

# Developing Agricultural Solutions with Smallholder Farmers – Participatory approaches for getting it right the first time

Draft of booklet 3 (without layout) in the series ‘Developing forage technologies with smallholder farmers’ by Peter Horne and Werner Stür. It will be published in Chinese, English, Indonesian, Lao, Thai and Vietnamese. Not to be cited.

## Notes on production

Read this!



### 1) **Blue writing:**

All text written in **Blue** are notes and are not part of the text.

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# 1. Before you start...

## Why do we need participatory approaches?

Farmers are natural experimenters. They are always trying new ideas and technologies to improve their farming practices. Traditionally, they have based this experimentation on their own knowledge and the experiences and ideas of other farmers in their area. Only in the last few decades have governments established research and extension agencies to help smallholder farmers improve agricultural production. In these research and extension agencies, the role of extension workers was usually to promote technologies developed by researchers (such as new rice varieties) and to implement government programs (such as livestock credit schemes).

<Message in column>

**Farmers are keen experimenters – often all they lack is technology options that have the potential to improve their farming systems and relevant information about these options.**



CIAT

<original from CIAT in colour>

In some cases, this approach to technology development has worked well, such as helping farmers increase rice production in lowland areas by using higher-yielding varieties and fertiliser. In smallholder farming systems, especially in upland areas, this approach has not however resulted in widespread adoption of technologies developed by researchers. Why not?

1. Often we simply did not understand farmers' needs, assuming that improved productivity alone was enough to ensure adoption.



<re-scan the 3 images and place in horizontal or vertical row>

2. The huge variation in resources, opportunities and constraints between farm households in upland areas means that no single technology will be appropriate for all farmers.
3. Farmers seldom adopt fully developed technology packages. Rather they look for 'ingredients' or 'building blocks' which they can put together in

different ways to fit their particular needs. They adapt rather than adopt technologies.

Participatory approaches based on an active partnership between development workers and farmers can help overcome these limitations.



JH

Take Note!



In this booklet we refer to 'technology options' as the 'ingredients' or 'building blocks' which farmers use to develop their own innovative solutions.

## What kinds of participatory approaches can I use?

There are many ways that farmers can be your partners in technology development. These range from **consulting** with farmers to **active decision-making** by farmers. The 'right' type of partnership will depend on the goals of your work.

### Consulting with farmers

In some situations, it may be entirely appropriate for development workers to simply consult with farmers to better understand their needs or their reasons for selecting one technology option instead of another. Renting a farmer's field and asking the farmers' opinions about the trials you plant, for example, may be appropriate for screening a large number of new maize varieties to identify a smaller range of varieties for future farmer evaluation. In this kind of partnership, the farmers give information but the development workers make the final selection.

### Active decision-making by farmers

In other situations, it may be more appropriate for development workers and farmers to work together to find solutions, combining the local experience of the farmers with information, ideas and technology options provided by the development worker. For instance, active-decision making involvement of farmers will be needed to solve complex problems identified by the farmers, such as livestock feed shortages in the dry season. In this kind of partnership the farmers and development workers should together negotiate the process, deciding which technology options to test, how to test them and how to adapt and integrate them into farms.

<Message in column>

**Active partnership means that development workers and farmers work together to find solutions to problems identified by the village.**



<Do we need this Cartoon title?> It is easier to develop solutions by working together



## How can this book help me get started?

This book has been written to help development workers (such as agricultural extension workers and researchers), who would like to use participatory approaches in developing agricultural solutions on farms, but are unsure of where to begin. It is not a manual that needs to be followed step by step but is more like a 'toolbox' of ideas, practical tips and basic tools needed to get you started in working with farmers in a participatory framework. Like a carpenter, you will need special skills to be able to use these tools. The book will help guide you on how to develop these skills.



In the following pages we describe a participatory approach to technology development that is based on active decision-making partnerships between farmers and development workers. We do not attempt to give a comprehensive list of participatory tools but simply present a collection of ideas, experiences and approaches that have worked for us.



WS

Don't be afraid to experiment and adapt the approaches in this book to fit your needs!  
Working with farmers as active partners will be a learning experience for everyone.  
You can only build trust and confidence over time. Take a risk ... just do it... and  
learn from your experiences!

