning activities that must be completed before a RIPAT project can commence. It is aptly said that ‘those who fail to plan – plan to fail’. The project must be well prepared to ensure that it is relevant and fully ‘owned’ by the targeted communities and the local government officials. The IO must therefore go through all the steps described in this chapter (see Table 3.1 for an overview). Ideally, GFs should take an active part in the project preparation activities, but sometimes they are only recruited and trained after project funding has been secured.

Step 1: Selection of potential area

The first step in planning for a RIPAT project is to identify an area that is potentially well suited. Although the RIPAT approach is applicable in most agriculturally based communities, certain conditions and environments are more conducive to success than others, as briefly mentioned in Chapter 1.

A target area for RIPAT should preferably have 10–20 villages within a reasonable distance of each other. Only around eight villages will be directly involved in the three-year implementation programme. However, neighbouring villages will be indirectly targeted through the project’s inbuilt spreading concept. The spreading is based on the work of project SFs – the best farmers in each group – and of the government EOs. This inbuilt spreading concept is described further in Chapter 5, Step 9. At this stage, the IO should only keep in mind the need to identify a number of potential ‘spreading villages’ to be targeted after RIPAT implementation in the initial eight villages.

In the process of selecting an area, the IO should undertake a stakeholder analysis to identify and describe individuals, groups of people, institutions, or organizations that may have a significant interest in the success or failure of a RIPAT project.

Once a potential area has been identified, the next step is to meet with the appropriate government officials.

Step 2: Introductory meeting with local government officials

The introductory meeting with local government officials is aimed at establishing positive cooperation with the relevant government institutions by making sure that they are fully informed and that the project has their blessing. Active support by the relevant government officials at regional, district, and ward levels is important for ensuring that the project is well received by community leaders and village residents and that help is provided by the authorities in spreading the ideas beyond the original groups.

If the IO has already identified the project area in which it wishes to operate, the goals of the meeting with the local government authorities are to introduce the concept of the project, to confirm the suitability of the selected area, and to seek participation of the authorities in the situation analysis process. If the IO has yet to identify a suitable

Table 3.1 Overview of the steps involved in project preparation

Step	1. Selection of potential target area	2. Introductory meeting with government officials	3. Situation analysis and draft design of basket of options	4. Project description and preparations
Content	The IO makes a preliminary screening to identify an area appropriate for a RIPAT project	The IO meets with the district administration to - introduce the IO - introduce the RIPAT approach - discuss the target area and the main target group - discuss the role of the IO and local leaders, and discuss administration and coordination	The situation analysis team - visits selected target villages and carries out a participatory rural appraisal - designs an appropriate basket of options for the area The IO - holds a project action plan meeting to agree on the basket of options	The IO - designs the project plan and budget in accordance with the requirements of the funding agent - prepares for project launch, including recruiting and training of PM and GFs and preparation of group training materials according to the agreed basket of options
Comments	The important factors to keep in mind are - distances between households - agro-ecology - culture and livelihood strategies	This may take more than one meeting and may involve regional and district officials	The situation analysis team normally consists of the PL, technical experts, and district representatives, including the local EO(s)	The specific design and format of the proposal should match donor requirements

area, the meeting with the local government authorities can be of help in listing villages appropriate for a RIPAT project.

It is important that the inbuilt spreading concept is discussed with and understood by the local authorities. It is anticipated that the continuation of the work of the RIPAT project will be the responsibility of the village and government authorities. The extension system will play a crucial role. Such expectations must be communicated and discussed from the very beginning, before any project activities are launched. This requires the involvement of the local government authorities (from the district down to the communities) in several meetings.

Meetings with the regional and district authorities

If the IO has not previously operated in the region or district concerned, it would be advisable to first meet the regional authorities. This would be the Regional Administrative Secretary (RAS) and Regional Agricultural Adviser (RAA). The RAA should, if time allows, participate in the first meeting with the district authorities.

At the district level it will be most appropriate to meet with the District Council Management Team (DCMT). The entry point would be the District Agricultural and Livestock Development Officer (DALDO). The DALDO will then introduce the IO to the District Executive Director (DED), who will arrange for a meeting with the DCMT.

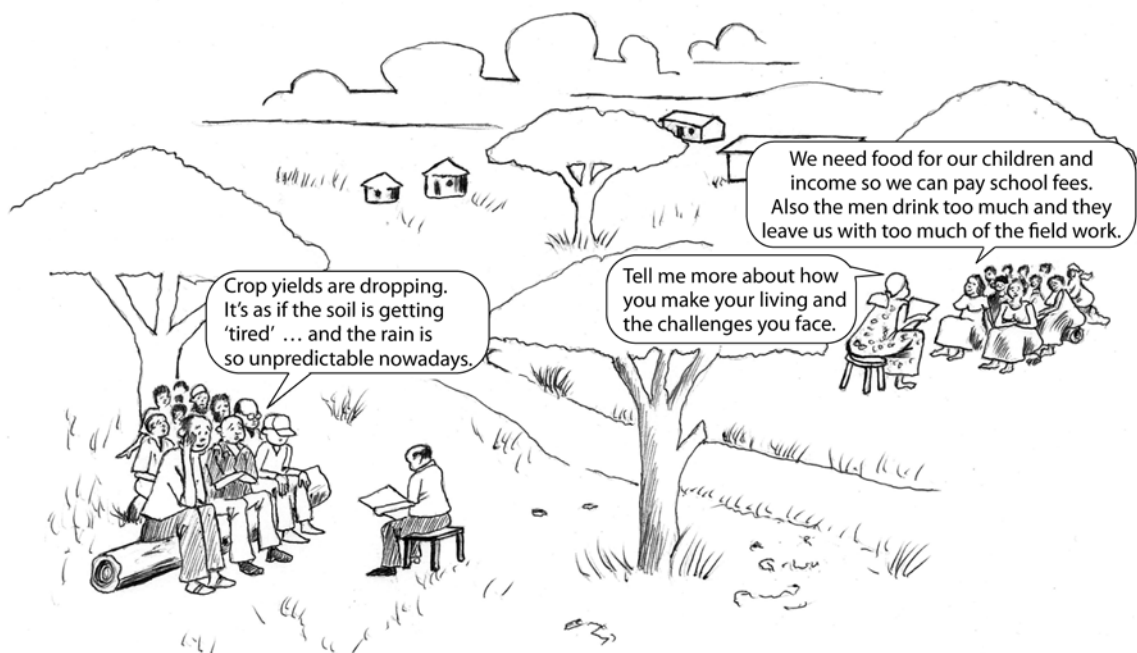
The topics to be covered during the meeting should include the following:

- Introduction of the IO
- The purpose and goals of RIPAT, i.e. to alleviate poverty and increase household food security through the introduction of a basket of options suited to the agro-ecological conditions of the targeted villages, and the nature of the RIPAT approach
- The proposed area for implementation and for subsequent scaling up
- The roles of various players in the project, and expectations regarding outcomes
 - * The working relationship between the IO and the district; the project will work closely with local government, and particularly with the ward and village EOs (see Box 2.1 on collaboration with EOs).
 - * The spreading of the concept after the completion of the project; it is expected that the best performing participants (SFs) will work together with the EOs to pass on the knowledge and skills acquired from the project. This spreading (and the funding for it) will be the responsibility of the district.
- A situation analysis survey for the suggested villages, including dates and identification of persons responsible.

After the meeting with the DCMT and the IO, representatives should proceed to the DALDO office to gather more background data and to acquire a better understanding of the area, and of its conditions and problems. The district office normally has a database containing reports, maps, and other useful documents. If the district has conducted an 'Opportunities and Obstacles to Development' exercise in the villages there should be a wealth of information concerning the villagers and their plans for development activities.



The IO representatives meeting with the regional and district authorities to seek full collaboration and support



Focus-group discussions with women and men separately

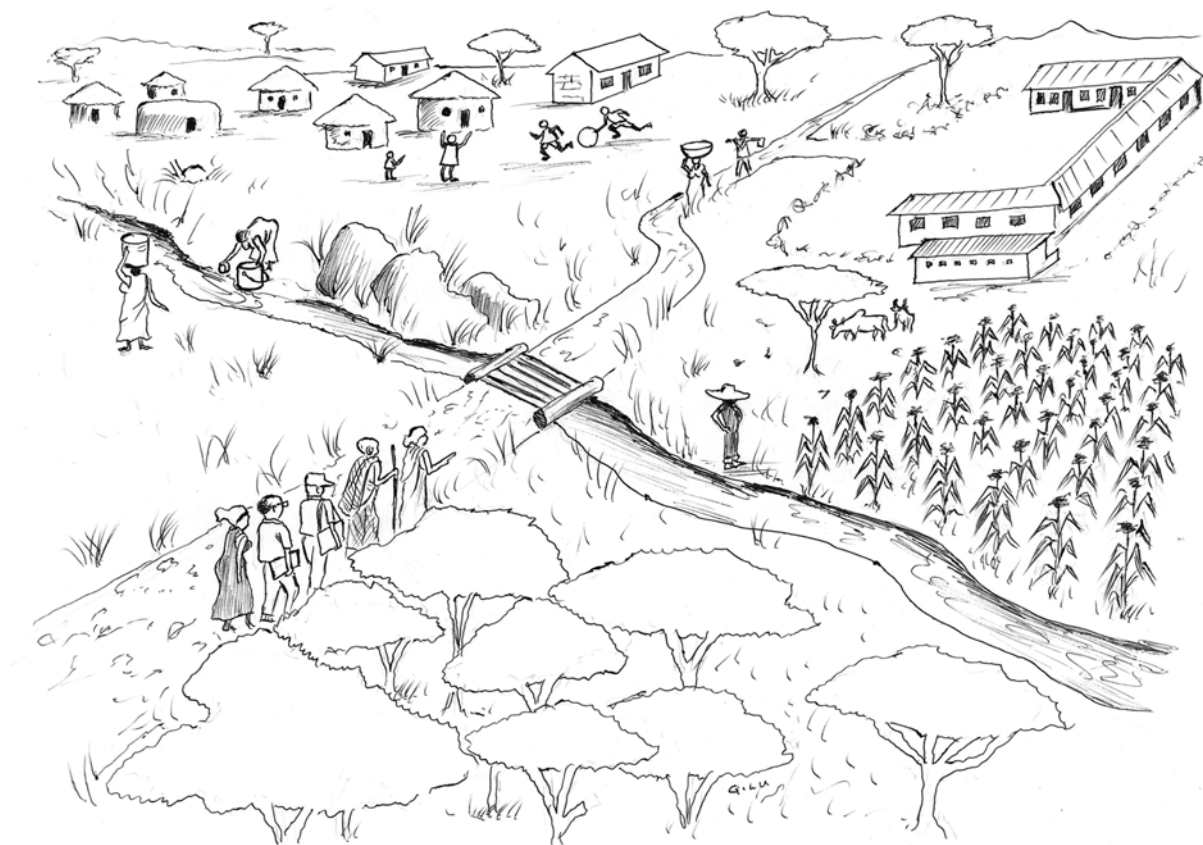
Step 3: Situation analysis and draft design of the basket of options

A thorough analysis of the situation is necessary. The problems and needs faced by the communities (both felt and perceived), including the causes and effects of these problems, must be analysed in a participatory way before relevant solutions can be identified and activities can be planned. It is important to remember that in RIPAT, development is never done *for* communities or individuals, but is achieved *by* communities and individuals. Successful development requires that the IO works closely together with the targeted community to achieve what the community needs.

A participatory rural appraisal (PRA) is conducted by the IO. It is important that the district officials, including the EOs, participate in this exercise. The selected villages are visited and information is gathered using various PRA tools (see Box 3.1). Challenges and opportunities are identified and information is gathered systematically for proper analysis. The information is used to help in planning appropriate and relevant activities that the project should include in order to achieve its objectives.

Avoid raising expectations during the planning process!

During the PRA process, it is crucial not to raise too many expectations in the communities. People may think that the IO will be providing easy solutions such as handing out free food or fertilizers to solve their immediate food security problems. Or they may



Transect walk during the situation analysis

Box 3.1 Selected PRA tools

Some PRA tools which can be used during the situation analysis. For further information on PRA please refer to other manuals (see Appendix 8).

Focus-group discussions

... aim to collect general information, clarify details, or gather opinions, beliefs, and attitudes from a group of selected people (often 8–12) who represent different groupings in the community (e.g. women, men, young people, the elderly, etc.). Questions are asked in an interactive group setting where participants are free to talk with other group members.

Semi-structured interviews

... are used to obtain face-to-face information from individual community members or a small group. Some key informants are selected for their specialized knowledge or interests (e.g. community leaders, extension officers, teachers, local business people, and community development committees).

A transect walk

... is a structured walk or a series of walks through a selected area with local informants that permits observation of the area's environmental characteristics and/or the residents' main activities. This tool helps to provide information concerning the range of different conditions, problems, and opportunities in each of the areas.

An activity profile

... is an outline of the main activities undertaken by men and women in the household and in the community created in order to understand better who performs which tasks. Such information is helpful in the planning and scheduling of the project and in designing the basket of options – especially in terms of assigning tasks and responsibilities among group members.

A resource control profile

... is used to identify who in the household has access to/control of/ownership of the various household resources, and can be used for identifying the role gender plays in control over resources.

A seasonal calendar

... is used to establish regular cycles or patterns of activities and events within a community over 12 months, and helps to understand the seasonal changes in the livelihood system. A seasonal calendar can show the distribution of household labour, food availability/food gaps, flow of income, rainfall distribution, etc.

Pair-wise ranking

... is a tool that helps a group to compare and to order a long list of things against one another, for example a list of problems. Pair-wise ranking is most often used to determine priorities when there are many options to choose from.

Wealth ranking

... is a method of understanding relative wealth within a specific area or community. The key local grouping criteria or characteristics of the poor, the middle level, or the rich in a society are determined through focus-group discussions or semi-structured interviews.

think that the IO will just come up with a detailed project and tell them what to do. It is important to make very clear that the purpose of the visits and the planning exercise is to gather information and to learn about the various means of livelihood in the community. At this point in time it is not even certain that a project will be approved for the particular village.



The lack of hope often experienced in rural communities – people waiting for change to be brought from outside. A RIPAT project works to create a vision of a better future and to help farmers discover the often overlooked locally available resources which can help them to get out of poverty by their own efforts (in this case, a supply of manure and a stream for irrigation).

It is important to explain that if a project is eventually funded it will *not* be a project which brings simple solutions in terms of free gifts and handouts. Development will only emerge from the participants' own effort and hard work.

Identifying a provisional basket of options

It is especially important that the PRA exercise results in a thorough understanding of current farming practices and of the local soil, water, and climatic conditions. This will provide the information required to identify an appropriate basket of options.

The problems identified during the PRA are further analysed by making a 'problem tree' that makes visible and clarifies cause and effect with regard to food security and agricultural development issues (an example of a problem tree appears later in this chapter). A thorough problem analysis should involve a joint effort with input from both farmers and technical experts. The situation analysis team identifies the real bottlenecks and underlying root problems related to food security and development.

A good problem analysis thus provides a sound foundation on which to develop a set of clear project objectives and project outputs, and is a useful tool for prioritizing the activities required. It is usually the case that small farmers in rural areas face a long and varied list of problems with maintaining a livelihood.

On the basis of the information gathered and of the analysis, a suitable list for the basket of options – technologies and practices appropriate for the villages in the area that have the potential to improve local agriculture – is drafted. Thus, the basket of options is based on input from the farmers and technical experts in the situation analysis team.

Box 3.2 Baskets of options

The baskets of technology options previously offered to RIPAT groups and to individual farmers have been drawn from the following list.

1. Cultivation of improved varieties of banana using new cultivation techniques
2. Conservation agriculture, which promotes three basic principles:
 - minimum soil disturbance, achieved by replacing the traditional plough with a ripper or special hand hoes (chaka hoes)
 - keeping the soil covered by mulching and by planting a cover crop
 - mixing and rotating crops, e.g. intercropping or rotating maize with legumes. Crop diversification and cropping stability are further promoted by introducing improved varieties of cassava, sweet potatoes, and vegetables, using supplementary irrigation where possible and appropriate
3. Post-harvesting technologies, i.e. food storage, processing, utilization, and marketing
4. Improved animal husbandry (cattle, goats, sheep, pigs, poultry) in terms of breeds kept, housing and feeding, and veterinary treatment
5. Multipurpose trees for fodder, shade, windbreaks, timber, firewood, soil fertility, erosion control, and food (fruit trees – avocado, citrus, and mango)
6. Soil and water conservation, including contour farming and rainwater harvesting techniques
7. Microfinance training primarily focused on using the village savings and loan (VSL) model

Project Action Plan meeting

In order to seek further advice and to confirm the list of items for inclusion in the basket of options, the IO next issues invitations to a Project Action Plan (PAP) meeting. Participants should include district staff, technical experts, village leaders, ward leaders, field extension staff, and any other relevant development stakeholders in the area.

The findings from the situation analysis are presented at the PAP meeting. These findings will include a description of current agricultural practices and technologies, the problem analysis, and the draft list for the basket of options. The participants at the meeting will discuss the findings and give their views. The outcome of the meeting should be an agreed basket of options to be included in the RIPAT project.

Following this meeting, the final situation analysis report will be written. This report will be used to develop a proposal for presentation to the donor in a request for funding.

In the RIPAT projects implemented so far, the baskets of options offered to project groups have been fairly comprehensive, with each including a variety of crop/livestock technologies that represent improvements on current practice (see Box 3.2).

The problem tree shown in Figure 3.1 describes in generic terms the causes and effects the RIPAT project will address. The tree should be read from the bottom up.

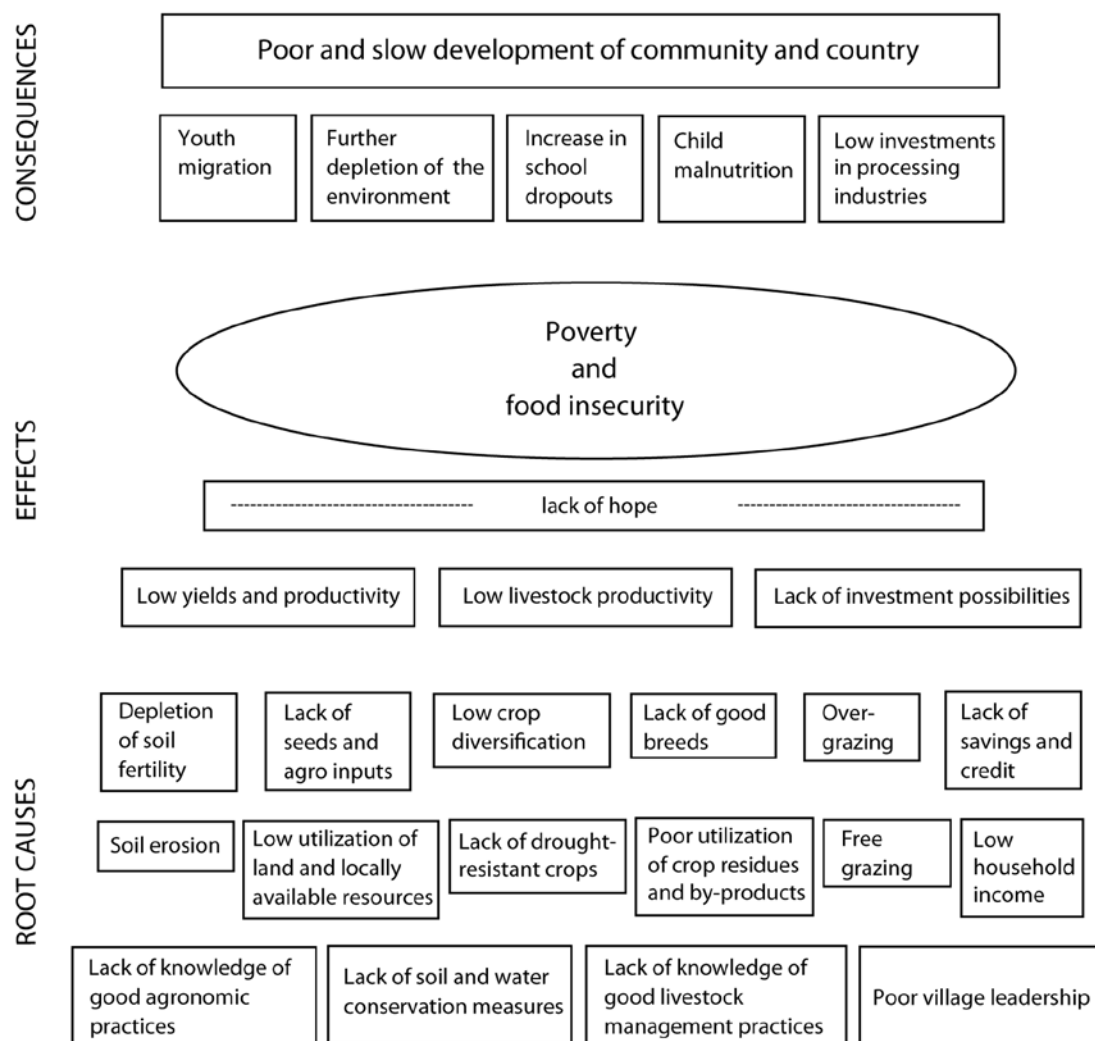


Figure 3.1 Problem tree

Step 4: Project description and project preparations

The *project proposal* is the document which enables the IO to access funds for the project. Most donors have proposal formats and special guidelines that need to be followed. The project documents (proposal with logical framework, organizational chart, activity plan, and budget) should guide the project implementation, and the proposal should therefore clearly define how the project will be implemented.

Preparation of project activities

Once the project proposal has been submitted there are a range of activities that need to be undertaken prior to the commencement of the project:

Training the group facilitators

Candidates who have the personal qualities and technical backgrounds necessary for a GF position may not always have practical experience in facilitating adult learning. If appointed, such GFs will therefore need training in facilitating adult learning through a theoretical and a practical course in RIPAT group facilitation. The RECODA Academy offers tailor-made courses for this if required (see www.recodatz.org). In addition, it is preferable if new appointees, after their academy training, team up with a more experienced GF at the beginning to acquire practical knowledge.

Preparation of training materials and posters

Having identified the basket of options to be offered, the IO should start preparing training materials and posters for use by the GFs during the course of the programme. Technical papers on the various crop and livestock production systems and methods are available from various sources. Similarly, manuals on group dynamics and village savings associations are also available. Appendix 3 contains a list of some useful and easily accessible materials.

Posters showing the basket of options and illustrations of technical aspects of the project such as the solidarity chain for animals, and rules for how to pay for inputs and pass on knowledge and planting materials to others in the community, etc., should be prepared for use at subsequent group meetings.

CHAPTER 4

Starting the project: Sensitizing and mobilizing the communities and establishing farmer groups

Once funding has been secured, the project is ready to be initiated. The RIPAT approach requires a joint effort. Ownership of the project by the participants, the government authorities (including the EOs), and the community leaders is crucial – not only for successful initial implementation, but also for spreading of the intervention to other wards and villages in the district. Planning a start-up process that is inclusive and informative is vital to ensuring local support and good collaboration right from the outset, and calls for the involvement of the government offices from district level all the way down the ladder to the wards and the villages. It is important to follow correct protocol when involving government officials and community leaders. Table 4.1 below lays out the order in which the meetings should take place and the major issues to be covered. The PL and PM will take the primary lead in these steps; however, as far as possible the designated GFs should also participate. It is advisable to carry out these start-up project activities two or three months before commencement of actual project implementation.

Step 1: Meeting with the district officials at district headquarters

The IO should arrange for a meeting with the District Executive Director (DED) and other relevant district staff. The point of entry is the District Agricultural and Livestock Development Officer (DALDO) via the DED. The objective of this meeting is to inform the district that the planned project has been funded and to make a final agreement on the procedures for collaboration. Roles and responsibilities need to be defined and agreed to avoid any misunderstanding in the process of implementation, and for this reason a Memorandum of Understanding (MoU) should be written (see Appendix 4D).

The district should appoint a District Project Coordinator (DPC) who will be the focal point of communication between the IO and the district authorities. At the meeting, the final list of the eight villages to be covered in the three-year project will be agreed, as will a tentative list of the additional villages to be targeted in the subsequent spreading effort using SFs and EOs.

The district and ward officials are requested to participate actively in the Village Assembly (VA) – the big village meeting where the RIPAT project is presented to the entire community and farmers enrol in the project. The presence of government officials and their endorsement of the RIPAT project signal both the importance of the project and the official approval of RIPAT and the IO. Official approval helps to plant the first seeds of belief in the creation of a better future for the village. If possible, it would be useful to ask the Regional Agricultural Adviser (RAA) to participate in the meeting.

Box 4.1 provides a checklist of the topics to be covered during the meetings at the District Headquarters and at the WDC.

Table 4.1 Overview of the steps involved in project start-up

Step	1: Meeting with district authorities	2: Meeting with the Ward Development Committee (WDC)	3: Village Assembly: Sensitization and mobilization process	4: Formation of groups
Content	• Announce that the project has been funded • Introduce the Project Manager and staff • Confirm the selected villages • Recap on the implementation process • Agree on role of local administrators and leaders • Sign an MoU	• Recap on the background to RIPAT and on implementation processes • Explain the need for WDC assistance when launching the project at the Village Assembly and in forming two groups in each village	• Introduce the IO and give a full explanation of the RIPAT project concept • Levelling of expectations, i.e. basket of options, payment for inputs, etc. • Ensure that everything is very clear, e.g. roles, expectations, and responsibilities • Identification of willing group members	• Describe step-by-step how RIPAT works • Make clear expectation that participants will be good group members, and explain what this involves • Present project activity schedule • Announce date and place for first group meeting
Comments	This meeting will involve the District Executive Director (DED) and the relevant members of the Council Management Team (CMT) This open meeting is the foundation for successful group formation and good project start-up. It is chaired by the village leaders. Representatives from the WDC and district should play an active role Attended only by people who have been selected and who have committed themselves to actively participating in the groups			

Box 4.1 Checklist of topics to be covered during the meetings at the District Headquarters and at the WDC

1. Confirmation of the approved RIPAT project
2. Recap on the RIPAT concept and implementation processes
3. Confirmation of the list of selected villages
4. Appointment of the DPC and the establishment of his/her central role in communications
5. Agreement on the level of collaboration with the district/ward; roles and responsibilities, including the involvement of the government EOs
6. Discussion of processes for scaling up to other villages
7. Agree on an MoU between the IO and the district
8. Plan the Village Assembly meeting and the involvement there of the district and ward.

Step 2: Meeting with the Ward Development Committee at the ward headquarters

The next step is to meet with the Ward Development Committee (WDC) to inform all its members about the forthcoming RIPAT project. For many of the WDC members, this will be the first time they hear about RIPAT. Often this meeting takes place in the morning of the day of the Village Assembly. The DPC is responsible for calling for the WDC meeting and also for informing the village leaders of the date and time of the subsequent Village Assembly. The village council must be informed in good time, allowing for a timely announcement of the Village Assembly so that the news is well spread. As far as possible the whole village community should attend the Village Assembly, since it is there that the group participants will be selected and enrolled in the project.

