



Sector-Specific

PACA

Tools

AGRICULTURE



MAY 2018 EDITION

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ABOUT THIS BOOKLET

This AG-specific booklet serves as a supplement to, not a replacement of, the PACA Field Guide. In this booklet, you will find a number of agriculture specific tools that can increase your ability to build a more participatory approach with your agriculture projects. While there are a number of agriculture specific tools that are presented in this booklet, **most of the general tools in the PACA Field Guide can be used for agriculture projects.**

Adapting PACA Field Guide tools for your AG projects

For example, take the **Community Mapping** tool in the Discover phase; if you consider your “community” to be a farm household, an informal gathering of interested farmers or a formal farmers group, you can use this same tool to take a close look at the land holdings or ‘farms’ of each individual or group through their eyes. A **Farm Mapping** activity, then, allows your ‘community’ to inventory their ‘assets’, identify their problems and opportunities and begin discussions and planning with you to determine where you can provide assistance.

Key PACA considerations for AG Volunteers

As you work with your community members and use the tools in the PACA Field Guide, keep in mind the following key considerations for you as an AG volunteer:

- What types of agriculture activities are practiced in your community?
- What agriculture-related technical services and service providers are available in your community?
- Are there already services or linkages in the community between farmers or between farmers and public or private agriculture extension or advisory services?
- Who has access to opportunities, resources and services?
- Who controls or makes decisions about those opportunities, resources and services?
- How does gender, or age considerations, play a role in these activities or services? For example, what are the gender norms or roles that contribute to (or may constrain) local agricultural practices? Are women and/or youth able to access services?
- What are the cultural expectations that affect males and females in agriculture?
- What are the cultural expectations that affect youth involvement in agriculture?
- Are there any professional or trained individuals in the community that you can work with?
- Are there individual farmers that appear highly motivated and well respected that you can work with?
- Are there any informal or formal farmer groups that exist in the community that you can work with?



Group Profile

To jointly determine the characteristics of the participants vis-à-vis the activities being studied. This is a fast, convenient way of acquiring a general understanding of socio-economic, qualitative, and quantitative characteristics. All participants can be included in this exercise, which can be conducted as a fun game.

Time: 2 hours

Difficulty: easy

Materials: Newsprint, construction paper, glue or tape, markers

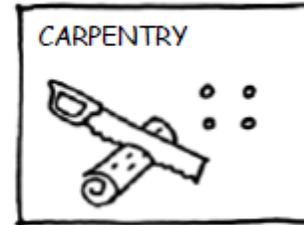
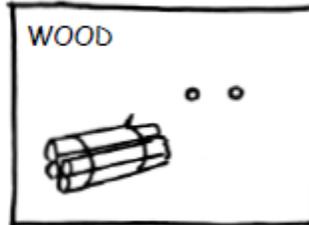
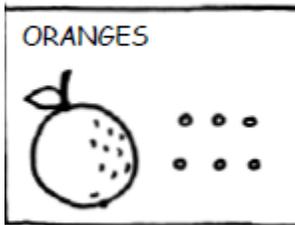
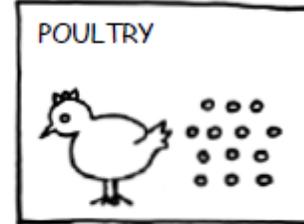
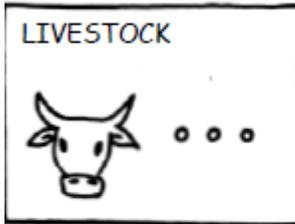
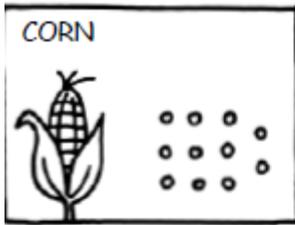
Communicative language tasks: Ask follow-up or clarifying questions; Ask questions; Facilitate a group discussions; Solicit ideas/responses

Steps:

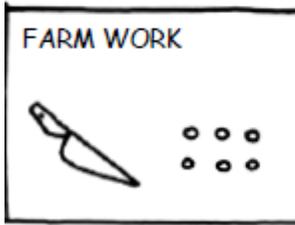
1. Explain the objectives of the exercise (e.g., “In order to improve our work with the community, we want more information on your main activities.”) and the methodology employed.
2. Start with basic information—for example, “What are the community’s main activities/crops?” Using cards, the facilitator may either write each item out or use symbols understood by all, depending on the reading skills of the participants. Once the first issue has been covered, the cards are taped to the board.
3. Repeat the exercise to collect data on the other relevant topics, such as land tenure, use of inputs, credit, etc. If the participants grow uncooperative because sensitive issues are being addressed, do not put those issues on the board.
4. Once the group feels it has covered all relevant topics, conduct the census. Each participant should draw an “x” or a small circle on each card to describe the activities he or she performs, or highlight relevant characteristics in each case. Colored markers are useful for this part of the exercise. Participants should not be apprehensive about the census, since it is anonymous.
5. Discuss the results with the participants—e.g., explain obvious discrepancies, unusual activities, etc. If possible, discuss gender issues as well.
6. Ask the participants what they think of the exercise. Write the results down and turn them over to the group.

Source: Geilfus, Frans. 2008. 80 Tools for Participatory Development. San Jose, Costa Rica: IICA.

PRODUCTION



OTHER INCOME



LAND TENURE

OWNERS



TENANTS



SHARECROPPERS





Livelihoods

To understand income levels within the community, as well as the conditions in which people have access to sources of income. This information should be based on the perceptions of the people themselves. This is a very useful tool for understanding the general development situation of a community, as well as its position within the social structure.

Time: 1-2 hours

Difficulty: moderate

Materials: Blackboard, chalk, newsprint, markers, cards

Communicative language tasks: Ask follow-up or clarifying questions; Ask questions; Brainstorm and elicit ideas; Solicit ideas/responses

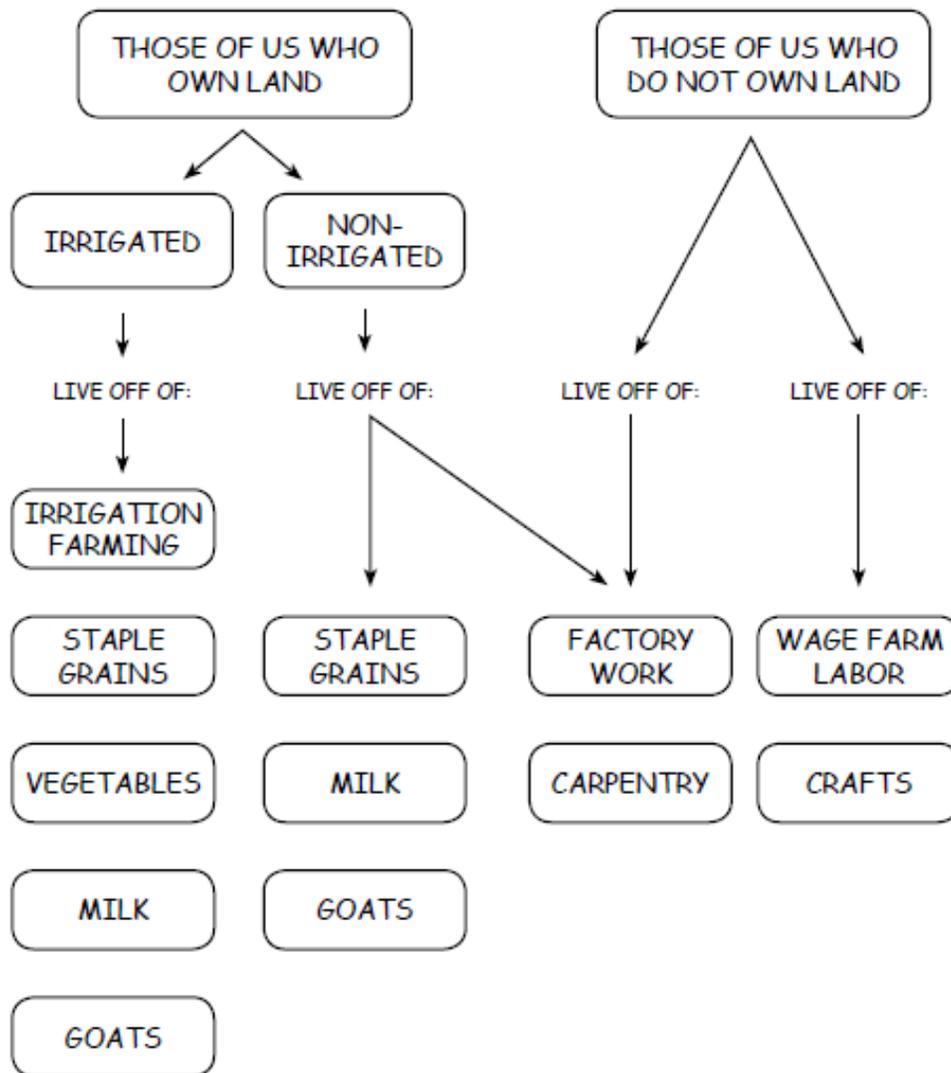
Steps:

1. Gather a group of respondents that is representative of the community, or, if feasible, a large group of people. Explain the objective of the exercise.
2. Ask the participants to name all the sources of income available to the members of the community. Encourage them to hold a “brainstorm” as thoroughly as possible. Record the income sources on cards or on the board. If some of the participants are illiterate, agree on symbols to represent each source of income.
3. Begin classifying income sources on the basis of questions regarding access: Do all members of the community have access to this income? If not, who does? Who does not have access, and why? Use different marker colors for each set of access conditions, and group income sources as appropriate under each set of conditions.
4. After the access conditions have been established, rank them in order of importance, so that the cards can be organized in flow-chart form. Discuss the results with the participants.

Source: Geilfus, Frans. 2008. 80 Tools for Participatory Development. San Jose, Costa Rica: IICA.

LIVELIHOODS

HOW DO WE MAKE A LIVING?





Organizational/Institutional Analysis: Venn Diagram

To learn about the organizations and groups that are active in the community, determine how they are perceived by their members, and understand how they interact with one another. This may be of use when assigning responsibilities during the planning stage

Time: 1-2 hours

Difficulty: moderate

Materials: Blackboard or newsprint, markers, circles of different sizes (at least 20 in 3 different sizes)

Communicative language tasks: Ask follow-up or clarifying questions; Ask questions; Facilitate a group discussions; Solicit ideas/responses

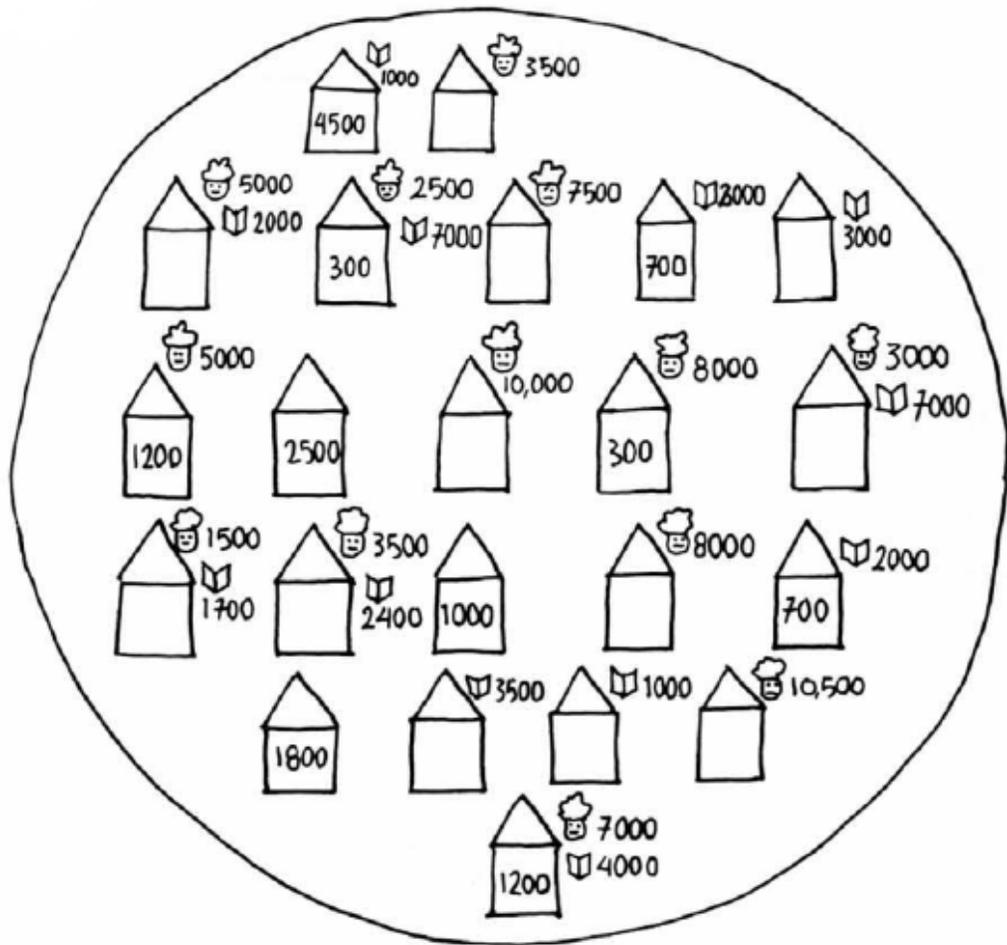
Steps:

1. Begin a discussion on institutional issues. Submit the diagram as a visualization tool.
2. Ask the participants to name all the organizations and institutions that have an impact on community life. The discussion could begin with a question: Which institution is most important for the development of the community? Let the participants decide.
3. Write the names of the “most important” organizations inside the largest circles (1 per circle), and put them up on the board. Do the same with the other institutions; rank them in order of importance, using smaller and smaller circles.
4. Ask the participants what relationships exist between these organizations. Arrange the circles of paper on the board so that related organizations are touching one another. If this is too complicated, use arrows to symbolize the relationships. This phase may require considerable discussion.
5. The end result of the exercise is a diagram of inter-institutional relationships in the community. If you have been working in sub-groups, compare the results obtained by each group.

The value of this exercise lies in triangulation (comparing the perspectives of different stakeholders).

Source: Geilfus, Frans. 2008. 80 Tools for Participatory Development. San Jose, Costa Rica: IICA.

SOCIAL MAP - CREDIT



TYPE OF CREDIT

-  LOANS FROM OTHER COMMUNITY MEMBERS OR RELATIVES
-  MONEYLENDERS
-  BANK LOANS

CONSOLIDATED RESULTS

No. OF HOUSEHOLDS: 22
 LOANS FROM RELATIVES: 10
 (TOTAL OF US\$ 14,200)
 LOANS FROM MONEYLENDERS: 13
 (TOTAL OF US\$ 75,000)
 BANK LOANS: 12
 (TOTAL OF US\$ 36,000)



Seasonal Analysis

To portray seasonal variations in parameters and activities in community life. These diagrams are a particularly effective way of illustrating the relationship that exists between various activities and seasonal changes. They can be used to design initiatives and plan activities on issues such as food availability, income and labor, academic and social activities, income sources, expenditures, credit, disease, manpower, etc.

Time: 2-3 hours

Difficulty: moderate

Materials: Blackboard and chalk, or newsprint and markers

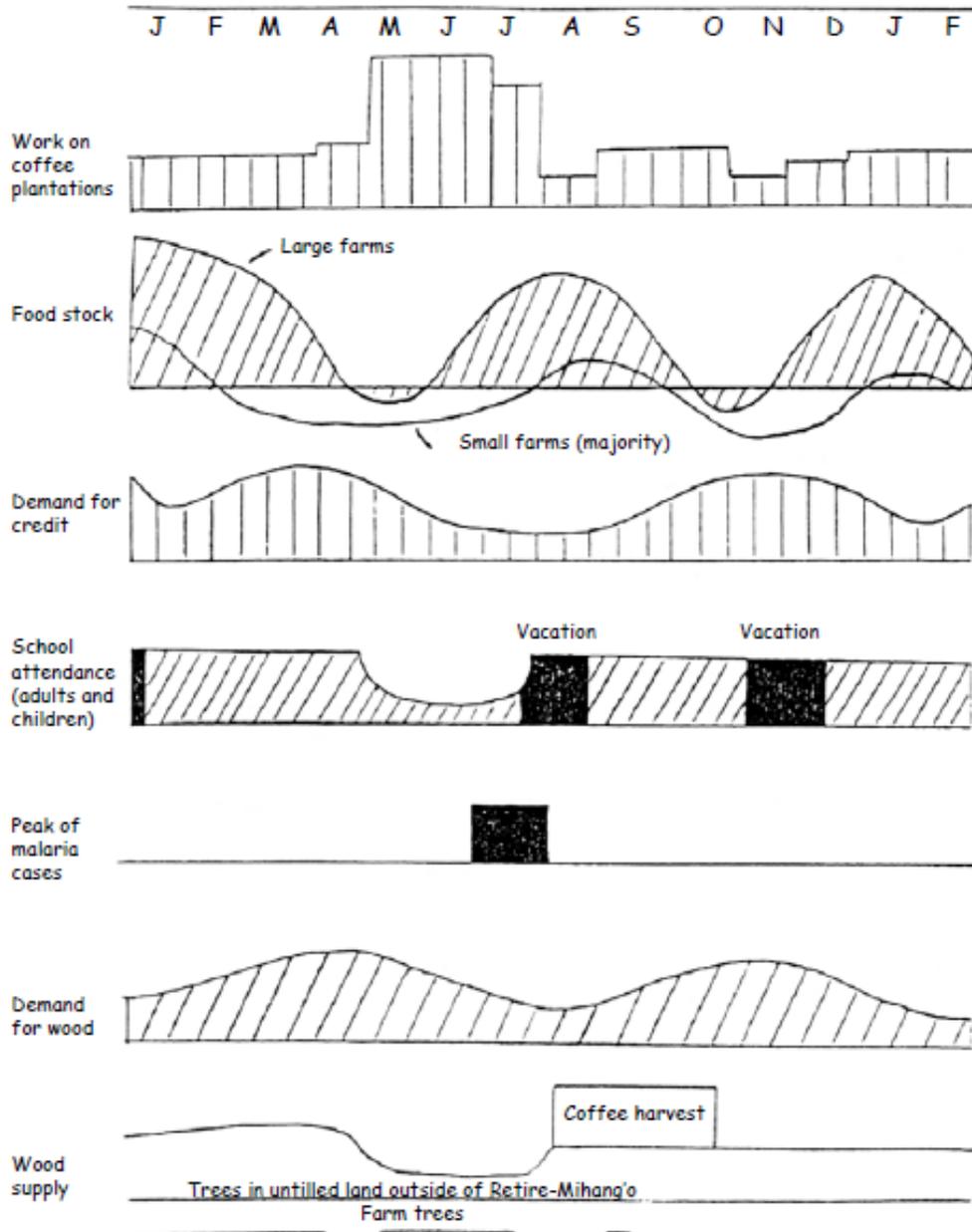
Communicative language tasks: Ask follow-up or clarifying questions; Ask questions; Facilitate a group discussions; Solicit ideas/responses

Steps:

1. Organize a meeting with the community or with interested members. Explain the purpose of the seasonal calendar, and discuss the parameters to be included; these will vary depending on the approach and the group involved. Limit the discussion to 4 or 5 parameters.
2. Draw a linear time scale on the blackboard or newsprint. Use the calendar employed by the community (January may not necessarily be its starting point). Let the participants decide who is going to draw.
3. Use lines or boxes to describe the seasonal variations of each parameter. The starting point does not have to be the beginning of the year. The description of labor demand, for example, can begin at the month when demand is highest. Proceed in this manner until the year is completed. Repeat for each parameter.
4. Discuss the results, identifying the best/worst times of year for each parameter.
5. Explain how the calendar will be used. Provide the participants with a copy.
6. The calendar developed by one group can be consolidated with and checked against the results of the other groups.