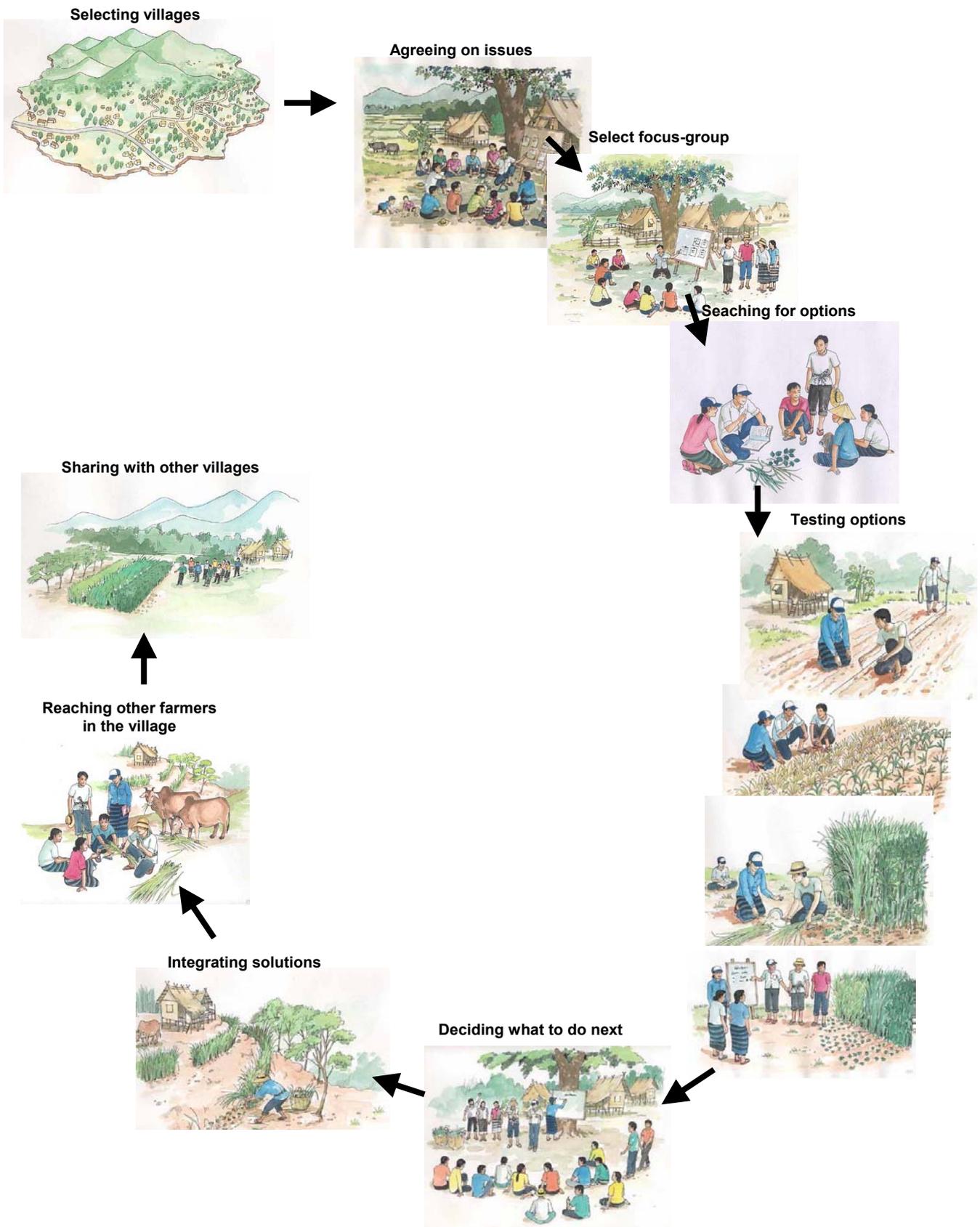
## 2. A participatory framework for technology development

In this book we describe a participatory approach that is being used by development workers in Southeast Asia to help smallholder farmers develop forage technologies on their farms. .

A fundamental difference between this approach and conventional extension is that this approach is a **series of related activities** carried out over several years. It requires a long-term commitment by development workers to working with farmers on solving their problems and developing new opportunities.

The diagram on the following page illustrates how you can use this process to work with farmers in developing agricultural solutions (Figure 1). Each of the stages shown in the diagram is described briefly in Table 1.

