Module 5
PARTICIPATORY APPROACHES

Session 5.1: Overview of participatory methods and tools
Session 5.2: Use of methods
Session 5.3: Symbol-based methods and calculations
Participatory approaches

This module consists of participatory methods and tools to complement the farm management tools covered in module 4.

You will explore symbol-based methods to assist farmers in making better farm management decisions.

The participatory methods and tools can be applied to the teaching and application of farm management particularly among farmers with limited literacy and numeracy skills.
Session 5.1:
Overview of participatory methods and tools

Learning outcomes:
Understand different ways of collecting data using participatory methods
Acquire the ability to choose between methods
Overview of participatory methods and tools

In this first session you will learn about participatory methods for data collection and analysis and the role they have in farm management extension.

You will be also given guidance on how to choose appropriate methods.

The session ends with a reflection on their advantages and disadvantages.
Overview of participatory methods and tools

Participatory approaches are essentially tools used to facilitate participation by a wide range of stakeholders.

They are used to help people work with data and information.

They can be used to collect, analyse and share data and information.
Overview of participatory methods and tools

Some participatory methods can also be conducted using symbols to represent numbers and words.

This is especially helpful when participants are semi-literate or speak different languages.
Importance of participatory methods

There are a number of participatory methods that are used in farm management, so that farmers are able to realise and analyse their problems in input procurement, production and marketing.

An individual or group approach can be applied in using these methods.
Rapid Rural Appraisal (RRA)

A small team is involved in conducting a rapid appraisal of the agricultural setting that might include identifying constraints and opportunities in farming.

RRA consists of a series of techniques for ‘quick and dirty’ research that generate results of less apparent precision, but of greater evidential value.
Participatory Rural Appraisal (PRA)

Similar to RRA, but with greater participation of local farmers.

PRA is a way of learning from and with farmers to investigate, analyse and evaluate constraints and opportunities and to make informed and timely decisions.
Participatory Rural Appraisal (PRA)

PRA can be used for example to obtain information about the villages, assess production potential and conduct economic feasibility and social acceptability studies of particular technologies.

Monitoring and evaluation of specific project activities can also be done in a timely and focused manner.
Participatory Rural Appraisal (PRA)

The most commonly used primary data collection techniques are:

- Group interview techniques
- Focus group interviews
- Key informant surveys
- Observation (See session 5.2)
- Transect walk (See session 5.2)
- Seasonal calendars (See session 5.2)
- Venn diagrams (See session 5.2)
Group interview techniques

Group interviews are useful for tapping the collective knowledge or memory of groups of farmers or the community.

Controversial issues or issues which are not very clear could be used as topics or themes for group interviews.

You do not need to formulate questions or statements, but should have a clear idea of the issue that they would like to discuss and be able to guide and direct the discussion. This needs some special skills.
Group interview techniques

Farmers should be encouraged to talk openly about the issue under discussion.

It is best to orient the discussion about what most people in the group/community do instead of what individuals do.

The aim is often to gain consensus of issues under discussion but you should be mindful of the social dynamics of the group.
Focus group interview/discussion

Focus group interview is another form of group interview addressing a specific topic/i ssue confronting the group.

Typically some 6-8 people discuss a particular topic in detail under the guidance of a facilitator.
Focus group interview/discussion

When the ideas and opinions are needed at field level about a specific problem or intervention, then a focus group interview is the most appropriate technique to use.

This type of discussion may reveal the perspective, attitude, understanding and reactions of farmers.

To get the maximum benefit, the group interview is cost effective, can be carried out quickly and can obtain a wide range of information.
Key informant interviews

This is a process of data collection from interviews with selected and knowledgeable persons.