Source: Geilfus, Frans. 2008. 80 Tools for Participatory Development. San Jose, Costa Rica: IICA.

Seasonal variations. Well-being calendar,
Retire-Mihang'o irrigation basin, Murang'a district, Kenya



Source: N.E.S. 1990



Farm Mapping

To describe farmers' views regarding the use of physical space on their farms, and to map whatever relevant information is obtained.

Time: 1-2 hours

Difficulty: moderate

Materials: Blackboard and chalk, and/or plain paper or newsprint and markers

Communicative language tasks: Ask follow-up or clarifying questions; Ask questions; Facilitate a group discussions; Solicit ideas/responses

Steps:

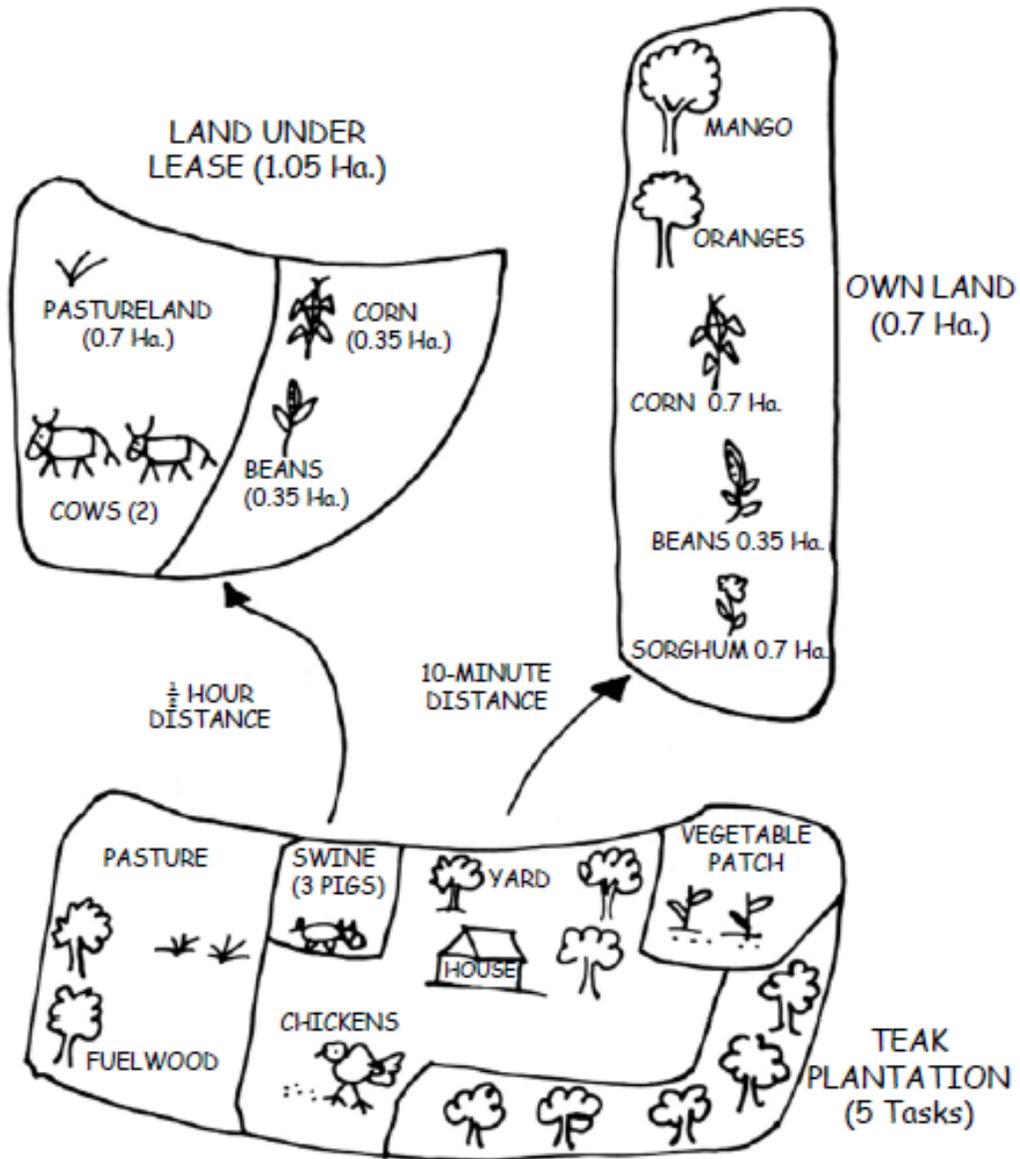
Mapping can be a group exercise, with each farmer drawing a map of his or her farm, with the help of the other participants. It can also be done individually. If the former approach is adopted, the educational aspect of the exercise should be emphasized, although the level of detail should perhaps be restricted. Greater detail is possible with families, since every member of the family group can participate. Efforts should be made to ensure the involvement of as many family members as possible, in order to avoid gender or age biases.

1. Gather the participants (10 max.) or their relatives, and explain the objective of the exercise.
2. Discuss how the map is going to be drawn and what items are going to be included (house, fields, pastureland, animals, storage areas, trees, springs, etc.).
3. Help “jumpstart” the exercise (e.g., help locate the first few reference points), and then let the group work on its own, drawing on the board, on paper, or on the ground. Start with a “basic map” of important reference points, such as houses, roads, etc. After this point, the facilitators should refrain from any further involvement.
4. Submit the map to the group for discussion. Complete the final draft with input from the participants.
5. Provide one copy of the map/s for the community and one for the technical team. Discuss their possible uses (see “systemic farm model”, “farm planning map”).

This map is an essential starting point for problem analysis and farm planning.

Source: Geilfus, Frans. 2008. 80 Tools for Participatory Development. San Jose, Costa Rica: IICA.

FARM MAP





Systemic Farm Model

Use the map to develop a model of the production unit, including its sub-components, flows, and exchanges. This will serve as the basis for a “system-oriented” analysis that can be understood by both farmers and professionals.

Time: 2-3 hours

Difficulty: moderate

Materials: Blackboard and chalk, and/or plain paper or newsprint and markers

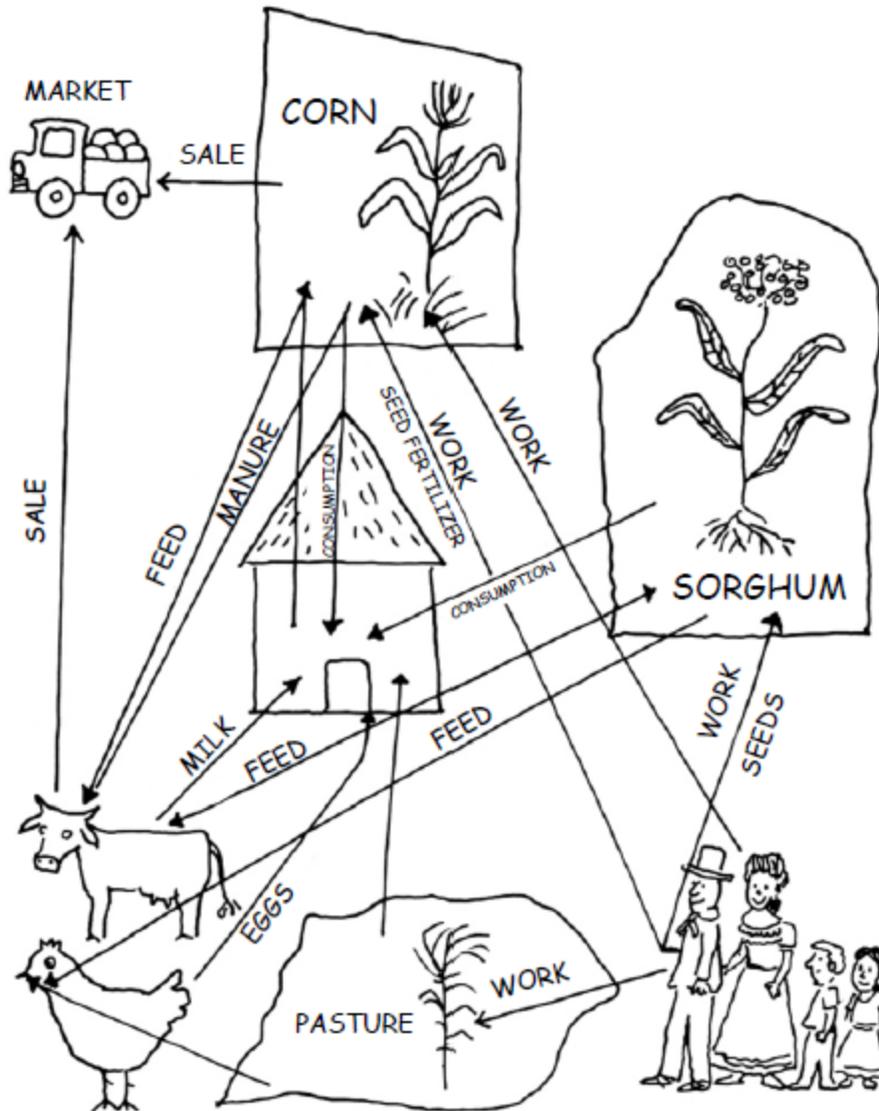
Communicative language tasks: Ask follow-up or clarifying questions; Ask questions; Facilitate a group discussions; Solicit ideas/responses

Steps:

1. Gather the participants and explain the objective of the exercise. Select one of the farms as an example with the approval of the group.
2. The facilitator should begin the exercise him or herself, in order to make sure it is clearly understood. First, the participants must be asked to divide the farm into different components, based on the map: farmland, pastureland, house, storage areas, forest, etc. These components should then be put on the board, clearly separated from one another (a flowchart superimposed on the map itself would be too confusing). Universally understood symbols should be used.
3. The facilitator should ask the farmer and his or her family to list (with the help of the group) everything that “comes out” of each component (production, by-products, waste), starting with one of the “crop” components. Labeled arrows should be used to show where each product comes from and where it goes (e.g., to the house for consumption, to the market for sale, etc.).
4. The same procedure should be followed for everything that “goes in” to each component (inputs, labor, etc.). The source of each input should be identified.
5. Repeat the process for each component (as long as the exercise does not become too complicated). As soon as the participants “get the hang” of the exercise, they should be left to work on their own, with as little interference as possible.
6. If the participants agree, flows can be quantified.
7. Transcribe the diagram/s, providing one copy for the community and one for the technical team. Discuss its possible uses (see “problem census”, feasibility of alternatives).

Source: Geilfus, Frans. 2008. 80 Tools for Participatory Development. San Jose, Costa Rica: IICA.

SYSTEMIC FARM MODEL





Transect Walk and Plot Diagramming

To identify in the field, and portray in a diagram, the various aspects of farm plot management: plot use, crops and varieties thereof, cultural practices, problems, and development potential. This diagram can serve as a starting point for a discussion of alternatives.

Time: Varies; discussion no longer than 1 hour **Difficulty:** moderate

Materials: A farm map, a pad for note-taking during the tour, newsprint, and markers

Communicative language tasks: Ask follow-up or clarifying questions; Ask questions; Facilitate a group discussions; Solicit ideas/responses

Steps:

The methodology is similar to that employed for the community transect walk and diagramming exercise. In this case, the “micro” aspects of a farm plot are emphasized. The idea is to describe farm characteristics and changes by touring each plot. Management issues such as variations in cropping patterns, changes in varieties, pests, etc. should be documented in detail. The exercise follows the participatory farm mapping approach.

1. The exercise should be conducted with family members – and others, if necessary (e.g., a focus group). Discuss the best route for the tour; it does not have to be a straight line, but it should be as diverse as possible in terms of terrain, land use, etc. The technical team may find a checklist or interview guide to be very useful (see “semi-structured dialogue”).
2. Begin the tour following the agreed itinerary. Write down the main features and changes encountered. Since changes can be difficult to detect in an individual plot, input should be requested from the participants. Write down all observations and comments.
3. Portray the information obtained from the participants on a large sheet of newsprint as a plot diagram that includes all of the sections identified and their respective names. (This step can be carried out during or after the tour, depending on the complexity of the plot.)
4. Following a discussion with the group or with each participant, add essential information to the diagram regarding the use and state of resources in each section of the farm plot: What does each section contain (soil characteristics, use – whatever is relevant)?
 - Why have [management or other] changes taken place?
 - Who works in and benefits from each section?

Specific problems associated with these issues can be listed.

5. Ask the participants what they think of the exercise. Write the results down and turn them over to the group.

Source: Geilfus, Frans. 2008. 80 Tools for Participatory Development. San Jose, Costa Rica: IICA.



Description of Management Practices

Farmers differ from each other, not only in terms of access to resources, but also in the way they manage such resources. Management practices can be identified in a participatory manner. More importantly, farmers can be asked why they adopt different practices.

Time: 1-2 hours

Difficulty: moderate

Materials: Blackboard and chalk, newsprint and markers, cards

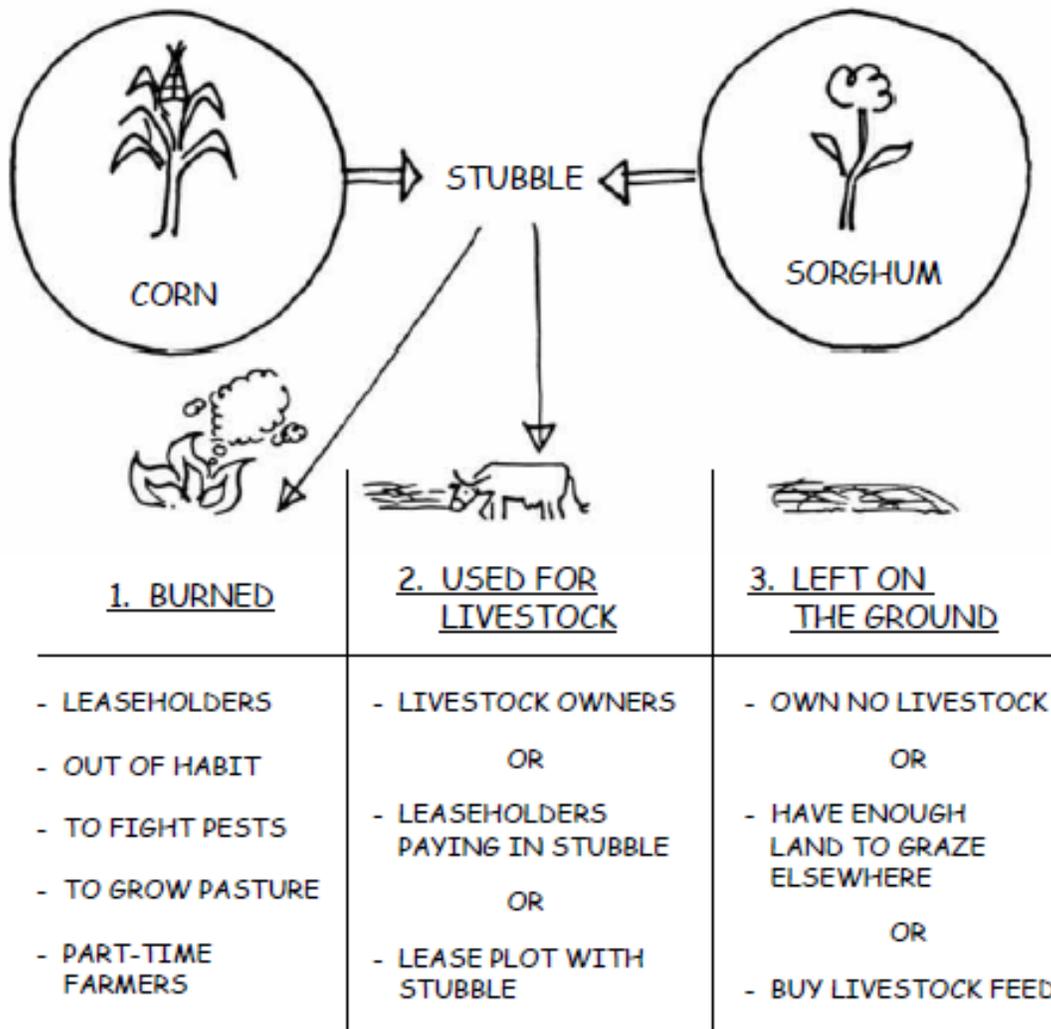
Communicative language tasks: Ask follow-up or clarifying questions; Ask questions; Brainstorm and elicit ideas; Facilitate a group discussions; Solicit ideas/responses

Steps:

1. Identify the issue/s to be analyzed (based on a prior assessment of problems.)
2. Gather a group of experienced individuals – preferably from different groups / strata within the community. Explain the objective of the exercise.
3. Ask the participants to identify the management practices followed in the community. Portray them visually.
4. Hold a “brainstorming session” to determine who employs different practices and why they do so. The facilitator should not settle for superficial answers; the factors that influence management practices – access to resources, land tenure, family composition, influence of external factors such as projects and extension workers, etc. – must all be examined. Use open questions.
5. A number of ideas will emerge regarding the purpose of each practice and the factors that shape it. These ideas must be analyzed and, if necessary, classified (e.g., natural factors, economic factors, etc.). They should also be ranked in order of importance, if there is a large number of them. An analysis of the relationship between problems and causes may be necessary.
6. Final analysis. The sustainability of each practice (economically, environmentally, etc.) should be assessed, in order to determine whether it constitutes a problem or a solution for development. Other tools are also available for this purpose (analysis of solutions, prioritization, etc.).

Source: Geilfus, Frans. 2008. 80 Tools for Participatory Development. San Jose, Costa Rica: IICA.

SOIL MANAGEMENT PRACTICES





Farm Problem Census

To work with farmers and their families and/or the working group to inventory all problems involving the use of resources and production system, using the map and/or model as a guide. “Bottlenecks” are easy to identify using the model.