Figure 1: Participatory process described in this booklet <lay-out needed by graphic designer>



**Table 1: Stages in the Participatory Approach**

Stage	Description	Who decides*?	
		F	DW
Selecting villages	Collect and interpret data and key information to select villages in which you might work.		✓
Agreeing on issues for technology development	The village <ul style="list-style-type: none"> <li>identifies and prioritises issues they would like to resolve, and</li> <li>identifies a small number of farmers (a 'focus-group') to work with the development worker in testing options.</li> </ul>	✓	
	The development worker decides if <ul style="list-style-type: none"> <li>these issues match with the goals of the development agency, and</li> <li>there are information and resources available to contribute towards resolving these issues.</li> </ul>		✓
Searching for technology options	With the focus-group, search for technology options, decide which may be appropriate for the village and decide which options to test.	✓	✓
Testing options – starting small	The focus-group farmers and the development worker discuss how to test, where to test, who will test, what to measure and when to evaluate.	✓	✓
	The focus-group farmers test the technology options on a small scale and monitor the pros and cons.	✓	
	The development worker and the focus-group evaluate the technology options.	✓	✓
Deciding what to do next	In a meeting with the village, the focus-group farmers describe what they found in their trials. The development worker asks all the farmers to decide what they would like to do next.	✓	
	If one or more of the technology options looks promising, more farmers in the village may want to start testing these options on a small scale.	✓	
	If none of the technology options looks promising or a new problem is encountered, the farmers and development worker may need to search again for different options to test.	✓	✓
Integrating promising solutions on farms	If one or more of the technology options looks promising, the focus-group farmers may want to expand the area planted and integrate the technology into their farming systems.	✓	
	In a meeting with the village, the focus-group farmers discuss their experiences with integrating the new technologies on their farms.	✓	
Reaching other farmers in the village	The development worker encourages farmer-to-farmer exchange of experiences through 'local champions', farmer groups and field days.	✓	✓
Sharing successful technologies with other villages	The development worker facilitates expansion of the most promising options to new villages, through cross visits and farmer-to-farmer extension	✓	✓

\* F = Farmer DW = Development Worker

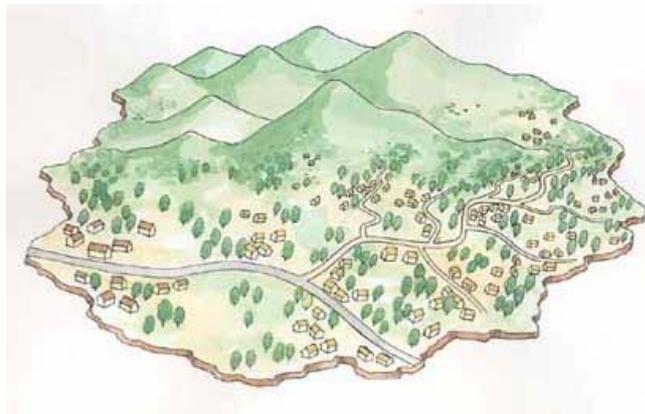
Initially you will find this approach to be very challenging. Working in a small team of 2-3 development workers will greatly help you learn the skills and methods needed. With time, as you gain confidence, you will discover that there are some activities you can easily do on your own (such as a regular farmer visit) and others where it is easier to work as a team (such as facilitating a village meeting).

<Peter, we could use a pic here showing 2 DW working together>

## 3. More about each stage in the framework

### Selecting villages

The first decision you (as a development worker) will have to make is choosing one or more villages where you can start working with farmers. How do you do this?



Confronting this question is very important. In our experience, many projects have encountered problems because they selected villages for their convenience rather than considering which villages have the best chances for successful technology development.

Three questions which will help you select villages which have the best chances of successful technology development are:

#### 1. What do I have to offer?

Most of us have particular skills, knowledge and technologies to offer farmers. We need to select villages where our expertise is relevant to farmers' needs. Specialist livestock extension workers, for instance, need to identify areas where farmers have major problems with their livestock systems.