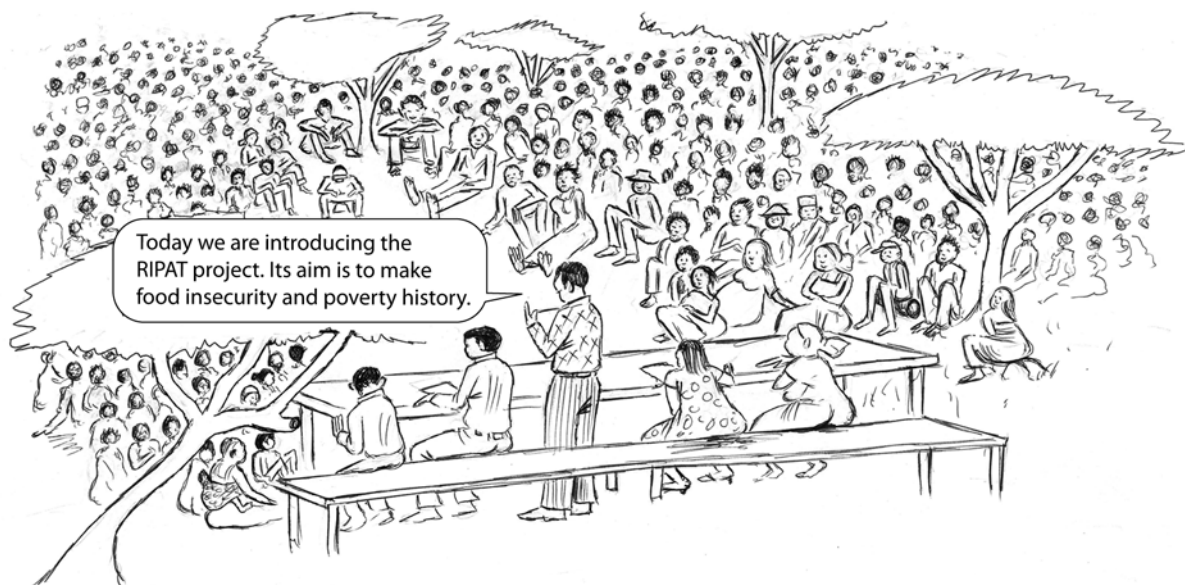
The objective of the WDC meeting held prior to the Village Assembly is to ensure that the WDC members are familiar with the project objectives, the implementation procedures, and the form of collaboration and commitment that it is expected they will provide. The WDC is an important body; it has the mandate to plan and coordinate all development projects in the wards (a ward typically consists of two to four villages). Members of the WDC come from various backgrounds; they are ward councillors, ward leaders, village leaders, extension officers, technical staff from various departments, religious leaders, representatives of the political leadership, NGO representatives, and development stakeholders.

Step 3: Sensitization and mobilization of communities at the Village Assembly in each village

This meeting is an essential foundation for successful group formation and good project start-up. It is important that village leaders chair the Village Assembly and that representatives from the WDC and district participate actively. All possible efforts should

be made to ensure that the majority of the households in the community attend the meeting, and it is important that the IO, the district, the ward, and the village leaders work together to ensure that the sensitization and mobilization processes are successful. Normally the event is held in a public place such as the local government offices, a school, or a church compound.

Village Assembly



The RIPAT project is introduced to the community at the Village Assembly. The meeting is chaired by the village leaders, and the IO, the district, the ward, and the village leaders all work together to ensure successful group formation and good project start-up.

There are three objectives of this Village Assembly, namely:

1. to present the RIPAT project to the village leaders and the community in such a way that the participants get the right information and are fully aware of what is expected from them;
2. to promote a 'yes we can' spirit among the villagers; and
3. to form two groups of 35 persons.

The ward leaders and DPC (or a representative from the district) are expected to introduce the project and the IO to the audience. The creation of a vision of a better future through the careful sensitization of communities to the potential for change and the mobilization of farmers to take charge of their own development are fundamental to the success of the project. At this meeting, the poverty and food security situations in the village are analysed with the participation of those present. This is followed by a discussion of how the RIPAT project can help to rectify the situation through the participants' own efforts, despite any past failures that might have occurred with other projects. Bringing along one or two farmers from an earlier RIPAT project would be useful, as they could testify to the change in their livelihoods that RIPAT helped to achieve.



Believing in a better future is a prerequisite for getting development rolling. It is necessary that farmers should be able to visualize a successful outcome. The project elements and activities must be clearly explained, including the new farming technologies which will be provided in the 'basket of options', the system for paying for inputs (see Box 4.2), and the roles and responsibilities of the various stakeholders (the IO, participants, village leaders, and EOs). It is very important that the meeting is interactive – lecturing should be avoided.

Extension officers are expected to engage in the Village Assembly meetings and in the community mobilization and sensitization processes to improve project acceptance, i.e. the feeling of ownership and spreading of the concepts introduced in their area of work.

A vision of a 'super-household' is also presented. Often farmers do not have a clear vision of what development is – and an illustration or an example can often help them to grasp the idea better. It should be made clear to the audience at the meeting that the stage of development represented by the super-household model will not be reached within the three-year project period – but the project will be a stepping stone in this direction. Be careful not to promise too much and create an expectation of great wealth within the project lifetime. However, since the start of RIPAT in 2006 a number of RIPAT farmers have pursued this vision of the super-household model, and have succeeded in taking important steps in that direction.

The question of 'inputs' is discussed in Box 4.2. Box 4.3 provides a checklist for the meeting at the Village Assembly.

Box 4.2 Inputs

RIPAT aims to avoid disruptive donor dependency, and therefore the project does not provide free gifts or handouts. If it is rumoured in a poor community that somebody has received money or gifts in kind from donors or from the government, people will put their energy into trying to obtain gifts, and stop or reduce their efforts to earn their own living.

The groups will be provided with the inputs needed to try out and test the basket of options (i.e. improved seed varieties, tools, and animals for breeding). For some inputs, the farmers pay the full cost to the IO in cash; for other inputs, (re)payment is effected by passing on planting material or animal offspring to other farmers. The overall principles are listed here, while more details are given in Chapter 5, Step 9.

- **Group field:**
Inputs (seeds/planting materials, tools, and agrochemicals) for use at the group demonstration field are provided free of charge; this is considered a part of the training and learning programme related to the basket of options.
- **Individual group members:**
Farmers who want to adopt technologies from the basket of options on their own farms can request the IO to provide the required inputs. However, the farmer must pay the full cost, i.e. pay 50% up front *before* receiving the input, and the remaining 50% after harvest. The IO arranges the logistics, covers the transportation costs, and ensures that inputs are available on time. This also applies to improved breeds of poultry (cocks).

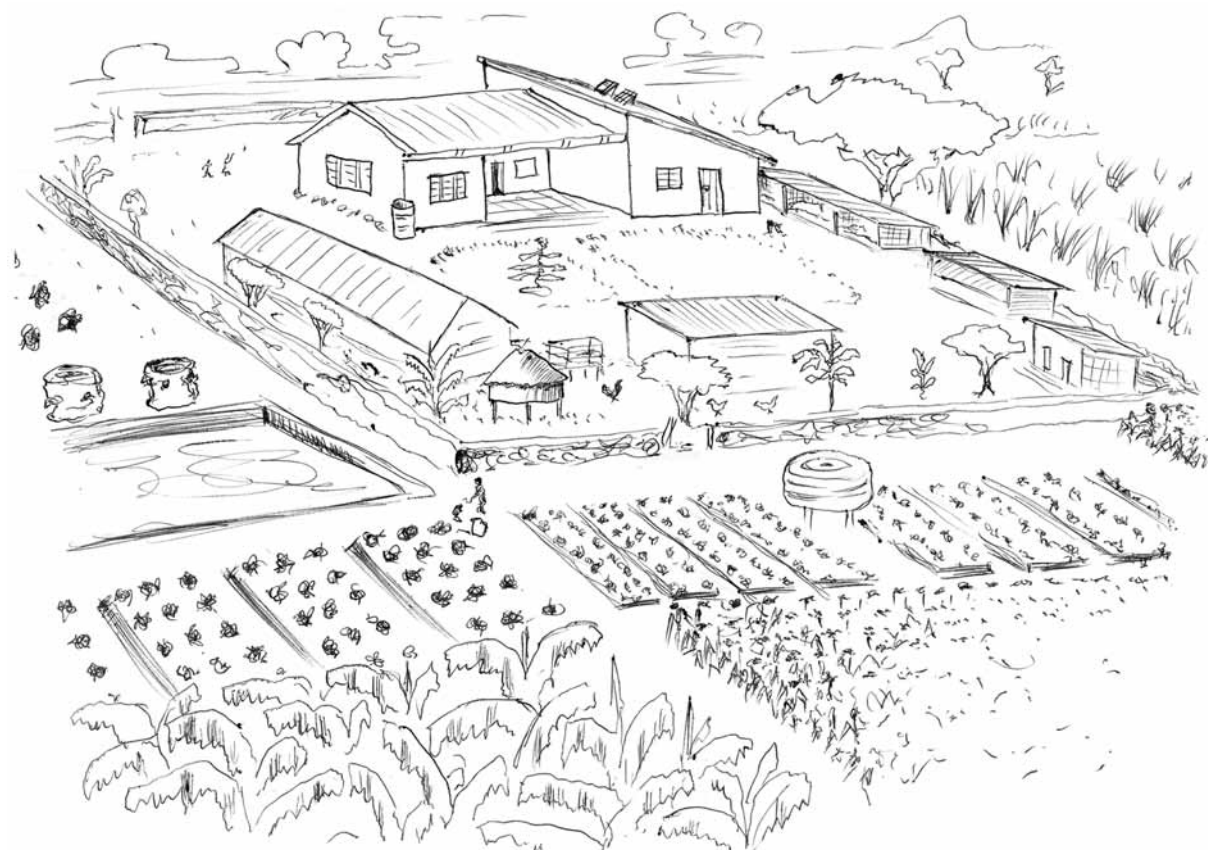
For some inputs, the 'repayment' is made *in kind* to other farmers by means of a 'solidarity chain'.

- **Banana:**
Farmers who wish to adopt the growing of banana are provided with 10–20 suckers. As 'repayment' for these each farmer should give three times the number of suckers received from the project to other farmers outside the group, and should train them in the improved cultivation methods (part of the 'train three others' concept).
- **Goats, sheep, pigs:**
Farmers repay by passing on the first two female offspring to others in the group, following a predefined list. Pure-bred males and females of improved livestock strains are provided to the group.
The community in general should be allowed to use the improved strain male animals for cross-breeding with their local stock, thus promoting further spreading of the improved breeds and a wider impact.

In cases of crop failure due to widespread drought, farmers might be excused payment for the seeds/planting materials they received, if this is accepted by the IO.

Box 4.3 Checklist for the meeting at the Village Assembly

1. Upon arrival the WDC team, the DPC and the IO (the Programme Leader or the Project Manager – see Chapter 2) should hold a brief meeting with the Village Council to outline the RIPAT project and its procedures. Some of the members of the Village Council will have participated in the situation analysis during the preparatory stage, so it will not be very new to them.
2. The IO will outline the role and responsibilities that it is expected that the village leadership will undertake.
3. After introduction to the Village Council, the WDC team and the Village Council members will go to the venue for the Village Assembly.
4. The Village Chairperson should open the meeting and invite the DPC to address the audience.
5. The DPC should introduce the project to the villagers and invite the IO to outline the project in detail.
6. The IO representative should discuss some of the problems hindering development in the area that were identified during the situation analysis exercise.
7. Farmers from other completed RIPAT projects are invited to give their testimony.
8. The problems that farmers in the area face should be related to the RIPAT approach for ensuring food security and poverty alleviation.
 - Farmers are asked simple, straightforward questions on development opportunities and obstacles to development in their village.
 - They are then asked for possible solutions which they think might help.
 - The answers given are used to help farmers to understand what they have been missing.
 - A presentation is made of how the RIPAT concept works:
 - * basket of options
 - * working in groups
 - * paying for inputs
 - * spreading and solidarity chains, i.e. that RIPAT group members are 'development ambassadors' in the village and are each expected to train three others
 - * further spreading and scaling up through the work of super-farmers and extension officers
9. The expected roles of each stakeholder are presented (emphasizing the roles of the local government and the community).
10. The PM should explain the importance of working in groups, and explain the group formation procedures and the selection criteria.
11. Sufficient time should be allowed for questions, and full answers should be given.



The super-household model

Step 4: Formation of RIPAT groups

It is important that the farmers are fully informed about the project before they enrol – only fully informed people can really commit themselves. The reasons for and the advantages of forming groups need to be explained: groups can make collective choices, build confidence, pool and share skills and knowledge, and advocate for their rights in the community. Groups improve the project efficiency in general if they can establish good leadership and cooperation.

Once everything is clear, the village leaders should, with assistance from the IO, facilitate the formation of two groups in the village. Each group should consist of 30–35 members. The village leadership will be responsible for recording the names of the members of the two groups. The selection process should follow the following principles.

Criteria for participant selection:

- Participation must be voluntary, and participants must be committed to the project.
- Participants should not be rich in terms of the wealth ranking in the village.
- Participants must be engaged in farming and have between one and five acres (0.4–2 hectares) of their own farm land available for putting the new methods into effect.

- Participants must be willing and able to share the new ideas with others, and to learn from others. This means that participants should be of good standing in the community.
- There should be equal numbers of men and women in the groups, or more women than men.
- Only one person per household, who must be over 18 years of age, may participate.
- Group members must come from the village and ideally should know one another in advance.

Following the formation of the two groups, the village leadership, PM, GF, and the selected group members will make arrangements for the first group meeting, which preferably should be in the following week.

Part 2

Guidance to the group facilitator

CHAPTER 5

Implementation

This and the following chapter relate to the actual implementation of RIPAT project activities. The main people responsible for implementation and for training and coaching the project participants are the GFs and the PM. This chapter is addressed primarily to GFs and lists the steps that you, as a GF, will need to take in the implementation process. The implementation steps are presented here in chronological order to help you to develop an overview of the process. But in reality many of the project components and group facilitation activities take place at the same time, so some of the steps actually overlap. Before you start, we want to give you a little advice on how to work as a GF.

Step 0: Your job as a group facilitator (GF)

The main activities in a RIPAT project concern the establishment of farmer groups with good leadership and the transfer of appropriate agricultural technologies to the groups. This transfer is achieved through participatory demonstrations using experimental and reflective learning techniques. As a GF you are the key person in this respect. You must collaborate closely with the village leaders and the agricultural extension officers (EOs) to ensure group ownership of the project, continuation of group activities after the project conclusion, and further spreading of the technologies to the wider community.

Your main task is to participate in the weekly meetings with the farmers in their groups. There is no exact formula for group facilitation, but your focus must be on helping the group of farmers to achieve their aims through discussion, encouragement, and support with planning and action. You will help to create a forum in which the group members both learn and develop new knowledge together. Box 5.1 lists some practical advice on facilitating adult learning. Your role can be divided into three areas:

- Teacher and trainer for participatory learning
- Group mentor
- Linking, coordination, and communication

Teacher and trainer for participatory learning

A RIPAT project includes a 'basket of options' of improved farming technologies designed to bridge the technology gap. It is important that these technologies are conveyed to the group of farmers in a relevant way, with the full involvement of the participants, but also that they are shaped to suit the local conditions in the farmers' own fields. You must be able to teach the farmers the new technologies and train them in a practical way to master the new methods.

You must be able to convey new information to the farmer groups, working both through theory and through practice. But equally importantly, you must be able to facilitate an adult learning process in which farmers experience, reflect upon, share, and adjust the technologies to fit the conditions on their own farms. Rather than just solving problems on behalf of the group and individuals by supplying them with

standard solutions through templates or recipes, you should provide new information, coach farmers in using it, guide their reflection, enable experience-sharing, and support group dynamics, consensus building, and good leadership. Box 5.1 provides some general advice on facilitating adult learning.

You will lead the farmers through processes in which they learn to analyse their agro-ecosystem so that they can understand its underlying principles, and you will guide the farmers in the establishment of simple but good-quality field trials in which new crops and cultivation methods are demonstrated and systematically compared to traditional methods.

Group mentor

All knowledge, technologies, and inputs are channelled through the group, which thus forms the platform for training and information-sharing. The GF must therefore help the groups to organize themselves, to elect good leaders, and to plan their activities. Well-functioning groups are a prerequisite for success in a RIPAT project. But you must keep in mind that you are not the leader of the group – you are not even a group member. All decisions are made by the groups themselves. Your job is to facilitate the learning and decision-making processes.

Your visits to the group will be frequent (weekly) at the beginning of the project. Later, as the leadership capacity within the group and the ability of the group to make decisions and manage activities on their own increases, your assistance will gradually be reduced. After three years of project implementation, the individual group members graduate, and you will no longer be around to assist the groups. Therefore, your most important task is to help the groups to become self-reliant: to promote local ownership of the project, to provide ‘help to self-help’, and to ensure that the participants take full charge of their own development. Your role, therefore, gradually changes over time from initiating, to guiding and assisting, and finally to advising and mentoring.

Linking, coordination and communication

You will help to ensure good coordination and communication between sister RIPAT groups in the project and with the village leaders and EOs. It is important that you have a clear understanding of the roles of the village leadership and the local extension staff (see Chapter 2, Box 2.1). You must also protect the groups from being dominated by powerful external bodies and individuals. RIPAT groups are trained in how to advocate for their rights and interests in a local context, and you will help them in this learning process (Step 6 below).

The progress of the RIPAT groups must be reported to the village leaders and to the implementing organizations on a monthly basis. You will help the group collect and compile data on progress, and help the group leaders to monitor progress and write group reports (further described in Chapter 6). For further reading on group promotion we refer to FAO (1994).

Box 5.1 General advice on how to facilitate adult learning

This box lists some general advice on how to facilitate adult learning, and suggests how these points can be applied in a RIPAT context.¹

Adults prefer learning situations which:

Are practical and problem-centred

Therefore in RIPAT provide overviews and practical examples to link theory and practice, and help the group members to plan for the application of the new technologies on their own farms. Focus on practicalities and keep theory to a minimum. Remember that ‘experience is the best teacher’.

Promote positive self-esteem

Therefore in RIPAT you should build individual and group successes incrementally by including low-risk activities, and help the participants to become effective and confident through guided hands-on group work. Start with small successes that can lead to bigger ones. Try to remove poverty from participants’ way of thinking and from their self-image, and create a ‘yes we can’ environment and positive mind-set.

Integrate new ideas with existing knowledge

Therefore in RIPAT you should help the group members to recall and contribute what they already know from past experience. Include local knowledge and practices wherever relevant in the training and field trials, and allow for input and sharing as much as possible. Move from the known to the less familiar or the unknown. Arrange visits to the fields of the individual farmers in the group, and thereby give them a chance to share their personal successes and lessons learned with the group. Be prepared for the possible need for group members to *unlearn* old/traditional habits and practices.

Show respect for the learner

Therefore in RIPAT take into account the physical needs of the participants, e.g. comfortable seating in the shade, and breaks as relevant. Acknowledge individual contributions. Don’t ‘talk down’ to the group or to individuals. Be careful with your choice of words in order to avoid creating a negative atmosphere. Don’t waste the group members’ time: be well prepared when you come, and arrive in good time.

Allow choice and self-direction

Therefore in RIPAT focus activities around the expressed needs of the group. Individuals decide for themselves what to adopt and what to reject from the ‘basket of options’ demonstrated to them. Allow time for planning their next steps. Don’t try to dictate solutions to the farmers’ problems. Add any technical knowledge that is lacking and facilitate good decision-making in the groups and among individual farmers so that they arrive at appropriate conclusions.

Some other good advice:

Appearance

Make sure you are presentable when visiting the groups and the villages. Avoid being either overdressed or underdressed. Dress and make-up should be appropriate according to the local setting and culture.

Introduce yourself

Tell the group members at the outset who you are and what they should expect from you, and what you expect from them.

Language

Be careful in your use of language. Don't use the language of the city in the villages. Make the farmers feel that you are one of them.

¹ Based on experience from the RIPAT projects and inspiration from *Principles of adult learning* (no date), Hospice AIM toolkit <www.ipro.org/index/cms-filesystem-action/hospice/2_7.pdf>, which is adapted from John Goodlad's writing, and <www.pent.ca.gov/trn/principlesadultlearning.pdf>.

Be aware of conflicts

Conflicts are a normal part of group life. Some conflicts may in fact be productive because they provide an opportunity for (needed) change. Some conflicts may help the group to face up to difficult situations and find solutions. But other conflicts may be harmful, causing only confusion, anger, hurt feelings, and bad decisions, and may even lead to the break-up of groups. The important thing is to help the groups to 'manage' and 'capitalize' on productive conflicts and to avoid harmful conflicts, or to tackle them quickly and effectively if they do emerge.

Ensuring reasonable homogeneity among group members can reduce conflict. Members with similar socioeconomic backgrounds are more likely to trust each other and to accept joint responsibility for their activities. Very powerful individuals, for example traders or large-scale farmers, might want to dominate the group and/or use it for their own benefit, for example to buy and sell in bulk, to offer unfavourable loans, or to convince group members to work for them. Ensuring that the groups have a good constitution and by-laws will help to avoid internal conflicts and make the rights and responsibilities of each member clear.

Getting started with the training

The two groups in each village were established at the Village Assembly, and now is the time for you to meet with each of them as a group for the first time. It is important to have cohesive groups from the beginning, so the training in group dynamics, constitution writing, and leadership qualities is given priority very early on. Some issues need to be covered before the actual training in the basket of options can begin in the group. Goals and expectations are made clear during the early meetings, and group members are given some assignments to do while they wait for the actual agricultural

intervention to start. Without cohesive groups, the training in new agricultural techniques will not be effective. Either the groups will disintegrate altogether, or many people will drop out before the end of the first year of the project. Facilitating good group cohesion is therefore important from day one.

Ideally, the group would be fully organized, with leaders and a completed group constitution, *before* beginning any agricultural activities. However, it is extremely important that such group decisions are not rushed, but that the groups are given ample time to really understand the concept of good leadership, and the roles and responsibilities of leaders and group members. The groups also need time and good facilitation to develop a good group constitution which is grounded in what the groups want to accomplish and in the opportunities offered by the project. Such a process can take several months to complete, and requires good help from you.

Step 1: The familiarization process: the first meeting with the group

The object of this step is for the group to get to know you as the GF and for you to get to know the group members. It is of the utmost importance that the group members are fully aware that you are neither the leader nor a member of the group. Your role as a GF is to support and guide the group in the development process.

Since the group members are all from the same village, they may be acquainted with each other, although they may not know each other well. You should facilitate the introduction process, but it would be desirable that the village chairperson and the Project Manager are also present during the group's first meeting. The familiarization process can be carried out in a variety of ways. Here are some practical exercises that you can use:

- Tell the group members to introduce each other by introducing one person they think they know best, giving the person's name, saying what he/she cultivates at home, and providing a little other information about the person. This gives a sense of togetherness and eliminates the sense of strangeness between group members. Alternatively, you can ask the group members to sit in a circle; give them five minutes to interview each other in pairs, and afterwards each person introduces his or her partner to the group.
- Sit in a circle. The GF hands a ball of twine to one participant, who is asked to introduce someone in the group that he/she knows (how the person is known to him/her, what farming the person does, etc.). The first participant holds on to the end of the twine and passes the ball to the person whom he/she has introduced. The member who receives the ball introduces another participant with some background information, holding on to the string and passing the ball to the person whom he/she introduces. This exercise creates a 'web' that shows how the group members are all connected through each other. The connections sometimes get very amusing and creative, and rewinding the ball of twine can show you a thing or two about how manageable your group is! (adapted from Groeneweg et al., 2006, part II, page 30).

There are several similar group dynamic exercises available in other manuals – see Appendix 3.



Step 2: Analysing problems and possibilities and making expectations realistic

During this initial stage of the project, it is important to develop and encourage a 'yes we can' spirit in the group. When the group first comes together, the members may still not be fully sure of what to expect, and of whether their expectations can be fulfilled. During the Village Assembly, the 'yes we can' spirit was started. It is important to maintain this spirit and further develop it in the group, and to help the members see opportunities where previously they saw only impossibilities. Belief in a better future is the best way of getting development rolling.

Although the RIPAT concept, and the roles and responsibilities in RIPAT, were presented at the Village Assembly before farmers enrolled, it is a good idea to ensure that expectations are realistic. This is to avoid disappointments and early drop-out among the participants. In particular, the project concept of paying for inputs must be fully understood and accepted by the group members (see Chapter 4, Box 4.2). In the beginning some of the group members may decide to drop out when they realize that they will not be receiving any free gifts, but rather that they will be expected to work hard to obtain a better livelihood. You should accept such early drop-outs without being discouraged, and allow other villagers to replace the members who have left the group. You will sometimes find that some of the most critical voices in the villages end up as very enthusiastic adopters of the promoted technologies when they have seen the benefit. Details of how group constitutions can be designed to cater for the possible admission of members during the course of the project implementation can be found under Step 4 below.

Step 2a: General discussion on the situation in the community

Before the group creates a problem tree related to their specific RIPAT project, it is a good idea to discuss the poverty situation in the community in general terms. For any change to take place, it is important that the farmers understand why they are where they are. The generic problem tree provided in Chapter 3 may provide you with inspiration. However, the more specific problem tree developed during the project preparation and situation analysis, which has been designed to fit the area setting and which forms the basis for the basket of options, should be used in this general discussion. It is useful to have that problem tree available on a poster. It is important for the group to identify their situation – its causes, effects, and consequences – with the problem tree. However, you should not go into detail now; there will be time for greater depth in Step 2c.

- Ask the group to define poverty, and to discuss whether poverty and food insecurity have improved or worsened over the past 10 to 20 years. Use indicators such as food production, months of hunger, household purchasing power, etc. Discuss in broad terms why the situation is as it is, and ask participants how they cope.
- Ask participants if they can recall earlier projects in their community. Ask them to describe the projects and their impact. Let the group members try to recall projects first, but you can also find information on earlier projects in the situation analysis report, where the full list should be provided.
- Discuss the point that development does not happen automatically just because a development organization comes to the village with a project. Development requires careful identification and mobilization of resources, and farmers' own efforts are the key to achieving the desired ends.
- Ask the group to outline what elements in their village and environment are hindering development. First let the group members try to explain. Factors might include (but not be limited to)
 - * internal hindrances such as lack of funds, poor seed quality, low prices, etc.
 - * external hindrances such as government price regulations, export restrictions, etc.
 - * climate difficulties such as climate change, low or late rainfall, etc.
 - * land difficulties such as decreasing soil fertility, insufficient irrigation possibilities, etc.
- Discuss how participants believe that RIPAT can make a difference – what they expect.