Time: 1-2 hours

Difficulty: moderate

Materials: Farm map and/or diagram, blackboard and chalk, newsprint and markers, cards

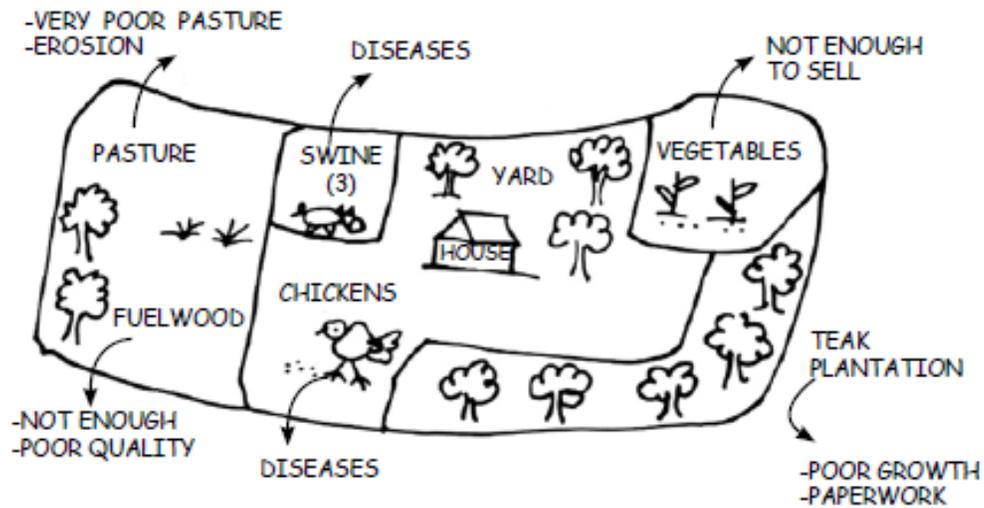
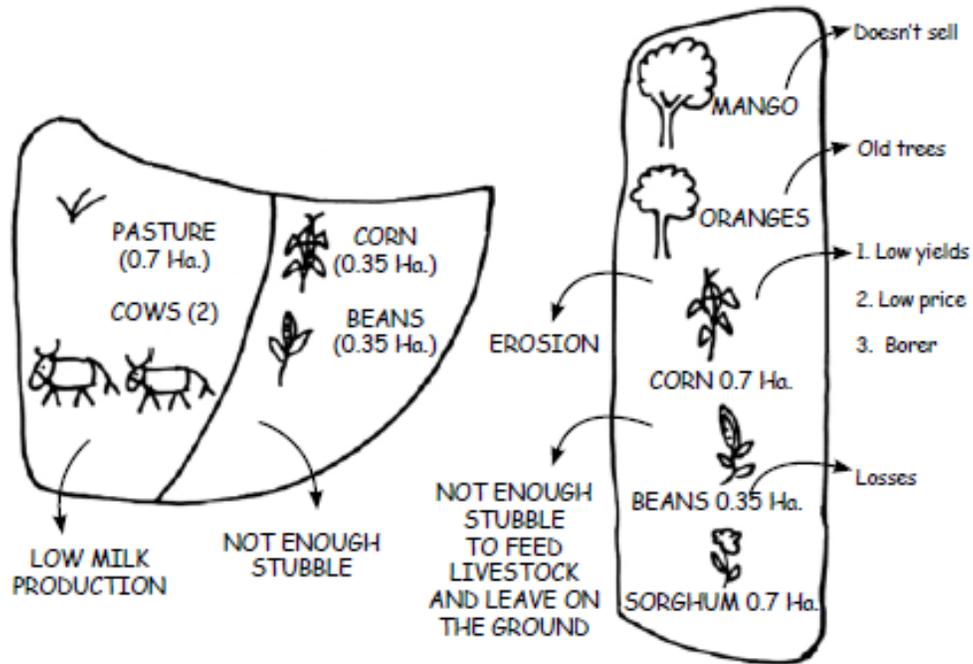
Communicative language tasks: Ask follow-up or clarifying questions; Ask questions; Facilitate a group discussions; Solicit ideas/responses

Steps:

1. Gather the participants and explain the need for – and desirability of – a precise inventory of the problems facing the community’s production system. Use the details in the map and the flows in the diagram to develop a comprehensive, thorough view of the situation.
2. Using the diagram as a guide, ask the participants the following question regarding each flow: What are the main problems in this area? Write the problems down on individual cards or on the blackboard, at each level.
3. Once the participants believe they have finished addressing an issue, select the cards that are to be kept (to avoid repetition). No card should be eliminated without the agreement of all the participants.
4. Move on to the next stage of the diagram and repeat the exercise.
5. Once the entire process has been completed, discuss the problems as a whole. Record them in the diagram.
6. Ask the participants what they think of the exercise. Write the results down and turn them over to the group.

Source: Geilfus, Frans. 2008. 80 Tools for Participatory Development. San Jose, Costa Rica: IICA.

FARM PROBLEM CENSUS





Seasonal Crop Calendars

To illustrate the community's production calendar. These diagrams are a particularly effective way of illustrating the relationship that exists between various activities and seasonal changes. They can be used to design initiatives and plan appropriate measures. Parameters may include rainfall, crop calendars, calendars of related activities, labor availability and demand, pests and diseases, visits by extension workers, and social events, among others.

Time: 2 hours

Difficulty: moderate

Materials: Farm map and/or diagram, blackboard and chalk, newsprint and markers, cards

Communicative language tasks: Ask follow-up or clarifying questions; Ask questions; Facilitate a group discussions; Solicit ideas/responses

Steps:

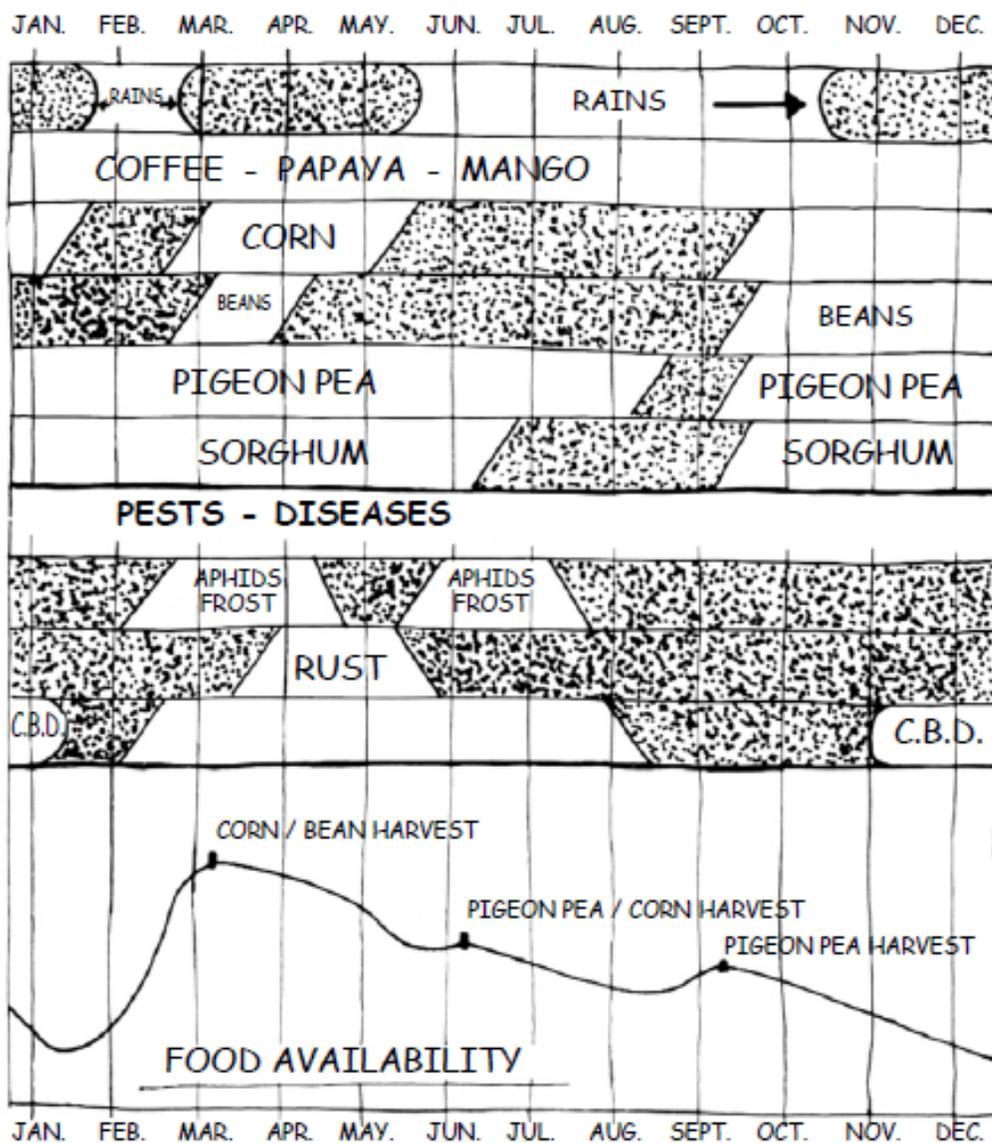
1. Organize a meeting with the entire community or with interested members. Explain the purpose of the seasonal calendar, and discuss the parameters to be included; these will vary depending on the approach and the group involved. Limit the discussion to 4 or 5 parameters.
2. Draw a time scale on the blackboard or newsprint. Use the calendar employed by the community (January may not necessarily be its starting point). Let the participants decide who is going to draw.
3. Use lines or boxes to describe the seasonal variations of each parameter. The starting point does not have to be the beginning of the year. Crop descriptions, for example, can begin at the month when most planting takes place. If necessary, a longer time period may be employed. Proceed in this manner until the year is completed. Repeat for each parameter.
4. Discuss the results, identifying the best/worst times of year to carry out an initiative.
5. Explain how the calendar will be used. Provide the participants with a copy.
6. The calendar developed by one group can be consolidated with and checked against the results of the other groups.

Source: Geilfus, Frans. 2008. 80 Tools for Participatory Development. San Jose, Costa Rica: IICA.

CROP CALENDAR

in an African village

CROPS





Crop Budget (Based on Flowchart of Activities)

To analyze production costs and income with farmers, using the crop flowchart or some other sequence of activities as a guide. This exercise enables producers to easily devise their own budget.

Time: 1-2 hours

Difficulty: moderate

Materials: Flowchart of activities, blackboard and chalk, newsprint and markers

Communicative language tasks: Ask follow-up or clarifying questions; Ask questions; Solicit ideas/responses

Steps:

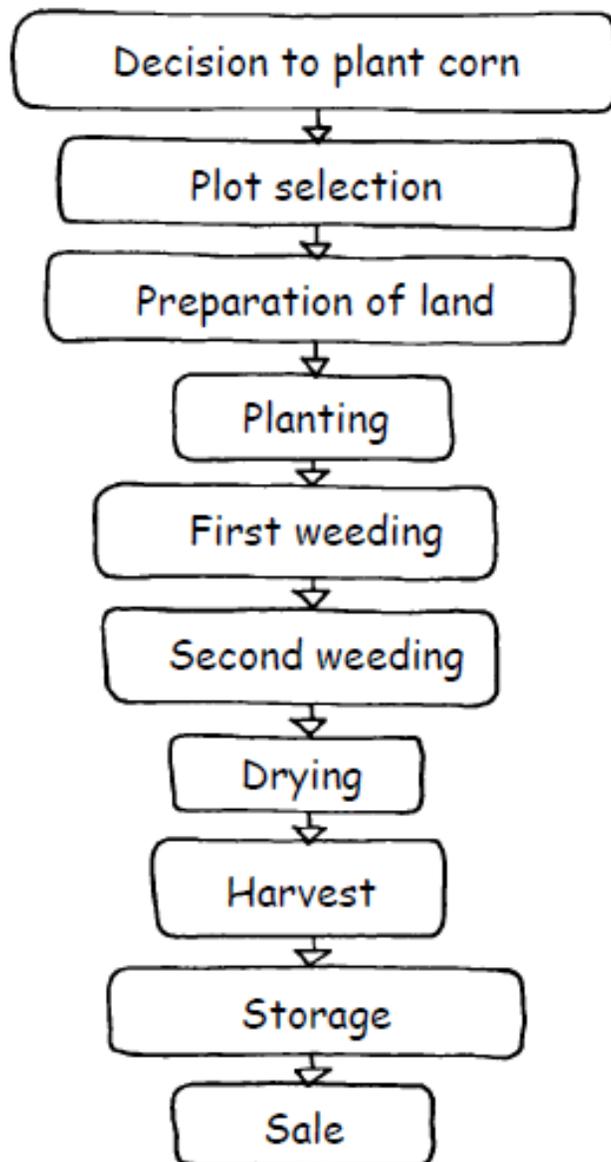
1. Gather the participants and explain the need for – and desirability of – a precise assessment of farming production costs and income. Tracking activities over time helps to provide a complete, detailed understanding of the situation. If the participants have not completed the flowchart, they should do so at this point. A detailed appraisal can be developed for a specific case, or the group can work to establish average values or ranges.
2. Using the flowchart of activities as a guide, ask the participants the following questions:
 - How much land is being formed? – for calculations in manzanas or hectares.
 - Family labor – Who works during this stage? For how many days?
 - Paid labor – Were paid workers employed during this stage? For how many days, and at what cost?
 - Seeds – Were seeds purchased? If so, determine the amount and the price (including shipping costs).
 - Pesticides – Were pesticides used? If so, determine the amount and the price (including shipping costs).
 - Other inputs – machinery, plow rental, other.
 - Harvest shipment – Were there shipping costs? If so, determine the total cost.
 - Production – How much was produced? Quantity produced (there should be a clear understanding of the units of measure employed).
 - Sale – How much was sold? At what price?

The data obtained should be written on the board in an orderly fashion (see illustration). Use symbols if necessary. (**FORMATTING ISSUE)

3. Once the data is organized, total costs and income – gross, net (with or without the value of family labor), net daily income from family labor – can be easily calculated with the participants.

Source: Geilfus, Frans. 2008. 80 Tools for Participatory Development. San Jose, Costa Rica: IICA.

FLOW CHART OF ACTIVITIES: CORN PRODUCTION





Historical Graphing of Production System

To analyze production costs and income with farmers, using the crop flowchart or some other sequence of activities as a guide. This exercise enables producers to easily devise their own budget.

Time: 1-3 hours

Difficulty: moderate

Materials: Newsprint or blackboard, markers

Communicative language tasks: Ask follow-up or clarifying questions; Ask questions; Solicit ideas/responses

Steps:

This is a group exercise intended for focus groups, large meetings, or families (farm history). If quantitative information is required (variations in yields or prices, for example), focus on a relatively short period of time (10 years, max). If a longer period is to be covered, make sure several elderly people are present. In the latter case, no quantitative data should be requested, as they would be unreliable.

1. Agree with the participants on the issues to be addressed. This will depend both on the focus of the study and its importance to people. If the timeline has not been completed, this would be the time to do so, in order to determine the dates of major changes in the community (this is particularly important if information is to be collected about the distant past).
2. Create a matrix headed by the issues to be addressed, with as many columns as there are periods in the exercise (periods between two key dates in the timeline, or – in the case of the recent past – one column per year). Agree on a symbol to represent each issue.
3. Ask the participants to use symbols to rate the importance of each issue during the periods in the matrix. For example, one dot might mean that an issue was not important during a given period; two points would mean it was important, and three would mean it was very important. No dots would mean the issue was not a factor at the time.
4. When all the participants have filled out the matrix, the number of dots in each cell will reflect historical trends (e.g., variations in the importance of a given crop – see example). Ask the participants if the trends shown match their experience. Write down all opinions or comments on cards. The facilitator can encourage discussion to explain the most obvious fluctuations and changes. Notes should be taken on discussions and explanations regarding the graph, since they often turn out to be important. The graph should also be analyzed in terms of problems and possibilities.

The graph can also be developed by consensus, in which case variations over time would be illustrated using a trend line.

Source: Geilfus, Frans. 2008. 80 Tools for Participatory Development. San Jose, Costa Rica: IICA.

HISTORICAL GRAPHING OF PRODUCTION SYSTEM

PERIOD SOURCE OF INCOME	UP TO 25 YEARS AGO	BEFORE RICE PROJECT 15 TO 25 YEARS AGO	(DURING RICE PROJECT) 12 TO 15 YEARS AGO	3 TO 12 YEARS AGO	PRESENT DAY (UP TO 3 YEARS AGO)
SORGHUM 	12	19	7	22	30
PEANUTS 	8	19	5	24	40
RICE 	15	6	19	5	10
CORN 	8	17	8	20	32
BEANS 	4	4	4	4	5
VEGETABLES 	14	18	5	20	40
FRUITS 	20	20	20	20	45
CATTLE 	18	20	20	20	20
GOATS 	17	20	20	20	20
REMITTANCES 	5	5	10	25	30
FISHERY 	8	8	10	8	10
WATERMELON 	7	7	10	10	20

EXAMPLE FROM GAMBIA (AFRICA)

Source: IIED



Crop/Seasonal Activity Problem Census

To identify all of the problems the community faces with regard to crops / seasonal activities, using the crop flowchart or some other sequence of activities as a guide.

Time: 1-2 hours

Difficulty: moderate

Materials: Flowchart of activities, blackboard and chalk or newsprint and markers, cards

Communicative language tasks: Ask follow-up or clarifying questions; Ask questions; Solicit ideas/responses

Steps:

1. Gather the participants and explain the need for – and desirability of – a precise assessment of farming production costs and income. Tracking activities over time helps to provide a complete, detailed understanding of the situation. If the participants have not completed the flowchart, they should do so at this point.
2. Using the diagram as a guide, ask the participants the following question regarding each flow: What are the main problems in this area? Write the problems down on individual cards or on the blackboard, at each level.
3. Once the participants believe they have finished addressing an issue, select the cards that are to be kept (to avoid repetition). No card should be eliminated without the agreement of all the participants.
4. Move on to the next stage of the diagram and repeat the exercise.
5. Once the entire process has been completed, discuss the problems as a whole. Record them in the diagram.
6. Ask the participants what they think of the exercise. Write the results down and turn them over to the group.

Source: Geilfus, Frans. 2008. 80 Tools for Participatory Development. San Jose, Costa Rica: IICA.

CORN PROBLEMS

STAGES	PROBLEMS
DECISION TO PLANT	<ul style="list-style-type: none"> - INSUFFICIENT KNOWLEDGE OF THE MARKET FOR THE VARIETIES TO BE PLANTED - UNCERTAINTY REGARDING PLANTING DATE
PLOT SELECTION	<ul style="list-style-type: none"> - SCARCITY OF LAND - EROSION - LEASEHOLDERS HAVE FEW CHOICES
PREPARATION OF LAND	<ul style="list-style-type: none"> - LABOR SHORTAGES - HIGH COST OF LEASING DRAUGHT ANIMALS - SCARCITY OF DRAUGHT ANIMALS
PLANTING	<ul style="list-style-type: none"> - POOR CHOICES OF VARIETY - UNRELIABLE RAINS WEEVILS
FIRST WEEDING	<ul style="list-style-type: none"> - LABOR COSTS - PESTICIDE COSTS - FERTILIZER COSTS SOIL PESTS
SECOND WEEDING	<ul style="list-style-type: none"> - DROUGHT DURING FILLING - LABOR SHORTAGES SOIL PESTS
DRYING	<ul style="list-style-type: none"> - LABOR SHORTAGES STALK ROT
HARVEST	<ul style="list-style-type: none"> - LABOR SHORTAGES - THEFT SHIPPING COSTS
STORAGE	<ul style="list-style-type: none"> - PESTICIDE COSTS - LACK OF ADEQUATE SILOS GRAIN ROT
SALE	<ul style="list-style-type: none"> - LOW PRICES WHEN DEBT FORCES SALE



Crop Biographies

To become acquainted with the community's crop history – the varieties it has traditionally employed, and those it has imported from other areas. This exercise sheds considerable light on agricultural changes, as well as the decision-making process of farmers. It can also serve as a starting point for a discussion of the relative merits of each variety.