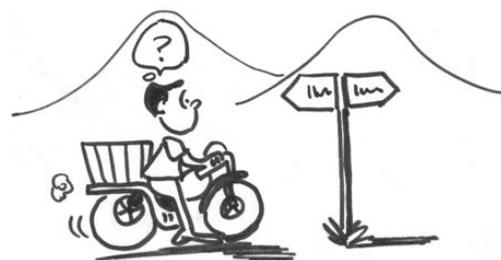


#### 2. What are my social goals?

As well as technological expertise, most of us also have social goals, such as poverty alleviation. Ask yourself 'Will I be able to achieve my social goals by working with this village?'

#### 3. Where am I likely to have most impact?

It does not matter how good the participatory approaches are if we work in a village where there is little potential for widespread impact from the technologies we have to offer. Ask yourself 'Will many families benefit from the participatory technology development?'



## How to...

You will need to visit the area, meet some people in the village and collect some basic information about the village and its farming systems. During these visits, ask yourself:

- Do many farmers in this village have an important problem that may be solved with the technologies that I have to offer?
- Are there many other villages which may benefit from solutions developed in this village?
- Are there local partners and organisations who will actively support this work?



WS and/or



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To help you answer these questions, collect some basic census data and talk to local government officials, farmer groups and individual farmers to decide which villages are likely to be interested in the technology options you have to offer. For example, if you have new forage varieties you will need to know which villages raise large numbers of livestock that could benefit from the introduction of these new varieties.

### <Message in column>

**Think carefully about which information you need to collect. Often, the best information will come from your own observations in the field and discussions with farmers.**

Be sure that you talk not only with the influential people in the village but also with those you are targeting with your technology options. For instance, if you have technologies that can improve small animal production systems, you must speak with the farmers who raise small animals. In many situations, these will be the women in the village.



You may also need to collect some basic environmental data to be sure that the technology options you have to offer are adapted to the area. For instance, if you are offering forage technologies for ruminants you may only need to know the monthly rainfall, broad soil fertility status and approximate soil pH to decide which forage varieties are likely to be adapted to this area.

Take Note!

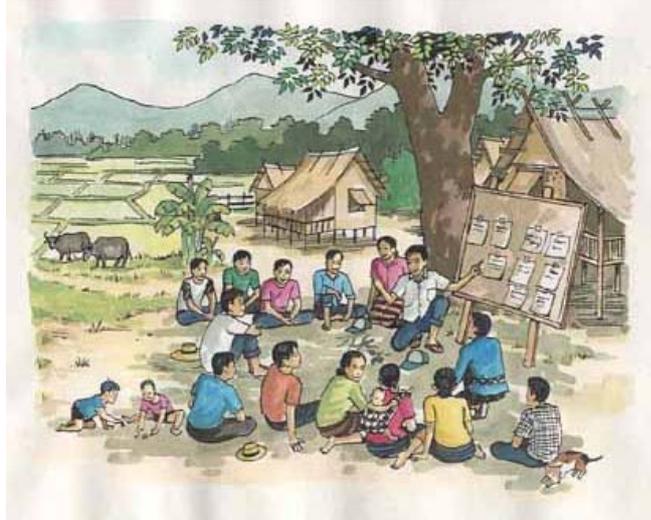


**Do not spend a long time collecting more detailed information than you really need.**



## Agreeing on issues for technology development

Now that you have selected one or more villages where you would like to work, you need to confirm that there is real potential for participatory technology development.



So far it is only you who has concluded that there is a particular problem which can be solved or improved with your help. You cannot be sure that the villagers will draw the same conclusion. They will only be interested in working with you on a particular problem if they feel that this problem is really important to them – more important and pressing than other problems they face at this time. Participatory diagnosis (PD) is a method which helps the villagers make this decision.

In a participatory diagnosis, the villagers meet to

1. identify and prioritise which problems to solve (or opportunities to develop),
2. identify who in the village is most affected by these problems, and
3. nominate who in the village will be responsible for working with you to solve these problems.

The outcome of PD is an agreement between you and the village on which problems to solve (or opportunities to develop), and how you will work together to find solutions.

Participatory diagnosis is often the first time that a village experiences being equal partners in the development process. It helps to build trust and understanding between farmers and the development worker.