Step 2b: Identify locally-available resources

The resources locally available in a community are often overlooked. You should help the group to identify, understand, and value the various resources they have at hand. This exercise is done in a whole-group discussion session using a flip chart. It may also be a good idea to ask the group members to identify locally available resources on their

farms and in the community in general as homework and preparation. You can ask them questions such as

- What resources do we have from people?
... labour, knowledge, skills – these may be from group members' own households or available from the community in general (teachers, extension officers, medical staff, etc.)
- What resources do we have from our natural environment?
... land, water, sunlight, plants, animals – these may include rivers, ponds, groundwater, runoff water, shallow wells, animal manure, animal traction, etc.
- What resources do we have from our social network?
... these may include local culture and traditions; village leadership and by-laws; church, mosque; friends, relatives, and extended family; etc.
- What resources do we have from our infrastructure and services?
... these may include access to banks, local microfinance facilities, buildings, roads, irrigation systems, tools, transport, etc.

Often rural communities are poor in terms of money and physical infrastructure, but they may be rich in terms of natural, human, and social resources. Try to help to remove poverty from the way of thinking, and help group members to see opportunities and visualize a better future. Ask them to think about

- the kinds of resources that are utilized and under- or unutilized
- the kinds of resources the community/group/households lack
- the kinds of changes that would bring about better living conditions

Step 2c: More in-depth analysis of the problems and the possibilities

This exercise is also carried out in a whole-group discussion session using a flip chart. The analysis is aimed at creating a good understanding among the group members of the logic behind the selected basket of options that will be made available to them through the project. Understanding the problems is a prerequisite to identifying and understanding good solutions.

Prepare a simple group-specific problem tree

Problem analysis involves identifying what the main problems are and establishing the cause-and-effect relationships between these problems. Continue the discussion on why group members have failed to achieve food security and alleviate poverty, now going deeper into causes and effects, and focusing in particular on the elements in the RIPAT project. Let the farmers list their ideas about the causes of poverty first. You should highlight issues they may have overlooked, and go into more details where relevant. If the farmers say that soil fertility is poor, you can go even further and discuss the root causes of low soil fertility – and its consequences. Make it a very participatory session focused on identifying concrete problems and obstacles for development.

Continue with an objective tree

The objective tree should be prepared after the problem tree has been completed. In its simplest form, the objective tree uses exactly the same structure as the problem tree, but with the problem statements (negatives) turned into statements of objectives (positives). As a part of the exercise, farmers should try to identify locally available resources that can be used to achieve the desired objectives.

RIPAT aims to utilize locally available resources as far as possible to achieve the desired objectives, i.e. to promote the economic development of group members' farms. RIPAT projects involve crop–livestock integration, and consequently the farmers will need to look for resources related to both livestock and crops on their farms. Farmers should identify factors that limit production, and use critical analysis techniques to come up with viable solutions suitable for their farms/village.

Example: If the farmers include 'poor soil fertility' in the problem tree, then this statement should be discussed in a positive way under 'improved soil fertility' in the objective tree. Help farmers and guide them in identifying approaches and locally available resources that could be used to achieve that objective, e.g. manure application, the use of compost, and crop rotation with legumes; the use of mineral fertilizers should also be discussed as an alternative solution. Let the farmers list their ideas and the reasons for them first. Then you can highlight ideas they may have overlooked. Locally available resources include not just physical things found in the fields and surrounding areas, but also the time used in the field and the human resources used for agricultural production. The group can discuss means of including unutilized and/or under-utilized resources.

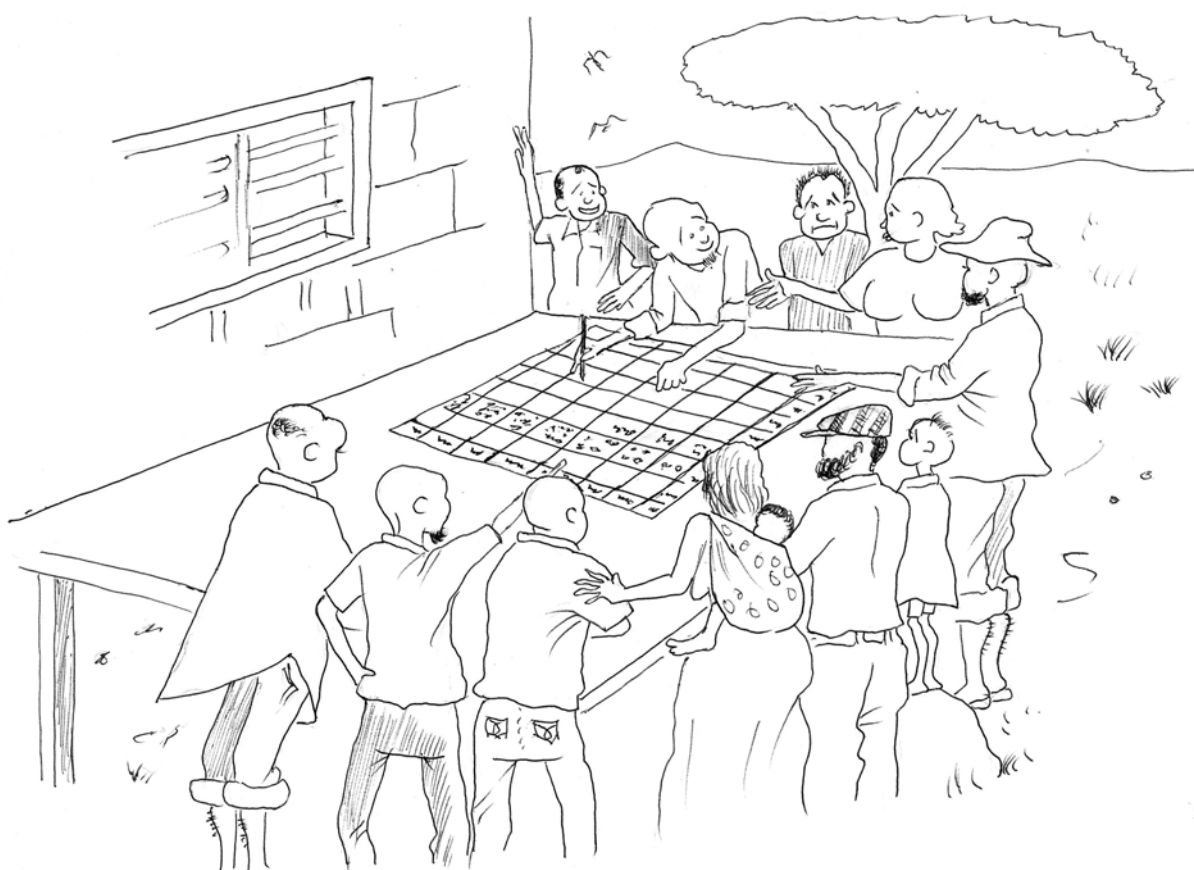
Step 2d: Give a brief outline of the RIPAT project

You should provide a brief explanation of the RIPAT project and the role and contribution of each member. This should explain clearly the process of implementing RIPAT in the village. The details of the basket of options should be explained, including how the basket of options was arrived at, how each member will benefit from the basket, the concept of receiving the inputs on a repayment basis, etc. It is important that the farmers understand the main details of each option. Keep in mind that only fully informed people can fully commit themselves.

Ask each member to express their expectations of the RIPAT project. This is a good opportunity for correcting misunderstandings and unrealistic expectations.

Step 2e: Prepare a seasonal calendar

It is important for the farmers to have an overview of their seasonal calendar, in order to understand both their current practices and how the basket of options can fit into the farming system. Understanding the seasonal calendar is a prerequisite for being able to select the right technology and the right timing, and to take into account other factors that influence production. In RIPAT projects to date, we have been very successful in introducing banana cultivation, even in villages where nobody was growing bananas as they did not think banana production was suitable for their area (see the adoption details in the book *Farmers' choice – Evaluating an approach to agricultural technology adoption in Tanzania*). In such cases it is important to spend time with the farmers and help them to understand how a given new crop can fit into the cropping calendar in the area in question.



The group preparing the seasonal calendar. Sometimes it is good to split the group into sub-groups, for example with one sub-group preparing the seasonal calendar for maize and pulses, another working on livestock, and so on.

These are the important steps:

- The group members sit together to discuss the yearly seasonal calendar; they discuss the weather patterns in the months of the year.
- They draw a chart of the rainfall, temperature, and other patterns that are relevant to farm production.
- Other important factors, such as diseases and pest occurrences, are noted according to the months of the year in which they typically occur.
- Natural occurrences such as an increase in the number of butterflies are also noted.
- All these factors are analysed in terms of how they relate to and affect farm productivity.
- The farmers are advised to take advantage of the positive factors and to take measures to combat the adverse factors.
- The farmers should also note how their seasonal calendar will change with the introduction of the RIPAT project technologies (crops and livestock) available in the basket of options.

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Season (dry and rainy)												
Maize activity												
Food availability												
Pigeon peas												
Milk availability												
Green pasture availability												
Crop residue availability												
Banana												
Chaka hoe												

Step 3: Election of group leaders

It may take quite some time before a group is ready to elect the people they want as their leaders. It also requires time for a group to work out a good constitution. There is no problem in that. Be diplomatic, and do not rush the process or impose decisions. Good leadership is one of the most important factors in ensuring a productive development process, and ample time must be given to identify the best leadership candidates. However, in order to allow the group to get started as early as possible on the agricultural activities, some *temporary* leaders should be elected to head the group for the first three months, before conducting a real group election. Remember that the group members may already be acquainted with each other, but they may not know each other well. It is good to allow the group members some time to get to know each other better so that they can identify and check out the best possible candidates before making their final choices. During the first three months the temporary leaders will lead the group in the following activities:

- finding appropriate group plots
- establishing a group constitutions and by-laws
- adopting a group name and slogan
- ensuring good attendance at meetings and activities, and making sure that the agreed by-laws and resolutions are followed.

The temporary leadership will also act as the link between the group and the IO and GF.

The process of electing the temporary leaders includes a general discussion of the qualities and responsibilities of good leaders. Let the group members define from their experience what a good leader is and why it is necessary to have leaders. Thereafter, you can discuss why the group needs to elect three leaders, namely a chairperson, a secretary, and a treasurer. Some of the roles the leaders should play are listed in Table 5.1.

It is best if the village leaders are present to oversee the process of electing the leaders, including the process of electing temporary leaders for the first three months. An example of how to organize an election procedure using a secret ballot is given in Appendix 1.

The elections of the temporary leaders should be concluded by announcing the date for the main election. After election, the temporary leaders should take up their roles immediately. The first and most important role is ensuring that the group progresses and develops from the first day on. Remember that you as a GF only assist and mentor the group in the selection of leaders and in making wise decisions.

Leadership training is an important part of the RIPAT programme. Once the permanent group leaders have been elected, more in-depth leadership training will be carried out at the quarterly coordination meeting where all the group leaders from the 16 groups meet (further described in Step 11 below).

Step 4: Preparing a group constitution

Since RIPAT aims to create groups that can work together smoothly and fruitfully, it is important to help the group to prepare a good group constitution. First, you need to create a good understanding of what a constitution is, and why it is needed. Some of the questions and answers in Table 5.2 may help you with this.

Table 5.1 Qualities and responsibilities of group leaders

<i>Qualities to look for</i>	<i>Responsibilities</i>
<i>Group chairperson</i>	
• Knows how to read and write • Must not be a selfish person • Friendly; approachable for any group member; treats everyone equally • Accepts criticism/challenges from others • Encourages group participation • Works to empower members to solve problems themselves • Creative, strong and courageous – not reluctant to do his/her work • Honest and respected • Good at planning in advance (forecasting things) • Willing to work extra hours • Willing to undergo extra training	• To call the meetings to order • To announce the agenda and lead discussions • To ensure that the meetings follow proper procedures and that the constitution is followed and respected • To maintain discipline and levy fines as needed • To facilitate discussions and to ensure that everyone's views are listened to • To resolve conflicts • To represent the group to outsiders and non-members, including local government officials • To act as steward for the group's resources.
<i>Group secretary</i>	
• Able to read well and to write neatly • Good with numbers • Honest and respected • Willing to work extra hours • Willing to undergo extra training	• To arrange the time and place for meetings and give notice of them • To take the minutes of meetings • To read out the minutes of the previous meeting • To keep all group records • To write letters and reports on behalf of the group • To assist and support the chairperson in keeping order at meetings • To work together with the chairperson in ensuring that the group constitution is followed
<i>Group treasurer</i>	
• Good with numbers • Able to read well and to write neatly • Honest and respected • Willing to work extra hours • Willing to undergo extra training	• To keep all the financial records of the group • To keep records of individual financial transactions • To keep records of group and sub-group assets • To prepare financial reports • To maintain the group bank account • To read the financial report to the group when necessary • To advise the group on the best ways to use its funds

Table 5.2 Understanding group constitutions

<i>Questions</i>	<i>Answers</i>
What is a group constitution?	A set of agreed rules that defines how the group will function.
Does your group need a constitution?	Yes, as a guide for the group members. It can help to minimize conflict and help the group to make better decisions
Is the constitution meant for others?	No, just for the group members.
Who should agree about the constitution?	The group members themselves. However, some of the articles are mandatory for a RIPAT project.
What should be the process for drawing up the constitution?	It should be based on discussions about the group's needs and problems. These discussions take place at meetings for all group members. You should inform the group at least one week in advance that the constitution will be discussed at the next meeting. The constitution or any change to it should be agreed by at least a two-thirds majority.
When should the constitution be drawn up?	The group should draw up and approve the basic constitution within the first few weeks of the RIPAT project. This basic constitution may be expanded or amended during the project period.
Who should keep the constitution and where should it be kept?	The group secretary will keep the constitution together with the group record books, and a copy will be given to the village chairperson and to anybody who wants it.

Remember to take the template for a group constitution with you when you start your work of supporting the group in formulating their constitution. The template can be found in Appendix 2. Some of the articles are mandatory for a RIPAT project; these appear *in italic*. You are responsible for ensuring that these compulsory rules are clearly communicated to group members at the outset, and are understood by them.

The items to be included in drawing up the group constitution are summarized in Table 5.3.

Table 5.3 Drawing up the group constitution

<i>Item</i>	<i>Issues to be discussed and included</i>
1. Name of group	The group should select a unique group name that will be their identity. The name may be in either the native language or Swahili. It may denote the values, virtues, or qualities to which the group aspires.
2. Contacts	The location of the group – if possible its address.
3. Meaning of the name	The chosen name should be explained to enable all to understand its meaning and to feel ownership of it.
4. Catchphrase of the group	The group should also select a catchphrase, motto, or slogan that will guide their development work.
5. Area of operation for group activities	This defines where exactly the group will operate in terms of region, district, ward(s), village(s), and possibly sub-village(s).
6. Group patron	The constitution should indicate the group's patron. Normally the village government representative is automatically the patron.
7. Overall goal	<i>The objective of the RIPAT group is to secure improved livelihoods and greater self-support for its members and, when such results have been achieved, also to assist other people in the area outside the group with input and advice to help them make similar improvements.</i>
Specific objective(s)	In addition to this overall goal the group members themselves should formulate one or two specific objectives in their own words.
8. Membership	<i>In RIPAT, all participating farmers are responsible for training three other non-RIPAT farmers in the community in what they have learned and adopted themselves. If, for example, banana is adopted as a crop by a farmer, the farmer must also pass on three times the number of banana suckers to other non-RIPAT farmers; and for livestock such as goat and pigs, the farmer must pass on the first female offspring to other farmers in the group as specified in the solidarity chain agreement with the IO.</i> The group should discuss and add other main obligations of group members. These should include participation in group plot activities, finishing tasks on time, contributing time and money, etc.
8.1. Obligations of group members	

<i>Item</i>	<i>Issues to be discussed and included</i>
8.2. Procedures for terminating membership and receiving new members into the group within project period	a) Members joining If a new person requests to join the group within the project period, the group should agree about the entrance fee the person should pay. This fee must be approved by at least two-thirds of the group members. b) Expelling a member The group should decide on the circumstances that might give rise to the need to expel a member from the group and how many should vote for the expulsion in any case that does arise. c) Members leaving <i>Should an individual group member decide to leave the group within the project period, that person will not receive any of the accumulated group wealth and assets. The member must clear his/her account and pay any outstanding amounts for the inputs received (seeds, tools, animals, etc.) to the IO.</i>
8.3. Termination of the group within the project period	<i>Should the group be dissolved by the IO, or by own decision within the project period, all tools and equipment received free of charge must be returned to the IO. Individual members should clear their accounts in accordance with paragraph 8.2.c.</i>
8.4. Sharing of group profits within the project period	<i>During the project implementation period, no dividends from group earnings can be paid out to members.</i>
9. Leadership elections	<i>Elections of leaders must be democratic, and voting must be by secret ballot (see Appendix 1 for the voting procedure). At the start of the project, temporary leaders are elected for a period of three months. After three months, new leaders are elected. Any of the temporary leaders may be re-elected if the group members deem them worthy, but using the full democratic procedures laid down in Appendix 1. New elections should be held every 12 months. The group should decide for how many terms an individual should be allowed to continue in a leadership post.</i>
9.1 Roles of leaders	The responsibilities of the group chairperson include: • To call the meetings to order • To announce the agenda and lead discussions • To ensure that the meetings follow proper procedures and that the constitution is followed and respected • To maintain discipline and levy fines as needed • To facilitate discussions and to ensure that everyone's views are listened to • To resolve conflicts

<i>Item</i>	<i>Issues to be discussed and included</i>
9.1. Continued	• To represent the group to outsiders and non-members, including local government officials • To act as steward for the group's resources The responsibilities of the group secretary include: • To arrange the time and place for meetings and give notice of them • To take the minutes of meetings • To read out the minutes of the previous meeting • To keep all group records • To write letters and reports on behalf of the group • To assist and support the chairperson in keeping order at meetings • To work together with the chairperson in ensuring that the group constitution is followed The responsibilities of the group treasurer include: • To keep all the financial records of the group • To keep records of individual financial transactions • To keep records of group assets • To prepare financial reports • To maintain the group bank account • To read the financial report to the group when necessary • To advise the group on the best ways to use their funds
9.2. Group sub-committees	The group will establish sub-committees according to the agricultural technologies adopted by the group members. Each sub-committee elects a leader, who reports to the group chairperson. The role of the sub-committee members is to follow up on technologies, the sales of produce, and the fulfilment of commitments to make payments for inputs, including payments made through the solidarity chain.
10. Main activities of the group and meeting schedule	The group should define the kinds of activities they will undertake (from the basket of options) and agree on the place, time, and weekday for the group's regular meetings and project activities.
11. Disciplinary sanctions against group members	The group should define whether penalties should be in the form of a fine, and if so how much this should be; and if not, what other sanctions there should be. Disciplinary sanctions might be imposed, for example, for coming late to or not attending a group meeting, or not attending group activities as announced by the leaders.

<i>Item</i>	<i>Issues to be discussed and included</i>
12. Amendments to the constitution	<i>The constitution can be amended at any time if two-thirds of the members agree. The italicized paragraphs can be changed by a two-thirds majority vote after the end of the project and after payment has been made to members leaving in accordance with paragraph 16.</i>
13. Group accounts: income and expenditure	<i>At the project start, the group will set up a group account for the group funds. The group account is managed by the elected chairman, secretary, and treasurer. They are responsible for filling out the cash book and for drawing up a monthly balance sheet. Group income and expenses should be clearly recorded in the accounts. The accounts are reported monthly to the group and quarterly to the IO for monitoring. Group income comes from the sale of products, fines, and membership fees in the event that the group has decided to charge for membership.</i> <i>During the project period, group funds can be put into a bank or a local SACCO approved by the IO, or used for expanding group activities. After two years, the group can invest in real estate if two-thirds of the members and the IO agree. The IO's agreement will depend on the group having</i> <i>• a good attendance record</i> <i>• good leadership, and a record of having followed their constitution</i> <i>• regular income and good record-keeping</i>
14. Termination of the group, or individuals leaving the group, upon project completion	<i>At the end of a RIPAT project period, a statement of accounts must be prepared. On the date of project completion, all outstanding accounts and debts should be cleared. The group can either be liquidated as described in paragraph 15 or it can continue as a cooperative after those who want to leave have received payment of their share of the funds in accordance with paragraph 16.</i>
15. Liquidation of the group assets and liabilities	<i>Liquidation of the group assets will take place upon project completion (normally after three years) if more than two-thirds of the members vote for this.</i> <i>If the IO has provided tools/equipment free of charge to the group during the project period (e.g. rippers, sprayers, diggers, and small tools) these must be returned to the IO. No payment will be made by the IO for returned tools.</i>

<i>Item</i>	<i>Issues to be discussed and included</i>
15. Continued	<i>The group assets will be disposed of and the money realized distributed among the group members. Group assets are the following:</i> <i>a) The cash in the group account</i> <i>b) Any group fields established on rented land (normally a five-year contract). The field will if possible be rented out for the remaining time, e.g. two-year contract period, to whoever will pay the highest price</i> <i>c) Any land owned by the group. Such land must be sold at the highest price obtainable</i> <i>d) Other assets</i> <i>The cash realized from items a–d will be divided evenly among the group members, e.g. 1/30 share per member if there are 30 group members, at the time of project completion.</i>
16. Payment of members leaving the group if the group decides to continue as a cooperative after the end of the project	<i>Individual group members may wish to leave the group on graduation and continue to implement what they have learned on their own farms, or in other groups. A group member who leaves will get two-thirds of his/her share of the accumulated wealth of the group. The group's wealth is calculated as a total of the following:</i> <i>a) The cash in the group account (according to the account statement)</i> <i>b) The estimated net value of the group field(s), whether rented or owned by the group; in the case of a rented field, the value is in the remaining years of the lease. The value will be assessed by the group themselves. If the group cannot agree unanimously on a value and if a group member demands it, the IO will arrange for an assessment of the value by an independent third-party expert. The cost of this valuation will be covered by the group</i> <i>c) The value of other assets as estimated by the group. If unanimous agreement is not reached, the procedure above must be used</i> <i>d) All group debt must be cleared</i>

<i>Item</i>	<i>Issues to be discussed and included</i>
16. Continued	Example: In a group of 30 members, 5 members wish to leave after graduation, whereas the remaining 25 want to continue as a cooperative. The payments to the members leaving are calculated as follows. Cash in the group account (according to the account statement): TZS 500,000 Income from the group field (sale/renting out for the remainder of the lease): TZS 1,000,000 Other assets: TZS 500,000 <i>Total group wealth:</i> TZS 2,000,000 Two-thirds of the accumulated wealth will form the basis for calculating the shares. Each leaving group member will thus receive: $2,000,000 \times \frac{2}{3} \times \frac{1}{30} = \text{TZS } 44,444$ Hence, the group will have to pay out $5 \times 44,444 = \text{TZS } 222,222$. This is to be paid no later than 60 days after written requests have been given to the chairman by the group members leaving. (If less than two-thirds of the members had wanted to continue as a cooperative, the group assets would have been liquidated, and all 30 members would in this theoretical case have received $2,000,000 / 30 = \text{TZS } 66,666$.)
17. New members joining the cooperative after the end of the RIPAT project	New members may be enrolled in the group with the approval of two-thirds of the remaining members. An entry fee must be agreed in such a case. The amount could be, for example, the full value of the share acquired (TZS 66,666 in the example above, if nothing has been paid out to group members leaving).

Step 5: Developing group cohesiveness and strength – a parallel activity throughout the project period

As mentioned in Chapter 1, the group is a core element in RIPAT. Working together in groups has many advantages – but it can also represent a challenge. Groups are made up of all kinds of people, and every member is unique and has a different character. They come from different backgrounds, are of different ages, and have differing resources of knowledge and experience. Just as a child is born and grows, so it is with a group – it will develop and change. It is important that you help the groups to understand the stages of group development and how the different characters and personalities of the group members may differ.

A few types of personality can be found in nearly all groups. Discuss the personality types listed below, and ask each group member to think about what personality he/she most resembles! They do not have to announce their conclusion openly; it is enough that people are aware of how their personalities can contribute positively or negatively to group development. Such awareness is very important for developing group strength.

- Complainers: People who rarely find anything good in other people's views and decisions and are quick to complain
 - Know-it-alls: People who are always convinced their views are right and often persuade others to follow them, sometimes creating division within the group
 - Quiet members: People who rarely share their opinions and do not want to take any responsibility or make decisions
 - Positive members: People who carefully consider ideas before reaching their own view or opinion. They join in discussion and share in decision-making. These people are usually the committed centre of a group
 - Traditionalists: People who dislike change or taking risks with anything new
 - Bridge-builders: People who like others to feel at peace with each other and happy with decisions made. They are willing to take time to sort out disagreements
- (Carter, 2003: p 24)

Animals are traditionally considered to have various 'personalities', and so they can also be used in a discussion of human character. A useful activity in the group is to discuss the 'personalities' of the animals below, and think about which one they most closely resemble.

- Donkey: is obstinate and will not change its mind once it has decided not to do something
- Lion: uses its power and strength to fight until it gets what it wants
- Rabbit: runs away as soon as it faces a problem or a challenge from someone else
- Cat: wants to be pitied
- Peacock: wants to be admired for its grace and beauty
- Chameleon: never settled; changes opinion all the time
- Tortoise: stays quite or silent without contributing any ideas to a discussion

Group dynamics exercises

The purpose of group dynamics exercises is to make the group feel that each individual member is vital to the wellbeing of the group and to the achievement of the project's overall objectives and the group's aspirations. There are several exercises or games that can be used to illustrate various aspects of working as a group and the requirements of leadership. An example is provided below.

Exercise The strength of being a group

<i>Exercise</i>	<i>Observation</i>
Bring with you a big bunch of sticks less than 1 cm in diameter. Give one stick to a group member and tell the person to break it (no problem). Pass on two sticks to another person and ask him or her to hold them together and break them. Continue in this way, each time adding an extra stick. Eventually the bunch will be too thick for anyone to break.	The benefit of being a group when tough issues have to be resolved or threats withstood: If you stand alone, or if there are only a few of you, you may fail or break When you are united and stand together, you are strong.