Key-informants are not only people with a high status; they may also be farmers with specific knowledge about a particular type of farming.
Key informant interviews

Visiting key-informants and local organizations is not only useful to gather information, it also provides an excellent opportunity for awareness raising and to build relationships for cooperation.
### Possible key-informants and their knowledge base

<table>
<thead>
<tr>
<th>Key Informant</th>
<th>Knowledge Base</th>
</tr>
</thead>
<tbody>
<tr>
<td>Extension/Development workers</td>
<td>General farming situation, macro- and micro level constraints</td>
</tr>
<tr>
<td>Research workers</td>
<td>Potentials, opportunities</td>
</tr>
<tr>
<td>Village elders</td>
<td>Historic developments, tradition, consensus, etc.</td>
</tr>
<tr>
<td>Priests/Religious leaders</td>
<td>Beliefs, taboos, religious obligations</td>
</tr>
<tr>
<td>Women</td>
<td>Gender issues, decision-making, family</td>
</tr>
<tr>
<td>Local businessmen, merchants</td>
<td>Marketing channels, banking, loan prices, trade regulations, transport</td>
</tr>
<tr>
<td>Women farmers</td>
<td>Socio-religion-cultural and economic; them as producers</td>
</tr>
<tr>
<td>Progressive farmers</td>
<td>Development opportunities, adoption of new prerequisites for adoption</td>
</tr>
<tr>
<td>Staff of development projects or agencies</td>
<td>Local experience</td>
</tr>
<tr>
<td>Managers of processing, commodity delivery schedules</td>
<td>Demand projections, pricing, quality issues, systems, marketing boards, etc.</td>
</tr>
</tbody>
</table>
Additional participatory methods and tools

A number of methods can be used to engage farmers with input, production and marketing data and information.

Some methods are more specific and accurate, some are more general and some focus on particular types of information while others include a wide range of information.
<table>
<thead>
<tr>
<th>Method</th>
<th>Type of data to be collected</th>
</tr>
</thead>
</table>
| Calendars                     | • Production/productivity of different crops  
                                • Labour/food availability  
                                • Amount and/or cost of inputs  
                                • Farm income changes over time and expenditures  
                                • Rainfall patterns  
                                • Use of certain products in the community over time  
                                • Crop/livestock/human diseases  
                                • Prices, marketing  
                                • Migration                                                                                     |
| Transects                     | • Details about the environmental, economic and social resources in the locality.  
                                • Location of pests, soil erosion, resource use  
                                • Problems of different zones                                                                                                                            |
| Maps/Mapping                  | • Location, size and production problems  
                                • Social/physical structure of the farmers  
                                • Resource allocation within the farm/variations in resource access                                                                                      |
| Trend lines                   | • Farmer perception of change in the local environmental, economic, social and institutional patterns.  
                                • Price/market changes over time or product use over time (changes over time)  
                                • Migration, yields                                                                             |
| Venn diagrams                 | • Perceptions on importance of local groups and institutions  
                                • Clarifying decision-making roles and identifying potential conflicts between different socio-economic groups  
                                • Identifying linkages between different and among different groups                               |
| Semi-structured for group interviews/discussions | • Collect production data or production practices  
                                • Input supply (sources, prices)  
                                • Collect data on off-farm, on-farm demonstrations  
                                • Marketing systems                                                                 |
Choosing a method

Different participatory approaches can be used for collecting, analysing and sharing data and information.

The method used should be determined by:

(i) The purpose of the exercise;
(ii) Use
(iii) Availability of resources: money, people, vehicles, etc.

In many cases, combinations of these methods would be used to generate the information that farmers require.
Choosing a method

Choosing a method that is appropriate and feasible depends on a number of factors:

What needs to be accomplished?

Do you need quantitative or qualitative information?

What context and medium would be most appropriate?

Suitability of the method
What needs to be accomplished?

What do you need to do: assess, register, compile, analyse or disseminate information?
Do you need quantitative or qualitative information?

Quantitative methods are useful when you require numeric information such as 'how much, how many, the frequency of...'

Qualitative methods are more appropriate when you want to understand attitudes, opinions, experiences and priorities.
What context and medium would be most appropriate?

Choices include written, oral, visual and dramatic.