### <Message in column>

**Participatory diagnosis is NOT just a process to extract information from farmers so that you can draw conclusions. It is the first step in engaging with a village as partners in searching for solutions to their problems. Don't do it unless you are committed to following up with action!**

## How to conduct a PD

During the PD you will need to find out if there is real potential for participatory technology development. The following checklist (Table 2) will help you with this decision. For there to be real potential for participatory technology development, you need to be able to answer 'YES' to all the following questions:

**Table 2: Is there real potential for working in this village?**

Question 1:	Are there problems (or opportunities) which the farmers consider important enough to commit their time in working towards a solution?
Question 2:	Are there many farmers and other villages who have the same problem?
Question 3:	Are some farmers already trying to solve this problem?
Question 4:	Are there potential solutions which you can offer farmers (and which can provide substantial benefits)?
Question 5:	Can you achieve your social goals (eg. poverty alleviation) by working in this village?
Question 6:	Are you able to work with this village or are there other active local people or groups who are committed to working with farmers to solve this problem?



<maybe next to the Table ticking off the list>

The following steps show how you can facilitate a PD. This is not a menu that you have to follow step by step, but is an example of the process that has worked for us. In these steps we refer to several useful tools (e.g. village resource maps), which are described in Chapter 5 – 'Tools'.

### Step 1: Planning for a PD

1. Learn about the village  
Before conducting a PD, familiarise yourself with the village and farming system by walking through the area and holding discussions with village leaders and individual farmers.



Useful Tool



**Village Walks**

2. Decide who in the village you would like to attend the participatory diagnosis. Ask yourself 'Am I going to reach the farmers who are most likely to benefit from what I have to offer?'. If you are a livestock specialist, for instance, you may only be interested in talking to those farmers who raise livestock. These farmers are your 'interest group'.

Take Note!



**Sometimes your interest group will be the whole village, and sometimes it will be only part of the village. In this book we will use the term 'village' to mean your 'interest group'.**

<Do we need this caption?> With whom should I work?



Within the village there will be important differences between and within farm households, often based on wealth, social status, gender and ethnicity. Different ethnic groups in villages may have very different farming practices. One ethnic group may be predominantly involved in shifting cultivation while another dominates the lowland fields. In both cases, the different groups will have different perceptions of problems and potential impacts of any technology options you may offer. Another example is the division of labour and responsibilities within households. In many societies women are responsible for raising small animals while men are responsible for raising large animals. You need to be aware of these differences to make sure that you are working with the right people.

<Message in column>

**Make sure you actively identify and work with the right groups within the village to achieve your goals.**



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It is essential to ensure that your 'interest group' (eg. both men and women livestock raisers) is well represented in the PD. Sometimes you may first need to

do PD with a broad cross-section of the village, before more detailed discussions with your 'interest group'. At other times you may already have a good relationship with the village as a whole and be able to facilitate PD directly with your 'interest group'.

3. Talk with village leaders and representatives of the groups you want to invite, to arrange a convenient date and time for the PD. Participatory Diagnoses should be conducted at a time that it is convenient to farmers. Villages sometimes prefer to hold the PD over one or two evenings.

## Step 2: Identifying major issues for technology development

In the village meeting:

1. Explain your objectives and what you can and cannot offer. Farmers may expect that you will be able to offer credit while you are only able to offer information, ideas and access to technology options. Be careful to describe your interests in a general way so you do not limit or bias the outcomes of PD.
2. Encourage active participation. The first time farmers attend a PD, they will be expecting a standard meeting dominated by the influential people in the village. To encourage active participation by everyone who attends, you need to use tools that 'break the ice'. A good way is to start with Village Resource Mapping in which the farmers draw a map of their village showing all of the features (eg. houses, forests, farmland) that they regard as important for describing their village.



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Useful Tool



**Village resource maps**

3. Define the social groups in the village. Different social groups within the village are likely to have different problems and opportunities. Understanding these differences will help you to target your work and monitor the impact of the innovations.



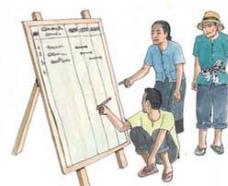
Useful Tool



**Wealth analysis**

4. Focus the discussion on major issues affecting the village. These could be major problems or 'opportunities for development'. Farmers may, for instance, want to solve the problem of low yields of upland rice. An 'opportunity for development' may be the introduction of new cash crops with the potential for a higher income, thus allowing the farmer to buy rice. Solving major problems is often the entry point for building trust between you and the farmers, while working on 'opportunities for development' may be a second phase in working with farmers.