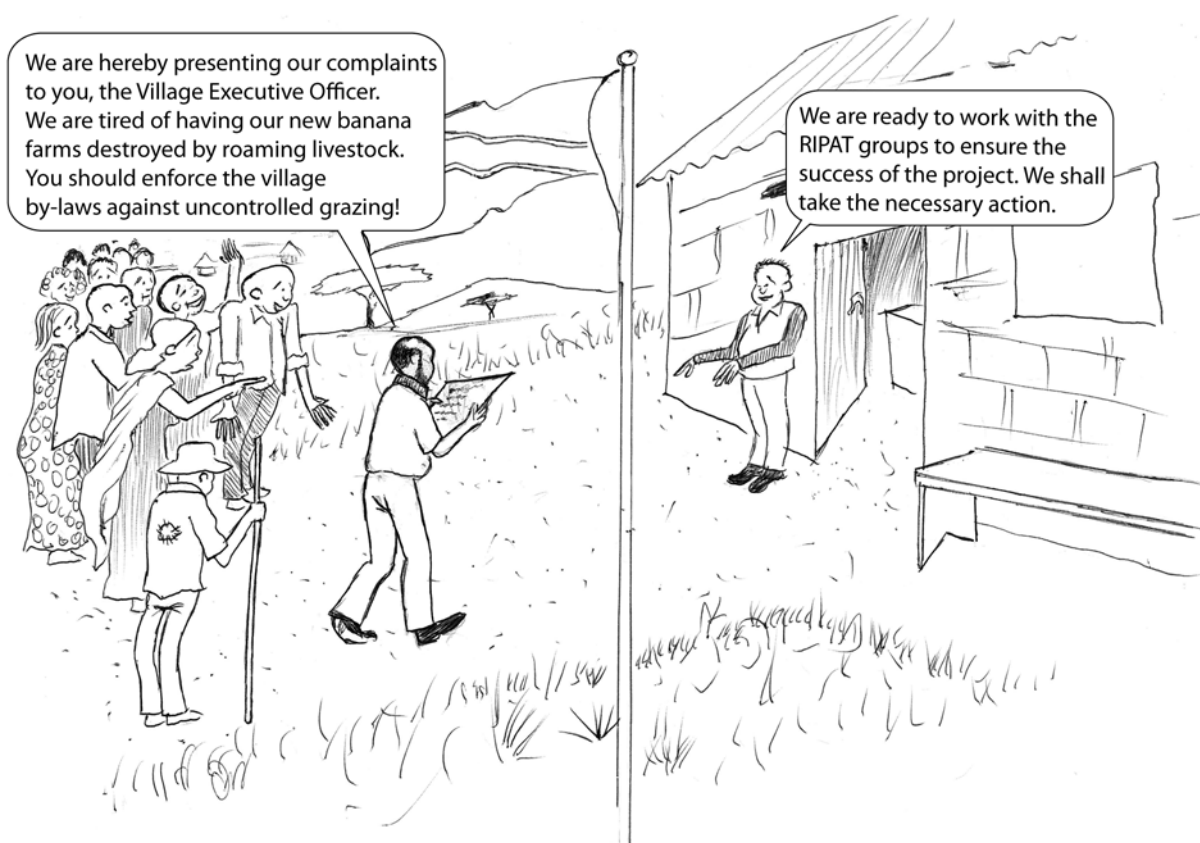
There are several other exercises in group dynamics that may be practised during the early stages of the project. Whenever you feel there is a need to illustrate an issue related to the group's cohesiveness, or something you would like to emphasize through a similar exercise, then do not hesitate to do so. Such exercises need not take more than half an hour. See Appendix 3 for instructions for such exercises.

Step 6: Strengthening the group's advocacy skills

RIPAT empowers the groups by training them in advocacy. In applying these advocacy skills, the group members should present a united front, and the two groups in the same village should ideally stand together in order to have a collective voice in addressing issues relevant for the overall development and wellbeing of the local community. RIPAT groups employ advocacy in several areas such as those listed below:

By-law enforcement

It can be a great disadvantage to RIPAT groups and other farmers if local by-laws are not enforced, in particular by-laws against uncontrolled animal grazing in the village. In many villages, it has been a common practice that after harvesting the maize crop, livestock are left to graze freely in the fields. (Maize is one of the most important food crops and occupies a large proportion of the cultivated land in many parts of Africa.) However, this practice of free grazing can be very harmful for the introduction of certain new crops and technologies, such as long duration or perennial crops, or the practice of conservation agriculture with permanent soil coverage (cover crops and mulch). For example, problems arose when a RIPAT project had introduced intercropping with long duration pigeon peas. This pigeon pea variety has a longer growing season than maize, but the villagers still let their livestock graze freely as soon as the maize was harvested, resulting in the destruction of the pigeon peas. Other farmers adopted banana – a perennial crop which has green leaves throughout the year. RIPAT farmers had trouble keeping the freely grazing cows and goats away from their new banana fields. If not carefully dealt with, problems such as these can turn a very good



project into a complete fiasco! This is also one of the reasons why it is of the utmost importance to collaborate closely with the village authorities.

In many villages in Tanzania by-laws against uncontrolled grazing are in fact in place – but they are quite often not enforced by the authorities. When an individual farmer complains about violation of this by-law, he/she may not be heard. But when two RIPAT groups totalling 70 people jointly approach the village government and request them to enforce the existing by-law against free grazing, they have a much greater chance of being heard!

Steps you should take to help the group are:

- Encourage the group leaders to obtain a copy of their village by-laws for the group
- Assist the group to study and understand the by-laws. The group leaders should then appeal to the village council to enforce these by-laws where this will help to solve problems, and/or advocate for adjusting the village by-laws if the existing ones are not adequate
- Encourage the group to refer to the by-laws in the Village Assembly and emphasize the need for enforcement
- Remind the group leader to emphasize the use of by-laws during the coordination meetings and ensure that village leaders promise to follow up on the enforcement

Promoting village development plans

The village has a development agenda which is discussed during the Village Assembly and village sub-committee meetings. The RIPAT group can influence this plan and promote its adoption.

Steps you should take to help the group are:

- Help the group to understand what their village development plan is and what financial resources have been allocated for it
- Help the group to obtain and understand their ward and district development plans and to push for the implementation of these
- On the basis of the impact that has been seen from RIPAT activities, the group leaders should advocate for the inclusion of some of the RIPAT development activities in the village development plans

Example: If there is a water project planned, the group can advocate for it to be implemented quickly so that they get water for irrigation and livestock.

Spreading

RIPAT projects have a strategy of disseminating RIPAT interventions to other people in the village and to neighbouring villages.

Through your training and facilitation, the groups should advocate for getting a platform for transferring the knowledge they have gained through RIPAT. One such platform could be the allocation of time during village assemblies for the group leaders and super-farmers to speak. Another platform could be provided through special meetings such as farmer Field Days. You should ensure that the extension officers are actively involved in the dissemination process.

Others

Village, ward, and district development plans should be updated regularly, starting at village level.

Steps you should take to help the group are:

- Encourage the groups to participate actively in village meetings where village development plans are being discussed
- Group leaders, in collaboration with village leaders and village authorities, should endeavour to ensure that their plans are included in the ward development plans and subsequently in the district development plans

Example: Groups can lobby for the improvement of infrastructure such as roads, irrigation canals, and village markets.

Step 7: Selecting the group field

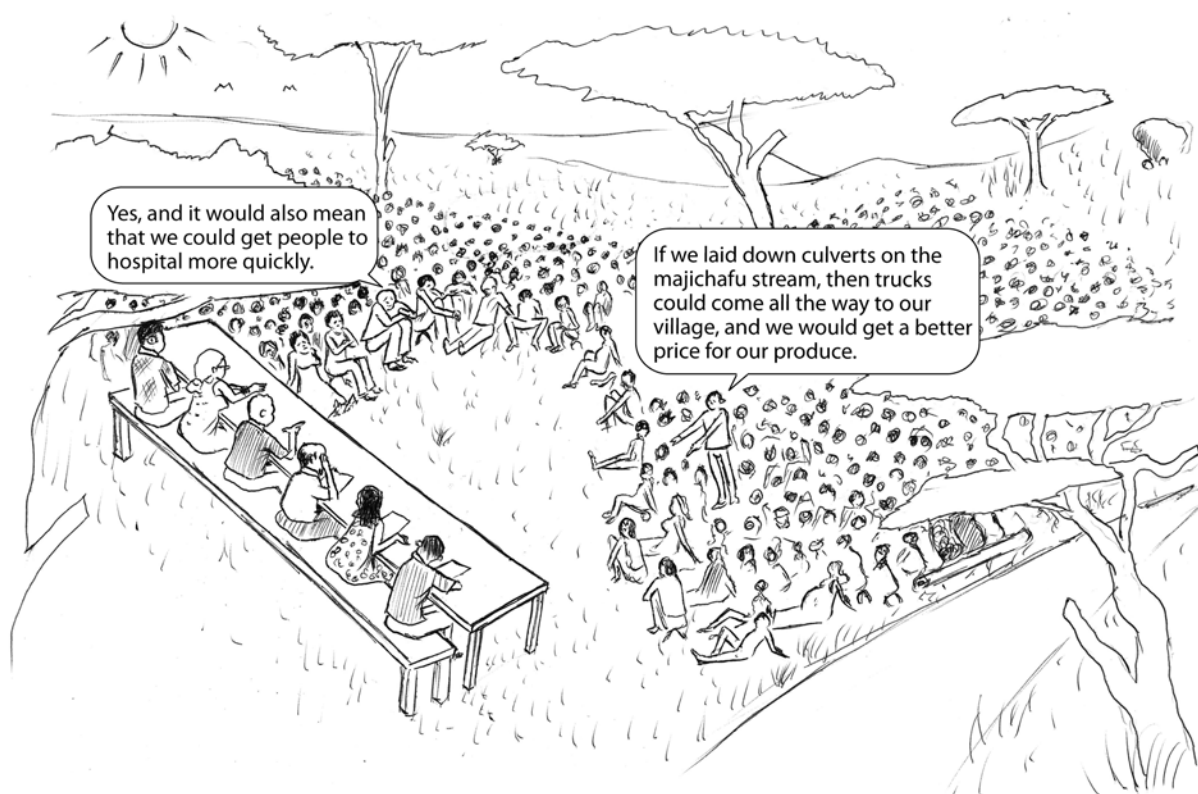
The group field is one of the key elements of RIPAT. Helping the groups to find suitable land for group activities is hence a crucial step which should be carried out after

the group has met a few times, has understood and confirmed the basket of agricultural technology options in the project, and has elected their temporary leaders. Remember that some of the new technologies available will be completely unknown to the farmers, so they will need your help in the selection of a field which can provide adequate conditions for learning.

The technologies introduced in the 'basket' should of course be appropriate for the general soil, water, and climate conditions of the targeted area – conditions that can vary enormously in Africa even over short distances. The most suitable farming methods and technologies may vary from village to village and even from field to field. Special care must therefore be taken to ensure that the demonstration plot is suitable for the crops selected for demonstration.

The RIPAT projects implemented to date have included a range of crops and technologies (see Box 3.2). Listed below are some of the factors that need to be considered if the project includes the two technologies applied in all RIPAT projects so far, namely improved banana cultivation and conservation agriculture.

- **Environmental conditions:** The most important thing is to ensure that soil, water and climate conditions are suitable for the intended crops/technologies. Ideally all crops should be cultivated (tests, demonstrations, seed production) by the group at a single group field. But in practice this is often not possible. Crops have specific soil and water requirements and it is important to ensure an adequate match between crop type and field. Groups typically establish banana at one site with access to irrigation or harvesting of run-off water and with shelter from the wind, whereas conservation agriculture is often demonstrated at another plot somewhere else in the village.



- **Accessibility:** The site should preferably be located in a central place that provides both easy access for the group members and good visibility for the project. Members of the community are invited to visit the group field and see project progress once a year on Field Days (see Step 12 below).
- **Security:** The group field(s) must be safe from roaming animals (livestock) and thieves in order to avoid damage to or destruction of the group farm. It is best if the plot is located near to the home of a group member.
- **Field size:** The size of the field should be at least one acre to ensure that groups have sufficient land for the study of the various technologies and for seed multiplication. A large field can also allow for the expansion of group activities and can help the group to earn income from selling produce from the field.
- **Homogeneous soil fertility conditions:** Since a part of the field will be laid out for field trials, it is important to have an area with consistent soil conditions to enable good comparisons between the technologies tested (see Step 8 below).

Banana is a perennial crop. It requires good water availability. It is fairly labour-intensive to establish, but if well maintained, the plants can continue to produce fruit for many years. Therefore the group should have the banana field at their disposal for at least a five-year period, and preferably longer (see Box 5.2, Selected case histories). The fact that RIPAT groups typically continue working together after project completion (i.e. after three years) further underlines the need for ensuring a long-term lease for the banana field.

In RIPAT, the plots used for the demonstration of conservation agriculture, rainwater harvesting, and crop diversification have been demonstrated on fields with 'average' or 'ordinary' conditions for the area. The cultivation of maize, legumes, and tuber crops is less demanding with regard to soil and water conditions than the cultivation of banana, and most fields in a village will be all right for this purpose. The contract for this plot does not need to be longer than the project period (three years).

When selecting a piece of land for the group field, the group should decide whether they want to use:

- communal land, including unutilized land belonging to a local institution (e.g. a school), or
- privately owned land (which could belong to a member of the group).

The best option should be carefully considered *in each case*, as no standard recommendations can be given. The most important point is to ensure that the field provides an adequate environment for the intended crops, especially banana and other crops with special soil/water requirements, and that the group members understand the high value a banana field may represent when it is to be returned to the owner. In villages where the government has suitable land at its disposal, the IO can help to convince the village government to make some of the land available to the group by making this a precondition for supporting the project. But remember, at the end of the day it is the group themselves that should decide on the best option. Some groups have strong reservations about using communal land – and they should not be forced or manipulated to opt for such a solution. Your job as a GF is to help the group to make the best possible decision for their particular situation.

Experience with RIPAT projects has shown that both options can work well (see the examples in Box 5.2), but in most cases groups prefer to rent privately-owned land. The

main reasons for this are that the village government often does not have suitable land, and that even when it does have land, village government bureaucracy can sometimes still be an obstacle.

It is important that the terms and conditions for the lease are clearly stipulated in a contract, whoever owns the land. A template contract is provided in Appendix 4A. The IO must double-check the appropriateness of the group's choice and ensure that an acceptable contract is signed by the group leaders and the land owner. The contract should also be co-signed by the village authorities and by the IO, and a copy kept at the village government office.

Box 5.2 Selected case histories

Some case histories regarding group fields are outlined below, illustrating some pros and cons of both options.

Groups using communal land

- a) The Natang'amwaki group is one of the groups in Losikito village (Arumeru district). The group was able to acquire a suitable one-acre plot of village communal land for learning purposes for as long as the land was not needed by the village. The group has not experienced any problems and the banana plantation is doing well. Being located near the school, the plot is accessible and can be seen by many people. However, the group does face the risk that the village government will need the land for other purposes at short notice. If this happened, the group would have to give up the plot.
- b) In one village a RIPAT group had been allocated communal land and had signed a contract with the village government authorities. A woman claimed that the plot had been given to her by the village government, and she uprooted the bananas planted by the group. The issue was beyond the ability of the village government to resolve and was taken to court – but the group and the IO (RECODA) gave up the idea of using the plot because the court kept postponing the hearings. The IO could not afford to waste this valuable time, and the group had to start their search for a field anew.

Groups using privately owned land

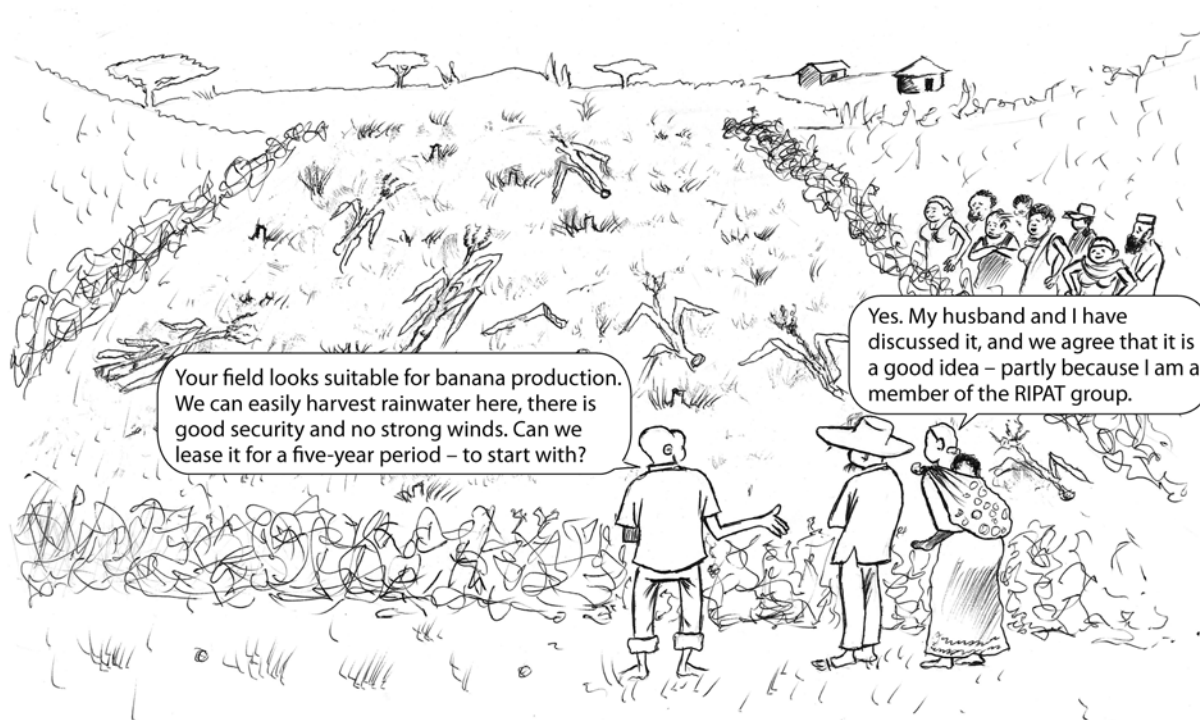
- a) The Ayenda group is one of the RIPAT groups in Endamarariiek village (Karatu district). The group has a banana demonstration farm which was rented from one of the group members. After assessing and confirming the suitability of the land for banana, the group signed a contract for the farm for a five-year period with the owner, who is a group member. The group members used the farm to learn how to cultivate banana and also to obtain planting materials for their farms and for others who needed suckers. Since it is quite an investment to establish a banana field, the group negotiated a two-year extension with the owner (total 7 years) before giving the land back. The group will have made very good returns from the farm by then.

- b) Jikomboe is one of the RIPAT groups in Kwaugoro village (Arumeru district). The group established a banana demonstration farm on one of the group member's farms and had a five-year contract for the land. During the project period, the group was able to sell bananas and suckers and make a good profit. From the profit the group purchased a one-acre farm in their village where they opened another banana farm, this time not for learning purposes but for commercial purposes.

Steps in identifying and selecting a group field

- Make sure the group understands the important factors to consider (mentioned above), especially the agro-ecological requirements of the crops selected.
- Discuss with the groups the pros and cons of the two options: i) renting a field from a private farmer in the village (preferably a group member), or ii) obtaining communal land, possibly unutilized land belonging to a local institution (e.g. a school).
- If both options are acceptable you can divide the group into three sub-groups, each of around 10 people. Each sub-group is given the 'homework' task of looking for suitable fields in the village before the next meeting:
 - * If communal land is a good option, and the village government has already promised the IO to provide land for the project, you should approach the village leadership together with the elected group leaders to discuss the way this might be done. The first group should thus look for communal land, with the assistance of the village leadership
 - * The second group can look for land owned by group members.
 - * The third group can look for land owned by other farmers in the village.
- At the next group meeting, the potential fields are physically inspected by the entire group with your assistance, and the suitability of the land is discussed in each case.
- Once the group has made its choice, the group leaders draw up a contract for leasing the field (under your guidance). The contract should be agreed by the group. You and the PM must double-check the appropriateness of their choice and ensure that an acceptable contract is signed by the group leaders and the land owner. A contract form is provided in Appendix 4A. The contract is also co-signed by the village authorities and by the IO, and a copy is kept at the village government office. The group pays for the lease at normal market rates out of group funds.

Once the group has started implementing the technologies in the 'basket of options' on the group field(s), it is time to set up a RIPAT signboard at a central place in the village. The signboards should not be put up until the groups are well established, and have started their agricultural activities. The wording on the signboard could be something like the following:



	[NAME OF VILLAGE] THIS VILLAGE IS IMPLEMENTING A COMMUNITY ECONOMIC DEVELOPMENT PROJECT (RIPAT) DURING THE PERIOD 20xx – 20xx. THE PROJECT IS FACILITATED BY XX [name of IO] AND SPONSORED BY XX [name of donor]
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Step 8: Undertaking comparative studies – a parallel activity throughout the entire project period

Background

After (an) adequate group field(s) has/have been acquired, the agricultural activities can begin. Remember that the group plot of around one acre is used for several purposes (see illustration). As has already been mentioned, RIPAT groups often have two demonstration fields: one used for banana, and one for conservation agriculture and annual crops. A part of the field for annual crops may be used for simple demonstration and multiplication of seeds and/or planting materials (legume seeds, cassava and sweet potato cuttings), without any systematic trial comparisons. Another area may be allocated for practising how to operate the new chaka hoe or the ox-drawn ripper. But a part of the field is allocated for more controlled trials, comparing selected technologies or crops in a systematic manner.

The entire group field, including the trials section, is for learning – trying out the new technologies hands on (tools, crops); comparing selected methods and technologies; and observing outcomes over the course of the trials.

The use of systematic trials can be extremely informative and good for learning, *provided* the trials are conducted with care! If a field trial is not well planned and managed, it can end up teaching you nothing – or, in the worst case, it can mislead you. There are certain things you need to be very cautious about if the field is to be a good ‘teacher’. Remember that all the work on the field trial is done by the farmers themselves – not by you. But you must guide them closely throughout the process.

If farmers see a benefit from a technology, then they will adopt the method, and others in the community will follow suit. If poor implementation of a new technology results in failure, the message conveyed will be that the new technology is no use, even if it would have been successful if implemented correctly. This could happen if, for example, a group had acquired an inadequate group plot, perhaps establishing a banana plantation on a plot with high wind and no possibility for irrigation or rain-water harvesting. It could also happen if you were not careful with timing, for example planting or applying fertilizers too late. You *must* ensure that the agro-inputs (seeds, seedlings, tools, manure, and relevant agrochemicals) are available on time. You are responsible for ensuring that the demonstration plot provides a good learning place.

As already mentioned, soil, water, and climate conditions can vary enormously over just short distances. Consequently, it cannot be assumed that ‘one size fits all’ and that a technology that works in one place will work everywhere. The methods and technologies demonstrated should allow farmers to discover, reflect upon, and adjust the



The group field has multiple purposes. For example, part of it may be used for trying out improved banana cultivation, part of it for practising conservation agriculture, part for controlled field trials, and some for multiplying improved planting materials (e.g. pigeon pea, cassava, lablab, sweet potato).

methods to local conditions, in order to minimize the risk of failure. Ideally, the group training will enable farmers to acquire the competencies necessary to continue with small-scale experimentation on their own farms.

Establishing and managing field trials

The exact layout of the plot obviously depends on the specific technologies to be tested and demonstrated. Farmers must learn to determine the factors that affect production, but the number of potentially ‘interesting’ agronomic practices that could be studied in a RIPAT project is usually much greater than the number that is manageable in a group trial (see Box 5.3). So you need to explain the most relevant factors for the basket of options available, and to discuss and agree with the farmers which factors to study and compare in the trial. For example, in many RIPAT groups maize intercropped with legumes (e.g. pigeon peas, lablab, and cow peas) has been studied by comparing land preparation for soil and water conservation (e.g. rippers or chaka hoes), using the traditional methods as a benchmark (see Figure 5.1).

Homogeneous soil conditions

The use of a replication trial improves the level of reliability of the results. You will not get exactly the same results from two plots receiving the same treatment. Plots are never 100% identical, and that leads to ‘background’ variation. The most important cause of background variation between plots is varying soil fertility or soil moisture content over the experimental area. Therefore the area on the group field which is allocated for the comparative field trials should be as homogeneous as possible in these respects.

Variation in soil fertility or soil moisture is in fact easiest to detect during the growing seasons in fields planted with an unfertilized cereal crop, e.g. maize. The variation in soil fertility will be clearly reflected in the performance (e.g. height, colour) of the standing crop. But since a RIPAT project is typically started during the dry season (when the fields are harvested and bare), you will have to rely largely on information from the landowner. Ask him/her about the conditions in the field and ask him/her to identify areas that are particular fertile or unfertile, and areas where the crop normally is very even. Also try to get information on the cropping history of the field, including the use of manure and mineral fertilizers. The area with the most even conditions should be allocated for the field trial area.

Plot size

For experiments involving large plants such as maize and cassava, the area for harvest should be no less than 40 m². But for crops such as rice, wheat, small pulses, etc., the harvested area can be smaller.

All else being equal

Regardless of what technologies are being tested in the field trial, it is important to do a thorough job. To enable comparisons to be made and a clear understanding of the effects of the treatment to be obtained, everything except for the treatment must be kept the same. Hence, if the soil preparation method is the factor being compared in the trials

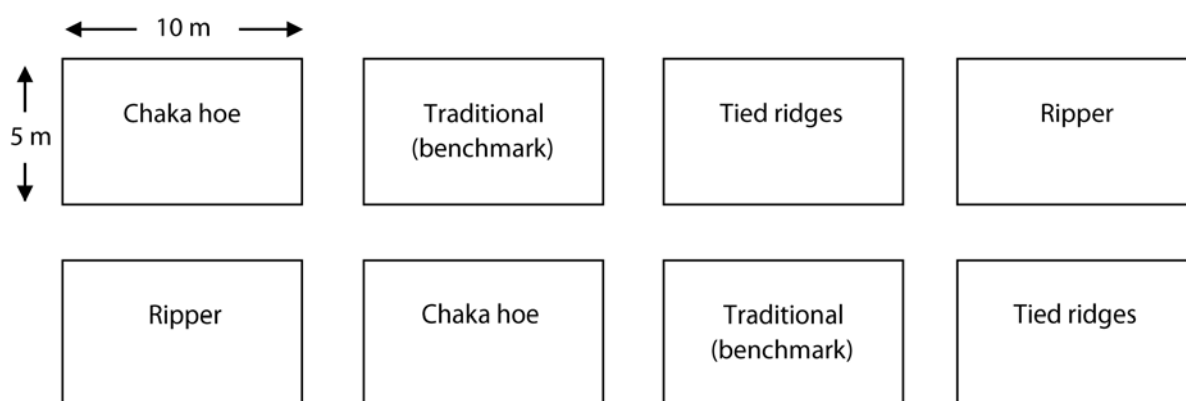


Figure 5.1 Example of a trial layout – comparing various land preparation methods in a systematic way

(as in the example above), all the other factors must remain the same. All plots should be planted on the same day, at the same planting depth, with the same seed variety, and the same planting density. All plots should receive the same amount of manure or mineral fertilizer and should be weeded on the same days, and so on. If you do not ensure that conditions and activities are identical – except for the treatment being studied – you will not be able to compare the outcomes on the various trial plots. Then the trial may teach you nothing – or, worse, it may teach you something that is completely wrong!