The choice depends on how the people involved prefer to communicate, how they are able to communicate, and on their level of literacy and numeracy.
Suitability of the method

The method you choose must produce the information you want.

There is no point selecting a method simply because it is fun or easy for the farmers to do.

Whatever method you choose, it must be able to produce the kind of information being sought and the information it produces must be reliable.
Who collects the data?

Data can be collected by any number of stakeholders.

Farmers and other participants should be encouraged to record data and information generated by these methods.

A detailed recording of the process is critical.

Often a great deal of information is lost because of failure to take good notes and relying too much on the products of the chosen methods (for example a diagram or a map).
**Who collects the data?**

In the process of collecting the data you must assess the quality of information. To do this you must carefully listen, observe, probe and judge.

As data is developed, it is important to regularly review the process and assess information. It is important to leave the farmers to conduct the participatory methods without much interruption.
**Who collects the data?**

You should guide them, but must be objective in guiding the process and as well as in collecting, analysing, or sharing the data.

You should encourage farmers to keep or take record of the process.
Who uses the data?

Farmers

Other community members

Local institutions

Government services staff, research or donor organizations
Advantages of participatory methods

Data can be easily validated with the farmer groups.

The methods enhance farmer-to-farmer dissemination of farm management technologies.

Methods enhance understanding of local situations.

The process encourages participation and learning among the participants, encourages a two-way process of exploration, questioning and learning.
Advantages of participatory methods

Information can be collected from literate and illiterate people.

Methods are simple to use, relying mostly on oral and visual techniques.
Advantages of participatory methods

The methods facilitate making full use of local knowledge and experience, limiting the imposition of outsiders’ preconceptions on local conditions.

Local people are given the opportunity to describe how they do things, what they know and what they want.
Disadvantages of participatory methods

It is very easy to go off-track and collect unnecessary data.

It is a time consuming process.

Quantification of data can be difficult with some of the methods.

It is not always the case that the participatory process leads to consensus; it may, in fact, expose deep differences and conflict among various groups.
Session 5.2:
Use of methods and tools

Learning outcomes:
Understand and be able to apply a selection of participatory methods
Use of methods and tools

In this session you will explore a range of participatory methods that can assist you in more effectively applying farm management tools, covered in module 4.
Participatory methods and tools

The only way to learn participatory methods is to practice them:

- Seasonal calendars
- Transect walks
- Venn diagrams
- Trend lines
- Flow diagrams
- Participatory theatre
- Maps and mapping
- Semi-structured interviews
- Observation
# Seasonal calendar

<table>
<thead>
<tr>
<th></th>
<th>Jan</th>
<th>Feb</th>
<th>Mar</th>
<th>Apr</th>
<th>May</th>
<th>Jun</th>
<th>Jul</th>
<th>Aug</th>
<th>Sep</th>
<th>Oct</th>
<th>Nov</th>
<th>Dec</th>
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<tbody>
<tr>
<td>Rainfall</td>
<td>Heavy</td>
<td>Light</td>
<td>Slight</td>
<td>Slight</td>
<td>Light</td>
<td>Light</td>
<td>Good</td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Land preparation</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>2 Labours</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Planting/merging/fertilizing</td>
<td>2 Labours</td>
<td></td>
<td></td>
<td></td>
<td>2 Labours</td>
<td>1 Labour</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Weeding</td>
<td>5 Labours</td>
<td>2 Labours</td>
<td>1 Labour</td>
<td></td>
<td></td>
<td></td>
<td>1 Labour</td>
<td>5 Labours</td>
<td>5 Labours</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Irrigation</td>
<td>1 Labour</td>
<td>1 Labour</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>5 Labours</td>
<td>1 Labour</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Spraying</td>
<td>1 Labour</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>2 Labours</td>
<td></td>
<td></td>
<td>2 Labours</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Harvesting</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>5 Labours</td>
<td>2 Labours</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bagging selling</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>2 Labours</td>
<td>5 Labours</td>
<td></td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>
Transect walk
Trend line

Key

- Prices of cabbages (over the years)
- Prices of tomatoes (over the years)
Map and mapping
Session 5.3:
Symbol-based methods and calculations

Learning outcomes:
Understand and apply symbol-based methods and calculations
Symbol-based methods and calculations

In this session you will learn about symbol-based communication and the role it can play in extension, particularly among semi-literate and semi-numerate farmers.