Time: 1 hour

Difficulty: moderate

Materials: Blackboard and chalk or newsprint and markers, cards

Communicative language tasks: Ask follow-up or clarifying questions; Ask questions; Solicit ideas/responses

Steps:

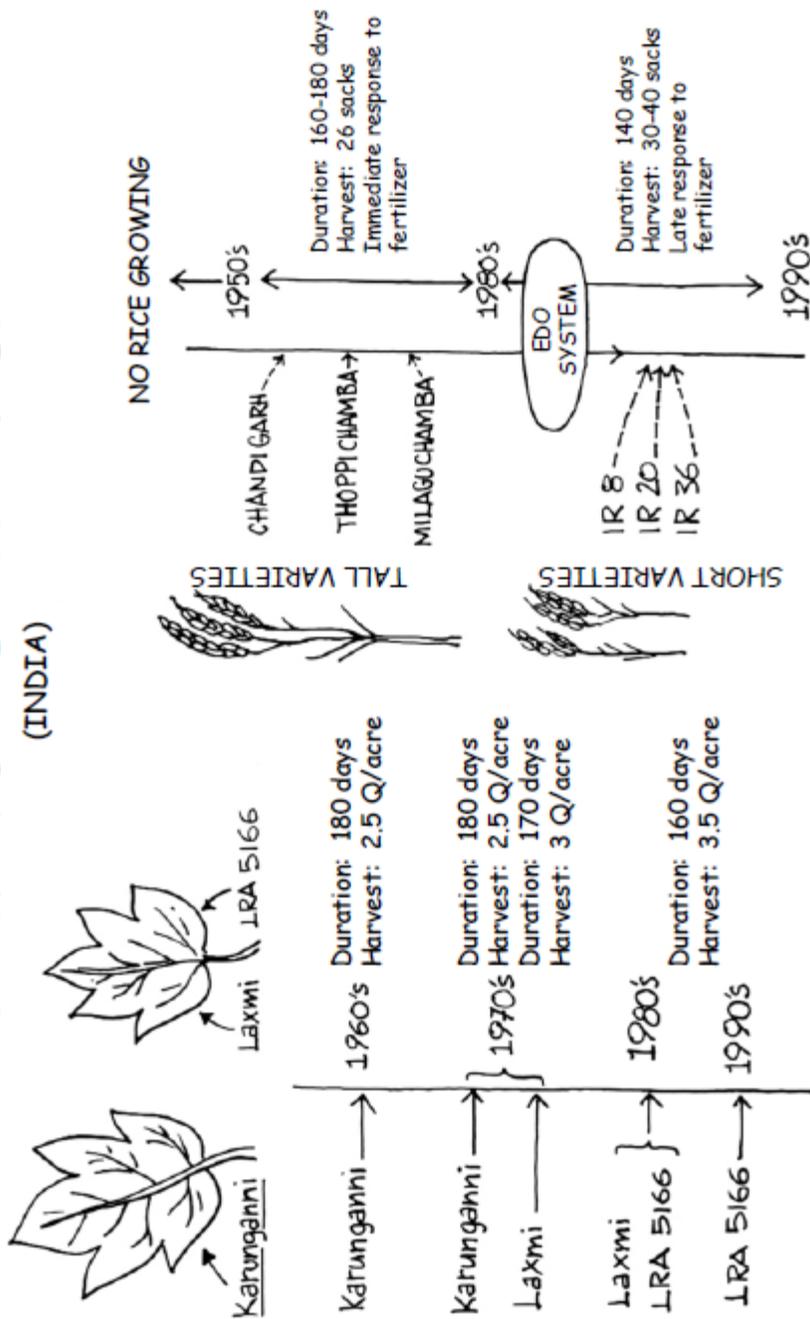
1. Gather a group of respondents, including elderly people, and explain the objective of the exercise.
2. Ask the participants about the varieties currently employed. Have they always been used? If not, when were they introduced? Why? Who brought them? What varieties were used before? Create a time scale that shows when each variety was introduced.
3. Ask the participants to describe the characteristics of each variety. Then ask them to illustrate the diagram.

This exercise can be followed by the development of an agronomic preference matrix. It should be repeated with several sources, in order to “cross-check” the data of different communities.

Source: Geilfus, Frans. 2008. 80 Tools for Participatory Development. San Jose, Costa Rica: IICA.

COTTON AND RICE BIOGRAPHIES

(INDIA)





Agronomic Preference Matrix

To analyze the criteria and preferences that determine which crops, varieties, etc. are preferred by the community. This analysis should be based on the knowledge of the community's farmers. This is an essential first step, which should precede any recommendation or transfer of technology.

Time: A maximum of 3 hours

Difficulty: moderate

Materials: Paper, cards, markers, blackboard or newsprint

Communicative language tasks: Ask follow-up or clarifying questions; Ask questions; Facilitate a group discussions; Solicit ideas/responses

Steps:

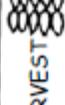
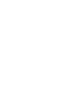
This example shows an assessment of farmers' knowledge of beans, as well as the criteria they employ and the varieties they prefer.

1. Gather a group of experienced farmers from the area. It is very important to include women; they should either participate alongside the others or be included in separate working groups. Explain the objective of the exercise.
2. Work with the participants to create a list of criteria they believe to be important in the selection of a crop variety. The discussion can begin with open questions such as, "What do we like in a bean variety?" and "What do we not want?"
3. Draw up a list of locally known varieties (no restrictions should be applied, and local names should be used).
4. Draw a matrix on the board. The matrix should have as many columns as there are varieties to be analyzed, and as many lines as there are selection criteria. Explain the purpose of the matrix, and agree on an evaluation scale (from 3 to a maximum of 5; for example, 0 = bad, 1 = good, 2 = very good). Use symbols if there are illiterate people in the group.
5. The evaluation may be performed either by consensus (where everyone agrees on a score) or by voting (where participants assign scores individually. In this case, colored markers should be used, in order to allow men and women to vote together while also leaving a record of their preferences). Participants must rate each criterion.
6. Discuss the results. Determine whether they are consistent with the experiences of the group. If strong differences of opinion emerge along gender lines – as is often the case – discuss their possible causes. Transcribe the results and provide the group with a copy of the final matrix.

The facilitator may conclude the exercise by asking the group to "create" an ideal variety, specifying the most important characteristics that would please everyone. This information can be very useful when experimenting with new varieties in the community.

Source: Geilfus, Frans. 2008. 80 Tools for Participatory Development. San Jose, Costa Rica: IICA.

PREFERENCE MATRIX RICE VARIETIES

VARIETIES CRITERIA	BORBON	A 5	A 6	A 1	A 2
 HARVEST (0.7 Ha)	oo	ooo o	ooo ooo	ooo	ooo
 STORAGE CAPACITY	oo	ooo o	ooo oo	ooo	ooo
 PEST RESISTANCE	ooo oo	o	o	o	o
 GRAIN QUALITY	ooo	ooo o	ooo oo	ooo	ooo
 FERTILIZER NEED FOR COMPOST	ooo oo	ooo	ooo	ooo	ooo
 PRODUCTION COSTS	ooo oo	oo	oo	oo	oo
INCOME	oo	oooo	ooo oo	ooo o	ooo o
PREFERENCE	<u>v</u>	<u>ii</u>	<u>i</u>	<u>iii</u>	<u>iii</u>



Ex Ante Agronomic Evaluation Matrix

To work with the community to determine whether certain crop varieties are suited to local conditions, according to the knowledge of local farmers. Unlike the preference matrix, this exercise provides much more reliable quantitative data than a closed-question interview.

Time: A maximum of 3 hours

Difficulty: moderate

Materials: Paper, cards, markers, blackboard or newsprint, soil samples and specimens of the crops being studied may also be useful

Communicative language tasks: Ask follow-up or clarifying questions; Ask questions; Facilitate a group discussions; Solicit ideas/responses

Steps:

This example shows an assessment of farmers' knowledge of beans, as well as the criteria they employ and the varieties they prefer.

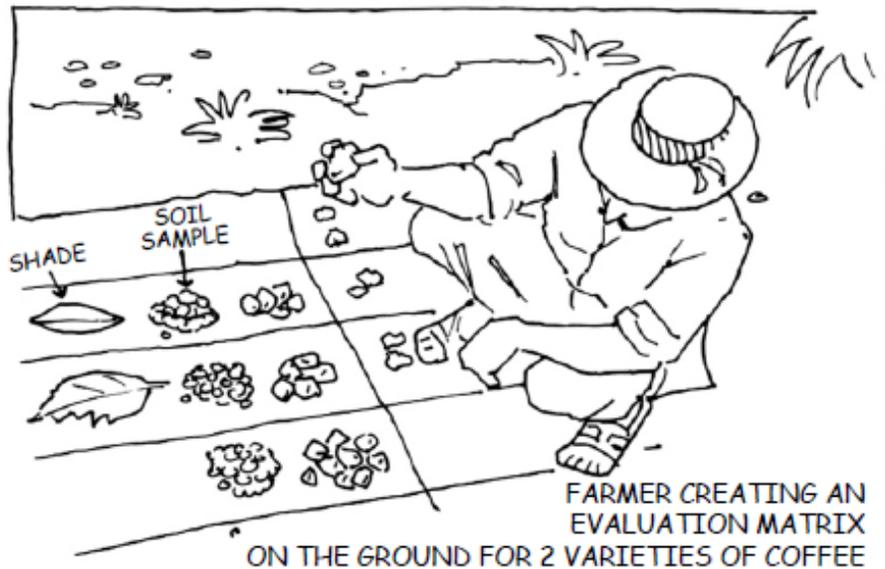
1. Gather a group of experienced farmers from the area. It is very important to include women; they should either participate alongside the others or be included in separate working groups. Explain the objective of the exercise.
2. Work with the participants to create a list of criteria they believe to be important in the selection of a crop variety. The discussion can begin with open questions such as, "What do we like in a bean variety?" and "What do we not want?"
3. Draw up a list of locally known varieties (no restrictions should be applied, and local names should be used).
4. Draw a matrix on the board. The matrix should have as many columns as there are varieties to be analyzed, and as many lines as there are selection criteria. Explain the purpose of the matrix, and agree on an evaluation scale (from 3 to a maximum of 5; for example, 0 = bad, 1 = good, 2 = very good). Use symbols if there are illiterate people in the group.
5. The evaluation may be performed either by consensus (where everyone agrees on a score) or by voting (where participants assign scores individually. In this case, colored markers should be used, in order to allow men and women to vote together while also leaving a record of their preferences). Participants must rate each criterion.
6. Discuss the results. Determine whether they are consistent with the experiences of the group. If strong differences of opinion emerge along gender lines – as is often the case – discuss their possible causes. Transcribe the results and provide the group with a copy of the final matrix.

The facilitator may conclude the exercise by asking the group to "create" an ideal variety, specifying the most important characteristics that would please everyone. This information can be very useful when experimenting with new varieties in the community.

Source: Geilfus, Frans. 2008. 80 Tools for Participatory Development. San Jose, Costa Rica: IICA.

EX ANTE EVALUATION MATRIX

		VARIETY "X"	VARIETY "H"	VARIETY "Y"
MUCK	2 SACKS FERTILIZER / M2	●●●● ●●●●	●●●●●● ●●●●●●	●●●● ●●●●
	3 SACKS	●●●●●● ●●●●●●	●●●●●●●● ●●●●●●●●	●●●●●● ●●●●●●
SANDY SOIL	2 SACKS COMPOST	●●●● ●●●●	●●●● ●●●●	●●●● ●●
	3 SACKS	●●●●●● ●●●●●●	●●●●●● ●●●●●●	●●●● ●●●●
ROCKY SOIL	2 SACKS COMPOST	●●●● ●●	●●●●	●●●● ●●●●
	3 SACKS	●●●● ●●	●●●●	●●●● ●●●●



Pebbles represent expected yield.



Livestock Inventory

To visually portray household livestock resources in the community.

Time: 1-2 hours

Difficulty: moderate

Materials: Blackboard and chalk, or newsprint and colored markers

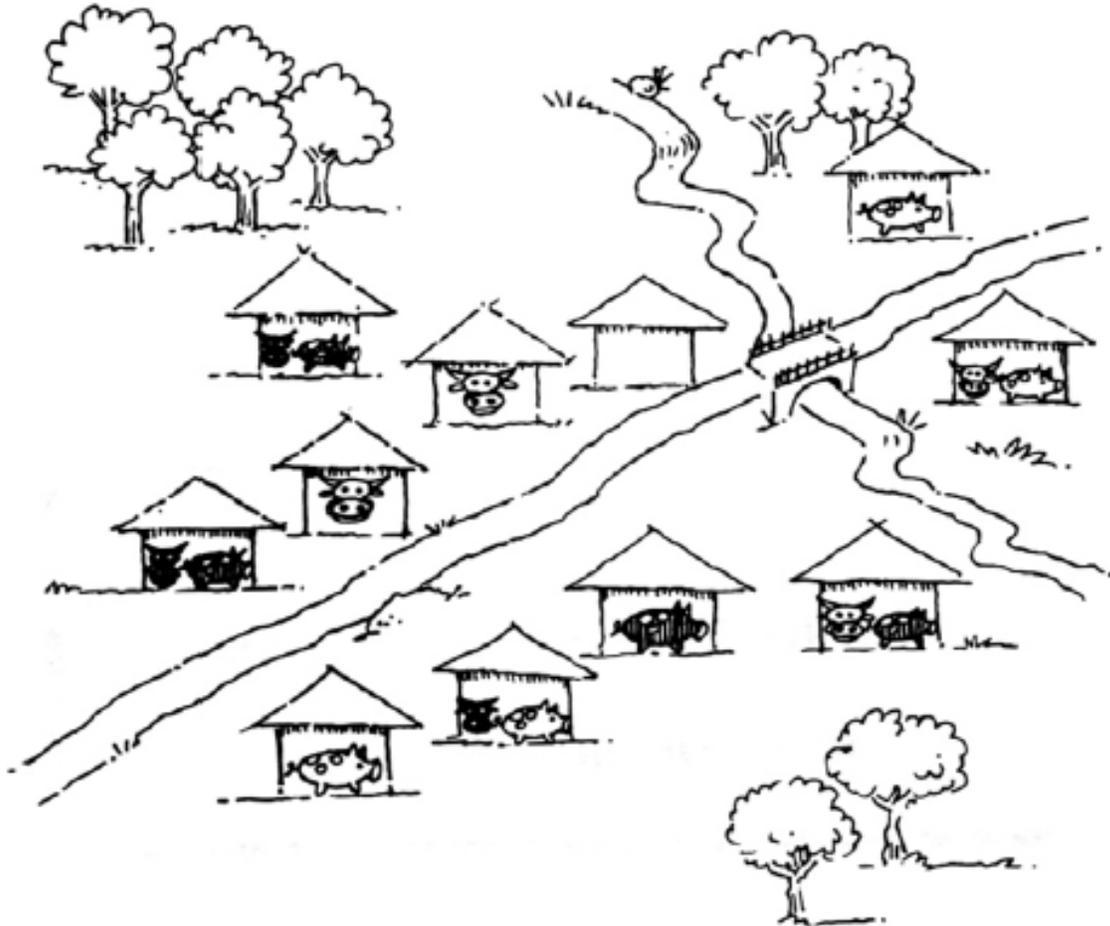
Communicative language tasks: Ask follow-up or clarifying questions; Ask questions; Solicit ideas/responses

Steps:

1. Gather a small group of respondents who know the community well. Explain the objective of the exercise.
2. Work with the participants to create a basic map detailing certain reference points (roads, etc.). The map should include all of the houses in the community. Ask the participants whether each household owns livestock; obtain a quantitative assessment, if possible. The same procedure can be applied to pasture resources. The respondents can identify households anonymously.
3. The exercise should be repeated with several groups of respondents, in order to verify the data obtained.

Source: Geilfus, Frans. 2008. 80 Tools for Participatory Development. San Jose, Costa Rica: IICA.

LIVESTOCK INVENTORY



- COWS
-  1-3
 -  3-6
- PIGS
-  1-2
 -  3 or more
-



Seasonal Animal Production Calendars

To draw a calendar of animal-production activities. These diagrams are a particularly effective way of illustrating the relationship that exists between various activities and seasonal changes. They can be used to design initiatives and plan appropriate measures. Parameters may include climate, availability of fodder and water, the reproductive cycle, production, labor investment, etc.

Time: 1-2 hours

Difficulty: moderate

Materials: Blackboard and chalk, or newsprint and colored markers

Communicative language tasks: Ask follow-up or clarifying questions; Ask questions; Facilitate a group discussion; Solicit ideas/responses

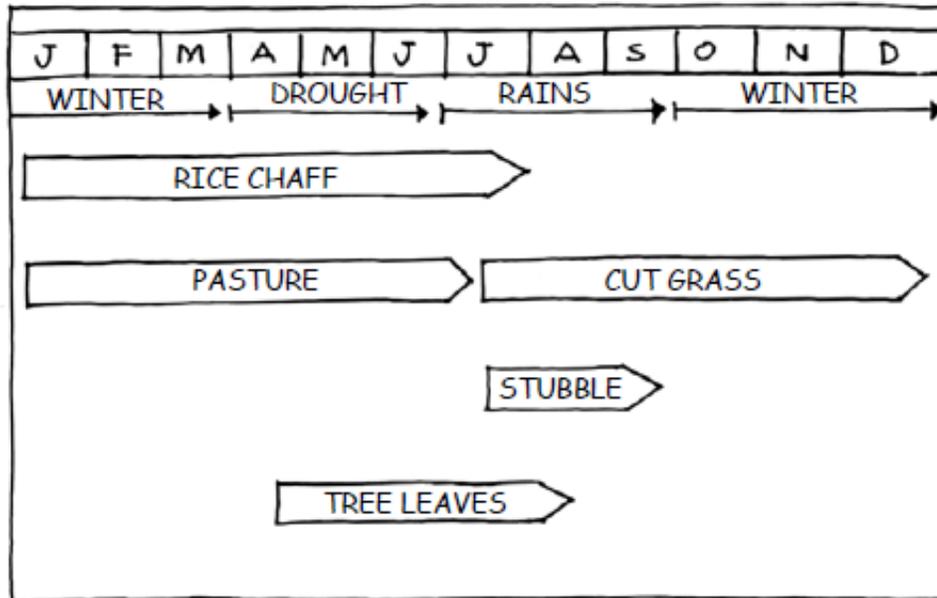
Steps:

1. Organize a meeting with the community or with interested members. Explain the purpose of the seasonal calendar, and discuss the parameters to be included.
2. Draw a linear time scale on the blackboard or newsprint. Use the calendar employed by the community (January may not necessarily be its starting point). Let the participants decide who is going to draw.
3. Use lines or boxes to describe the seasonal variations of each parameter. The starting point does not have to be the beginning of the year. If necessary, a longer time period may be employed. Proceed in this manner until the year is completed. Repeat for each parameter.
4. Discuss the results, identifying the best/worst times of year to take action in each case.
5. Explain how the calendar will be used. Provide the participants with a copy.
6. The calendar developed by one group can be consolidated with and checked against the results of the other groups.

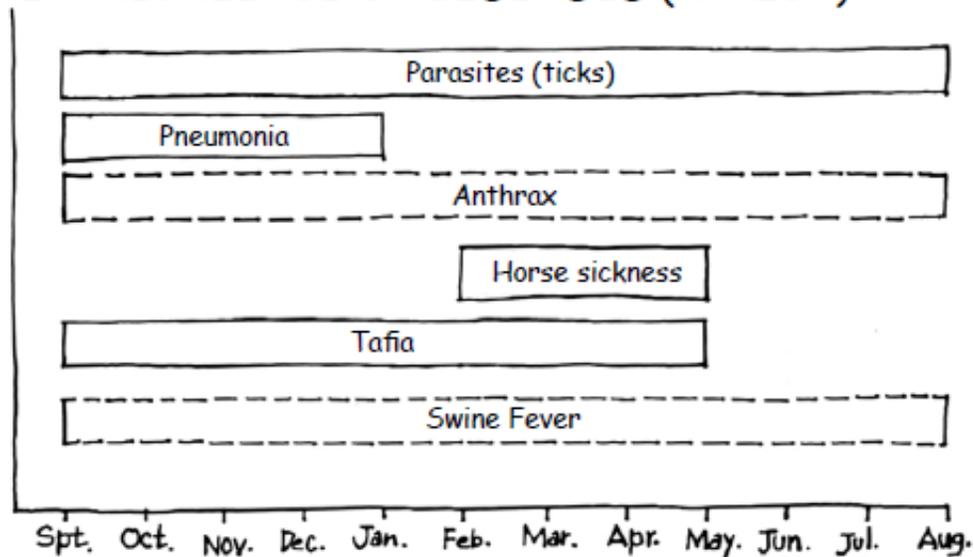
Source: Geilfus, Frans. 2008. 80 Tools for Participatory Development. San Jose, Costa Rica: IICA.

ANIMAL PRODUCTION CALENDARS

1. AVAILABILITY OF FODDER (INDIA)



2. PREVALENCE OF DISEASES (AFRICA)



= CONTINUOUS
 = OCCASIONAL
 According to IIED



Forage Map

To map the forage resources used to feed livestock throughout the year. This instrument is applied mainly when part of the fodder used to feed animals proceeds from communal pastureland, and/or when livestock is moved on a seasonal basis.