Often it is easy to stimulate discussion of major issues by asking questions such as 'How has your farming system changed over the last 30 years?' or 'How do your agricultural activities change throughout the year?'. Tools that help you do this are historical and seasonal calendars. They stimulate discussion and help you understand how major issues such as labour demand, cropping cycles, human diseases, food shortages and animal management vary over time.



Useful Tool



### Historical and seasonal calendars

5. List, discuss and prioritise the most important problems now facing the village. Facilitate this discussion by asking the farmers to
  - list the main problems,
  - discuss each problem, and
  - prioritise them in order of importance.



PH

### Step 3: Agree on a plan of action on how to search for solutions

Once the villagers have agreed on a list of priorities, you will have enough information from the PD to know if there is real potential for participatory technology development in the village. Refer to Table 2 on page XX to remind yourself of the important questions you want to answer during a PD. In particular, you must confirm that there are problems which are both a high priority for the villagers and for which there are potential solutions.

You will now need to tell the villagers which of their problems you think you can help them solve and ask them if they are ready to commit their time to this. If they are enthusiastic, you can then:

1. Come to an agreement on which problems or opportunities to address.
2. Ask the villagers to nominate a small group of farmers with a particular interest and knowledge in the selected issues to work with you on behalf of the village. We call this small group of farmers the 'focus-group'. We need to select a focus-group because often there will be more farmers interested in working with you to test new technologies than is practical.
3. Agree on a time when you will return to start working with the focus-group in searching for technology options to test.



If you find, that there are other problems which are much more important to the villagers than those which you can help solve, the villagers may not be willing to commit their time to work with you. It is important to openly discuss what you can and cannot offer and what you expect from the villagers. It may be that there is no potential for you to productively work with this village at this time.

### Practical considerations in PD

- How long should it take to complete a PD?  
You can complete a PD within 4 hours. Farmers' time is valuable and they will lose attention if the PD takes too long. No single session should last longer than 2 hours without a break.



- What skills do I need to facilitate a PD?  
Facilitating a village meeting is not easy. Good facilitation skills are essential for you to be able to conduct a PD well. You need to remain neutral, giving information to farmers but without giving your opinions or recommendations. You also need to ensure active participation of all social groups. Often, the influential men in the village will dominate meetings at the beginning. You should also be aware of literacy and language barriers to participation.

It helps to have at least two facilitators in a PD, preferably one male and one female. This allows you to help each other guide the discussion and to divide the participants into different social groups (e.g. gender, ethnicity, wealth) to understand their specific problems, opportunities and needs. This also helps you save time by conducting some of the tools (such as seasonal and historical calendars, well-being ranking) concurrently in sub-groups. These sub-groups must report back to the main group.



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There is no simple way to develop good facilitation skills. You need to 'learn by doing' and observe others who are good facilitators. In addition to skills in facilitating groups, you will also need special communication skills, in particular using open-ended and probing questions. These are described in Chapter 4 'Communication and Facilitation Skills'.

### Three tips...

1. Throughout a PD it is important to understand who owns resources in the village, who does each task, who benefits from each activity and who makes the decisions. It is often necessary to probe farmers' answers to these questions. Farmers may, for instance, answer that both men and women weed crops but by asking further questions you discover that it is the women who do most of this work.
2. In some cases, you cannot do PD with the village as a whole as you may disadvantage one section of the village. Maybe the poorest households or women are not represented sufficiently at the PD. In a situation like this, you can consider doing a village resource map and wealth analysis and use the results as a basis for planning PD's with separate groups at a later date.
3. To save time, it may be useful to split the participants in a PD into sub-groups, each completing different tools and reporting back to the main group.
4. With all the tools in PD, provide the villagers with the basic resources they need (such as pens, large sheets of paper, coloured paper, scissors, seeds) to express themselves but encourage them to do it in whichever way they prefer. Farmers have to hold the pen!



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<maybe add 1-2 PD pics>

Take Note!



**The tools you use in participatory diagnosis (e.g. village resource maps and calendars) are not the main output! They are simply tools to help the villagers define the main problems facing the village and to help you understand these.**

## Searching for technology options

Now that you and the villagers have agreed on the problems that you want to solve, you can together analyse the problems in more detail and identify potential solutions to test. It is not your role to make these decisions alone! You need to work with the focus-group to understand the underlying causes of the problems so that you can then look for technology options that address these causes.