The methods will include gross margins, food requirements and labour planning.

With this basic practice, you should be able to apply symbol-based communication to other tools, such as break-even and cash flow.
Symbol-based methods and calculations

Farm management tools can be divided into two groups:

**Complex calculations**
- Gross margin budgets
- Marketing margins
- Break-even
- Sensitivity analysis
- Cash flow

**Simple calculations**
- Food requirement
- Labour planning
Symbol-based methods and calculations

Each of the tools can be conducted using both numeric and symbol-based methods.

The basic principle for symbol-based calculations applies to both groups: that is, numbers are replaced with symbols.

When applying this method with farmers, you will have to decide how to create the symbols.
Symbol-based methods and calculations

If calculations are done in a room where paper and pens are available, then it is possible to draw symbols.

If they are done in the field, it may be necessary to create symbols with rocks, beans, sticks.

In either case, the first step is to create a matrix or framework that represents the farm management tool.

The next slides show an example of a symbol-based labour plan.
**Labour Analysis.** Below is a basic labour plan for 2.5 acres of cabbage with a yield of 168 bags per acre and 420 bags in total.

<table>
<thead>
<tr>
<th>Activities</th>
<th>January</th>
<th>February</th>
<th>March</th>
<th>April</th>
<th>May</th>
<th>June</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Land preparation</td>
<td>—</td>
<td>—</td>
<td>Planting/manuring</td>
<td>—</td>
<td></td>
<td>Harvesting</td>
<td>17</td>
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<tr>
<td>Buying seed</td>
<td>—</td>
<td>2</td>
<td>Spraying</td>
<td>3</td>
<td></td>
<td>Buying bags</td>
<td>170</td>
</tr>
<tr>
<td>Buying manure</td>
<td>—</td>
<td>9</td>
<td>Weeding</td>
<td>35</td>
<td></td>
<td>Bagging-selling</td>
<td></td>
</tr>
<tr>
<td>Buying fertilizer</td>
<td>—</td>
<td>20</td>
<td>Transplanting</td>
<td>—</td>
<td>25</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Buying pesticide</td>
<td>—</td>
<td>30</td>
<td>Harvesting</td>
<td>—</td>
<td>50</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Planting/manuring/fertilizing</td>
<td>—</td>
<td>—</td>
<td>Buying bags</td>
<td>—</td>
<td>50</td>
<td></td>
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</tr>
</tbody>
</table>

To translate this to a symbol-based method, we need to create symbols for numbers and activities.

**Activity symbols**

- **= Land preparation**
- **= Buying seed**
- **= Buying manure**
- **= Buying fertilizer**
- **= Buying pesticide**
- **= Planting/manuring/fertilizing**
- **= Spraying**
- **= Weeding**
- **= Transplanting**
- **= Harvesting**
- **= Buying bags**
- **= Bagging-selling**
- **= 1 labourer**
- **= 5 labourers**
- **= 10 labour days**
- **= 50 labour days**
- **= 100 labour days**
<table>
<thead>
<tr>
<th>Activities</th>
<th>January</th>
<th>February</th>
<th>March</th>
<th>April</th>
<th>May</th>
<th>June</th>
<th>Total</th>
</tr>
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<tr>
<td></td>
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<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Total labour required</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Labour days</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
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</tr>
</tbody>
</table>
Module 5 : Review

• Do you believe that the overall purpose of the module has been achieved?
• You should have an understanding and skills to apply participatory methods and symbol-based tools in support of market-oriented farming.