You can also establish field trials where you *combine* various best practices in one plot, and compare this plot to traditional practice in another plot. However, the disadvantage is that farmers cannot distinguish which factors contribute to the overall improvement. Farmers may wonder and disagree on why the maize under improved cultivation is doing better than the maize under traditional cultivation. Is it because of the seed variety? The tillage method? Or the manure/fertilizer application? However, for showing the potential or added effect of the overall ‘best practices’, it can be good to also include such a plot (see Figure 5.2).

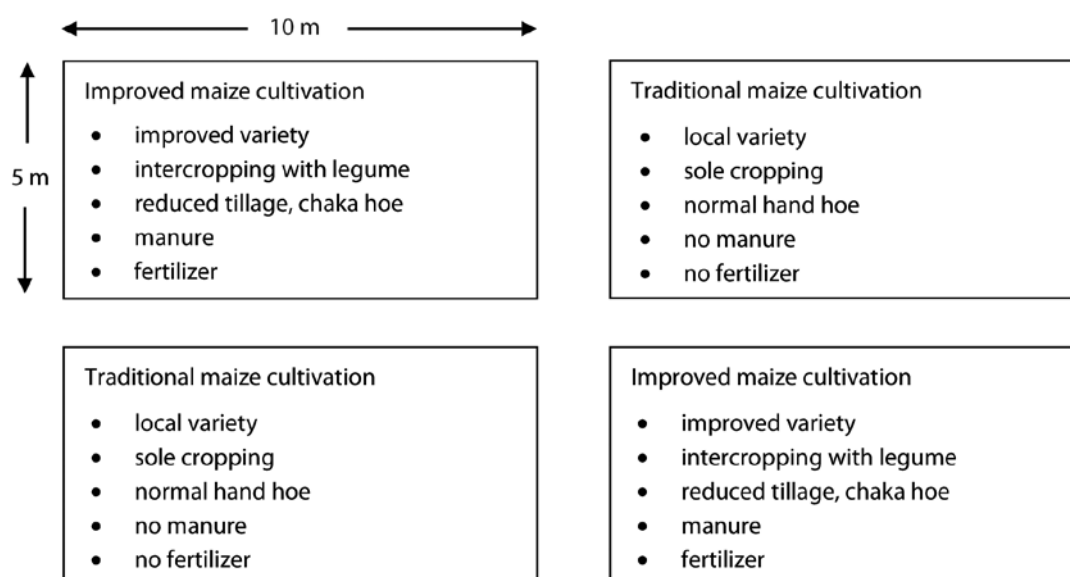


Figure 5.2 Comparing combined ‘best practices’ with traditional cultivation

Box 5.3 Typical agronomic factors for comparison

There are many agronomic factors that can be interesting to compare in simple trials. It is not possible to study all of them in a typical RIPAT project. The following is given for inspiration.

For improved maize cultivation:

- Land preparation practices (e.g. ripper, chaka hoe)
- Improved planting materials (varieties), optimal seed rate, spacing
- Weed and pest management (e.g. mulch, cover crop, pesticides)
- Soil and water conservation practices (e.g. contour farming, cover crops, mulch, tied ridging, collecting run-off water)
- Restoring soil fertility and soil organic matter
 - * organic fertilizers (e.g. cow, goat, or poultry manure, compost, crop residues, green manure)
 - * crop rotation (cereal/ legume, cereal/ tubers, mixed cropping)
 - * legumes as cover crops

For improved banana cultivation

- Planting holes – spacing and size
- Manure application rate
- Banana varieties
- Permanent soil cover (mulch, cover crop)
- Irrigation
- Water harvesting methods (collecting of run-off water in water channels; pits for water infiltration; contour farming)

Learning from and comparing outcomes of the trials

Throughout the growing period, the trial plots are monitored closely and analysed by the farmers, under your guidance. Farmers tend to blame low productivity on factors that are outside their control, such as drought and flood. But through the field trial observations, the farmers get to understand and learn about factors that are *within* their control – factors that can improve production.

Example of factors you can study in the trials:

- germination rate and plant development in general
- colour, plant height, nutrient deficiencies
- pest attack and weed infestation
- water stress
- water infiltration/water run-off during rains

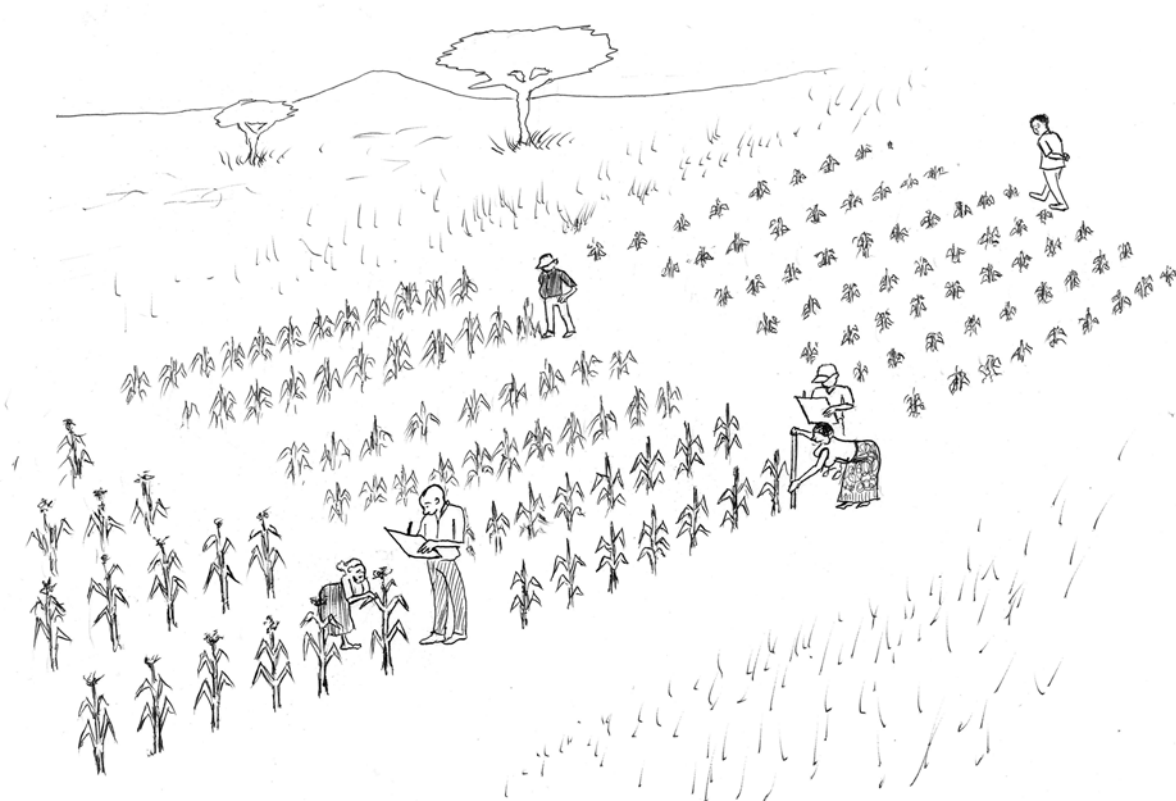
- production – crop yield, but also quantity and quality of crop residues and by-products
- labour requirements

Such observations are recorded as frequently as is relevant by the farmers themselves at the group meetings. Sometimes it can be good to divide the group into subgroups for this data collection. You must help the farmers to learn to interpret the observations in order to make proper decisions. Be careful not to destroy the validity of the trial by allowing too much 'traffic' inside the plots.

At the end of the trials, you must facilitate a general discussion on the advantages and disadvantages of the various technologies tested. One good tool is pairwise ranking, when the groups should decide on the best treatment.

Multiplication of planting materials

Apart from the use of the demonstration plots as a learning centre, the plots are also used for production of planting materials for the group members and other interested farmers in the village. Such planting materials might include banana suckers, legume seeds, sweet potato and cassava cuttings, etc. Some of the technologies that are introduced in the villages are new, and therefore the seeds and planting materials may not be available locally. Producing these on the demonstration plots eases the shortage of planting materials and seeds in the area. Farmers therefore also have to learn how to select the best seeds/planting materials and how to preserve them. Selling the planting materials to other villagers is a source of income for the group, but this can only be done after all the group members have taken the amounts they need.



Step 9: Establishing sub-committees and selecting technology- and spreading super-farmers

Formation of sub-committees

The formation of sub-committees is an integral part of the RIPAT training. Since RIPAT groups are rather large (30–35 members) and the projects include several technologies, it is good to allocate some of the group tasks to sub-committees – as described below.

Once the group has acquired an adequate group field, the members are ready to be trained in specific technologies. In Box 5.4 we have provided a generic list of topics that must be covered for each crop introduced, and in Appendix 3 we provide a list of some technical manuals for hands-on implementation of various crop/livestock technologies. Most of the training is practical, i.e. learning by doing. But prior to the actual establishment of, for example, a banana demonstration field, you must provide the group members with necessary background theory for them to understand the underlying principles of the crop or technology.

After the initial training sessions, the sub-committees are formed, each consisting of four or five farmers with a special interest in the technology in question (see Box 5.6). They work as a kind of back-up group and have special responsibilities with regard to practical work with a crop or type of livestock. They also have special responsibilities for monitoring the adoption of technologies among their group peers. Some examples of sub-committees are provided below. Forming such sub-committees saves time and is a way of distributing responsibilities, since not all group members need to be involved in all activities.

One subcommittee is formed for each main technology adopted in the group, e.g. banana, conservation agriculture, and livestock. Because the group members usually know one another they are able to select the members themselves. However, it is good for you to follow up on their choice of sub-committee members. Each sub-committee selects a leader who reports to the group chairman.

The sub-committee members are responsible for following up on the technology at the group plot (where relevant), and they visit individual group members on a regular basis and to record progress on adoption – e.g. how many banana stools have been planted, or how many offspring have been produced from the new animal breed. They present reports to the group at the next meeting. These reports are important, as they form the basis for follow-up and for monitoring overall project progress (see Part 3).

The specific responsibilities of the individual sub-committees are described below. Remember that they are always under your supervision in performing their tasks.

Box 5.4 Crops

The elements below should be covered for each crop introduced in a series of training sessions. The GF has the responsibility of ensuring that all relevant topics are covered in a timely manner.

- Why this type of improved/new crop has been selected for inclusion in the basket of options
 - * advantages/disadvantages, including risk analysis, production cost, profitability analysis, labour requirements. Use of locally available resources
- Solidarity chain (see below)
- Principles of crop production
- Environmental requirements (temperature, water, soil)
- Varieties
- Land preparation
- Selection of seeds/planting material
- Planting
- Weeding
- Fertilization
- Rotation/intercropping
- Pests and diseases
- Harvesting
- Post-harvesting (storage, processing, usage) and preservation of planting materials
- Marketing and value chain

These subjects are covered in a series of group training sessions over the growing period. Before the actual establishment of the group field, the first seven topics (to 'selection of seeds') should be covered in theoretical terms.

Solidarity chain

In RIPAT, there is a general 'solidarity chain' principle – all participating farmers are responsible for training three others in the community in what they have learned and adopted themselves. A 'solidarity chain' for passing on plant inputs has previously only been used for banana (see Box 4.2). Each group farmer who adopts the improved banana technology is expected to give three times the number of banana suckers received through the project to other interested farmers in the community and to train them in the better banana cultivation techniques.

Box 5.5 Livestock

The elements below should be covered for each livestock technology introduced (e.g. improved breeds of goats, sheep, pigs, and poultry) in a series of training sessions. The GF has the responsibility of ensuring that all relevant topics are covered in a timely manner.

- Why this type of improved breed of livestock has been selected for inclusion in the basket of options
 - * advantages/disadvantages, including risk analysis, production cost, profitability analysis, labour requirements. Use of locally available resources
- Solidarity chain (except for poultry), see below
- Principles of production
- Feeding
- Housing
- Breeds and breeding
- Disease and pest control (including vaccination)
- Production (e.g. meat versus milk, eggs versus meat, etc.)
- Storage, processing, usage
- Marketing and value chain

These subjects are covered in group training sessions over the three-year period. Before the initial improved breeding stock is supplied to the group, the basic aspects of the first five topics (to 'housing') should be covered in theoretical terms.

Livestock solidarity chain (e.g. improved breeds of milking goats, sheep, pigs)

Each group is supplied with five purebred females and two purebred males as initial breeding stock. The group decides among themselves on the five group members who will host the initial breeding stock. The group prepares a list with the sequence of members to receive offspring – the 'solidarity chain'. In the case of goats and sheep, the first two female offspring produced must be passed on to other group members according to this predefined list. After two female offspring have been passed on, the mother animal becomes the property of the group member concerned.

In order to qualify to receive either the initial breeding stock or the offspring, a group member must first prove his/her motivation and preparedness, i.e. he/she must have completed constructing adequate housing, have established a feeding system, planted fodder, etc. Checking of this is managed by the sub-committee (see Box 5.6 below).

In the case of pigs, again five purebred females and two purebred males are supplied to each group as initial breeding stock, but due to the larger litter size of pigs as compared to goats and sheep, each farmer is required to pass on the first five female offspring to the next person on the list.

A specific 'solidarity chain' contract is signed between the group and the IO regarding these terms. There is a template in Appendix 4B.

Box 5.6 Example of sub-committees and responsibilities

The Banana Sub-committee takes the lead in:

- crop husbandry on the group banana field and any banana trials established
- ensuring the group tools for banana cultivation are in the right place and in good condition
- harvesting and selling of banana suckers and banana bunches from the group field
- helping other farmers in the village to lay out a banana field (although any other competent member can do this)
- making follow up visits to group members:
 - * collecting data on individual adoptions (number of holes, stools planted, successes, and challenges)
 - * reminding group members about the 'repayment' agreement for inputs – i.e. distribution of suckers to other farmers in the village (see Box 4.2)

The Conservation Agriculture (CA) Sub-committee takes the lead in:

- managing the CA plot and any CA trials established
- ensuring the group tools for CA are in the right place and in good condition (chaka hoes, ripper, sprayer, etc.)
- distribution of planting materials (seeds/cuttings) to other group members,
- selling the surplus produce from the CA plot
- making follow up visits to other group members:
 - * collecting data on individual adoptions (number of farmers practising CA, successes, and problems)
 - * reminding group members about the 'repayment' agreement for inputs (see Box 4.2)

The Livestock Sub-committee takes the lead in:

- preparing the solidarity chain (the predefined list for distribution of female offspring)
- checking that the next person on the list meets the requirements before receiving a female offspring (has constructed adequate housing, established a feeding system, planted fodder, etc.)
- making follow-up visits to the group members:
 - * collecting data on the number and sex of offspring; the number of female offspring distributed through the solidarity chain; adoption of technologies (housing, feeding, veterinary practices, successes, and problems)
- monitoring outbreaks of diseases and pests (also reports to the EO on this matter)
- organizing a breeding programme (exchange of males between groups to avoid inbreeding)

- reminding group members about the ‘repayment’ agreement, e.g. for cocks (see Box 4.2)

The Livestock Sub-committee often consists of the five group members provided with the initial stock of male and female breeding animals.

Selection of super-farmers

Super-farmers (SFs) are individuals who, during the implementation period, have been identified as people who have developed as social entrepreneurs and agents for change. They are successful farmers from within the group who have grasped the knowledge provided through RIPAT training and have successfully implemented at least one RIPAT-facilitated technology.

SFs should be able to pass on knowledge of a specific technology to other farmers. The major role of the SFs is to help spread the knowledge gained from the project to other farmers and later on to other groups within the same village or to groups and/or farmers in other villages.

Two types of SF are selected:

- Technology SFs – one person per technology per group (e.g. banana, conservation agriculture, livestock)
- Spreading SFs – two people per group

Technology super-farmers

These are selected from among the group members once they have proved to be well-performing farmers who are proactive in the particular technology. They should also have the ability to train other farmers, and they should be respected. Each group chooses one person per technology. Frequently they are selected from among the sub-committee members – but the group can select anyone they feel will be the best for the task. After selection, the technology SFs from the 16 groups in a RIPAT project are taken for a three- to five-day training session where they receive intensive theoretical and practical education in the technology concerned, as well as pedagogical training in how to train others. Each SF will thereafter function as a paraprofessional and have the role of providing technical support to the group members and to the entire community/village. Normally the EOs are also included in this intensive training.

Spreading super-farmers

The spreading SFs are selected when the project is halfway through. Their role is to spread the knowledge gained to other farmers within and outside their villages. They should have successfully implemented at least one technology implementation and should have the ability to facilitate, persuade/mobilize, and train other farmers. Frequently they are selected from among the technology SFs, but the group is free to choose any of its members. After selection, these spreading SFs undergo intensive training e.g. at the RECODA Academy together with the EOs. They are then expected to start new groups in neighbouring villages with the support of the district authorities.

Criteria for selecting a spreading SF:

- is an active group member who attends all group meetings and activities in accordance with the group constitution and by-laws
- has good understanding of the whole concept of RIPAT and has practised it as much as possible
- is competent in the technologies that have been adopted and has implemented them well
- has the ability to teach and train others (to pass on knowledge to others in a way they can understand)
- is able to read and write
- should be respected by the group members and by the villages at large, and be of good standing in the community

The group members should carry out this selection exercise themselves – but under your supervision. Since the spreading SFs are crucial for the project sustainability, and since the project invests quite a lot of resources in training them further, it is important that you double-check their qualifications. It is best if the group identifies the four best candidates in the group. The final selection of the two candidates takes place as follows:

- You assess the candidates' performance by visiting their individual farms and inspecting their implementation of the technologies
- You conduct a written theory test
- You conduct individual interviews

Based on the results, you and the group chairman make the final selection.

Step 10: Record-keeping and financial management – a parallel activity throughout the entire project period

Throughout the entire project period the group is trained in various areas in order to empower them as a group. You have already trained them in basic leadership when they learned about qualities of leaders, and you have helped them in preparing a group constitution. Other group empowerment training activities include record-keeping and financial management. There are several topics that will be covered during the project, including farming as a business, record-keeping and bookkeeping, and savings and credit schemes. These are described briefly below. For details, we refer you to other manuals.

Farming as a business

The overall purposes of this training are to improve group members' understanding of how to optimize profit, and to assist them in making the transformation from subsistence to commercial farming. The training focuses on the following topics:

- Selection of crops or projects
- Decision-making in farming

- Minimizing production costs
- Maximizing the use of available resources

A part of the training related to the basket of options is to help farmers to compare present technologies with improved technologies in terms of efficiency, labour requirements and cash profit. The choice of crop should not be based on tradition alone, but on the basis of optimizing financial return.

RIPAT also tries to reduce farmers' vulnerability to shocks by promoting crop diversification, e.g. by encouraging farmers to grow some very resilient crops such as cassava, lablab, and pigeon peas, and by using water conservation methods. For a subsistence farmer who experiences hunger at least periodically, the best technology may not be one that produces the highest profit in the best year with good rains, but one that produces an acceptable yield in the worst year. Hence, helping farmers to consider both optimization of profits and reduction in vulnerability is important. The farmer not only needs to earn enough from the field and livestock to cover the costs of food, clothing, school fees, medical expenses, etc., but must also be careful to spread risk.

Table 5.4 shows an example comparing the production of maize and banana (together with some other crop) on one acre of land. In the example, the farmer would make TZS 628,000 more in profit for the first year if bananas were planted on the land instead of maize, even though considerably more money would have to be invested.

In subsequent years, there will be no costs of digging holes, mixing manure, or buying and planting seedlings, though other costs such as de-suckering, weeding, and replanting of lablab may arise. This means that the profit in subsequent years will be considerably higher. Moreover, the farmer's profit would be considerably higher if the labour was provided by him/her. In this example, the banana field provides an opportunity for self-employment, allowing the farmer to earn a salary by investing his/her work in establishing a banana plantation. Most of the establishment workload occurs during the dry season, when there is little other work to be done on the farm.

Table 5.4 Comparison between maize and bananas on one acre with regard to expenses and income (in TZS)

		<i>EXPENDITURE</i>	
<i>Maize</i>		<i>Banana</i>	
Ploughing	30,000	Layout	20,000
Harrowing	30,000	Digging holes	675,000
Sowing	30,000	Manure mixing	450,000
Fertilizer 1		Planting	100,000
Fertilizer 2		Seedlings	540,000
Seeds	120,000	Lablab	12,000
Pigeon peas	30,000	1st weeding	50,000
1st weeding	60,000	2nd weeding	20,000
2nd weeding	60,000	Desuckering	900,000
Harvesting	80,000		
Transport and packing materials	15,000		
Total expenditure per year	455,000	Total expenditure in 1st year	2,767,000

		<i>INCOME</i>	
<i>Maize</i>		<i>Banana</i>	
Maize bags harvested	20	Banana bunches harvested	450
Price per bag	50,000	Price per bunch	8,000
Total income from maize	1,000,000	Total income from bananas	3,600,000
Pigeon peas bags harvested	4	Suckers harvested	900
Price per bag	80,000	Price per sucker	600
Total income from pigeon peas	320,000	Total income from suckers	540,000
		Lablab bags harvested	1
		Price per bag	120,000
		Total income from lablab	120,000
Total sales	1,320,000	Total sales	4,260,000
Minus total expenditure	455,000	Minus total expenditure	2,767,000
<i>Overall profit</i>	<i>865,000</i>	<i>Overall profit</i>	<i>1,493,000</i>

If the farmer does not hire labour but digs the holes him-/herself and mixes the manure for bananas during the dry season, the difference in income between maize and bananas would be as follows:

Total expenses for bananas as shown in Table 5.4	TZS 2,767,000
Minus the costs for digging holes and mixing manure	TZS 1,125,000
<i>Revised total expenses</i>	<i>TZS 1,642,000</i>

The farmer's total profit would then be (TZS 4,260,000 – 1,642,000) = TZS 2,618,000, which is 1,753,000 greater than for maize.

Such examples can be eye-openers for farmers. However, it is not recommended that farmers establish one acre of banana all in one go. They should test and try first, and

expand if they see a benefit. Your job is to inform them not only about the possibilities, but also about potential problems.

Table 5.5 shows how farmers can plan their crop production and cash requirements during the season. The expenditure is listed according to the month in which it is expected to occur.

Table 5.5 Production costs for one acre of maize

Cost	Month					Total TZS
	1	2	3	4	5	
Ploughing	30,000					30,000
Harrowing	30,000					30,000
Planting		30,000				30,000
Seeds		120,000				120,000
Fertilizer 1						
Fertilizer 2						
Fertilizer 3						
1st weeding		60,000				60,000
Pigeon peas intercrop		30,000				30,000
2nd weeding			60,000			60,000
Pesticides (1)						
Pesticides (2)						
Harvesting				80,000		80,000
Packing material				5,000		5,000
Transport charges					10,000	10,000
Total costs	60,000	240,000	60,000	85,000	10,000	455,000

Production planning

Expected income: = expected yield **times** anticipated crop price **minus** total expenditure

Production analysis

Realized income: = actual yield **times** actual crop price **minus** actual total expenditures

Record-keeping and bookkeeping

Record-keeping will help farmers to better understand, analyse, and compare production, income, expenses, and profit from their farm activities. In any business, including farming, it is important to keep track of all activities, including production, income from sales, and expenses related to production. Without such data it is not possible to identify which activities provide good income or a lot of food, and to select the activities that are good for sustaining the household. Simple data can help farmers to make qualified decisions concerning which activities to invest in. The data collected should, however, be kept as simple as possible, so that farmers with a low level of literacy are able to understand the information.

When the group begins its activities, it is necessary to start keeping records. The records the groups should keep, and for which training will be required, are as follows:

- Group activities such as land preparation (planting, weeding, harvesting), marketing and sale of produce, and acquisition of inputs

- Agreements and decisions, such as contracts for land, contracts with the IO on repayment for inputs, solidarity chains, etc.
- Assets such as tools, whether provided by the project or acquired through any investment the group makes
- Group accounts, including income from members' contributions/fees and from sales, and expenses

It is of the utmost importance for a group that all members know what profits are accrued from their activities, and any losses. This will provide a sound basis for making decisions. For any groups which are not doing well, the data will provide information on where problems lie, helping the groups to decide what steps need to be taken.

The groups should use the following books to keep their financial records:

- Payment voucher book (PV)
- Receipt voucher book
- Sales and purchases day book

From these books, the groups will be able to understand when and how they have used their money. The books also enable the groups to prepare the following:

- The cash book, which is used to record all cash received and cash paid out by the business
- The sales and purchases day book, which is used to record all sales on credit and all purchases on credit
- The balance sheet, which is prepared from the cash book and the sales and purchases day book after a chosen period, preferably of three to six months

Steps

- On commencement of training and practical activities, financial transactions begin.
- Very early in the project, the groups are trained in the principles of financial management, including the understanding of figures in the payment voucher and receipt voucher books.
- From these records, the group leaders fill in the cashbook at the end of every month, and make a balance sheet every three months.
- A simple income and expenditure statement should be prepared and presented to the group members on a monthly basis.

The group leaders (i.e. chairpersons, secretaries, and particularly the treasurers) should receive additional training by the IO so they are fully conversant with the bookkeeping principles. Your responsibility will be to assist the group treasurers and to provide short refresher courses for the groups when deemed necessary.

In addition, the group secretaries will receive special training from the IO. The training will cover issues relating to their duties, namely taking minutes of meetings, keeping attendance records, filling in contract forms, etc. As a facilitator you will support and advise the group secretary as and when required.

Savings and credit schemes

Lack of capital frequently prevents farmers from expanding and improving their businesses. Farmers may have all other necessities in place, such as available land and labour, and even knowledge and good ideas. However, lack of cash to buy tools and inputs often prevents them from implementing their plans. The majority of rural small farmers have no possibility of saving money in banks. The banks are often far away, and the terms offered are not very friendly for farmers with limited savings.

There are, however, other methods groups can use for saving and borrowing money. The village savings and loan association (VSLA) concept has been included in the 'basket of options' in RIPAT projects, and it has proved to be very popular among farmers. The method enables even poor farmers to save enough money to buy useful items for the household and make business investments.

The VSLA concept in brief

The VSLA group (often comprising 10–25 members) meets on a weekly basis to pool members' surplus money in a fund from which members can also borrow. The groups receive training in managing their funds, drawing up a constitution and electing a board. The VSLA runs in cycles of about one year. Thereafter the accumulated savings and profits are distributed among the members according to how much they have saved, and a new cycle is started. *All the funds come from the members themselves* – hence no external capital is involved. The members save by buying 'shares' in the VSLA. The members decide on the price of a share. Every week each member buys shares for the agreed amount. Any member is allowed to borrow from the VSLA. Typically, a member is allowed to borrow three times the amount of money he/she has saved.

The interest rate to be charged on loans, the maturity dates of the loans, and the length of each operating cycle is decided by the VSLA members. When a cycle is complete, the members receive their savings along with their shares of the interest earned on the loans.

The group is provided with a cash box with three padlocks, which ensures that no single person can access the cash. Transactions can only be carried out when all the group members are present, which ensures transparency and mutual trust. Records are kept in the individual members' passbooks using stamps that even illiterate people can easily count. All outstanding balances on loans are certified by the members who are sitting next to the borrower at the meetings.