Time: 2 hours

Difficulty: moderate

Materials: Blackboard and chalk, or newsprint and colored markers

Communicative language tasks: Ask follow-up or clarifying questions; Ask questions; Facilitate a group discussion; Solicit ideas/responses

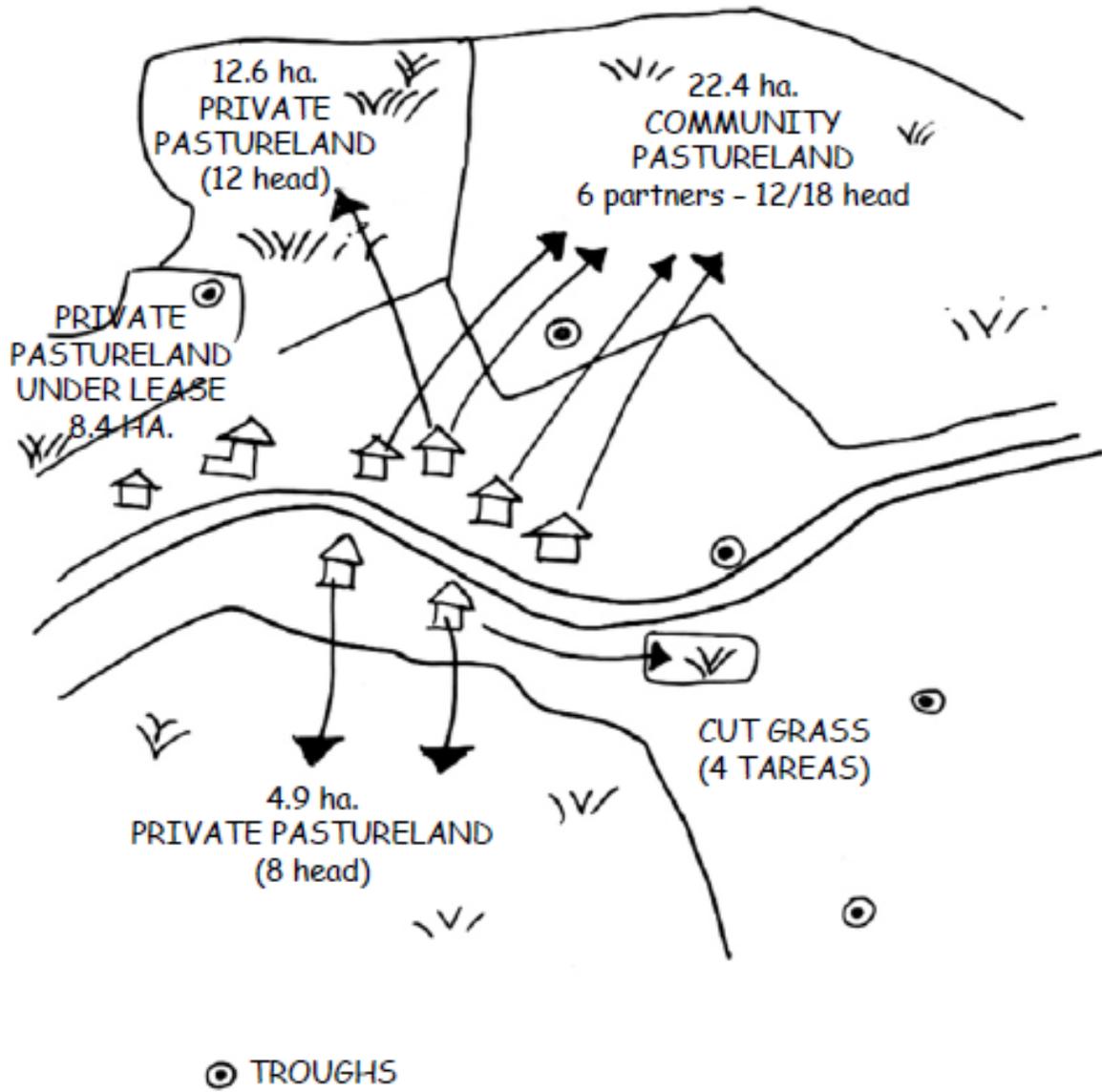
Steps:

1. Gather a group of respondents and explain the objective of the exercise.
2. Ask the participants to identify the main grazing areas on a basic map of the community. Determine whether each area is private or communally owned.
3. Show the location of each herd on the map, as well as its seasonal movements, if any.
4. Show the location of other fodder sources, drinking troughs, etc.

This exercise can be used to evaluate forage resources and conduct problem-assessment exercises

Source: Geilfus, Frans. 2008. 80 Tools for Participatory Development. San Jose, Costa Rica: IICA.

FORAGE MAP





“Cow Interview”

It is usually very difficult to obtain reliable information from farmers regarding mortality and birth rates, disease prevalence, and management practices when animals are raised on a large scale, as is often the case. If one asks a farmer, “How many of your animals have died?”, the answers will probably be a reflection of what he or she expects to receive from the professional. “Interviewing a cow” is a humorous way of obtaining accurate information on a specific animal.

Time: 30 minutes

Difficulty: moderate

Materials: A notepad

Communicative language tasks: Ask follow-up or clarifying questions; Ask questions; Solicit ideas/responses

Steps:

Before beginning the exercise, the facilitators should prepare a questionnaire (of the “semi-structured interview” type) that covers the issues they wish to address.

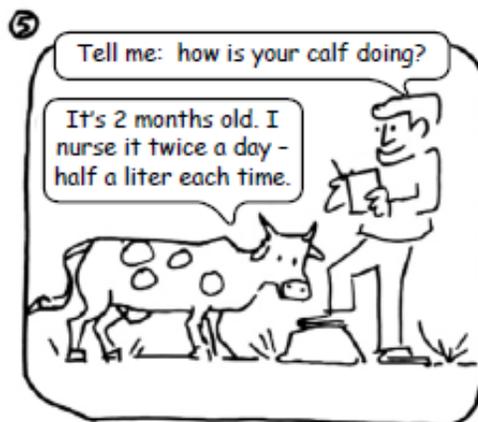
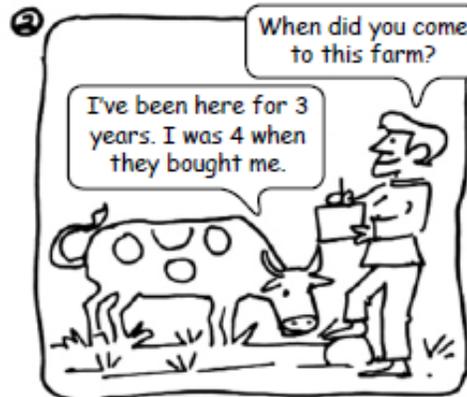
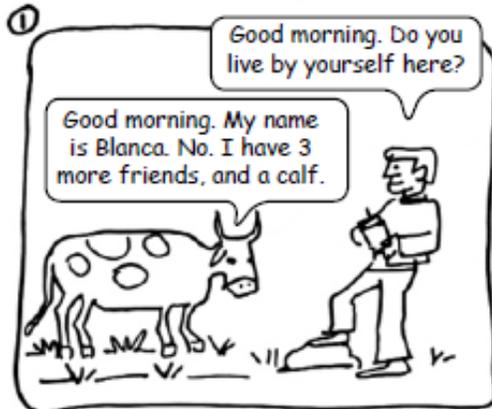
1. Explain to the participants that a specific animal must be selected in order to obtain concrete data. This animal will be “interviewed” with the help of the participants, who will serve as “interpreters”. Ask the farmer to lead the group to the animals.
2. Ask the “interpreter” to help interview the animal. All questions should refer specifically to the animal selected. The interview may include questions such as “When did you come to this farm?”, “How many times have you calved?”, “What became of your children?”, etc. The questionnaire should be used as a guide. Write the answers down.
3. Repeat the exercise with as many animals as necessary, in order to cover a representative portion of the herd.

The data obtained can be consolidated with a survey. The most important questions and answers in the interview may also be illustrated in order to encourage problem analysis.

Source: Geilfus, Frans. 2008. 80 Tools for Participatory Development. San Jose, Costa Rica: IICA.

"COW INTERVIEW"

VISUAL AID FOR DISCUSSION





Assessment of Veterinary Problems

To work with the community to assess the main veterinary problems suffered by its domestic animals. This allows professionals to inventory and analyze problems, as well as to evaluate local knowledge of the issue.

Time: A maximum of 2 hours

Difficulty: moderate

Materials: Paper and markers, blackboard or newsprint

Communicative language tasks: Ask follow-up or clarifying questions; Ask questions; Solicit ideas/responses

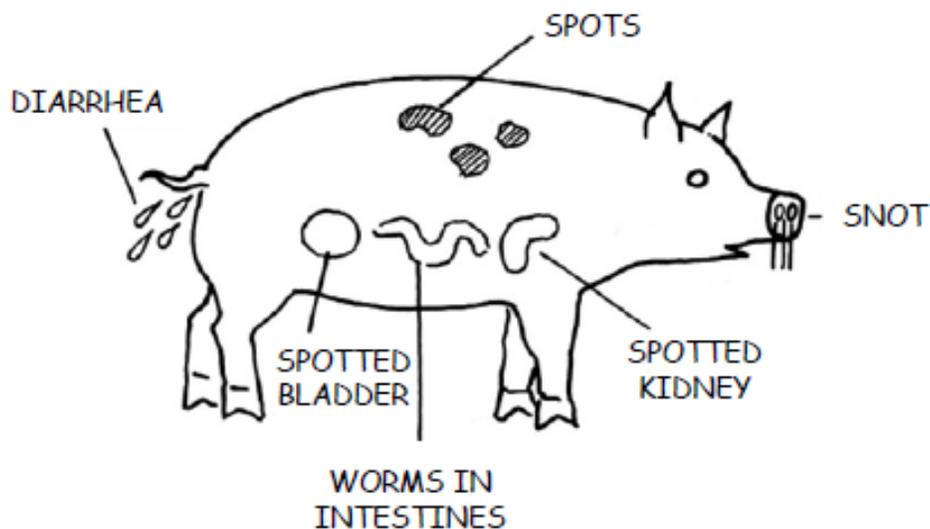
Steps:

1. Create a “disease map.” Ask the participants to draw a large picture of the animal to be studied. Then ask them to identify the diseases found in the animal, based on the organs where symptoms appear. This visualization technique helps participants convey their knowledge.
2. Once the diseases have been identified and illustrated in the drawing, their causes should be displayed in a flowchart, using the same procedure employed for the problem tree (see PACA Field Guide).
3. Identify possible solutions
4. If a large number of options are identified, ask the participants to prioritize them (see “Needs Assessment and Priority Ranking” tool in the PACA Field Guide).

Source: Geilfus, Frans. 2008. 80 Tools for Participatory Development. San Jose, Costa Rica: IICA.

"DISEASE MAP"

A swine disease, as described by farmers (Africa)



PREVALENCE OF DISEASES

According to farmers, traditional healers,
and extension workers (Africa)

LOCAL NAME	TECHNICAL NAME	FARMERS	HEALERS	EXTENSION WORKERS AND VETERINARIANS
NJOKA	HELMINTIASIS	XXX	XXX	XXX
MEETHO	CONJUNCTIVITIS	XX	X	X
MAURI	PNEUMONIA	XX	XX	XX
MUTOMBO	TRIPANOSOMIASIS	XX		X

XXX = VERY COMMON

XX = COMMON

X = RARE

According to IIED



Gender-based Farm Map

To foster mutual learning on the different roles of gender in family farming, using the farm map as a guide. This issue is essential to developing better initiatives.

Time: A maximum of 2 hours

Difficulty: moderate

Materials: Paper and markers, blackboard or newsprint

Communicative language tasks: Ask follow-up or clarifying questions; Ask questions; Solicit ideas/responses

Steps:

This exercise requires a farm map. Men, women, and children should participate; ideally, they should be involved in the initial development of the map.

1. Explain to the participants that, in order to complete the map, information must be provided as to who does what on the farm. The criteria may be as follows:

Gender: Distinguish men, women, and children from each other.

Responsibilities: **“D”** – Who decides? Ask: Who decides how a resource is used?

(For example, the man may be in charge of deciding where wood is cut).

“R” – Who is responsible? Ask: Who is responsible for procuring goods?

(For example, the wife may be responsible for making sure firewood is available).

“W” – Who does the work?

(For example, women and children may be in charge of gathering firewood).

2. Study all of the aforementioned farm areas and production activities, in order to determine who makes decisions, who is responsible for each task, and who does the work. In the example mentioned above, which involves firewood, the area of the farm where firewood is gathered may be labeled with the following symbols:

D ♂ R ♀ T ♀

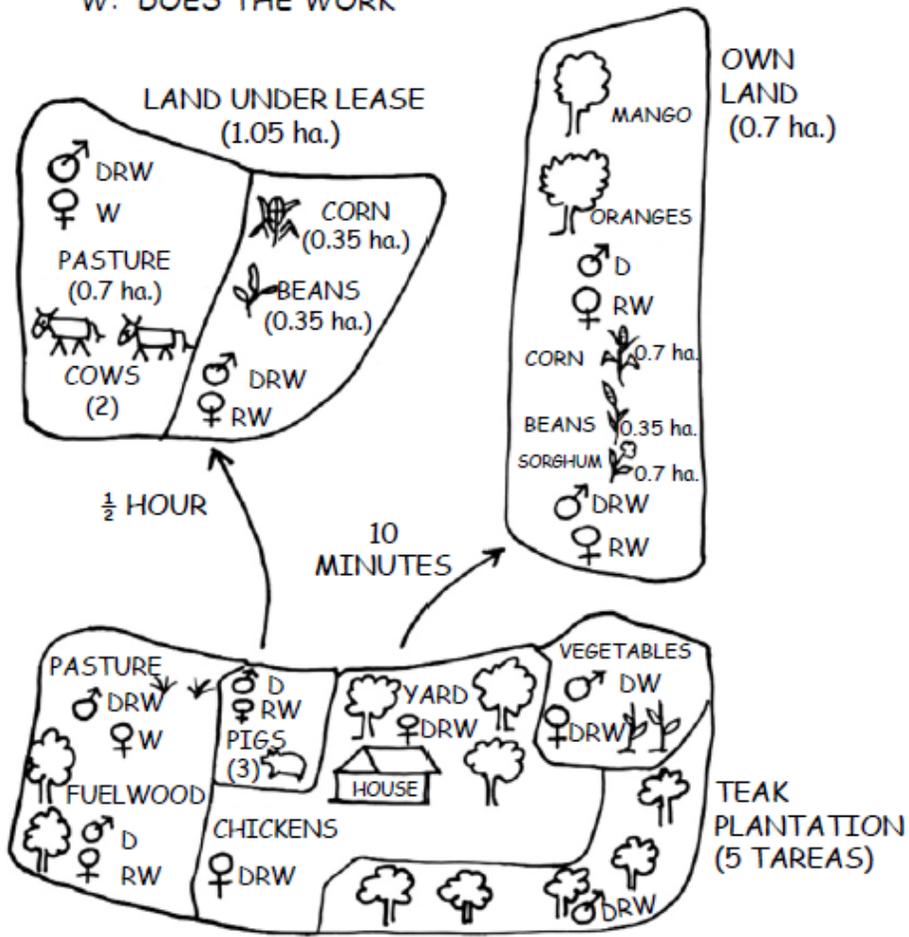
3. Once the map has been finished, the different roles identified can be transcribed on separate sheets of paper. This can lead to lengthy discussions, it is important for the professional not to get involved

Source: Geilfus, Frans. 2008. 80 Tools for Participatory Development. San Jose, Costa Rica: IICA.

FARM MAP

(GENDER-BASED)

- ♂ MAN
- ♀ WOMAN
- D: DECIDES
- R: RESPONSIBLE
- W: DOES THE WORK





Use of Time

To foster mutual learning among men and women regarding the true contribution of the latter to the family farm. This exercise is the simplest, most effective way of dispelling myths regarding the “limited” role of women

Time: 1-2 hours

Difficulty: moderate

Materials: Blackboard or newsprint, markers

Communicative language tasks: Ask follow-up or clarifying questions; Ask questions; Solicit ideas/responses

Steps:

This exercise can be conducted in a number of different ways: with women only, with men and women together, or with men and women split into separate groups, in order to compare notes at the end.

1. Gather the participants and explain the objective of the exercise.
2. Create a timeline (the exercise is easier if a day is used as the basis for the scale). Ask each woman (or a sampling of the group) what time she gets up in the morning; then ask her to list everything she does during the day – and at what time – until she goes to bed.
3. Once each woman’s use of time has been analyzed, a simple mathematical operation can be performed: how many hours a day does each woman work? How many different activities does she perform over the course of a day?
4. This exercise can lead to interesting discussions between men and women. If they have been working separately, show the results of the women’s group to the men, and ask for feedback. If the men have created their own diagram to illustrate the time use of women, comparing the two versions will inevitably lead to much discussion. The facilitator must never express an opinion; the participants should be allowed to draw their own conclusions.

Source: Geilfus, Frans. 2008. 80 Tools for Participatory Development. San Jose, Costa Rica: IICA.



Mobility Map

While this exercise is similar to the map of exchanges, its main objective is to determine where each member of the family spends his or her time outside the farm, in order to study roles and responsibilities by gender.

Time: 1 hour

Difficulty: moderate

Materials: Blackboard and chalk, newsprint and colored markers

Communicative language tasks: Ask follow-up or clarifying questions; Ask questions; Facilitate a group discussion; Solicit ideas/responses

Steps:

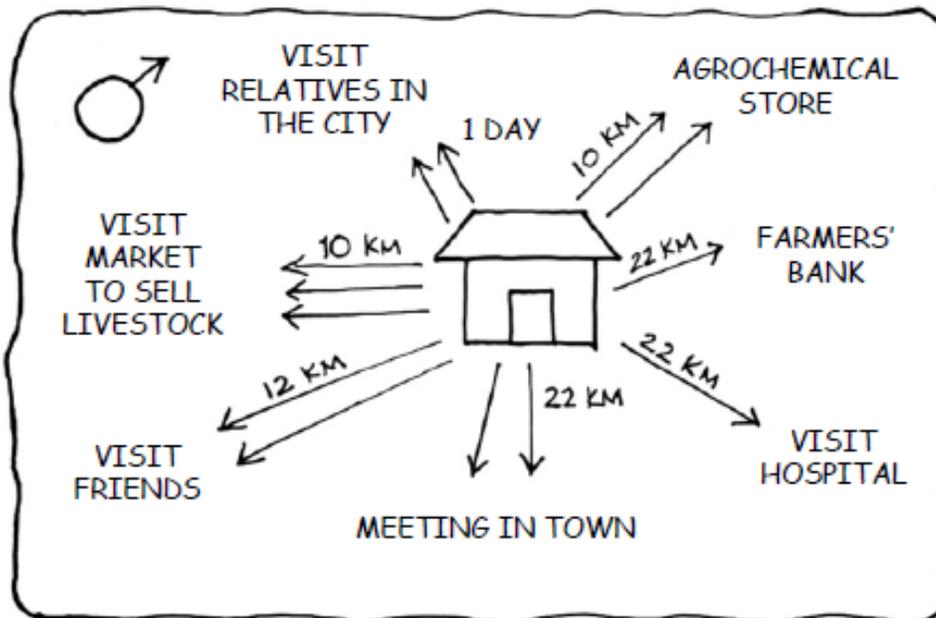
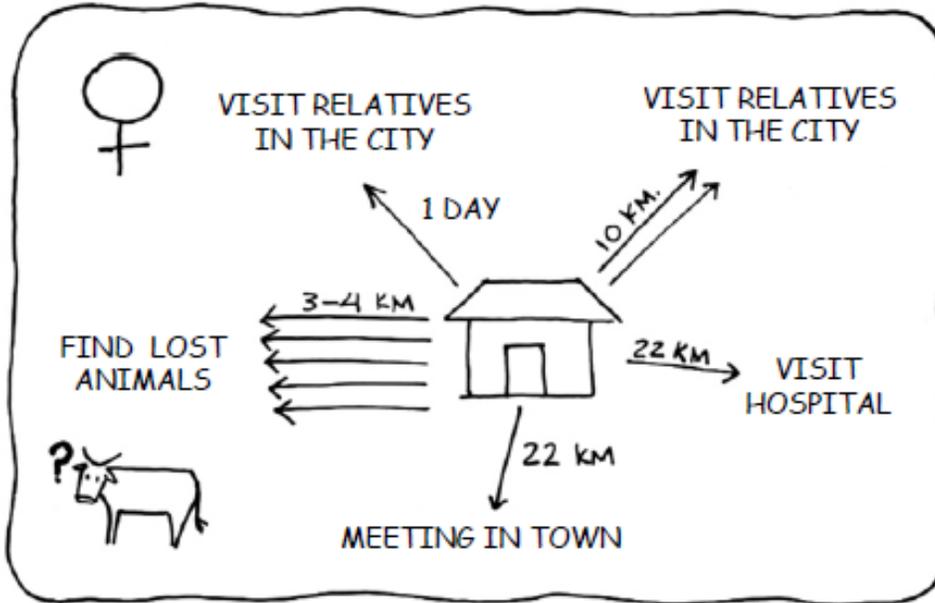
The mobility map should be developed on an individual basis (if a group is involved, each participant should do the exercise individually). Men and women should both participate, separately or together.