### How to search for technology options

The following steps are an example of how you can work with your focus-group to search for solutions to their problems. In meetings with the focus-group:

#### Step 1: Analyse the problems

Summarise the outputs of the PD and confirm that the farmers in the focus-group are keen to work with you on these problems. You can then discuss the problems in detail to understand the underlying causes of each problem. A tool that will help you do this is the problem-cause diagram.



Useful Tool



#### Problem-cause diagram

In a problem-cause diagram you will ask the farmers to describe the causes of their main problems, how they are linked and what they have done to overcome the problems in the past. Once you have the problem-cause diagram, you can discuss with the farmers where in the diagram there are opportunities for introducing potential solutions. See page **XX** on how to develop problem-cause diagrams.

#### Step 2: Searching for potential solutions

Technology options can come from many sources, not just from you! They may come from the farmers themselves, research and extension literature, and other villages that have been working to solve the same problems, projects, international organisations or non-government organisations.

Sometimes, you may already have a lot of information on relevant technology options that have worked in other areas. In this case, it may not take long to discuss these

options and for the farmers to decide which ones to evaluate. In other cases, you will need to work with the farmers to search for potential solutions to the problems. This is likely to involve a literature search, visits to other villages and consulting with technical specialists.



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JH

<can we find a better-quality pic than the one with Papang?>

One danger in this process is that many technical specialists only promote their favourite technology and do not provide a broad range of options. You need to ensure that you offer farmers a broad range of technology options that are

- relevant to the problems identified in the problem analysis, and
- realistic within the resources available to the village.

Each farmer and each farm is different. No single solution will be appropriate on every farm. It is therefore essential that you encourage farmers to innovate and produce the best solutions for each farm. The outcome of farmers' innovation can be surprising and unexpected. For instance, farmers in Vietnam initially evaluated forage varieties to feed their buffalo but then discovered greater benefit by feeding grasses to fish. It is important that you search for a broad range of options since farmers may see other problems they can solve with these technologies or change their farming practices to take advantage of new opportunities presented by a particular technology option.

<Message in column>

**It is important to not promote just a 'favourite' technology but to offer a broad range of technology options. Farmers may see other problems they can solve or change their farming practice to take advantage of new opportunities presented by the technology options.**

### Step 3: Deciding which options to test

When you have a range of promising technology options, facilitate a discussion with the focus-group about the benefits, costs and limitations of each option. Ultimately, the farmers must decide which of the options to evaluate.

Sometimes it is difficult for farmers to decide which options to test until they have tried them on a small scale. If you are considering new varieties of a crop, it may be easy for farmers to test all the promising varieties on a small scale and select the ones they like most after the first growing season. If you are considering new animal health practices, however, the decision can be more difficult. It is your role to provide as much relevant information as possible to farmers to help them in the process of deciding which options to test.



JH

## Five tips...

- There is no need for the development worker to fully understand the complexity of the farming system before offering technology options since farmers with their knowledge of the farming system can quickly decide which information and technologies are likely to provide substantial benefits.
- Offer basic ingredients of technologies, not 'fully developed' technologies. Often researchers and development workers feel that they cannot offer technologies to farmers until they are 'fully developed'. They may, for instance, feel reluctant to offer farmers forage varieties without also telling them how high and how frequently the varieties should be cut. We have learned that this is not necessary. In practice, what we needed to offer farmers was varieties and some basic information about these varieties to encourage them to experiment and develop their own management systems with time.
- It is often helpful to identify 'technology entry points' which provide early benefits to farmers while they work towards solving longer-term problems. You may, for example, introduce some robust new rice varieties which can provide an immediate benefit while, at the same time, working with the farmers to develop forage hedgerows for soil erosion control, where the benefits are not as immediate. Entry points must not be handouts but be clearly part of the solution to the problems the farmers had identified.
- In addition to working with the focus-group as a whole it is essential that you also visit individual farms to get a better understanding of the variation in needs and opportunities between farmers.



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- Farmers are keen experimenters and will want quick action once they have decided which options to test.

Take Note!



**Technology 'entry points' help build trust between farmers and development workers.**

## Testing options - starting small

Once the focus-group has selected technology options to test, the next question to answer is 'How do we test and evaluate these options?'