When to include VSLA in a RIPAT project

The VSLA can be one of the elements in the 'basket of options' in a RIPAT project and can be introduced at any time during the project cycle. It can be chosen as one of the first 'technology options' available to the groups; alternatively, it can be introduced at a later stage when farmers have started to earn money from the new farming technologies that have been introduced.

It is recommended, however, if time allows, to start the VSLA as early as possible. The savings and loan scheme will help farmers to access capital to expand their farming businesses.

It is important to realize that farmers are busy people – especially during the growing season – and the IO must be careful not to overburden the group with too many

activities at one time. The scheduling of activities over the three-year project period must be thoroughly thought through during the detailed project planning phase.

Keep the funds separate

Joining the VSLA should be an option for the group members, not a compulsory activity which all members are required to engage in. Those who want to join (at least 10–15 people) will form a sub-group. They will receive special training in the VSLA concept and will draw up a separate constitution, electing a separate leadership for the VSLA group activities.

Experience has shown that most of the RIPAT group members will wish to enrol in the VSLA scheme. Some groups elect the same persons as leaders for the VSLA as for the RIPAT group; others elect new leaders for this activity. However, it is of the utmost importance that there is a clear separation between the VSLA capital (based on individual savings) and the RIPAT group account (based on income from the common group enterprise, e.g. from sales of banana and other produce from the group fields).

It is important that the GFs are thoroughly trained in the VSLA concept before offering the training modules to the RIPAT groups. Details of the VSLA concept and the practical step-by-step guide for implementation can be downloaded at the website www.vsla.net

Step 11: Group-to-group learning exchange and leadership training

Group-to-group learning exchange is mainly carried out through quarterly project coordination meetings, but the Field Days (Step 12 below) also provide a forum for this.

Quarterly coordination meeting

The three leaders of each group, i.e. the chairperson, secretary, and treasurer, should participate in the quarterly coordination meetings. With 16 groups in a typical RIPAT project, there will thus be 48 such group leaders. Village leaders, the EOs affiliated to the project, and the project coordinator appointed by the district (DPC) should also participate, bringing the total number of people at the meetings to around 60.

At these meetings, issues and ideas that need action from the village leaders or local government are discussed; requests are formulated and passed on to the relevant authorities. The EOs contribute their thoughts and observations for the benefit of all the RIPAT groups in the project. The group leaders usually elect a chairperson and secretary for this forum with roles as described below.

The group leader forum chairperson:

- Chairs the meetings
- Visits all the groups to monitor their development
- Provides conflict mediation within the groups and between groups
- Promotes the project among village leaders in general
- Advises the PM or IO on any matters pertaining to the project/community

The group leader forum secretary

- Takes the minutes of the meetings and writes a report
- Sends out any necessary information to the groups
- Receives project reports from the various villages

The quarterly coordination meetings have the purposes described below.

To share experiences and lessons learned, and to inform each other on project progress, achievements, and challenges faced

The leaders of each group give a short report on the achievements of the group, including data on adoption of the technologies and reports on challenges faced. They explain how challenges have been tackled and what lessons have been learned from the activities implemented during that quarter and they report on any innovations, adaptations, etc. Participants learn through such sharing, and can then share what they have learned with their group members. Groups may also share information on marketing and pricing of commodities, and can decide to sell their commodities together. Towards the end of the project, the forum may consider formalizing an inter-group organization.

To ensure good contact with and continued support and understanding of the project among village leaders and government institutions

The groups need the support of their village leaderships, and their activities may need protection. By keeping track of the progress of the project on a quarterly basis, the village leaders are in a position to take any necessary steps, including the promotion of further spreading in the village, the enforcement of by-laws, etc. The inclusion of the village leaders in the quarterly meetings facilitates advocacy efforts by the group leaders.

To oversee resolution of any conflict between and amongst group members

Sometimes misunderstandings arise between group members, or between group members and villagers; and sometimes cases of destruction of group property are reported. If such conflicts are not resolved by the group members locally, the quarterly coordination meeting can pass a resolution and identify representatives to follow up on the case. It can also happen that group members misuse group property and refuse to pay for the damage, for example, and in such cases external mediation may be required.

To coordinate activities with government extension officers

The EOs know about government plans and policies, including such things as government support available to farmers. They are thus able to advise farmers. Furthermore, the EOs can also help with the spreading of technologies to other farmers in and outside the project villages.

To prepare for the formation of an inter-group organization

The RIPAT approach provides the possibility of forming an inter-group organization which will continue with the activities after project closure. The group leader forum provides a suitable basis for starting this process (see Step 13 below).

To undertake leadership training for the groups, and sometimes also for village leaders

In order to foster group cohesion, it is important that the leaders are empowered through training in leadership skills. Leadership training related to various topics is provided during the coordination meetings.

The direct costs for food and transport for these quarterly meetings should be paid from the project budget, but *no* other payments should be made to the people attending the meeting. No 'attendance allowances' should be paid. The meetings should be 'owned' by the participants, and they should come because they as leaders have a passion for facilitating development, not because they receive money to attend.

Preparations and agenda

During the project period, the PM and the group leader forum chairperson call the quarterly coordination meetings. Notice of the meeting should be sent by letter to all expected participants at least one month in advance.

Since the groups are expected to present reports during the meeting, the PM should circulate the format for the reports according to the information that is required to be shared and discussed *in that quarter* (Box 5.7).

Box 5.7 Format for group reporting at a quarterly meeting

1. Group status
 - change in membership
 - attendance rate
2. Status since last meeting
 - achievements for each intervention
 - any visitors to the group or special event
3. Challenges and possible solutions
4. Plans for next quarter

The basic agenda for the quarterly coordination meeting should be as follows:

1. Registration of attendance
2. Opening prayer
3. Welcoming remarks by group leader forum chairperson
4. Objectives and expected outcomes of the meeting (PM)

5. Group reports and discussions
(Secretaries from each group present their reports, with a short discussion after each presentation on progress and any difficulties hindering progress. The village chairperson and EO from the village concerned are expected to comment after each group's presentation. The participants brainstorm solutions to the challenges that have been experienced and devise strategies for the future.)
6. Summing up of discussions (PM)
7. Comments by the DPC
8. Guidance on the way forward (PM)
9. Close

Be careful that the meetings do not continue for so long that participants get tired and lose concentration. If that happens too many times there is even a risk that participants will become frustrated and impatient, and consequently will lose interest. Some may start to skip future meetings, or arrive late and leave early. It is important that the meetings are well planned and the topics discussed are relevant, so that everyone feels that participating is important. Here are a few factors the group leader forum chairperson should keep in mind:

- Keep the meeting focused and ensure that everyone sticks to the agenda. Don't be afraid to interrupt a person who speaks for too long or diverges from the point under discussion – but if you do have to interrupt, try to maintain a positive atmosphere nevertheless
- Plan in advance the time that the meeting should end, and do your very best to keep to it
- Limit the number of agenda items
Keep in mind the overall aims of the meeting as described above. Anything not relevant to those aims should be discussed elsewhere

Leadership training for village and group leaders

The quarterly coordination meetings are also used to provide leadership training. Topics that are covered in this training include leadership skills, conflict resolution, and problem solving. The PL or the PM should conduct the training.

Objectives of the training:

- To enhance unity and harmony among the group and village leaders in executing the project, and to ensure that they understand how they can contribute to its success
- To increase knowledge of good governance and thus to foster development
- To ensure understanding of existing by-laws and their enforcement in the village concerned. A typical example of such by-laws and their enforcement might be by-laws against free grazing, as explained in Step 6 in this chapter

Step 12: Field Days and graduation

Field Days are annual exhibition days where the various project technologies in the basket of options are displayed to the village and to guests from the surrounding area. In the third and last year of the project, the Field Day is combined with a graduation ceremony where people from all the targeted villages come together in one village to celebrate the project outcome and mark the occasion of group members' graduation.

Objectives

- To orientate the community, local government, and other institutions on the various interventions implemented and knowledge acquired by RIPAT groups as they display and share their experiences
- To exchange experiences between RIPAT group members and other farmers, government officials, extension workers, and other visitors

Steps

The Field Days involve the two RIPAT groups in each village. They are usually held on the days on which the groups normally meet. It is easy to arrange them, and no costs are incurred by the project. The main steps are listed below.

1. Each of the two groups forms a Field Day Committee to plan the event. It should be held at a time of the year when the effect of the various improved technologies is visible.
2. The communities of the entire village and of neighbouring villages are invited for the event, including especially the village and ward leaders.
3. Display stalls are made (using locally available resources) and used to display different products accrued from the project interventions. The group members explain how they have arrived at their results.
4. On the Field Day, the guests visit the RIPAT group fields and inspect the various demonstration plots. If possible, visits are also arranged to some individual farmers' plots.
5. Entertainments such as singing, drama/comedy, and poems are also performed. These should have a message that will motivate others to adopt the improved technologies. In Africa, it is aptly said that if you want to hide facts, just write them in a book; but if you want to present facts to people, then put them in songs, drama, or dances.
6. The group leaders and the village leaders explain the purpose of the Field Day, and the group members are given a chance to talk about what they have learned, and to explain how others can benefit from the project.
7. The EO also explains the interventions.
8. Finally, the village leaders conclude the meeting, encouraging the community to adopt RIPAT interventions.

Graduation Day

In the third year, the Field Day takes the form of the project Graduation Day, which brings together all the eight RIPAT villages in the project. Graduation Day is held to celebrate the success achieved during the implementation of the RIPAT project. It should be organized by the IO in conjunction with all the group leaders.

Many stakeholders are invited, including government leaders (at regional, district, and ward levels), and development stakeholders in the area such as NGOs, civil society organizations, faith based organizations, and community members from the targeted and neighbouring villages. It is a big event which is often attended by around 1,000 people. It sums up all that has been achieved during the three-year project period and expresses the desire for further dissemination of the project technologies under the leadership of the community and local government. Farmers are awarded certificates of participation; these are normally co-signed by the district authorities.

Selection of best farmers to be awarded prizes

The best-performing farmers in each of the improved technologies are selected, with the participation of group members in the process, for the award of a prize on Graduation Day. The selection process starts when the Graduation Day is announced some six months in advance. The criteria for each improved technology are outlined by the PM and the GFs and are passed on to the group members (see examples overleaf in Box 5.8).

The group members may suggest amendments to the criteria on the basis of their own analyses. Following the discussions, each group nominates individuals within their group who fit the criteria. The suitability of each suggested individual is discussed until one or two people remain.

Once all groups have nominated their candidates, the GFs and/or the PM visit each candidate's farm to assess the quality of the implementation before making the final decision.

Important steps

The most important steps in association with Graduation Day are listed below.

1. The planning of the Graduation Day is started during the last quarterly coordination meeting, but the date is announced six months in advance to the groups by the PM. The leaders of the 16 groups in a RIPAT project elect a Graduation Committee under the group leader forum chairperson.
2. The PM and the Graduation Committee decide on the venue for the graduation ceremony and announce this information to the groups.
3. The procedures for groups to close their accounts and clear any outstanding debts to the IO in accordance with their group constitutions should be announced to the groups by the GFs.
4. The best farmers (to be given prizes) in each of the technology areas are selected (see below).
5. The guest of honour (typically the District Commissioner) is invited at least one month before the event, while other important guests are invited no later than

Box 5.8 Examples of best farmer awards and criteria used

Best banana farmer

- Number of stools planted, vigour
- Planted according to right spacing, clean field, mulched
- Maintained at three stems per stool
- Use of good rainwater harvesting methods
- The farmer has trained at least three other non-RIPAT farmers and given them planting materials (banana suckers) for technology diffusion

Best goat/pig/sheep keeper

- Appropriate animal housing (easy to clean, spacious, good ventilation, safe)
- Number of animals of improved breeds, pure-bred/cross-bred
- Proper feeding (vegetation, maize husks)
- Pest and disease control – deworming
- Record-keeping

Best poultry keeper

- Appropriate chicken sheds (easy to clean, spacious, good ventilation, safe)
- Number of chickens of improved breeds, pure-bred/cross-bred
- Disease and pest control – vaccination according to schedule
- Good records of production and sales
- Feeding – semi-intensively fed, supplementary feeding, not full free range

Best conservation agriculture farmer

- Practises a conservation agriculture technology and is progressive (two consecutive years or more)
- Area that is planted under conservation agriculture
- Intercropping with a legume/cover crop
- Farm not grazed on (residues conserved)
- Quality of the maize crop

Overall best farmer in project

- Has implemented several technologies, all well implemented in accordance with the training, and has utilized locally-available resources
- Is developing a super-household model

Best RIPAT group

- Good attendance record
- Follows the constitution
- Acts on the instructions and advice of the IO
- Has adopted the selected technologies
- Has managed the group field(s) well

two weeks before the Graduation Day. Normally the guest of honour is well acquainted with the project – but if he/she is a new/recently-appointed person in the area, he/she may wish to visit the project a few days before the graduation in order to get a better understanding of the project interventions and its successes. When inviting the guest of honour, it is advisable not only to brief him/her on the objectives and results of RIPAT, but also to highlight some of the topics that would be desirable to have included in the speech on the Graduation Day. These topics could be:

- reinforcement of village by-laws
 - conservation of the environment
 - collaboration of extension officers with RIPAT participants and super-farmers
 - spreading of the technologies to non-RIPAT villages
 - encouraging farmers to continue to use the technologies they learned about through RIPAT
6. The coordination committee arranges the programme for the day and each group decides what activity they will take part in. The groups prepare entertainments (with lessons based on the project) for the day, including poems, dramas, songs, traditional dances, speeches, posters, testimony statements, and exhibitions. They also arrange prizes for the best farmers.
 7. The coordination committee prepares a speech for the day on behalf of the group members. The speech explains the success and the challenges faced by the farmers, and requests the government to continue supporting the project interventions.
 8. The PM and the graduation committee organize a route for visiting technology implementations in the various villages (group fields and individual fields). This will show the government officials and guests the technologies implemented by the project.
 9. On Graduation Day, the guest of honour and visitors visit the selected sites and then proceed to the graduation ceremony site.

Step 13: After graduation: further dissemination of the technologies and formation of an inter-group organization

After graduation and further dissemination

If the financial resources are available, the IO should not cease its contacts with the farmers on Graduation Day. Some follow-up visits in the fourth year are advisable to ensure good continuation.

Since the project implementation period has ended, it is time either to remove the RIPAT signboards altogether, or at least to change the wording to:



The groups become a sustained resource for continuation and further dissemination of RIPAT technologies with regard to knowledge, planting materials, and livestock. Technical and spreading SFs are selected and trained through the project for sustained continuation and for continued dissemination (see Step 9 in this chapter). The close involvement of the local EOs throughout the project period ensures that their knowledge base is up-to-date on the improved technologies. A close working collaboration between the EOs and the spreading SFs is established to ensure continuation and spreading long after project termination. The RECODA Academy offers training courses for extension staff and SFs on how they can play their role in the training of new farmers and in the spreading of activities in the area in the post-project period (see www.recodatz.org).

Forming an inter-group organization

To form an inter-group organization, the groups should have a common bond and purpose and should share similar interests, problems, and needs. They should not be far from one another. The tasks for such an inter-group organization could be:

- bulk purchasing of inputs and goods
- bulk marketing of output from member groups
- inter-group coordination and training
- pooled savings and credit services

Before project closure, the group leaders should discuss the possibilities for forming an inter-group organization at the quarterly coordination meetings. If some – or all – of the 16 groups wish to formalize such an organization, the IO can agree to facilitate this process as well. However, before starting to facilitate this process, it is important to evaluate whether the groups are ready and if the external conditions are right. It has not been a formalized part of the RIPAT approach until now to form inter-group organizations and it is therefore outside the scope of this manual to describe this process in detail. We therefore refer to manuals from elsewhere (see e.g. FAO 2001).

Part 3

Monitoring and quality control – guidance to an external body and to the implementing organization

CHAPTER 6

Monitoring and quality control

Monitoring should be a part of any development intervention, in order to document the implementation process and to ensure a proper mechanism for reflection and action. Monitoring is the periodic checking of progress in order to assess whether the standards and targets formulated in the implementation plan are being achieved in practice. The information collected is used for purposes of management and decision-making as well as for facilitating a continuous learning process. Having timely and relevant information on project progress, both positive and negative, enables people at all levels of the project, i.e. the groups, the PM/GFs, and the IO leadership, to make informed decisions which can help to solve problems in the implementation process (Box 6.1).

Box 6.1 The power of measuring results¹

- If you do not measure results, you cannot tell success from failure.
- If you cannot see success, you cannot reward it.
- If you cannot reward success, you are probably rewarding failure.
- If you cannot see success, you cannot learn from it.
- If you cannot recognize failure, you cannot correct it.
- If you can demonstrate results, you can win public support.

¹ Osborne and Gaebler (1992)

Collecting and analysing information takes up time and resources, and one should therefore be careful not to collect more information than necessary. We have aimed at designing a system which is simple and practical.

The day-to-day monitoring by the group members and leaders and by the IO staff is important. But one should be aware that IO staff collecting information related to the quality of their own work cannot be impartial – they may have an interest in making the project look better than is really the case. It is difficult for anyone to be fully objective about the standard of his or her own performance. The knowledge that the work is subject to third-party quality control will in itself help to mitigate any intentional or unintentional bias in the data collection and in the interpretation of analyses.

Monitoring versus quality control

In RIPAT we distinguish between monitoring and quality control. The information related to monitoring is collected during project implementation by the sub-committee members, the group leaders, and the PMs/GFs, whereas the information used for quality control is collected by quality controllers (QCs). To ensure impartiality, the QCs should

not be involved in the project implementation. The quality control should ideally be carried out by a separate organization that has successfully implemented RIPAT or RIPAT-like projects (for example, RECODA in Arusha, www.recodatz.org), or (less optimally) by a separate department within the IO which is neither involved in the implementation nor in close contact with the implementation staff.

The monitoring and quality control must be well planned and structured in order to capture the relevant information at the right time. Below, we provide some tools for both data collection processes. First, we describe the monitoring activities.

Systematic monitoring

In this section we provide an example of how the groups and the GFs/PM can monitor activities over the three-year project period, and can closely follow the status and progress of the group.

It is important to create ownership of the monitoring activities among the groups. In facilitating this activity, the GFs should stress that monitoring is certainly not just a task they have to do to please the IO or the donor, but that the information is for their own benefit – for the group to discuss and utilize in planning their activities. The group members must be involved in assessing the progress of the group, and should discuss any need for necessary remedial action based on the information gathered.

At the quarterly coordination meetings, the three group leaders are expected to provide a report on the group progress to all the other group leaders and to the village leaders, including information concerning group attendance rate, adoption of technologies among the individual group members, and progress on the group field(s) (see Step 11 in Chapter 5). This group report is prepared on the basis of the group's own monitoring activities, which are closely supervised by the GF.

Information on the group level

The group has a book in which the secretary records group data. The group secretary should keep track of the attendance rate and of group membership, including dropouts and newcomers. (Dropouts are members who have left the group for any reason, e.g. death, moving, personal reasons, or expelled for failure to contribute in accordance with the constitution.) At each group meeting, the attendance of each individual group member is registered in the book, and the attendance rate is calculated.

X: Number of members present at the group meeting today

Y: Number of active members in the group (members who are considered by the group to be members, as of today). This is not just the number of people present during today's group meeting, as some may be absent for important reasons.

Attendance rate at the meeting: $(X/Y * 100) = \text{_____}\%$

The average monthly and quarterly attendance rates are calculated from this data.

The progress at the group field(s), e.g. the number of banana stools planted and the number of bunches harvested, should be recorded in the same way as information from individual farms (see the examples of sheets for data collection).

Group facilitation quality

Monitoring and recording the quality of the group facilitation is an important task, but also a rather sensitive one. It should be done by the groups themselves. Naturally the GFs cannot be involved in recording the evaluations of their own work; the GFs must instruct the group leaders on *how* to register these data, but the data should not be available for the GFs to see. Apart from the group leaders, only the Programme Leader (PL) at the IO and the third-party QCs (see below) should have access to the book containing the information on the GF performance.

As explained earlier in this manual, RIPAT groups normally meet weekly, though during very busy periods they may meet twice per week. At the beginning of the project, the GFs are scheduled to visit the groups weekly, but later on in the project, as the group matures, the GF is not required so often. After each group meeting, the three group leaders note the following information in their book, or on separate sheets provided by the IO:

1. Was the GF scheduled to come today?
 - ☐ yes
 - ☐ no (if no – go to question 8)
2. Did he/she come?
 - ☐ yes – came on time
 - ☐ yes – but arrived late (if delayed by more than half an hour)
 - ☐ no, he/she did not come
3. If the GF was present:
Name of today's GF _____
4. Number of hours with group: _____hrs
5. Did he/she recap the last session?
 - ☐ yes
 - ☐ no
6. The presentation of today's subject was
 - ☐ very clear/understandable
 - ☐ fairly clear/understandable
 - ☐ not clear/understandable
7. Did he/she set an assignment and/or indicate the next topic to be covered or step to be taken?
 - ☐ yes
 - ☐ no
8. Was the local EO present at today's meeting?
 - ☐ yes
 - ☐ no

The group leaders should be prepared to show this information to the QCs and the PL at the IO, but not to the GFs/PM (see section B below).

Information on adoption

The monitoring of the adoption of the improved farming methods among the individual farmers is done periodically over the project period. The data are collected by the members of the sub-committees, working under close supervision by the GF (see Chapter 5, Box 5.6). A separate sheet should be used for each technology to capture the most essential information (Table 6.1). The examples below of data collection sheets are not blueprints which can fit into any RIPAT project; they are examples which must be adjusted to the individual RIPAT project.

Table 6.1 An example of when to collect adoption data from groups and individuals over the three-year project period

The information on the adoption of the specific technologies is recorded on specific, appropriately named sheets as shown in the plan, e.g. GB, B, CA, C, L1, L2.

Activity	Monitoring plan											
	Year 1				Year 2				Year 3			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Group field(s), e.g. banana, conservation agriculture, seed multiplication		GB		GB		GB		GB		GB		GB
<i>Individual farmers</i>												
Banana	B	B		B		B		B		B		B
Conservation agriculture	CA		CA		CA		CA		CA		CA	
Crops such as cassava, sweet potato, lablab, pigeon peas	C	C		C		C		C		C		C
Livestock (e.g. improved breed of goats L1)	L1		L1		L1		L1		L1		L1	
Poultry	L2		L2		L2		L2		L2		L2	

Examples of **[B]** and **[L1]** sheets are shown in Tables 6.2 and 6.3. Other sheets ([CA], [L2], [C]) are provided in Appendix 4E. The information on the sheets is collected at the group meeting by the sub-committee members for the particular technology, working under the close supervision of the GFs. The sub-committee members and the GFs also make visits to individual group members for general supervision and follow-up, and also to make spot checks on the self-reported data submitted by the group members concerned.

Table 6.2 Banana [B] monitoring sheet (adoption by individual group members)

Name of village Name of group Quarter.....							
	Name of group member	No. of improved variety banana suckers received from the project	No. of improved variety banana stools established on own farm	No. of holes prepared on own farm but not yet planted	No. of suckers given to others (non-RIPAT farmers)	No. of other farmers provided with suckers	No. of bunches harvested on own farm
1							
2							
3							
4							
5							
...							
35							
Total							

Table 6.3 Goats [L1] monitoring sheet (adoption by individual group members).

Name of village Name of group Quarter.....				
	Name of group member	Has the farmer constructed an improved type of goat shed? (Yes/No)	Has the farmer received female offspring of improved strain of goat from the solidarity chain? (Yes/No)	Is the farmer using the zero grazing production method? (Yes/No)
1				
2				
3				
4				
5				
...				
35				
Total				

Quality control

Below we provide a structure for including third-party quality control in a RIPAT project. The third-party quality control is carried out by experienced and independent QCs. Their role is somewhat like that of an auditor – making spot checks to ensure that the records reflect reality. The QC does not check all elements of the project, only the key issues regarded as crucial for evaluating whether the implementation is according to RIPAT standards. The sheets below are divided into:

1. Information collected from each of the 16 groups in the project
2. Information collected on the project level

The QCs visit the groups at fixed intervals to collect key information on project progress using the check-lists below.

Information on the group level

A large part of the information will be provided by the three group leaders, who keep the information on attendance, progress on group activities, and adoption of technologies by individual members in the group book and/or on simple data sheets (as explained above in the section on monitoring). The QC collects the summarized data from the groups, e.g. average attendances over the period and number of farmers adopting the various technologies in the 'basket of options'. However, the QC should also make a few spot checks at the farms of randomly-selected group members in order to verify the self-reported data on adoption. The QC should also interview the group leaders and the PM/GFs, and collect other information from the IO as necessary.

The QC checks the group book and extracts the information on the GFs' facilitation, then makes an overall judgment of their work as being adequate or not adequate. In the latter case, follow-up will be necessary.

For the GFs' facilitation to be characterized as 'adequate', the GFs should:

- always visit the groups as promised/scheduled
- not be late for more than one out of four group visits
- always make a recap of the last session indicate what will be covered next
- not have the facilitation evaluated as 'not clear/understandable' at any time

Information on the project level

This information is primarily obtained by the QCs from the PM, who keeps attendance records of group leaders, village leaders, EOs, and the DPC when they participate in the quarterly coordination meetings, as well as other information on the project level.

How to use the information

Ideally the answers should be 'yes' to all the 'yes/no' questions in the questionnaires below used in the seven quality checks over the three-year project period. If an answer is 'no', the QC collects information on why the particular activity or project status was

not up to the standard required or as expected, and notes down the explanations in his/her notebook.

After each quality control visit, the QC reports back to the IO. The questions that have 'no' answers recorded by the QC are highlighted, and possible corrective action is discussed with the IO. At the next monitoring visit, the OC should follow up on the corrective actions made by the IO.

If, for example, the average group attendance rate over the period has been below 70%, and the GFs' facilitation is evaluated as 'not adequate', then the QC should ask the group leaders about possible reasons and note it down. However, the QC should not provide any advice or give orders to either the group leaders or the GFs/PM. The QC's job is to provide a full, objective report together with a record of all observations to the PL at the IO, and to discuss appropriate action with the IO for following up on problems and on lessons learned.

The three-year project implementation period includes a recommended total of seven quality control visits, and the QC will record the information using a number of questionnaires.

The timeline for the seven scheduled quality checks over the three-year project period is as follows:

Before project launch, the QC must check that the project preparation has been of good quality and that the process has involved farmers, experts, and the local government authorities (LGAs). The project should be well described in the appropriate documents, and the collaboration with the district authorities – including how the EOs will be involved – should be defined in an MoU.

	Pre-		Year 1												Year 2												Year 3												Post-	
Month			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36		
	1st		2nd			3rd						4th						5th						6th						7th										

The way in which each of the seven quality checks should be carried out, and the information to be collected, is summarized in the forms below.