1. Explain the objective of the exercise, which is to determine why people leave the farm, and for how long.
2. Draw the farmhouse in the middle of the blackboard or sheet. Ask the individual where he or she goes most frequently (e.g., the market, school, hospital, etc.). Draw these locations around the house (distance can be conveyed by placing them closer to or further from the house), and specify the objective of the trip in each case.
3. Ask the person to draw arrows from the house to each location; more arrows should be drawn for locations that are visited frequently (for example, the facilitator could ask How many times per week or month?). Transcribe the information obtained.
4. Discuss the results. What differences do the maps show between the tasks assigned to men and women?

Source: Geilfus, Frans. 2008. 80 Tools for Participatory Development. San Jose, Costa Rica: IICA.

MOBILITY MAP

HOUSEHOLD: X





Benefit Analysis

To determine who has access to the products of family labor, and how decisions are made regarding those products. This allows for a more detailed analysis of gender roles within the family.

Time: 1-2 hours

Difficulty: moderate

Materials: Blackboard and chalk, newsprint and colored markers, cards

Communicative language tasks: Ask follow-up or clarifying questions; Ask questions; Solicit ideas/responses

Steps:

This exercise is designed to be carried out at the family level. It is important to make sure that everyone participates. The exercise can also be conducted with a small focus group.

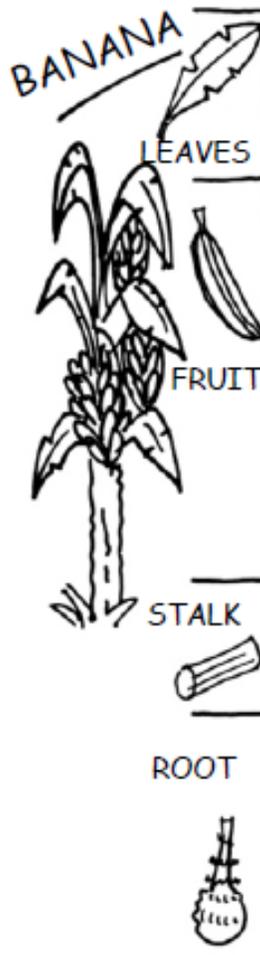
1. Explain the objective of the exercise to the family. Reach an agreement on the resources to be discussed.
2. The facilitator should draw each resource on the board. If the household uses of the product have not all been determined, ask the participants to fill in the missing data. Cards can also be used for the drawings.
3. Ask each member of the household the following questions regarding how resources are used:
 - Who decides how the resource is used?
 - Who uses the resource more?
 - If it is sold, how are the proceeds used?
 - Who decides how money is used?

Each participant's answers are transcribed in a matrix. If contradictions emerge, the facilitator can encourage discussion to clarify them.

4. Review the matrix and ask the participants for input. What does this matrix teach them?

Source: Geilfus, Frans. 2008. 80 Tools for Participatory Development. San Jose, Costa Rica: IICA.

BENEFIT ANALYSIS



	USE	WHO DECIDES HOW IT IS USED?	WHO DOES THE WORK?	IS IT SOLD? WHAT FOR?	WHO DECIDES HOW MONEY FROM SALE IS USED?
LEAVES	- AS PLATES	ANY	ANY		
	- TO WRAP FOOD	♀	♀		
FRUIT	- SALE	♀	♀	HOUSEHOLD EXPENSES	♀
	- FOOD	♀	♀		
	- AS A GIFT	♂ ♀	♂ ♀		
	- FOR PIGS	♀	♀		
STALK	- FOR PIGS	♀	♂ ♀		
ROOT	- PLANTING IN THE YARD	♀ ♂	♀ ♂	HOUSEHOLD EXPENSES	♂
	- SALE	♂	♂		
	- AS A GIFT	♀ ♂	♀ ♂		

ACCORDING TO: "TOOLS OF GENDER ANALYSIS", 1993



Map of Exchanges

To visually portray the exchanges that occur within and outside the community. This exercise differs from the Venn diagram in that it is designed to describe the flows of exchanges (information, materials) involved in agricultural activities. It makes it possible, on the one hand, to cover aspects such as commercial exchanges and, on the other, to identify formal and informal channels of communication. This latter aspect is fundamental to assessing needs for improved communications for extension work.

Time: 1-2 hours

Difficulty: moderate

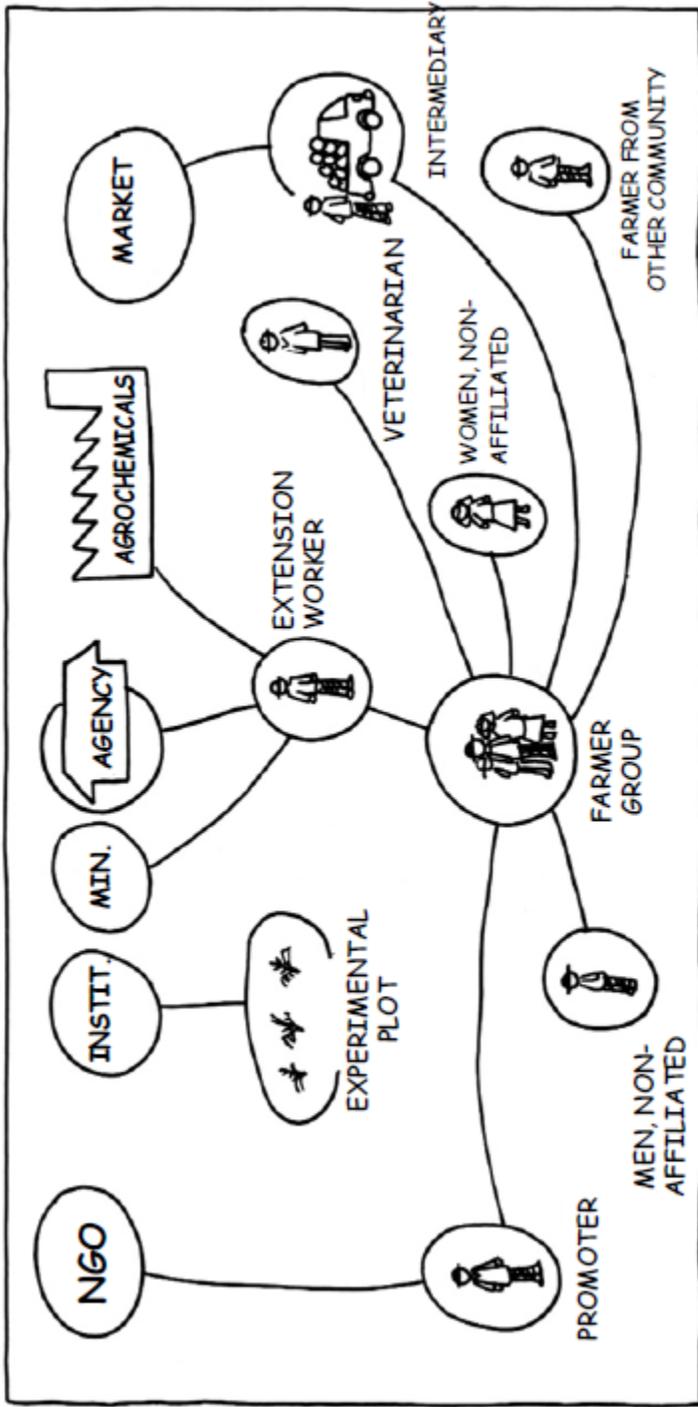
Materials: Paper, markers, blackboard or newsprint

Communicative language tasks: Ask follow-up or clarifying questions; Ask questions; Solicit ideas/responses

Steps:

1. Gather a group of experienced respondents – preferably from different groups/strata within the community. Explain the objective of the exercise.
2. One way to begin is to discuss exchanges of information. Ask the participants to identify all the actors with whom they exchange technical information, market information, etc. (extension workers from different institutions, other farmers, promoters, agrochemical sales agents, buyers and others); list the actors they mention on the blackboard. Use arrows to draw the flows of exchange, specifying beside each arrow what is exchanged.
3. The exercise can be extended to a different area (for example, commercial exchanges), following the same methodology.
4. Transcribe the results and leave the original with the participants. Discuss how the exercise will be used.

Source: Geilfus, Frans. 2008. 80 Tools for Participatory Development. San Jose, Costa Rica: IICA.



MAP OF EXCHANGES

According to FAO, 1995



Communication/Exchange Problem Census (based on the Map of Exchanges)

Based on the map of exchanges, draw up a census and analyze problems encountered in farmers' relations with other actions.

Time: 2 hours

Difficulty: moderate

Materials: Paper, markers, blackboard or newsprint, cards

Communicative language tasks: Ask follow-up or clarifying questions; Ask questions; Solicit ideas/responses

Steps:

1. This exercise should be carried out with the same participants who were involved in developing the map of exchanges. At this point, it would be preferable for at least some of them to be literate, so that they can help the others. The exercise may be repeated with other actors.
2. If there are many flows of exchange, identify the ones that are most relevant to the analysis (according to the participants and, if necessary, the technical team). A dual-entry matrix can be created (see "Needs Assessment and Priority Ranking" tool in the PACA Field Guide).
3. To identify problems, the specific flows of exchange can be assessed using the following criteria:
 - Awareness (WHAT): Are the actors aware of the role played by the other actor in the relationship? For example, ask the farmers what is the role of the extension agent in the community?
 - Relevance (WHAT FOR): How relevant is the exchange to each party? For example, ask whether the extension agent's services really help, and how?
 - Accessibility (FOR WHOM): Does everyone have access to the channel of exchange? For example, ask whether the extension agent helps everyone and if not, why?
 - Frequency (WHEN): When does the exchange take place?
 - Means of communication (HOW): By what means does the exchange take place? Ask how does the extension agent get the information to you?
 - Control (WHO DECIDES): Who controls the exchange? Ask who decides on content and on the working methods of the extension agent?

With these questions, it is easy to identify problems. The analysis can take the form of a matrix, with the six questions as column headings, and each row showing a flow of exchange

Source: Geilfus, Frans. 2008. 80 Tools for Participatory Development. San Jose, Costa Rica: IICA.

COMMUNICATION PROBLEM CENSUS

RELATIONSHIP	PROBLEMS
<p><u>PROFESSIONAL - FARMER</u></p> 	<ul style="list-style-type: none"> FARMER DOESN'T UNDERSTAND PROFESSIONAL'S ROLE PROFESSIONAL DOESN'T LISTEN FARMER AGREES TO EVERYTHING FOR HIS/HER OWN SELFISH GAIN MISTRUST MESSAGES OUT OF STEP WITH CURRENT ENVIRONMENT HIGHLY TECHNICAL VOCABULARY PROFESSIONALS DON'T ASK QUESTIONS FARMERS DON'T ANSWER QUESTIONS PATERNALISTIC ATTITUDE PROFESSIONALS LACK DEVELOPMENT VISION
<p><u>PROFESSIONAL - PROMOTER</u></p> 	<ul style="list-style-type: none"> DISTORTED MESSAGES POOR CHOICE OF LEADERS PROMOTER'S VIEWS ARE IGNORED POOR COORDINATION INSTITUTION FOLLOWS TOP-DOWN APPROACH NO CONSULTATIONS
<p><u>PROMOTER - FARMER</u></p> 	<ul style="list-style-type: none"> PROMOTER IS INVOLVED IN TOO MANY ACTIVITIES LACK OF FOLLOW-UP LACK OF COMMUNICATION TRAINING NO SUPPORTING MATERIALS SOME PROMOTERS SEEK PERSONAL GAIN DISTORTED MESSAGES PROMOTER DOES NOT ADDRESS EVERYONE'S NEEDS



Extension/Technical Assistance Priority Matrix

To identify extension and technical assistance needs and priorities. The exercise has three components: the census of needs, the definition of priorities, and the discussion of priority issues. This tool is very helpful in designing a program based on the felt needs of the people.

Time: 2-3 hours

Difficulty: moderate

Materials: Newsprint and markers, cards, blackboard

Communicative language tasks: Ask follow-up or clarifying questions; Ask questions; Solicit ideas/responses

Steps:

1. This exercise can be carried out following a “group profile” or “problem census” approach.

Gather a group of interested people/focus group (when working with both men and women, use different marker colors for each sex). Explain the objective of the exercise, clearly specifying that they will be identifying needs for technical assistance and messages, not needs for inputs, credit, etc.
2. Review the aspects of agricultural production discussed earlier (problems, if these have already been identified) and list them in graphic form.
3. Ask the participants what issues/problems require technical assistance and messages; let the participants bring up issues that have not been mentioned already. If certain important issues have not been mentioned, the facilitator may suggest them. Visualize all the issues.
4. List all the issues that have been visualized, in no particular order, on a dual-entry prioritization matrix so that they can be prioritized in pairs (see “Needs Assessment and Priority Ranking” tool in the PACA Field Guide) or leave them unchanged on the board if the participants are going to vote individually. Review the issues and set priorities following whatever procedure is best for the participants.
5. Choose the issues with the highest scores and discuss them in greater detail with the participants. Try to determine what messages and technical assistance would be needed, and when.

Source: Geilfus, Frans. 2008. 80 Tools for Participatory Development. San Jose, Costa Rica: IICA.



Identification of Local and Imported Solutions

To enable people to identify, with the help of facilitators, what solutions for each problem considered have been tried locally, and if none have, what solutions might be imported or validated. Priority is given to local solutions, leaving imported solutions only for cases in which no local solution has been found or in which local solutions have not produced satisfactory results. There are two advantages to this approach: people are helped in the light of what they are doing to design programs, and the group is encouraged to have trust, self-esteem, and an inquisitive spirit.

Time: 1-3 hours

Difficulty: moderate

Materials: Paper, markers, blackboard

Communicative language tasks: Ask follow-up or clarifying questions; Ask questions; Solicit ideas/responses

Steps:

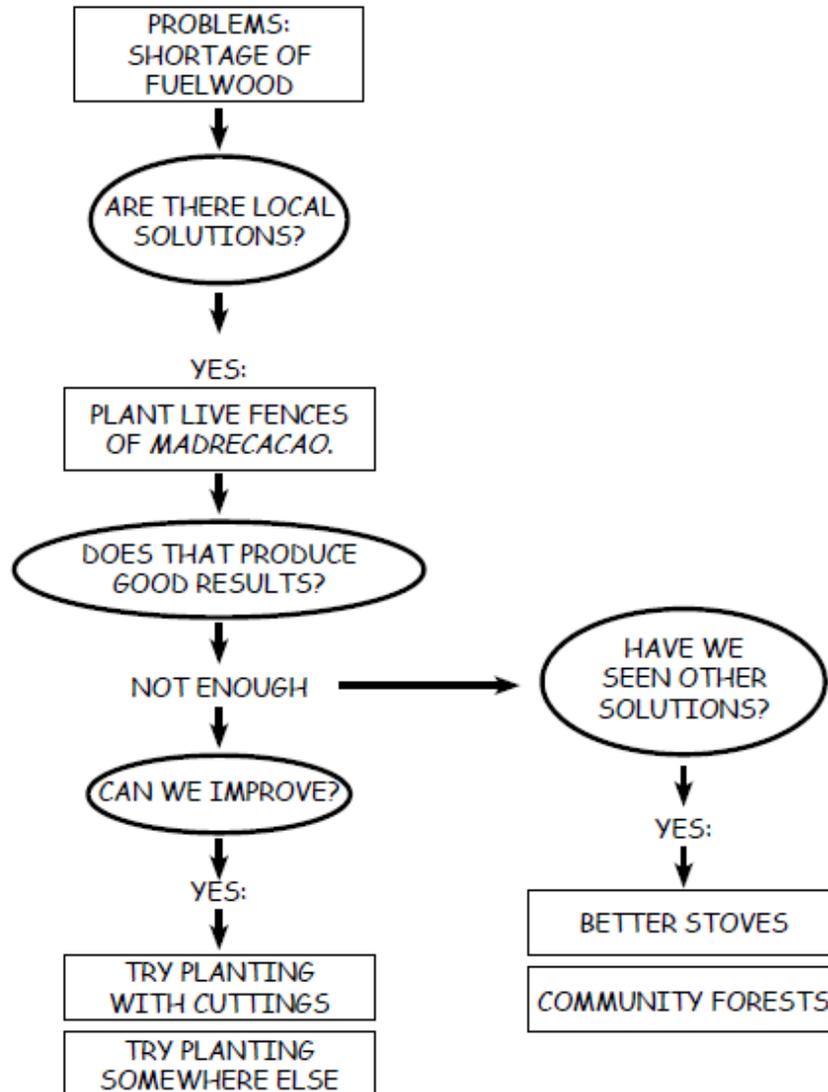
The work is done at a general meeting (e.g. with a focus group). Note each of the problems identified on the blackboard or paper. Use the following logical flowchart:

1. Have local solutions been found? (What have we done to try to solve the problem?)
 - No: Identify potential solutions that might be imported.
 - Yes: Go to question 2.
 - Don't know: Do field research.
2. Have local solutions produced good results? (Use an evaluation matrix if necessary).
 - No: Go to question 3.
 - Yes: These solutions should be promoted.
 - Don't know: Do field research.
3. Can local solutions be improved?
 - No: Go to question 4.
 - Yes: Focus on improving local solutions and possibly changing them with some imported features.
 - Don't know: Do field research and conduct a technical review.
4. Have we seen solutions elsewhere that might be imported?
 - No: We need to do research, with the help of the technical team.
 - Yes: Make a list of what we have seen so that we can analyze it.

If there is not enough information about local solutions, field work will have to be done (see the next card: self-assessment and field analysis of local solutions). Once the flowchart has been completed, the solutions to all problems discussed can be organized in a matrix.

Source: Geilfus, Frans. 2008. 80 Tools for Participatory Development. San Jose, Costa Rica: IICA.

IDENTIFICATION OF LOCAL SOLUTIONS





Self-Assessment and Field Analysis of Local Solutions

To identify in the field the local solutions that have been implemented locally, in order to respond to the different problems encountered. This is one of the most interesting and important diagnostic exercises, and yet it has often been neglected in project identification processes. It should be conducted in a group format; it allows participants, including technical facilitators, to become aware of their own potential for adaptation and innovation, so that they are able to evaluate it, improve it and organize it systematically.