Three guiding principles are:

1. Start on a small scale.  
Farmers typically want to first test technology options on a small scale as this minimises risk and gives them the opportunity to experiment with the options. If, for example, the farmers are testing new forage varieties, small plots near the house allow them to answer questions like 'How well does each variety grow in the dry season?' 'How easy are they to cut?' and 'Do my animals like to eat these varieties?'



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**<Message in column> Start small and build on local successes!**

2. Keep the trials simple.  
Large numbers of technology options are difficult for farmers to manage and compare. We have found that farmers can easily handle up to 6 new technology options.
3. Encourage farmers to 'play with' with the technology options.  
Farmers adapt rather than adopt technologies. They are looking for 'ingredients' or 'building blocks' which they can put together in innovative ways to fit their particular needs.



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## How to test options

### Step 1: Planning how to test the options

Before starting field trials you will need to facilitate a discussion with the focus-group to consider:

- What characteristics of the new technologies they would like to measure and when are they planning to do these measurements?
- How to test the technologies? They may decide to test the technology options as a group in one location or each farmer may want to test the technologies on their own land. Sometimes they may have a combination of both. You may want to get some more-detailed data and suggest conducting a small replicated trial in addition to the farmers' experimentation. All of these ways of testing technologies are valid. The choice of method depends on your needs and the needs of the focus-group.
- Including a control treatment which compares farmers' practice with the new innovation.

### Step 2: Testing the options

When farmers have started testing the technologies, you need to support them by

- providing materials needed for the technology options (eg. seed),
- helping farmers establish their trials,
- making visits soon after establishment, and
- regular follow-up visits to discuss progress and help resolve the simple problems that inevitably arise at this early stage.



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Providing this active support for farmers will encourage farmers and build their confidence.



**Don't visit only 'favourite' farmers. Each time you visit the village make sure you visit at least one or two farmers you have not visited last time!**

You are an important link between all of the farmers who are testing technology options. You can help them as a group by:

- Providing new ideas and practical information on the experiences of other farmers testing the same options.
- Providing technical information on the options. Farmers may, for instance, be impressed with the early growth of some forage varieties which the development worker knows



will not grow so well in the dry season. Unless the development worker gives this information to farmers they may expand these forages during the first wet season and become disappointed when the forages die back in the dry season.



JH

- Facilitating the exchange of experiences between farmers within the focus-group.

### Step 3: Evaluating the results

As farmers test and adapt new technologies they are continually evaluating them. They are looking for benefits, watching for problems and considering ways of using the technologies on a larger scale. You need to understand which technology options farmers prefer or reject and their reasons for these choices. How can you do this?

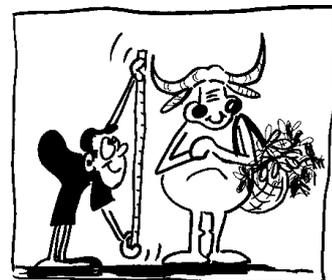


- Regular monitoring.  
As you visit farmers you will begin to learn which technology options they like. It is important at this stage to also understand why they like some options more than others. You can do this by talking to farmers about their experiences (using open-ended and probing questions) and observing the results yourself.



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- Measurements.  
Sometimes measurements, such as yield, are needed to quantify differences between the technology options.



- Capturing farmers' experiences. Towards the end of the trial period (e.g. the cropping season) it is useful to conduct a more formal evaluation with each farmer in the focus-group to record which technology options they prefer and why. A tool that will help you do this is called Preference Analysis.



Don't try to do Preference Analysis too early after farmers start testing new technology options as they will not yet have enough experience with those options to make choices between them.

Useful Tool



### Preference Analysis

- Focus-group meetings. Organise a focus-group meeting at the end of the trial period, in which you present a summary of the main results (e.g. yield) and the experiences of all the farmers in the focus-group (based on the results of the Preference Analysis). This will stimulate a discussion of experiences the farmers have had in common. This is a good time to discuss potential benefits of each option, analyse particular problems that were encountered and what they would like to do next.



### Three tips...

- Always plan your visits to villages carefully. Before going to the village, always ask yourself: "What are my reasons for going to the village this time?", and "What outputs do I want to achieve during my visit?"
- Often, when you arrive at a village, things do not go according to plan. Be flexible and adjust your plans with your goals in mind. There is always something else you can do to help you achieve your goals!
- Keep a record of each visit. Summarise why you visited the village and what you have found out.