1st Quality Check: Before project launch (Project level only. Form to be completed on behalf of all 16 groups in the project.)			
When: Before the project is launched How: The QC interviews the PL/PM, scrutinizes documents such as meeting minutes, situation reports, PD, logical framework approach (LFA), DIP, MoU, etc.			
Project name QC's name:			
1.	District representative participated in the situation analysis (visited at least 50% of the assessed villages)	☐	yes ☐ no
2.	EOs participated in the situation analysis (visited at least 50% of the assessed villages)	☐	yes ☐ no
3.	PAP meeting conducted (to agree on BO)	☐	yes ☐ no
4.	PAP meeting involved experts, LGA, EOs (at least two of the three)	☐	yes ☐ no
5.	DPC appointed	☐	yes ☐ no
6.	MoU signed between District and IO on collaboration, incl. involvement of EO	☐	yes ☐ no
7.	PD, LFA, DIP available (should all be available)	☐	yes ☐ no
8.	The GFs appointed to the project are trained in the RIPAT approach and have passed the test	☐	yes ☐ no

2nd Quality Check	
Information collected from each group	
When: 2–3 months after project start	
QC's name:	Project name Group name Date
1. Group member statistics: Number of members enrolled in project at group formation: Number of men _____ Number of women _____ Total _____ 2. Active members Number of men _____ Number of women _____ Total _____ 3. Number of dropouts since project start _____ 4. Number of newcomers since project start _____ 5. Average attendance record over period % _____	
Specific issues 6. The VA involved all LGAs (district, ward, and village) ☐ yes ☐ no 7. Adequate selection criteria applied at VA as per the RIPAT manual ☐ yes ☐ no 8. Contract between group and IO on attendance rate, repayments, and solidarity chain in place ☐ yes ☐ no 9. The three temporary (3 months) leaders elected ☐ yes ☐ no 10. Secret ballot used as per the RIPAT manual ☐ yes ☐ no 11. Formulation of group constitution in progress ☐ yes ☐ no 12. Obligatory rules in the constitution as per the RIPAT manual have been communicated ☐ yes ☐ no 13. The group has acquired a group field or group fields ☐ yes ☐ no 14. The group fields are considered adequate for the BO ☐ yes ☐ no 15. A contract has been signed between land owner and group, and a copy has been lodged at the village government office ☐ yes ☐ no 16. The group has acquired a copy of the village by-laws ☐ yes ☐ no 17. The quality of the group facilitation over the reporting period has been ☐ adequate ☐ not adequate (follow-up needed) 18. Number of times the EO has visited the group over the reporting period _____ From the group monitoring sheets kept by the group secretary (e.g. [B] or [L1]), the QC collects the following information (as relevant for the BO and the timeline of the project). These data function as the baseline for recording technology adoption by individuals. 19. Technology 1: Number of farmers practising _____ 20. Technology 2: Number of farmers practising _____ 21. Technology 3: Number of farmers practising _____ 22. Technology 4: Number of farmers practising _____ 23.	

3rd Quality Check	
Information collected from each group	
When: 9–10 months after project start	
QC's name:	Project name Group name Date
1. Active members (as of today, see definition): Number of men _____ Number of women _____ Total _____ 2. Number of dropouts since last QC visit _____ 3. Number of newcomers since last QC visit _____ 4. Average attendance record over period % _____	
5. Group constitution completed ☐ yes ☐ no 6. Group has acquired a copy of the village by-laws ☐ yes ☐ no 7. Village by-laws have been discussed at group meetings ☐ yes ☐ no 8. The three 'permanent' leaders have been elected ☐ yes ☐ no 9. Secret ballot used as per the RIPAT manual ☐ yes ☐ no 10. The village authorities were present during the election process ☐ yes ☐ no 11. Chairman: temporary re-elected ☐ new person elected ☐ 12. Secretary: temporary re-elected ☐ new person elected ☐ 13. Treasurer: temporary re-elected ☐ new person elected ☐	
Group activities (as relevant to specific BO)	
14. Solidarity chain for animals has started (group has identified host farmers, animals provided to group) ☐ yes ☐ no 15. The group has established sub-committees related to the BO ☐ yes ☐ no 16. Number of sub-committees established in the group _____ 17. Input for individual farmers has been supplied as per individual request (e.g. seeds, planting materials, agro-inputs, cock birds) ☐ yes ☐ no 18. The input arrived at an appropriate time (allowing for timely planting/application, etc.) ☐ yes ☐ no 19. Farmers have paid the first part of the cost up front as per agreement ☐ yes ☐ no 20. Trials have been established at group demonstration farm(s) ☐ yes ☐ no	
21. The quality of the group facilitation over the reporting period has been ☐ adequate ☐ not adequate (follow-up needed) 22. Number of times the EO has visited the group over the reporting period _____	

From the group monitoring sheets kept by the group secretary (e.g. [B] or [L1] the QC collects the following information (as relevant for the BO and the time line of the project).

23. Technology 1: Number of farmers practising _____
 24. Technology 2: Number of farmers practising _____
 25. Technology 3: Number of farmers practising _____
 26. Technology 4: Number of farmers practising _____
 27.

Group plot

28. For the main technologies on the group plot, e.g. banana:

Number of banana stools _____

Number of bunches harvested _____

29.

II) Information collected on project level (for all 16 groups)

Quarterly project coordination meetings:

1. The quarterly coordination meetings have been held ☐ yes ☐ no
2. The average attendance rate of group leaders (%) _____
3. The average attendance rate of village leaders (%) _____
4. The average attendance rate of EOs _____
5. The average attendance rate of the DPC _____
6. Training of the group leaders in financial management was carried out at least once ☐ yes ☐ no

4th Quality Check	
Information collected from each group	
When: 15–16 months after project start	
QC's name:	Project name Group name Date
1. Active members (as of today, see definition): Number of men Number of women Total 2. Number of dropouts since last QC visit 3. Number of newcomers since last QC visit 4. Average attendance record over period %	
5. Technical SFs have been identified by the group members ☐ yes ☐ no 6. Number of SFs identified in the group	
7. The quality of the group facilitation over the reporting period has been ☐ adequate ☐ not adequate (follow-up needed) 8. Number of times the EO has visited the group over the reporting period	
From the group monitoring sheets kept by the group secretary (e.g. [B] or [L1]), the QC collects the following information (as relevant for the BO and the timeline of the project). 9. Technology 1: Number of farmers practising 10. Technology 2: Number of farmers practising 11. Technology 3: Number of farmers practising 12. Technology 4: Number of farmers practising 13. Group plot 14. (For the main technology on the group plot, e.g. banana): Number of banana stools Number of bunches harvested 15.	

II) Information collected on project level (for all 16 groups)

Quarterly project coordination meetings:

- | | | |
|---|------------------------------|-----------------------------|
| 1. The quarterly coordination meetings have been held | ☐ yes | ☐ no |
| 2. The average attendance rate of group leaders (%) | _____ | |
| 3. The average attendance rate of village leaders (%) | _____ | |
| 4. The average attendance rate of EOs | _____ | |
| 5. The average attendance rate of the DPC | _____ | |
| 6. Training the group leaders in financial management carried out | ☐ yes | ☐ no |

Other issues on project level

- | | | |
|---|------------------------------|-----------------------------|
| 7. The technical SFs have received additional training
(normally 3–4 days' specific training for all SFs in the project) | ☐ yes | ☐ no |
| 8. The EOs have been trained (together with the technical SFs) | ☐ yes | ☐ no |
| 9. First Field Day has taken place | ☐ yes | ☐ no |

5th Quality Check	
Information collected from each group	
When: 21–22 months after project start	
QC's name:	Project name Group name Date
1. Active members (as of today, see definition): Number of men _____ Number of women _____ Total _____ 2. Number of dropouts since last QC visit _____ 3. Number of newcomers since last QC visit _____ 4. Average attendance record over period % _____	
5. Has the group made any changes to the group constitution? ☐ yes ☐ no 6. Election procedure for group leaders carried out ☐ yes ☐ no 7. Secret ballot used as per the RIPAT manual ☐ yes ☐ no 8. The village authorities were present during election process ☐ yes ☐ no 9. Chairman: re-elected ☐ new person elected ☐ 10. Secretary: re-elected ☐ new person elected ☐ 11. Treasurer: re-elected ☐ new person elected ☐	
12. The quality of the group facilitation over the reporting period has been ☐ adequate ☐ not adequate (follow-up needed) 13. Number of times the EO has visited the group over the reporting period ____	
From the group monitoring sheets kept by the group secretary (e.g. [B] or [L1]), the QC collects the following information (as relevant for the BO and the timeline of the project). 14. Technology 1: Number of farmers practising ____ 15. Technology 2: Number of farmers practising ____ 16. Technology 3: Number of farmers practising ____ 17. Technology 4: Number of farmers practising ____ 18. Group plot 19. For main technologies on group plot, e.g. banana: Number of banana stools ____ Number of bunches harvested ____ 20.	

II) Information collected on project level (for all 16 groups)

Quarterly project coordination meetings:

1. The quarterly coordination meetings have been held ☐ yes ☐ no
2. The average attendance rate of group leaders (%) _____
3. The average attendance rate of village leaders (%) _____
4. The average attendance rate of EOs _____
5. The average attendance rate of the DPC _____
6. Training the group leaders in financial management carried out ☐ yes ☐ no

II) Information collected on project level (for all 16 groups)

Quarterly project coordination meetings:

- | | | |
|---|------------------------------|-----------------------------|
| 1. The quarterly coordination meetings have been held | ☐ yes | ☐ no |
| 2. The average attendance rate of group leaders (%) | _____ | |
| 3. The average attendance rate of village leaders (%) | _____ | |
| 4. The average attendance rate of EOs | _____ | |
| 5. The average attendance rate of the DPC | _____ | |
| 6. Training the group leaders in financial management carried out | ☐ yes | ☐ no |

Other issues at project level

- | | | |
|---|------------------------------|-----------------------------|
| 7. Date for graduation has been announced to the groups | ☐ yes | ☐ no |
| 8. The spreading SFs have received additional training (normally 1 week of specific training) | ☐ yes | ☐ no |
| 9. Were the EOs trained together with the spreading SFs? | ☐ yes | ☐ no |
| 10. Spreading villages have been identified for scaling up by SFs and EOs | ☐ yes | ☐ no |

7th Quality Check (final)	
Information collected from each group	
When: 1–2 months after project completion	
QC's name:	Project name Group name Date
1. Did the group decide to continue working together as a group ☐ yes ☐ no If yes > proceed with 2. If no > go to 6. Group continues 2. Active members (as of today, see definition): Number of men _____ Number of women _____ Total _____ 3. Average attendance record over period % _____ 4. Number of group members who left the group upon graduation _____ 5. Did the leaving group members receive their share of the group wealth as per the RIPAT manual (group constitution)? ☐ yes ☐ no	
Group has stopped 6. Was the group dissolution decided with a 2/3 majority or more? ☐ yes ☐ no 7. Statement of accounts drawn up ☐ yes ☐ no 8. Has the cash realized been distributed among group members as per the RIPAT manual/group constitution? ☐ yes ☐ no	
From the group monitoring sheets kept by the group secretary (e.g. [B] or [L1]), the QC collects the following information (as relevant for the BO and the time line of the project). 9. Technology 1: Number of farmers practising _____ 10. Technology 2: Number of farmers practising _____ 11. Technology 3: Number of farmers practising _____ 12. Technology 4: Number of farmers practising _____ 13. Group plot 14. For main technologies on group plot, e.g. banana: Number of banana stools _____ Number of bunches harvested _____ 15.	
Information collected on project level (for all 16 groups) Quarterly project coordination meetings: Has the group taken any steps towards formalizing an inter-group organization? ☐ yes ☐ no	

Appendices

APPENDIX 1

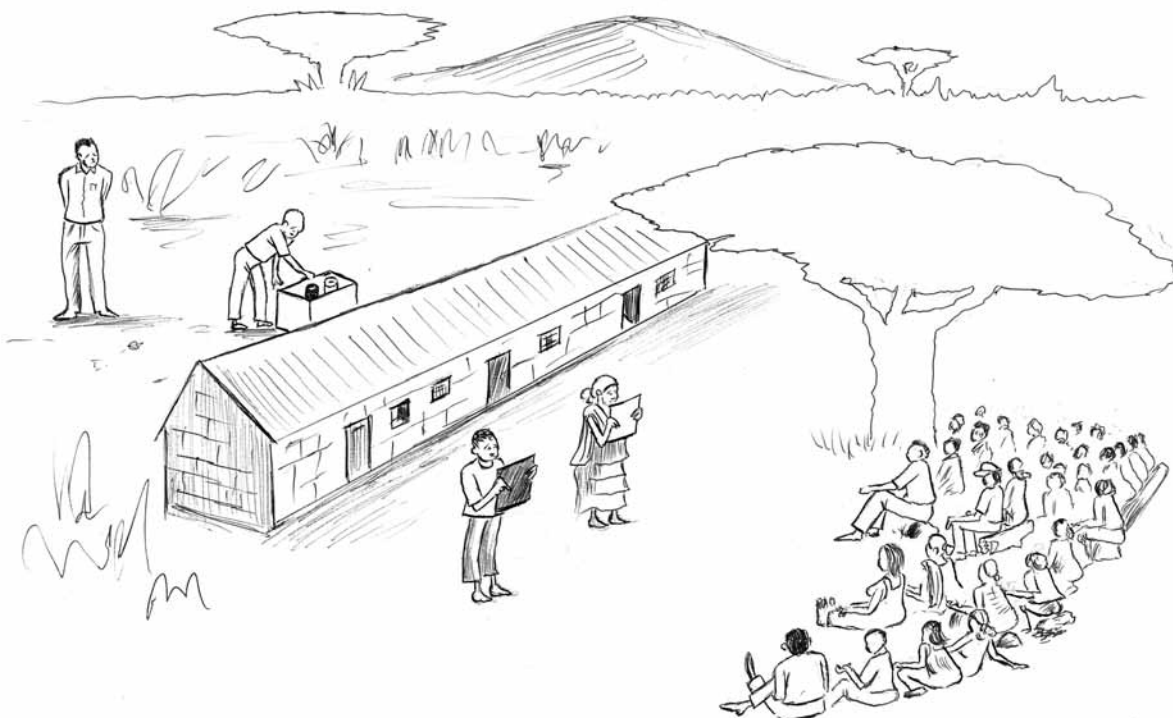
Election procedure

The GF prepares the members for the election and explains the procedure. For elections with two candidates, he/she brings a cardboard box, washers, and two tins (e.g. empty paint tins) to the group meeting. (For elections with more candidates, see below.) One tin is painted white and one is painted black. The tins must have a lid with a slit large enough to allow the washers to pass through (like a moneybox). The GF also brings two matching cards, one black and one white. At the meeting, each member is provided with one small washer.

The two candidates are each given one of the cards. The matching tins are placed in the cardboard box behind a screen (or inside a building) some distance from the gathering, and sheltered from the view of members and passers-by. Each person goes in turn behind the screen (or into the building) and, hidden from the other members but under the eye of the GF, deposits the washer in the tin of his/her choice. The tins are placed in the bottom of the cardboard box, so that no one – not even the GF – can detect which tin the washer is deposited in.

When all of the members have voted, the GF counts out the votes in front of the members by removing the washers from each tin. He/she ensures that no additional washers have been put into the tins – the total should equal the number of members voting. The candidate with the most votes is the winner. The procedure is repeated for each of the three posts.

At the end of the elections, the GF announces the names of the three elected leaders and that they are elected for one year from that time. A year later, the same election



procedures will be applied. The leaders may be re-elected, or they may be replaced by others using the same democratic election procedure.

This example is based on an election with two candidates for each position. If there are three candidates, then the GF should include an additional tin and an additional card of a different colour.

Note: This appendix is adapted from the VSLA manual.

VSLA (no date) *Village savings and loan associations (VSLAs). Field officer training guide*, Version 1.03, Solingen: VSL Associates. Available from Hugh Allen: hugh@vsla.net

APPENDIX 2

Template for drawing up a group constitution

Some of the articles are mandatory for a RIPAT project; these appear in italics.

§	Item	Issues to be discussed and included
1.	Name of group	
2.	Contacts	
3.	Meaning of the name	
4.	Catchphrase of the group	
5.	Area of operation for group activities	
6.	Group patron	
7.	Overall goal	<i>The objective of the RIPAT group is to secure improved livelihoods and greater self-support for its members and, when such results have been achieved, also to assist other people in the area outside the group with input and advice to help them make similar improvements.</i>
	Specific objective(s)	Specific objective(s): _____ _____ _____ _____
8.	Membership	<i>In RIPAT, all participating farmers are responsible for training three other non-RIPAT farmers in the community in what they have learned and adopted themselves. If, for example, banana is adopted as a crop by a farmer, the farmer must also pass on three times the number of banana suckers to other non-RIPAT farmers; and for livestock such as goat and pigs, the farmer must pass on the first female offspring to other farmers in the group as specified in the solidarity chain agreement with the IO.</i>
8.1.	Obligations of group members	Other obligations: _____ _____ _____ _____

§	Item	Issues to be discussed and included
8.2.	Procedures for terminating membership and receiving new members into the group within project period	a) Members joining: _____ _____ _____ _____ b) Expelling a member: _____ _____ _____ c) <i>Members leaving</i> <i>Should an individual group member decide to leave the group within the project period, that person will not receive any of the accumulated group wealth and assets. The member must clear his/her account and pay any outstanding amounts for the inputs received (seeds, tools, animals, etc.) to the IO.</i>
8.3.	Termination of the group within the project period	<i>Should the group be dissolved by the IO, or by own decision within the project period, all tools and equipment received free of charge must be returned to the IO. Individual members should clear their accounts in accordance with paragraph 8.2.c.</i>
8.4.	Sharing of group profits within the project period	<i>During the project implementation period, no dividends from group earnings can be paid out to members.</i>
9.	Leadership elections	<i>Elections of leaders must be democratic, and voting must be by secret ballot (see Appendix 1 for the voting procedure). At the start of the project, temporary leaders are elected for a period of three months. After three months, new leaders are elected. Any of the temporary leaders may be re-elected if the group members deem them worthy, but using the full democratic procedures laid down in Appendix 1. New elections should be held every 12 months. The group should decide for how many terms an individual should be allowed to continue in a leadership post.</i>
9.1.	Roles of leaders	The responsibilities of the group chairperson include: • To call the meetings to order • To announce the agenda and lead discussions • To ensure that the meetings follow proper procedures and that the constitution is followed and respected • To maintain discipline and levy fines as needed • To facilitate discussions and to ensure that everyone's views are listened to • To resolve conflicts • To represent the group to outsiders and non-members, including local government officials

§ Item	Issues to be discussed and included
9.1. <i>continued</i>	• To act as steward for the group's resources. The responsibilities of the group secretary include: • To arrange the time and place for meetings and give notice of them • To take the minutes of meetings • To read out the minutes of the previous meeting • To keep all group records • To write letters and reports on behalf of the group • To assist and support the chairperson in keeping order at meetings • To work together with the chairperson in ensuring that the group constitution is followed The responsibilities of the group treasurer include: • To keep all the financial records of the group • To keep records of individual financial transactions • To keep records of group assets • To prepare financial reports • To maintain the group bank account • To read the financial report to the group when necessary • To advise the group on the best ways to use their funds
9.2. Group sub-committees	Group sub-committees: The group will establish sub-committees according to the agricultural technologies adopted by the group members. Each sub-committee elects a leader, who reports to the group chairperson. The role of the sub-committee members is to follow up on technologies, the sales of produce, and the fulfilment of commitments to make payments for inputs, including payments made through the solidarity chain. Sub-committees: _____

§ Item	Issues to be discussed and included
10. Main activities of the group and meeting schedule	Main activities: _____ _____ _____ Place, time and weekday for meetings: _____ _____ _____ _____
11. Disciplinary sanctions against group members	Penalties/fines: _____ _____ _____
12. Amendments to the constitution	<i>The constitution can be amended at any time if two-thirds of the members agree. The paragraphs in italics can be changed by two-thirds majority vote after the end of the project and after payment has been made to members leaving in accordance with paragraph 16.</i>
13. Group accounts: income and expenditure	<i>At the project start, the group will set up a group account for the group funds. The group account is managed by the elected chairman, secretary, and treasurer. They are responsible for filling out the cash book and for drawing up a monthly balance sheet. Group income and expenses should be clearly recorded in the accounts. The accounts are reported monthly to the group and quarterly to the IO for monitoring.</i> <i>Group income comes from the sale of products, fines, and membership fees in the event that the group has decided to charge for membership.</i> <i>During the project period, group funds can be put into a bank or a local SACCO approved by the IO, or used for expanding group activities. After two years, the group can invest in real estate if two-thirds of the members and the IO agree. The IO's agreement will depend on the group having</i> <i>• a good attendance record</i> <i>• good leadership, and a record of having followed their constitution</i> <i>• regular income and good record-keeping</i>
14. Termination of the group, or individuals leaving the group, upon project completion	<i>At the end of a RIPAT project period, a statement of accounts must be prepared. On the date of project completion, all outstanding accounts and debts should be cleared. The group can either be liquidated as described in paragraph 15 or it can continue as a cooperative after those who want to leave have received payment of their share of the funds in accordance with paragraph 16.</i>

§ Item	Issues to be discussed and included
15. Liquidation of the group assets and liabilities	<i>Liquidation of the group assets will take place upon project completion (normally after three years) if more than two-thirds of the members vote for this.</i> <i>If the IO has provided tools/equipment free of charge to the group during the project period (e.g. rippers, sprayers, diggers, and small tools) these must be returned to the IO. No payment will be made by the IO for returned tools.</i> <i>The group assets will be disposed of and the money realized distributed among the group members. Group assets are the following:</i> <i>a) The cash in the group account</i> <i>b) Any group fields established on rented land (normally a five-year contract). The field will if possible be rented out for the remaining time, e.g. two-year contract period, to whoever will pay the highest price.</i> <i>c) Any land owned by the group. Such land must be sold at the highest price obtainable.</i> <i>d) Other assets</i> <i>The cash realized from items a–d will be divided evenly among the group members, e.g. 1/30 share per member if there are 30 group members, at the time of project completion.</i>
16. Payment of members leaving the group if the group decides to continue as a cooperative after the end of the project	<i>Individual group members may wish to leave the group on graduation and continue to implement what they have learned on their own farms, or in other groups. A group member who leaves will get two-thirds of his/her share of the accumulated wealth of the group. The group's wealth is calculated as a total of the following:</i> <i>a) The cash in the group account (according to the account statement)</i> <i>b) The estimated net value of the group field(s), whether rented or owned by the group; in the case of a rented field, the value is in the remaining years of the lease. The value will be assessed by the group themselves. If the group cannot agree unanimously on a value and if a group member demands it, the IO will arrange for an assessment of the value by an independent third-party expert. The cost of this valuation will be covered by the group.</i> <i>c) The value of other assets as estimated by the group. If unanimous agreement is not reached, the procedure above must be used.</i> <i>d) All group debt must be cleared.</i>

§ Item	Issues to be discussed and included
16. <i>continued</i>	Example: In a group of 30 members, 5 members wish to leave after graduation, whereas the remaining 25 want to continue as a cooperative. The payments to the members leaving are calculated as follows. Cash in the group account (according to the account statement): TZS 500,000 Income from the group field (sale/renting out for the remainder of the lease): TZS 1,000,000 Other assets: TZS 500,000 <i>Total group wealth:</i> TZS 2,000,000 Two-thirds of the accumulated wealth will form the basis for calculating the shares. Each leaving group member will thus receive: $2,000,000 \times \frac{2}{3} \times \frac{1}{30} = \text{TZS } 44,444$ Hence, the group will have to pay out $5 \times 44,444 = \text{TZS } 222,222$. This is to be paid no later than 60 days after written requests have been given to the chairman by the group members leaving. (If less than two-thirds of the members had wanted to continue as a cooperative, the group assets would have been liquidated, and all 30 members would in this theoretical case have received $2,000,000 / 30 = \text{TZS } 66,666$.)
17. New members joining the cooperative after the end of the RIPAT project	Fees/conditions: _____ _____ _____ _____ _____ _____ _____

APPENDIX 3

Technical manuals and resources

A RIPAT project should include a 'basket of options' giving farmers a choice as to which agricultural technologies to adopt. The village savings and loan concept has also been a part of the RIPAT projects implemented to date. The present manual is not a stand-alone resource book. The implementing organization should combine this RIPAT manual with detailed technical manuals for the specific agricultural technologies and activities to be included in a specific RIPAT project. A wealth of good resources (manuals, guides, technical papers) is available from various organizations and a lot of material can be downloaded from the internet free of charge. Below is a list of some of the resources which might be useful. These relate to the technologies in the typical 'basket of options' applied in the RIPAT projects to date.

Available from:

Ministry of Agriculture Food Security and Cooperatives, Dar es Salaam, Tanzania

Kanyeka, E., Kamala, R., Kasuga, R. (2007) *Improved agricultural technologies recommended in Tanzania*. Dar es Salaam: Department of Research and Training, Ministry of Agriculture Food Security and Cooperatives

Available from:

Village Savings and Loan Associates

The *VSL programme guide for field officers* and the *VSL programme guide for village agents* are available for free download at <http://vsla.net/home>

Available from:

Sustainet E.A.