Time: 1 hour (preparation), a few hours-several days (field work), 2-3 hours (analysis)

Difficulty: moderate

Materials: Paper, markers, blackboard, notebooks

Communicative language tasks: Ask follow-up or clarifying questions; Ask questions; Solicit ideas/responses

Steps:

1. **Preparation Phase:** This depends on the exercise of identifying of local solutions, in which the group will have identified what field research is needed. Depending on the needs, the group will decide what course to take. Decisions must be taken on the following basic points:
 - What are we looking for? (Exercise objective: what type of solutions do we want to identify and analyze? What information do we still need?)
 - Where are we going to look for it? (Among those mentioned in this book: semi-structured dialogue, field observation, community workshops, etc.).
 - Define and prepare tools.
 - Who is going to conduct the assessment? (Responsibilities).

The best approach is to entrust the research to a focus group. By replying to the questions mentioned, the group can agree on the “terms of reference” for the field work. They can agree in advance on a list of outputs expected.

2. **Implementation Phase:** It is very important to let the group do the research without the presence or participation of facilitators, whose role is more related to preparation and analysis.
3. **Analysis Phase:** Once the field work has been completed, another meeting should be convened for the group to present its findings. These findings feed into other exercises: identification, analysis and prioritization of solutions.

Source: Geilfus, Frans. 2008. 80 Tools for Participatory Development. San Jose, Costa Rica: IICA.

PLANNING SELF-ASSESSMENT AND FIELD ANALYSIS OF LOCAL SOLUTIONS

Problems →	Shortage of fuelwood	Shortage of wood
What are we looking for?	1) Trees that people use for fuelwood 2) What do people think of these species? 3) What species they plant and where	1) Trees that people use for lumber 2) What do people think of these species? 3) Why don't people plant more?
Where are we going to look for it?	<ul style="list-style-type: none"> - Men and women: What is being done now? - Older people: What did they use to do? 	<ul style="list-style-type: none"> - Men and women: What is being done now? - Older people: What did they use to do? - Forestry service
How will we do it?	<ul style="list-style-type: none"> - 3 workshops (men, women, older people) - walk around the farms - evaluation matrix 	<ul style="list-style-type: none"> - The same (fuelwood and lumber) - Interview with forest rangers
Who does it?	The Ecology Committee (in charge: María)	The Ecology Committee (in charge: Andrés)
What will we present?	We will make a presentation with the entire community to analyze the results. Invitees: technicians and the forest ranger	



Solution Evaluation Matrix

To evaluate ex ante with the community and the feasibility and/or sustainability of the different solutions considered.

Time: Maximum 3 hours

Difficulty: moderate

Materials: Paper, cards, markers, blackboard, or newsprint

Communicative language tasks: Ask follow-up or clarifying questions; Ask questions; Solicit ideas/responses

Steps:

1. Determine and reach consensus on evaluation criteria. Depending on the nature of the alternative, the criteria might include the following:
 - Benefits: productivity/income-generating capacity, quality of life
 - Sustainability: Can we do it with little external aid and continue doing it after the aid is withdrawn?
 - Fairness: Will everyone benefit equally from the alternative?
 - Technical and social feasibility: Can it be done, and is it acceptable?
 - Waiting time: When will we start to see the benefits?
 - Cost

The facilitators play a more proactive role to ensure that all important criteria are included.

2. Prepare a matrix with the rows headed by the different solutions to be evaluated and the columns headed by the evaluation criteria.
3. Agree on the units and the scoring method. Units: these depend on the proportion of persons who are literate. The exercise may be done with numbers, crosses, symbols; the range should be from 3 (poor-indifferent-good) to 5, preferably no more. Method: by consensus (in this case, the facilitator fills out the matrix) or by voting (in this case, the participants enter their “vote” on the matrix).
4. For each alternative, review the different criteria and write down a score for each one. The facilitator should avoid a common mistake: confusing positive and negative scores, e.g., using 3 for “highly beneficial” and 3 for “long wait” or “cost too high”. To avoid this mistake, it is a good idea to express all the criteria in positive terms (e.g., speed of impact, need for financing).
5. Once the matrix has been completed, the scores can be added or combined to prioritize the different alternatives.

Source: Geilfus, Frans. 2008. 80 Tools for Participatory Development. San Jose, Costa Rica: IICA.

SOLUTION EVALUATION MATRIX

Problem: Losses due to drought in corn fields

SOLUTION	Benefit		Help needed		Everybody benefits		Feasible		Do we have to wait?		Cost?		Score	Priority
	Benefit	Benefit	Help needed	Help needed	Everybody benefits	Everybody benefits	Feasible	Feasible	Do we have to wait?	Do we have to wait?	Cost?	Cost?		
Try other varieties	😊	😐	😐	😐	😊	😊	😐	😐	😐	😐	😐	😐	6	4
Plant later	😐	😊	😊	😊	😐	😐	😐	😐	😊	😊	😊	😊	9	2
Keep residues in the soil	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	12	1
Plant beans as fertilizer	😊	😐	😐	😐	😊	😊	😐	😐	😐	😐	😐	😐	7	3

= 0
 = 1
 = 2



Option Selection: Single Option

To quickly establish the degree of convergence or divergence among participants regarding different options or opinions being discussed (max. 3 options). The exercise makes it possible to determine immediately how to proceed with the discussion.

Time: 10-15 minutes

Difficulty: moderate

Materials: Blackboard, newsprint, markers

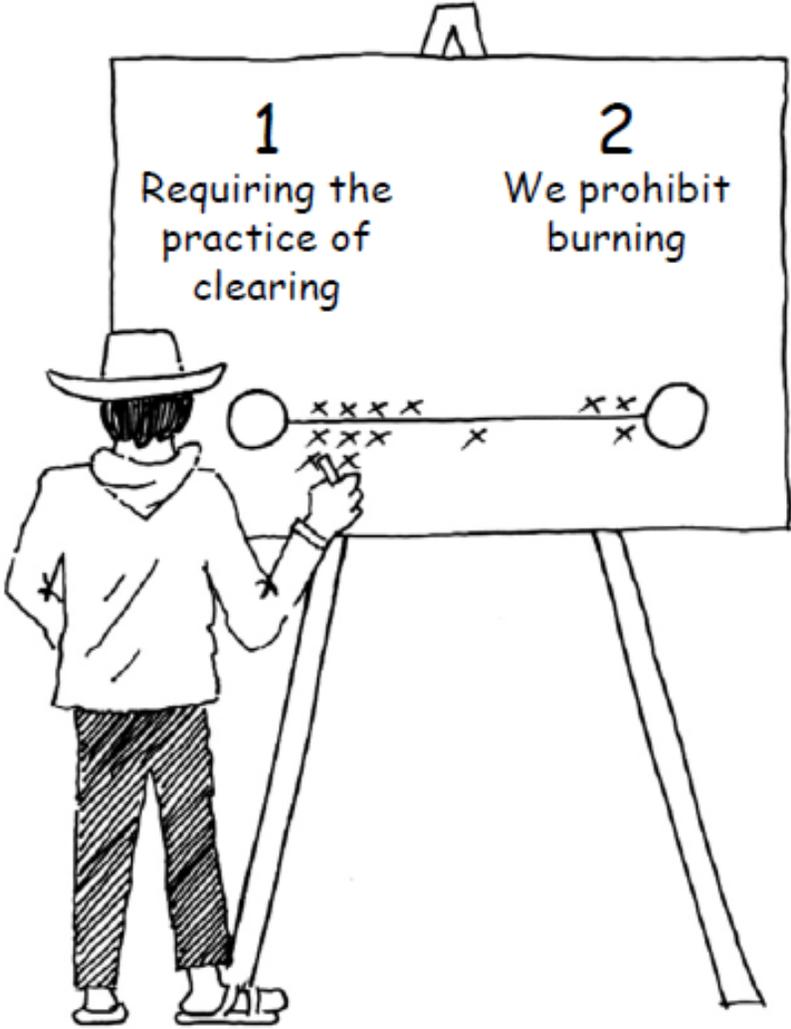
Communicative language tasks: Ask follow-up or clarifying questions; Ask questions; Brainstorm and elicit ideas; Solicit ideas/responses

Steps:

1. If the discussion comes to an impasse or goes on too long in connection with just 2 or 3 options, the facilitator should illustrate these points on the blackboard or paper. Join the points with lines (making a triangle if there are three options).
2. Ask each participant to mark with a single cross (or circle) the option that he considers best. The mark can be placed a bit farther, so it is between the options; for example, if the person agrees with both options, he can put the mark halfway between the two.
3. The participants interpret the results: whether there is consensus about one of the options, whether they need to find a compromise between two options, etc. The facilitator should not state his opinion until after the participants have stated theirs.

Source: Geilfus, Frans. 2008. 80 Tools for Participatory Development. San Jose, Costa Rica: IICA.

OPTION SELECTION: SINGLE OPTION



Option 1: 9 votes
Option 2: 3 votes
Both: 1 vote



Option Selection: Multiple Options

To quickly establish the preference of participants for different options or opinions being discussed (when there are more than 3 options and up to 20). The exercise makes it possible to determine immediately how to proceed with the discussion, establishing priorities. This method is less objective than prioritization by pair-comparison matrix, but it is quicker.

Time: 30-45 minutes

Difficulty: moderate

Materials: Blackboard, newsprint, markers, cards

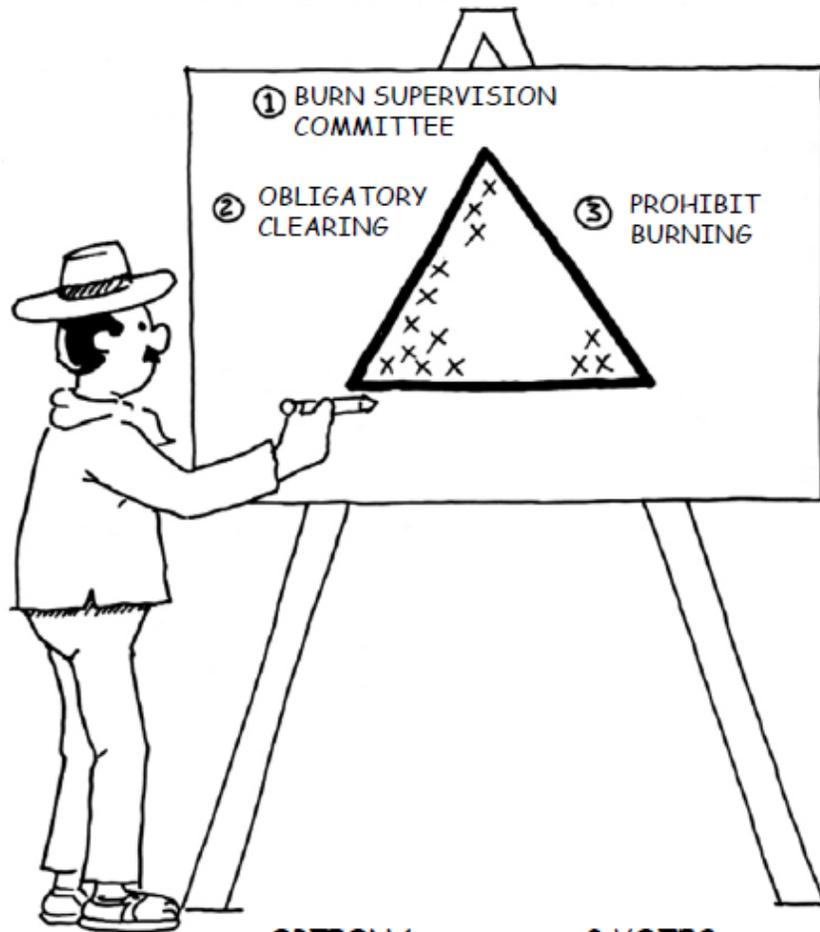
Communicative language tasks: Ask follow-up or clarifying questions; Ask questions; Brainstorm and elicit ideas; Solicit ideas/responses

Steps:

1. After a brainstorming session, discussion or diagramming, too many problems or options will have been mentioned to continue discussing all of them. The least relevant ones need to be eliminated. The facilitator puts all the cards on the blackboard and proposes that the participants vote. The group needs to decide how many "votes" each participant will have (this will depend on the number of options and of participants; if there are lots of options and only a few participants, each one might have several votes; the opposite would be the case if there are few options and lots of participants).
2. Each participant is asked to mark all the votes they have with a single cross (or circle) per option.
3. The facilitator organizes the cards in descending order by the number of votes received. The participants interpret the results and decide what steps to take, e.g., stop discussing options that have not received any votes, go into greater detail, etc.

Source: Geilfus, Frans. 2008. 80 Tools for Participatory Development. San Jose, Costa Rica: IICA.

OPTION SELECTION: MULTIPLE OPTIONS



OPTION 1:	3 VOTES
OPTION 2:	6 VOTES
BETWEEN 1 AND 2:	2 VOTES
OPTION 3:	3 VOTES

WHAT SHALL WE DO?



Visualized Questionnaire

To quickly establish the views of participants based on a series of questions or subjects. They do not vote, but rather they indicate their opinion by simple marks (e.g., 😊 satisfied, ☹️ not satisfied). This exercise is particularly useful with participants who are illiterate or semi-illiterate, as their opinion can be determined with a pre-structured questionnaire. The visualized questionnaire can also help to end a discussion that has been too lengthy or to make the event more interesting.

Time: 30-45 minutes

Difficulty: moderate

Materials: Blackboard, newsprint, markers

Communicative language tasks: Ask follow-up or clarifying questions; Ask questions; Solicit ideas/responses

Application Examples

- List of problems: to what extent are the participants affected?
 - list of options: what do the participants think?
 - evaluation meeting

Steps:

1. Develop the questionnaire (depending on the circumstances, the questionnaire may be predetermined, or the points can be decided with the participants).
2. The questions are visualized on the blackboard (using symbols, if some of the participants are illiterate) and organized in matrix form. The group agrees on a simple evaluation scale (e.g., good, indifferent, bad), and columns are drawn in the matrix. An additional column can be included for comments.
3. Each participant is asked to mark with a single cross (or circle) each question in the column that best expresses his opinion.
4. The participants interpret the results. The facilitator should not state his opinion until the people have stated theirs.

Source: Geilfus, Frans. 2008. 80 Tools for Participatory Development. San Jose, Costa Rica: IICA.

VISUALIZED QUESTIONNAIRE

Evaluation of a farmer exchange workshop

			
MY GROUP'S PARTICIPATION	XXXX XXXXX	XXX XX	X
OTHER GROUPS' PRESENTATION	XXXXX XXXXX	XXX	
VISIT TO THE FARM	XX XX	XXX XXXX	
WE HAVE LEARNED SOMETHING NEW	XXX XXX	XXXX XXX	XX
ORGANIZATION OF THE WORKSHOP	XXXXX XXXXX X	XX	
MEALS	XXXXX XXXXX	XX X	
TRANSPORTATION	XXXXX XXXX		XXXX



Analysis of Pros and Cons: “Yes sir, no sir” Exercise

To foster open dialogue on a contradictory subject using dynamic role playing to overcome obstacles to the discussion.

Time: 2-3 hours

Difficulty: moderate

Materials: Blackboard, newsprint, markers, cards

Communicative language tasks: Ask follow-up or clarifying questions; Ask questions; Solicit ideas/responses

Application Examples:

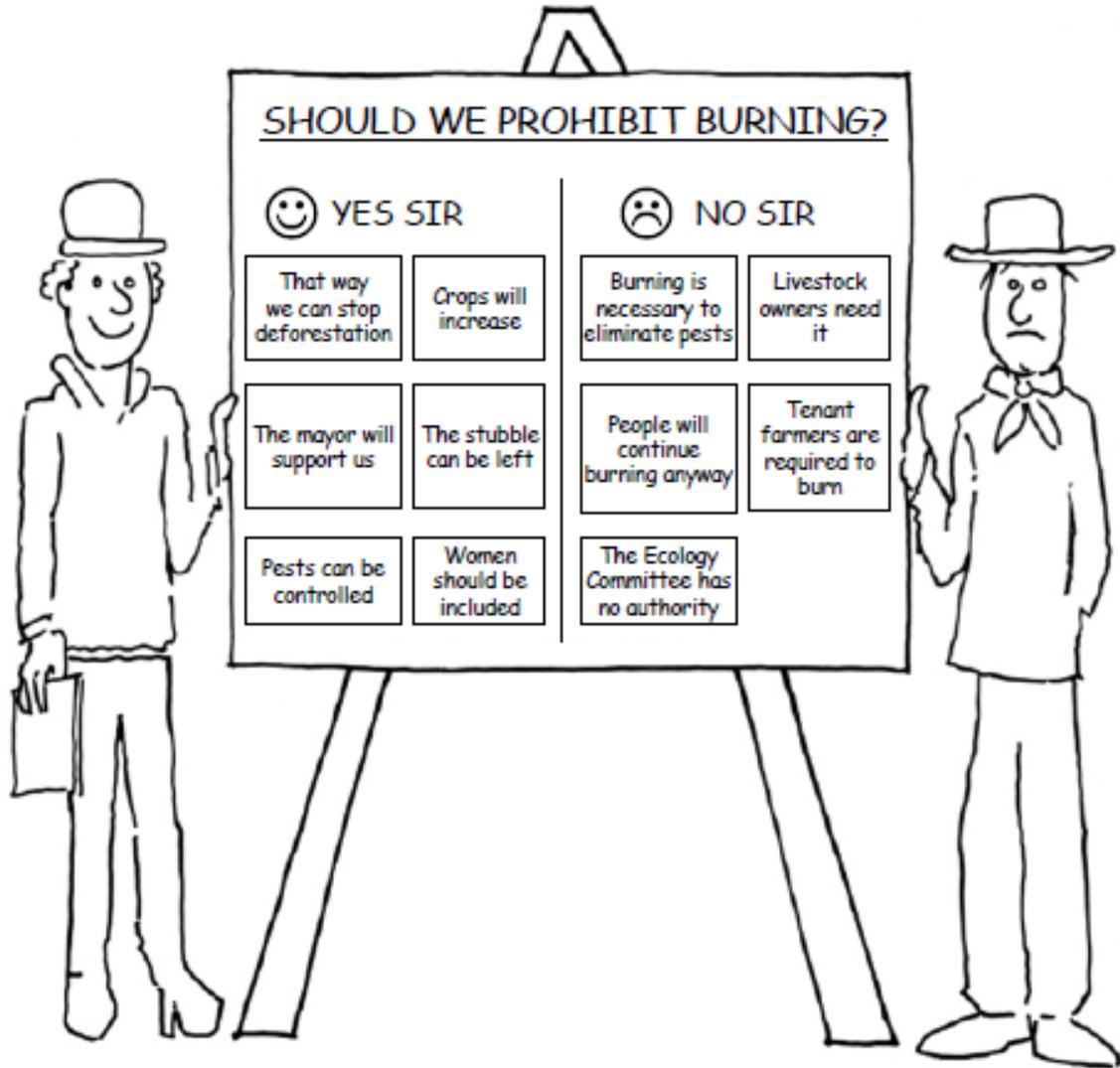
- When the group needs to evaluate in depth the pros and cons of an option, and there seem to be limitations and problems that are not being expressed clearly.
- When the different perceptions people have of a topic need to be clarified.

Steps:

1. Develop the questionnaire (depending on the circumstances, the questionnaire may be predetermined, or the points can be decided with the participants).
2. The questions are visualized on the blackboard (using symbols, if some of the participants are illiterate) and organized in matrix form. The group agrees on a simple evaluation scale (e.g., good, indifferent, bad), and columns are drawn in the matrix. An additional column can be included for comments.
3. Each participant is asked to mark with a single cross (or circle) each question in the column that best expresses his opinion.
4. The participants interpret the results. The facilitator should not state his opinion until the people have stated theirs.