Some simplified technical manuals are available for free download at www.sustainetea.org/sustainet_programme_03_knowledge_information.html

For example

- *Dairy goat improvements*
- *Soil and water conservation*
- *Conservation agriculture*
- *Integrated agriculture system*

Available from:

FAO (Food and Agriculture Organization of the United Nations)

Better Farming Series

For example:

- *Sheep and goat breeding* – Better Farming Series 12
http://www.cd3wd.com/cd3wd_40/lstock/001/goats/sh-goatbreedingfao/fb12se/index.htm
- *Keeping chickens* – Better Farming Series 13
http://www.cd3wd.com/cd3wd_40/lstock/001/chickens/keepchickensfao/fb13ke/index.htm
- *Roots and tubers* – Better Farming Series 16
http://www.cd3wd.com/cd3wd_40/cd3wd/agric/fb16re/en/b81.htm
- *Bananas* – Better Farming Series 18
http://www.cd3wd.com/cd3wd_40/cd3wd/agric/fb18be/en/b83.htm
- *Processing of cassava and sweet potatoes for animal feeding* – Better Farming Series 44
http://www.cd3wd.com/cd3wd_40/lstock/001/lfeed/fb44pe/index.htm
- *Use of cassava and sweet potatoes in animal feeding* – Better Farming Series 46
http://www.cd3wd.com/cd3wd_40/lstock/001/lfeed/fb46ue/index.htm

Other resources from FAO include, for example,

- *Conservation agriculture. A manual for farmers and extension workers in Africa.*
<http://www.fao.org/ag/ca/AfricaTrainingManual.html>
- *A study guide for farmer field schools and community-based study groups. Soil and water conservation with a focus on water harvesting and soil moisture retention. Parts 1 and 2* http://www.fao.org/fileadmin/templates/nr/images/resources/pdf_documents/FARMESA_SWC1.pdf
- http://www.fao.org/fileadmin/templates/nr/images/resources/pdf_documents/FARMESA_SWC2.pdf

Available from:

The Conservation Farming Unit in Zambia <http://conservationagriculture.org>

Some examples:

- *A guide for farmers: Conversion from ox ploughing to min-till ripping using the Magoye Ripper.* <http://conservationagriculture.org/uploads/pdf/ADP%20MIN-TILL%20RIPPING%20FARMERS%20GUIDE.pdf>
- *The practice of conventional and conservation Agriculture in East and Southern Africa.* <http://conservationagriculture.org/uploads/pdf/CONVENTIONAL%20%20CA%20FARMING%20SYSTEMS%20IN%20ESA.pdf>
- *Hoe CF – Land preparation and basal dressing.* <http://conservationagriculture.org/uploads/pdf/CF%20Hoe%20Land%20Preperation%20%20Basals%202012.pdf>

Available from:

Agromesia – Knowledge sharing for sustainable agricultural development

Agrodok – Popular series of 44 books on small-scale sustainable agriculture

<http://www.agromisa.org/>

For example

- *Cultivation of soya and other legumes*
- *Goat keeping in the tropics*
- *Pig keeping in the tropics*
- *Protection of stored grains and pulses*
- *Small-scale chicken production*
- *Soil fertility management*
- *Water harvesting and soil moisture retention*

Available from:

IPM info

Manuals on group dynamics for Farmer Field Schools

Free to download from their website <http://ipm-info.org/group-dynamics/exercises.htm>

APPENDIX 4

Templates

APPENDIX 4A:

CONTRACT FORM FOR RENTING A GROUP FIELD



[IO logo]

CONTRACT FORM FOR RENTING A GROUP FIELD

Date.....

Village.....

Ward.....

District.....

Name of the group.....

We, the three leaders of the above-mentioned RIPAT group, on behalf of our fellow group members, hereby rent a field fromon the conditions below:

The field will be used for RIPAT activities. The field size isacres. It is located invillage and.....sub-village. This contract is foryears (at least five years if the field is to be used for banana). The rent will be TZS..... per year. This contract may be renewed by agreement with the owner of the field. The field shall be used for agricultural activities only (demonstration, seed multiplication, crop production, etc.). The group will be responsible for the security and management of the field for the entire contract period. The owner of the field is not permitted to use the field for any purpose until the contract period ends and the field is given back to him/her. After the contract ends, any plantation on the field will become the property of the owner of the field. Within the project period, the lease of the field (with the standing crop) can be transferred to a third party for continued agricultural activities.

This contract is signed by:

1. Owner of the field

Name..... Signature..... Date.....

2. Group chairperson

Name..... Signature..... Date.....

3. Group secretary

Name..... Signature..... Date.....

4. Group treasurer

Name..... Signature..... Date.....

5. Witness

Name..... Signature..... Date.....

6. Village chairperson and/or village executive officer

Name..... Signature..... Date.....

7. Implementing organization

Name..... Signature..... Date.....

APPENDIX 4B: CONTRACT FORM REGARDING SOLIDARITY CHAIN FOR ANIMALS

This contract applies to each group member who receives an animal from the initial stock of the improved breed. For group members receiving offspring of the initial stock, the group will prepare a simple contract between the group member and the group leaders.



[IO logo]

CONTRACT FORM REGARDING SOLIDARITY CHAIN FOR ANIMALS BETWEEN THE IMPLEMENTING ORGANIZATION AND THE GROUP LEADERS

Date.....

Village.....

Ward.....

District.....

Name of the group.....

We, the three leaders of the above-mentioned RIPAT group, declare that we have received, on behalf of our fellow group members, two males and five females of (type) free of charge from.....(IO)

The two males and five females are supplied to the group as initial breeding stock. Offspring will be re-distributed among group members using a 'solidarity chain'. Only after having distributedfemale offspring to fellow group members will the female animal initially received become the property of the group member receiving it.

The following rules will apply:

1. Before receiving a female animal (whether initial breeding stock or offspring), the group member must have constructed housing for the animals according to project standards.

2. The first female offspring must be given to fellow group members as designated by the group to be next in the solidarity chain. The original female animal received will remain the property of the group until the obligation has been fulfilled.
3. Members of the solidarity chain are required to report to the group on request on the condition of the animal(s) they have received and the status of the breeding programme. They are responsible for looking after the animal(s) at their own expense, including providing veterinary treatment. If an animal is lost or dies and the cause is established to be carelessness on the part of the solidarity chain member concerned, that person is required to replace the animal at his or her own expense, or pay the value of the animal to the group.

The following seven group members have been selected by the group to receive the initial stock of animals of the improved breed.

Group members receiving females

Name.....	Signature.....	Date.....
Name.....	Signature.....	Date.....
Name.....	Signature.....	Date.....
Name.....	Signature.....	Date.....
Name.....	Signature.....	Date.....

Group members receiving males:

Name.....	Signature.....	Date.....
Name.....	Signature.....	Date.....

Group leaders:

Group chairperson

Name.....	Signature.....	Date.....
-----------	----------------	-----------

Group secretary

Name.....	Signature.....	Date.....
-----------	----------------	-----------

Group treasurer

Name.....	Signature.....	Date.....
-----------	----------------	-----------

Village chairperson and/or village executive officer:

Name.....	Signature.....	Date.....
-----------	----------------	-----------

Implementing organization

Name.....	Signature.....	Date.....
-----------	----------------	-----------

APPENDIX 4C: CONTRACT FORM FOR TOOLS/EQUIPMENT



[IO logo]

CONTRACT FORM FOR TOOLS/EQUIPMENT BETWEEN THE IMPLEMENTING ORGANIZATION AND THE GROUP LEADERS

Date.....

Village.....

Ward.....

District.....

Name of the group.....

We, the three leaders of the above-mentioned RIPAT group, declare that we have received on behalf of our fellow group members the following tools/ equipment:
.....
.....free of charge from(IO).

The following rules will apply:

1. The group will be responsible for caring for the equipment and carrying out routine maintenance, and will select one or more people to look after the equipment.
2. The group leaders will ensure that the equipment will be made available equally to all group members.
3. If the group is dissolved before the end of the planned 3-year project period, the equipment must be returned to the Implementing Organization (IO). No payment will be made by the IO for returned equipment.
4. After 3 years, when the project ends and if the group continues as a cooperative, the equipment will remain available for use by the group and its members.
5. After 3 years, when the project ends and if the group decides to stop after graduation, the tools/equipment should be returned to the Implementing Organization (IO). No payment will be made by the IO for returned equipment.

This contract is signed by:

1. Group chairperson

Name..... Signature..... Date.....

2. Group secretary

Name..... Signature..... Date.....

3. Group treasurer

Name..... Signature..... Date.....

4. Village chairperson and/or village executive officer

Name..... Signature..... Date.....

5. Implementing organization

Name..... Signature..... Date.....

APPENDIX 4D: TEMPLATE FOR A MEMORANDUM OF UNDERSTANDING



[IO logo]

[District logo]

MEMORANDUM OF UNDERSTANDING (MoU)

between

_____ [insert name of IO]

and

_____ [insert name of District]

This MoU defines the general terms on which the signatory agencies or organizations will cooperate and, as such, does not constitute any financial obligation that will serve as a basis for expenditures.

1. PURPOSE & SCOPE

The purpose of this MoU is to clearly identify the roles and responsibilities of each party as they relate to the implementation of the RIPAT project.

RIPAT is an economic development intervention that aims to close the agricultural technology gap as a means of improving livelihoods and self-support among impoverished small-scale farmers in Tanzania.

For the farm families who participate directly in a RIPAT project, the objective is to improve the small-scale farming systems and hence to increase food security in the household and alleviate poverty – first for a limited number of farmers – but later through facilitated spreading to the wider community.

The present RIPAT project will target the following villages:

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____
- ...
- x. _____

Two groups of farmers will be established in each village, each group being made up of 30–35 farmers.

A situation analysis has been completed in close collaboration with the District authorities, and this culminated in the development of the RIPAT project which is now ready to be launched. A Project Action Plan for the specific area/villages has been developed with the participation of district representatives, and this includes a well-designed 'basket' of improved agricultural technology options which will be made available to the planned RIPAT groups over the project period.

The Implementing Organization (IO) expects that at the end of the project the district representatives – particularly the agricultural Extension Officers (EOs) – will take over responsibility for supervising the established groups and for continued spreading and scaling up so as to benefit the wider community.

2. RESPONSIBILITIES

A. The IO will:

1. in close collaboration with the local government authorities, i) carefully sensitize the communities to the potential for change and mobilize farmers to take charge of their own development, and ii) select farmers and establish farmer groups (two per village)
2. build good group leadership and build up the capacity of the group to enable the transfer of appropriate agricultural technologies through participatory demonstrations using experimental and reflective learning techniques
3. provide the required agro-inputs, tools/equipment, and group facilitation to the targeted farmers in accordance with the project proposal

4. integrate the RIPAT spreading component in the project by selecting and building up the capacity of super-farmers (SFs) and building up the capacity of government EOs
5. provide reports to the District on a quarterly basis and coordinate with the District Project Coordinator (DPC) for the RIPAT throughout the implementation.

B. The District Authorities will:

1. support the implementation of the project by identifying a RIPAT DPC who will be the point of communication at the district level. He/she should be available to participate in the quarterly project coordination meetings and to provide support and guidance
2. if necessary, assist in the enforcement of village by-laws that will support the sustainability of interventions
3. ensure that the RIPAT DPC and the government EOs participate in the ward and village meetings during the sensitization/mobilization process, including the Village Assembly in each village at which the group formation procedure is carried out
4. ensure that the EOs participate as much as possible in the weekly meetings of the RIPAT farmer groups, make follow-up visits to the groups when needed, and assist the SFs in their task of spreading technologies to non-RIPAT households in the targeted communities
5. ensure that the EOs and the RIPAT DPC participate in the quarterly coordination meetings involving allgroups
6. ensure that the EOs participate in the scaling up component, i.e. that they are trained together with project SFs in how to spread the improved technologies to additional villages.

3. PERIOD AND TERMINATION OF THIS AGREEMENT

A. The project period for this agreement is dd.mm.yyyy to dd.mm.yyyy

B. This agreement may be terminated by either party by written notice to the other party at least 30 days in advance of the effective date of the termination.

DATE AND SIGNATURES

On behalf of the Implementing
Organization

On behalf of the District Authorities

Name
Title

Name
Title

APPENDIX 4E: EXTRA MONITORING SHEETS FOR ADOPTION DATA IN GROUPS

Monitoring sheet (adoption by individual group members)

Example: Conservation agriculture [CA] (improved maize cultivation)

Name of village Name of group Quarter.....							
	Name of group member	Has prepared field using chaka hoes (Yes/No)	Has prepared field using ripper (Yes/No)	Uses cover crop for soil protection (Yes/No)	Leaves crop residues in field for soil protection (Yes/No)	Uses mixed or intercropping with legumes (Yes/No)	Uses crop rotation with legumes (Yes/No)
1							
2							
3							
4							
5							
...							
35							
Total							

Monitoring sheet (adoption by individual group members)**Example: Poultry [L2]**

Name of village Name of group Quarter.....					
	Name of group member	No. of improved cock birds received from the project	Has the farmer constructed a poultry house of improved design? (Yes/No)	Does the farmer use vaccination? (Yes/No)	Does the farmer use improved feed? (Yes/No)
1					
2					
3					
4					
5					
...					
35					
Total					

Monitoring sheet (adoption by individual group members)**Example: Crops [C]**

Name of village Name of group Quarter.....						
	Name of group member	Is the farmer cultivating improved varieties of cassava? (Yes/No)	Cultivating improved varieties of sweet potato? (Yes/No)	Cultivating improved varieties of lablab? (Yes/No)	Cultivating improved varieties of pigeon pea? (Yes/No)	Cultivating improved varieties of maize? (Yes/No)
1						
2						
3						
4						
5						
...						
35						
Total						

APPENDIX 5

Acronyms and abbreviations

BO	basket of options
CA	conservation agriculture
DALDO	District Agricultural and Livestock Development Officer
DCMT	District Council Management Team
DED	District Executive Director
DIP	detailed implementation plan
DPC	District Project Coordinator
ED	Executive Director at the IO
EO	extension officer (agriculture)
FAO	Food and Agriculture Organization of the United Nations
FFS	Farmer Field School
GF	group facilitator
IO	implementing organization
LFA	logical framework approach
LGA	local government authority
MoU	memorandum of understanding
NGO	non-governmental organization
PAP	project action plan
PD	project document
PL	Programme Leader at the IO
PM	Project Manager at the IO
PRA	Participatory Rural Appraisal
QC	quality controller
RA	RECODA Academy
RAA	regional agricultural adviser
RAS	regional administrative secretary
RECODA	Research, Community and Organizational Development Associates
RIPAT	Rural Initiatives for Participatory Agricultural Transformation
SACCO	Savings and Credit Cooperative
SF	super-farmer
T&V	Training & Visiting
VA	Village Assembly
VSLA	village savings and loan association
WDC	Ward Development Committee

APPENDIX 6

Glossary

KEY CONCEPTS AND AGRICULTURAL TERMS IN RIPAT

Concepts

Capacity-building The process through which individuals, organizations and societies obtain, strengthen, and maintain their abilities to set and achieve their own development objectives over time.

Dryland farming Farming on non-irrigated land. Success is based on rainfall, moisture-conserving tillage, and drought-resistant crops.

Empowerment A gradual process through which people gain in self-confidence and feel more able to choose their own priorities and way forward.

Extension In this manual, extension is understood as a government service designed to 'extend' research-based knowledge and relevant technologies to the rural sector in order to improve the lives of farmers.

Facilitation Helping a group of people to achieve their aims through discussion, encouragement and support with planning and action.

Group dynamics The interactions that influence the attitudes and behaviour of people when they are grouped with others. Group dynamics concerns how groups form, their structure, their procedures, and how they function. It is often helpful for improving group dynamics to introduce games and exercises into group discussion.

Logical framework approach (LFA) A management tool used to improve the design of interventions, most often at the project level. It involves identifying strategic elements (inputs, outputs, outcomes, and impact) and their causal relationships, indicators, and the assumptions or risks that may influence success and failure. It thus facilitates planning, execution, and evaluation of a development intervention.

Mobilization Actions intended to encourage people to come together so as to support a certain idea aimed at achieving a certain goal. It is also defined as an exciting process of encouraging and supporting communities to analyse their own situations and to take steps to work together to make changes for the better.

Monitoring Periodic checking of progress to find out whether the standards and targets laid down in the plan are being achieved in practice. The information is used for the purpose of management and decision-making.

Objective tree A diagrammatic representation of the situation in the future once problems have been remedied, following a problem analysis, and showing a means-to-ends relationship.

Ownership When local people take control of and accept responsibility for issues that affect their own development.

Participatory rural appraisal (PRA) An approach which aims to incorporate the knowledge and opinions of rural people in the planning and management of development projects and programmes.

Problem analysis A structured investigation of the negative aspects of a situation in order to establish causes and their effects.

Problem tree A diagrammatic representation of a negative situation, showing a cause–effect relationship.

Sensitization An attempt to make oneself or others aware of and responsive to certain ideas, events, situations, or phenomena; creating an awareness of the present situation in order to encourage positive change in the future and readiness to act.

Solidarity chains In RIPAT, two types of solidarity chain are used. 1) Animal (goats, sheep and pigs). Each group is supplied with purebred female and male animals as initial improved breeding stock. Members pass on the first female offspring to others in the group in accordance with a list worked out by the group. Only after having passed on the female offspring to the next person on the list will the first female animal become the property of the group member receiving it. 2) Banana. Each farmer who adopts the improved banana technology is expected to give three times the number of banana suckers received through the project to other interested farmers in the community and to train them in improved cultivation techniques.

Super-farmer Super-farmers (SFs) are individuals who, during the implementation period, have been identified as people who have developed as social entrepreneurs and agents for change. They are successful farmers from within the group who have grasped the knowledge provided through RIPAT training and have successfully implemented at least one RIPAT-facilitated technology.

Sustainability The continuation of benefits from a development intervention after primary development assistance has been concluded; the probability of continued long-term benefits.

Target group The specific individuals or organizations for whose benefit the development intervention is undertaken.

Technology gap The gap between the farm production that is achieved with the agricultural technologies currently being used by farmers and the production that could be achieved. The farmers need access to better, currently-available technologies and to acquire the capacity to adjust them to local conditions. The gap is caused both by lack of knowledge of techniques and training in their use, and by lack of access to equipment and agricultural inputs for implementing better technologies.

Agricultural terms

Agro-pastoralism Dependence by households on a mix of agriculture and livestock herding for their livelihood.

Annual crop A crop that grows for only one season (or year) before dying, in contrast to a perennial crop, which grows for more than one season.

Banana (improved varieties in RIPAT) The improved banana varieties Grand Nain, Paaz, Chines, Williams, and Lakatan were tested and demonstrated for RIPAT. In some areas the local/indigenous variety Mshale was used for comparison. These improved banana varieties were selected and imported by the Tanzania Banana Coordinator for higher levels of production, food security, and sales, including exports. The improved banana varieties can be used for both cooking (plantain) and fruit, and have a wide range of tolerance of drought, lodging, and diseases.

Banana 'stools' Suckers spring up around the stem of the main plant forming a clump called a 'stool', the oldest sucker replacing the main plant when it fruits and dies; this process of succession continues indefinitely.

Banana suckers Offshoots taken from the base of the mother plant. Bananas are propagated (production of more plants) from suckers (or tissue culture). If the suckers are not removed they will compete with the mother plant and reduce yield.

Chaka hoe (Zambian) The 'chaka hoe' is promoted in conservation agriculture for reduced tillage as an alternative to the traditional hand hoe. It is used to till only the spots where seeds are to be placed, making permanent planting basins. It is a heavy hoe with an extra strong and long blade and a long handle that can be swung to reduce effort, thus making possible the preparation of basins in the dry season when soils can be hard. The basins are 20 cm deep and 30 cm long, and are spaced at 70 cm intervals along the row. The rows are 90 cm apart. Each year the basins are re-dug in exactly the same places as the year before.

Conservation agriculture (CA) In the RIPAT context, an agricultural method based on three principles that aims to produce high crop yields while reducing production costs, maintaining soil fertility, and conserving water. These principles are: 1) disturb the soil as little as possible (reduce tillage using chaka hoes or ripper), 2) keep the soil covered as much as possible (apply mulch and or cover crops), and 3) use intercropping and crop rotation.

Cover crops Crops used to cover and protect the soil surface in order to decrease erosion and shade the ground. A fast-growing plant should be used, usually a legume. In RIPAT the legumes lablab and mucuna are promoted as cover crops.

Crop rotation The growing of different crops, in recurring succession, on the same land, in order to preserve the productive capacity of the soil (avoiding depleting the soil of nutrients, and controlling weeds, diseases, and pests).

Intercropping Growing two or more crops in the same field at the same time, either mixed together or in rows or strips, e.g. pigeon pea and maize intercropping.

Legume Plants that are notable for their ability to fix atmospheric nitrogen biologically and their ability to improve soil fertility through nitrogen acquisition. They are important components in crop rotation and intercropping. The comparatively high protein content in the seeds and foliage makes legumes desirable for livestock and human consumption. In RIPAT, various legumes have been promoted, including lablab, mucuna, pigeon pea, soya bean, and cowpeas.

Mulch A layer of dead plant material such as dried grass, leaves, straw, and crop residues, left to cover the ground with the objectives of protecting the soil from erosion, aiding infiltration of rain water (reducing runoff), conserving moisture (reducing evaporation), and reducing the growth of weeds.

Perennial crop A crop that grows more or less indefinitely from year to year (e.g. banana).

Ripper An implement promoted in conservation agriculture for reduced tillage as an alternative to the traditional ox-drawn mouldboard plough. It consists of a frame with a long tine attached to it for breaking up compacted soil and hard pans and for making planting furrows. The ripped lines, usually spaced 75–90 cm apart, are dug as far as possible in the same places every year, with the soil in between remaining undisturbed.

Root crops A group of plants belonging to various families with tubers on the underground stems or the side roots. They are important staple foods in many tropical

regions, being grown for starch. Root crops are primarily propagated from tubers and cuttings (parts of the stems). In RIPAT, improved varieties of sweet potatoes and cassava are promoted, particularly the latter, due to its ability to yield under very harsh climate and soil conditions and to work as a famine reserve crop.

Runoff The proportion of the rainfall on an area that does not enter the soil and is discharged or 'lost' from the area via stream channels and waterways.

Tied ridges Small dams made of earth at regular intervals in the furrows in order to trap rainwater and prevent it from flowing along the contour (a water conservation method).

Water conservation The protection, development, and efficient management of water resources for beneficial purposes. In RIPAT, improved agricultural practices are promoted to reduce water loss through surface runoff (e.g. using tied ridges, contour farming) and evaporation (e.g. using mulch).

Tanzanian government administrative structures

Region Tanzania is divided into 30 regions, each consisting of a number of districts

District There are 130 districts in Tanzania, each consisting of a number of wards

Ward There are more than 700 wards in Tanzania. Typically a ward consists of two to four villages.

Village leaders

In this manual, the term 'village leaders' refers to two key individuals

- The village chairperson, who is elected by the community members
- The village executive officer, who is employed by the government

APPENDIX 7

Banana cultivation in the RIPAT projects

Why?

Banana is one of the crops identified by RECODA as having considerable potential for food security, income, and environmental improvement. It offers a number of advantages compared with other crops. For example, 1) it is both a food and a cash crop and can give fruit throughout the year; 2) it provides employment all year round – unlike annual crops such as maize, which has very seasonal labour requirements; 3) it provides higher food production per area per year (the unit return) compared with maize and many other crops; 4) it fits very well with crop–livestock integration, where animals provide manure and the banana by-products are used for animal feed; 5) it is a perennial crop, which improves production stability over the years in areas that have a large variation in rainfall; and 6) it improves the environment by providing permanent soil coverage.

Where?

In general, bananas will produce good yields under well-distributed rainfall conditions of 1,200 mm per year, at altitudes up to 1,800 metres above sea level. Soils should preferably be fertile, deep (2 metres), and not affected by salt (a pH value between 5 and 8). Banana is often (wrongly) described as a crop that can grow only under good rainfall conditions and/or with irrigation. Although high yields will be attained only under the optimal soil, water, and climate conditions, some varieties are more tolerant of drought and will withstand long dry seasons in a monsoon climate.

The opportunity to promote improved banana varieties in the RIPAT projects was the result of research carried out at the Selian Agricultural Research Institute (SARI) in Arusha on new varieties brought to Tanzania as tissue cultures. Based on the initial good results at SARI, RECODA decided to conduct a pilot project to further test the potential under farm conditions. The pilot project was undertaken in two areas: in an area with relatively high potential, with good rainfall conditions and the possibility of supplementary irrigation; and in an area with low potential, with poor rainfall conditions and where farmers practise solely dryland farming. These two areas later became the RIPAT 1 and RIPAT 2 areas respectively. The pilot project revealed that the new banana varieties produced very well in the RIPAT 1 area, and that they could even be cultivated in the dry and harsh RIPAT 2 area. Through the RIPAT experience, it was further learned that under dryland farming conditions it is crucial to select adequate sites, i.e. lower-lying plots with windbreaks and the possibility for harvesting run-off water. Moreover, reducing the plant density, increasing the size of the planting hole, and applying higher levels of manure combined with mulching further improved the success of banana cultivation under dry conditions. It was found that, when cultivated using agronomically sound practices, banana is less vulnerable to dry spells than annual crops such as maize.

How?

It is quite labour intensive to establish a banana plantation. Using the generally recommended spacing of 3 metres between rows and 3 metres between the plants within the rows, around 450 holes should be prepared per acre. A planting hole should be approximately 90 cm deep and 90 cm wide (approximately 0.6 cubic metres). When digging the holes, the upper layer of soil (45 cm) must be separated from the bottom layer. After finishing the digging, the upper soil should be well mixed with 5–10 buckets of farmyard manure or compost and then returned to the hole.

Bananas can be planted throughout the rainy season; however, they should grow vigorously and without water stress during the first four to six months after planting. Therefore, planting should not be done during the last month of the rainy season. The planting material (suckers) must come from a healthy, disease- and pest-free plantation. The use of banana seedlings produced from tissue culture is recommended, but these are not yet available in Tanzania. In addition to the above, farmers need to learn techniques for 1) removing suckers and preparing good planting materials; 2) avoiding and managing pests and diseases; 3) applying supplementary manure and fertilizer and irrigating (if possible); 4) harvesting, processing, and marketing the fruit.

APPENDIX 8

References and further reading

In writing this manual, the authors have drawn inspiration from other manuals and documents. The most important documents are listed below and are recommended for further reading. A more comprehensive list of references is provided in the companion volume, *Farmers' choice: Evaluating an approach to agricultural technology adoption in Tanzania* (Lilleør and Lund-Sørensen, 2013).

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THE RIPAT MANUAL

Sub-Saharan Africa remains the world's most food-insecure region in spite of its abundant agricultural potential. In an attempt to contribute towards overcoming this problem, a flexible agricultural extension approach known as RIPAT (Rural Initiatives for Participatory Agricultural Transformation) has been developed over the period since 2006 through a series of projects in northern Tanzania.

The RIPAT Manual explains step-by-step how to organize and implement a robust, group-based agricultural development project characterized by:

- **HELP TO SELF-HELP** – avoiding **DONOR SYNDROME** and ensuring that farmers take full charge of their own development
- the use of a group demonstration field, where RIPAT takes **THE BEST FROM BOTTOM-UP AND TOP-DOWN EXTENSION APPROACHES**
- giving farmers **CHOICE** regarding agricultural technologies and a **VOICE** regarding how they want to organize their group and work together
- **FORMALIZED COOPERATION** with local government authorities and extension services for continuation and up-scaling.

‘This is an excellent, easy-to-follow, step-by-step guide on how organizations working with small-scale farmers should approach their task so as to empower farmers and to have sustainable outcomes. This is a “must have” resource book for all extension and rural development practitioners, be they from government or from the NGO sector. For a long time in Tanzania there has not been any such a manual to guide extension work and this will certainly fill the gap.’

Professor Amon Z. Mattee, Department of Agricultural Education and Extension, Sokoine University of Agriculture, Morogoro, Tanzania

‘In Arumeru and Karatu districts I witnessed farmers using the RIPAT approach to substantially increase their productivity and incomes in banana production; to improve their levels of innovation, participation, and ownership of their projects; and hence to transform their lives. The approach also addressed the dependency syndrome of the farmers and reinforced their application of the most cherished principle of self-reliance in their own development.’

The Hon. Isidore Leka Shirima, the former Regional Commissioner of Arusha, Tanzania