Source: Geilfus, Frans. 2008. 80 Tools for Participatory Development. San Jose, Costa Rica: IICA.

"YES SIR, NO SIR"





Impact Assessment

To analyze ex ante with members of the community and the possible/probable consequences of implementing a project or a specific action. The product is a flowchart similar to the problem tree (see PACA Field Guide), but it is usually more specific and easier to develop. It can be used as the basis for important decisions concerning implementation.

Time: 1-2 hours

Difficulty: moderate

Materials: Paper, cards, markers, blackboard, or newsprint

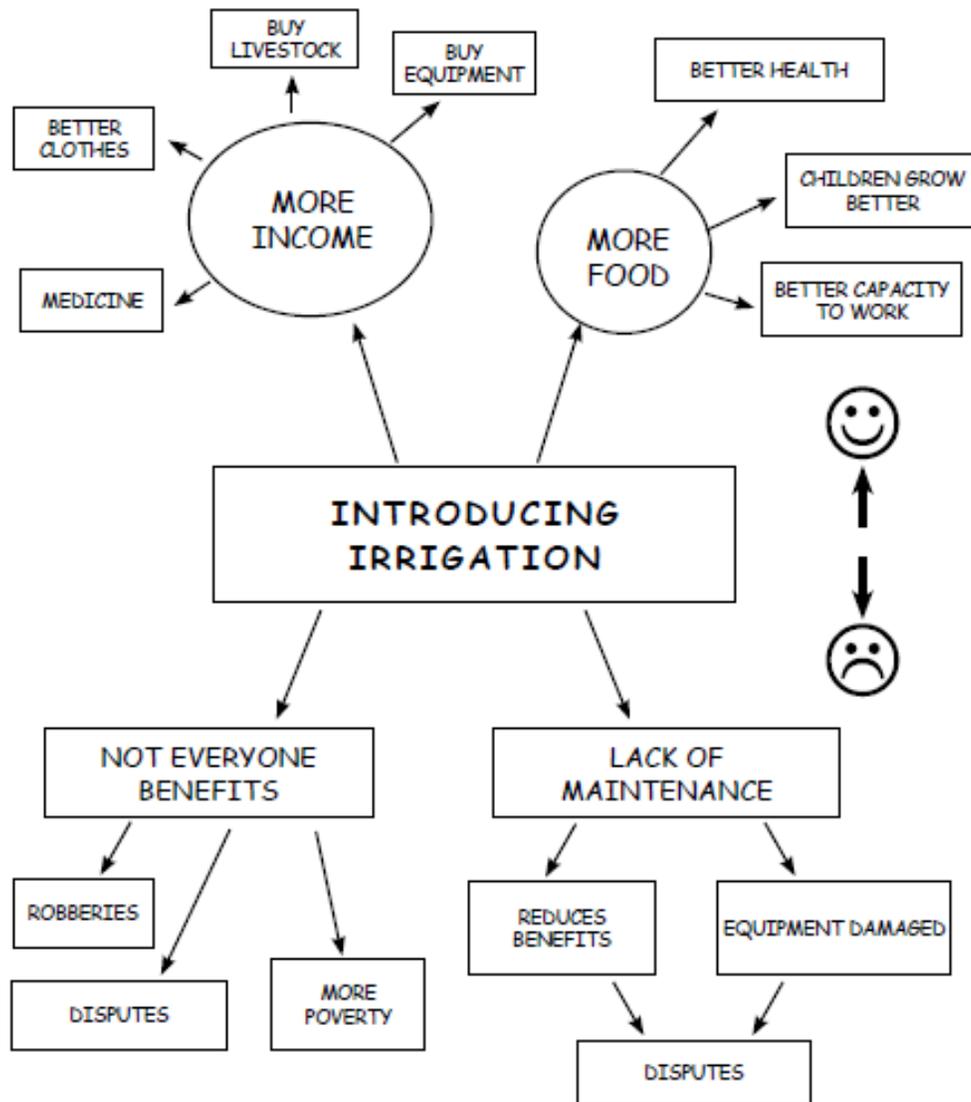
Communicative language tasks: Ask follow-up or clarifying questions; Ask questions; Facilitate a group discussion; Solicit ideas/responses

Steps:

1. Explain the exercise to the participants.
2. Write in the middle of the blackboard or on a card the title of the action/project the impact of which is to be assessed.
3. Brainstorm about the potential positive consequences of the action; place the ideas at the top of the blackboard/newsprint, in the form of a flowchart: the consequences should be organized in cause-effect chains.
4. Repeat the exercise listing possible negative consequences, placing them in the lower half of the blackboard/newsprint.
5. Discuss the final flowchart.

Source: Geilfus, Frans. 2008. 80 Tools for Participatory Development. San Jose, Costa Rica: IICA.

IMPACT DIAGRAM: INTRODUCING IRRIGATION





Farm Planning Map

To produce a map representing the final objective envisioned by families for planning their farm. This map is a “vision” of how they would like to see their farm within, for example, five years. It is not a plan drawn up by the technical team. It is a basic document for visualizing their plans for changes in the management of resources on a specific farm.

Time: 2-3 hours

Difficulty: moderate

Materials: map of farm, preferably including gender aspects

Communicative language tasks: Ask follow-up or clarifying questions; Ask questions; Solicit ideas/responses

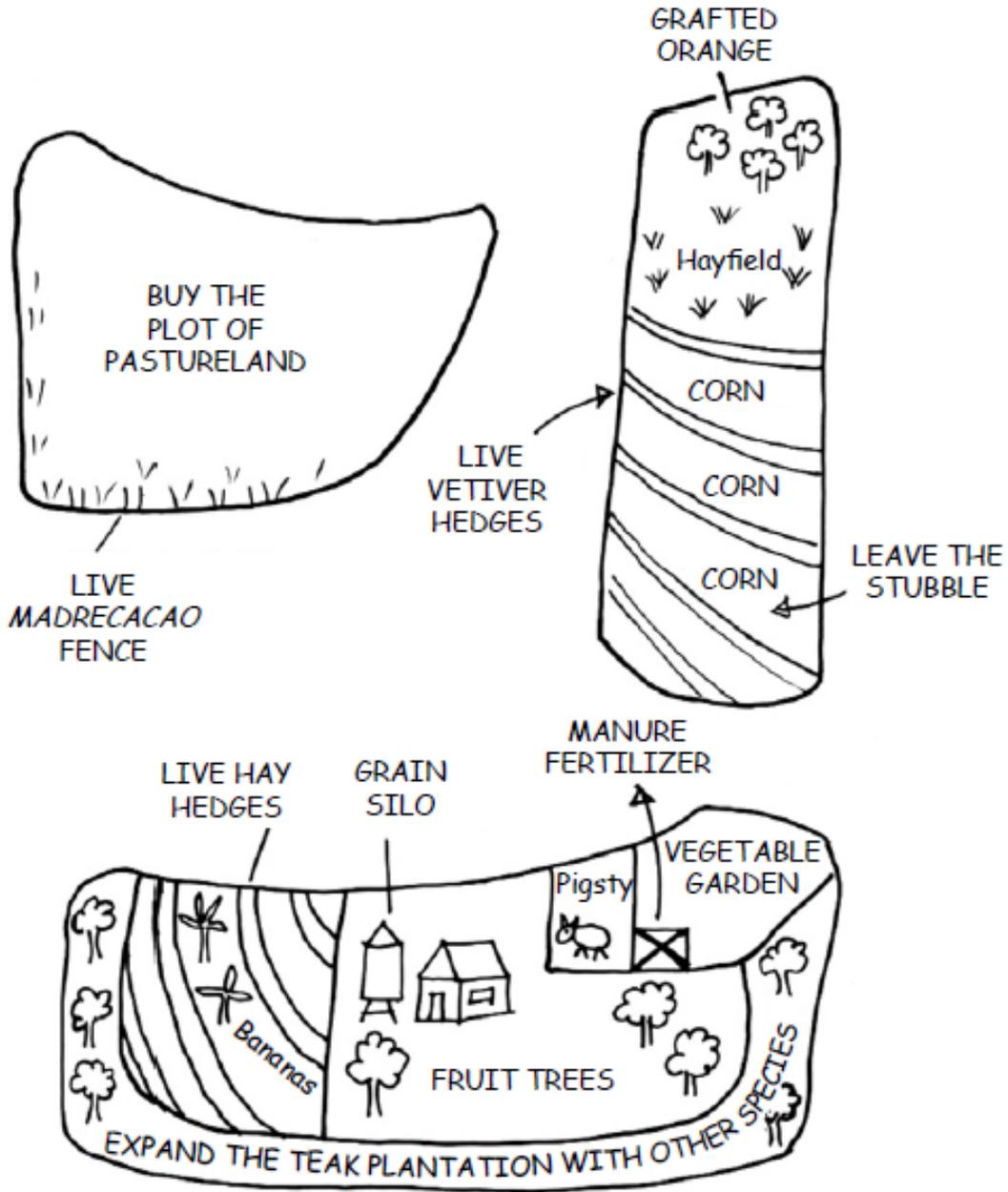
Steps:

1. The exercise should be carried out by every member of the family group who is involved in the use of resources. The promoters and/or extension workers should facilitate the process and stress the importance of it being a group effort (a working group could help draft maps of the participants' farms). Explain to them that they should describe how they would like to see their farm within a given period of time (five years would be a good time frame), and that this map will serve as a point of reference for technical assistance and for planning changes.
2. Ask the participants to draw up a new map of how their farm might look when the most desirable changes are made. Use symbols that are clear to everyone.
3. The map should be kept by the farmers. The technical team should make copies to take back with them. The diagram can be improved year after year so that it can be used as the basis for the yearly plans of the farmers and of the institution, as well as to establish their working goals.
4. The farmers should meet regularly to exchange ideas about their maps. They can also agree on follow-up procedures (see the farm plan).

Source: Geilfus, Frans. 2008. 80 Tools for Participatory Development. San Jose, Costa Rica: IICA.

FARM PLANNING MAP

This is how we want the farm to look 5 years from now





Objectives Matrix (Logical Framework)

To show in a table the objectives and results expected from the project, organized in a logical chain. This methodology, which is widely used in project planning, can be followed in a somewhat simplified manner, using visualization tools. It requires ingenuity, commitment and perseverance. Following is a highly simplified summary

Time: 2-3 hours minimum

Difficulty: moderate

Materials: Blackboard, newsprint, cards, markers

Communicative language tasks: Ask follow-up or clarifying questions; Ask questions; Solicit ideas/responses

Steps:

The starting point for setting objectives is the identification and prioritization of problems. A project is defined in terms of an end or broad objective, which can be achieved through a combination of purposes or specific objectives. Each specific objective is met through a series of products or results. To achieve each result, certain actions must be carried out, and/or certain inputs must be obtained.

This hierarchy and the rationale behind it can be better understood by using a concrete example. Let us take the case of a community that has identified the depletion of water sources as its main problem.

1. Establish the broad objective. Logically, this is the response to what has been identified as the main problem. In our example, the broad objective might be to increase and normalize the community's water supply.
2. Determine the specific objectives. These may be a response to the main causes of the central problem. In the example, two specific objectives were proposed: to reforest the heads of streams and to plan land use around the springs. We need to find out if both are necessary and adequate to achieve the broad objective.
3. Determine the results. These are, in turn, those achievements that are necessary and adequate to ensure that each of the specific objectives is attained (see illustration).
4. Determine activities and inputs. Here a list should be made of everything that needs to be done to ensure that the results are achieved (see illustration).

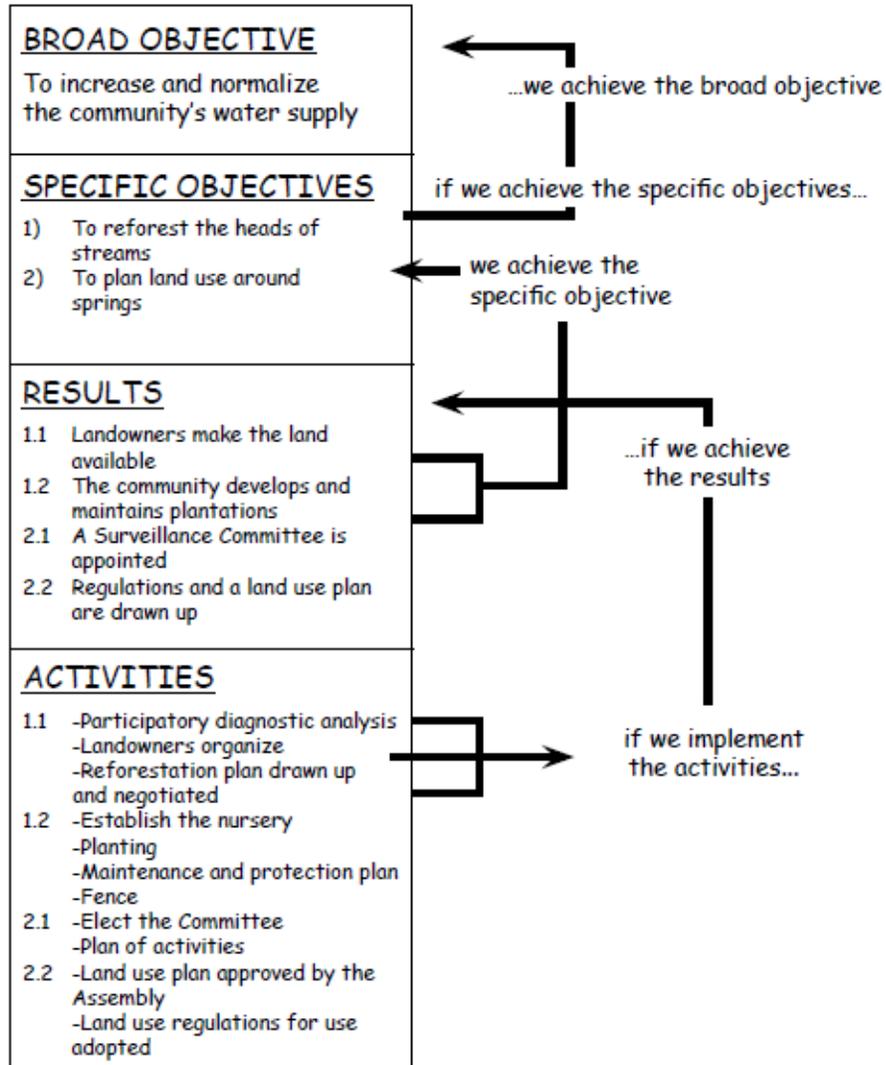
The basis for the logical framework is consistency. It is essential to ensure that there are no breaks in logic; that is, that achieving the objectives listed at one level will guarantee that the next level up will also be achieved.

The logical framework matrix usually includes verifiable indicators and means for verifying them (see the chapter on monitoring) and assumptions, which are elements beyond the control of the project that are necessary to achieve the objectives. If there are assumptions that cannot be achieved, the whole logical framework will need to be revised.

Source: Geilfus, Frans. 2008. 80 Tools for Participatory Development. San Jose, Costa Rica: IICA.

LOGICAL FRAMEWORK

(Incomplete example)





Matrix of Needs and Available Resources

In any type of project, it is important to identify all the resources needed to achieve the objectives. In traditional projects, the emphasis is on money, supplies and technical personnel. However, in a participatory project, resources include many other things: human resources, such as the people's knowledge, experience and skills; natural resources, such as land, water, etc. Planning for a participatory project should include all the necessary local resources, for two basic reasons:

1. The contribution made by the people can never be restricted, as in traditional projects, solely to labor
2. External contributions cannot be a substitute for local contributions (that would be welfare) and should be limited to those things that the community cannot do with their own resources.

Time: Depends on complexity

Difficulty: difficult

Materials: Blackboard, newsprint, markers

Communicative language tasks: Ask follow-up or clarifying questions; Ask questions; Solicit ideas/responses

Steps:

The matrix principle is simple. Based on the activities identified in the objectives matrix, the following two basic questions need to be answered:

- What do we need to carry out this activity?
 - What resources are not available in the community?
1. Present and reach consensus about the methodology. Agree on the matrix format and the symbols to be used to represent activities and resources.
 2. For each activity, determine what resources are needed. To be sure nothing is forgotten, a set of guidelines such as the following one is useful:
 - Human resources: experienced people in the community, organized groups, availability of time, training
 - Natural resources: land, water, and others
 - Labor: skilled (experience required) and unskilled
 - Technical knowledge: Do we have answers to technical problems?
 - Supplies
 - Financial cost
 3. Determine which of the necessary resources are available locally and which need to be imported. Discuss what resources can be substituted for others, e.g., if no one in the community has the experience required, training should be considered. List the resources in two columns: local resources and external resources.

Source: Geilfus, Frans. 2008. 80 Tools for Participatory Development. San Jose, Costa Rica: IICA.

MATRIX OF NEEDS AND AVAILABLE RESOURCES

ACTIVITY	RESOURCES NEEDED	IN THE COMMUNITY	OUTSIDE CONTRIBUTIONS
SET UP THE COMMUNITY NURSERY	<u>1) HUMAN RESOURCES</u> -Nursery committee -Person in charge -Grafter	😊 😊 😊 😊	→ Training Material
	<u>2) NATURAL RESOURCES</u> -Land -Water	😊 😊	Need to load in tank
	<u>3) LABOR</u> -Prepare the soil -Build fences -Seedbed - find land -Plant -Fill bags -Water and clean	😊 😊 😊 😊 😊 😊 😊	⚠️ → Support with training and follow-up
	<u>4) TECHNICAL KNOW-HOW</u> -Prepare the nursery -Planting and maintenance -Graft fruit trees	😊 😊 😊 😊	Some experience → Training
	<u>5) SUPPLIES</u> -5 shovels, 2 picks -5 machetes -Water tank -20,000 bags -Forest-tree seeds -Sour orange seeds -Grafts	😊 😊 😊 😊 😊 😊 😊 😊	→ Include in the budget → Include in the budget → Include in the budget → Include in the budget



Responsibility Matrix

To clarify and reach consensus on the assignment of responsibilities among the community and external agents, and encourage participants to take on responsibilities.

Time: Depends on complexity

Difficulty: moderate

Materials: Blackboard and/or newsprint, cards, markers

Communicative language tasks: Ask follow-up or clarifying questions; Ask questions; Solicit ideas/responses

Steps:

1. List on the blackboard or on cards all the actions that have been proposed for the planning exercise.
2. For each action, ask the participants to decide in which of the following three categories it should be placed:
 - We can do it ourselves without outside help.
 - We can do it, with help.
 - We can't do it ourselves; the State has to do it (or any other external agent).
3. For each action that is feasible, clearly establish mutual responsibilities: within the community, and with external agents. The matrix produced will be an essential input for the final planning matrix.

Source: Geilfus, Frans. 2008. 80 Tools for Participatory Development. San Jose, Costa Rica: IICA.

ACTIVITY	WHO CAN DO IT?			WHO DOES WHAT?	
	WE CAN DO IT OURSELVES	WE CAN DO IT WITH HELP	THE STATE	ASSOCIATION	NGO

RESPONSIBILITY MATRIX



Follow-Up and Evaluation Planning Matrix

To draw up a matrix for planning of the participatory monitoring (or follow-up) and evaluation process. This should be a repetitive process, as it entails repeating, at specific intervals, the stages of action (project implementation), observation (monitoring of indicators), and reflection (analysis of results of the observation and proposed adjustments and corrections). The matrix should summarize the actions to be taken, the responsibilities assigned, and the timeline.

Time: 2-3 hours

Difficulty: moderate

Materials: Blackboard, newsprint, cards, markers

Communicative language tasks: Ask follow-up or clarifying questions; Ask questions; Facilitate a group discussion; Solicit ideas/responses

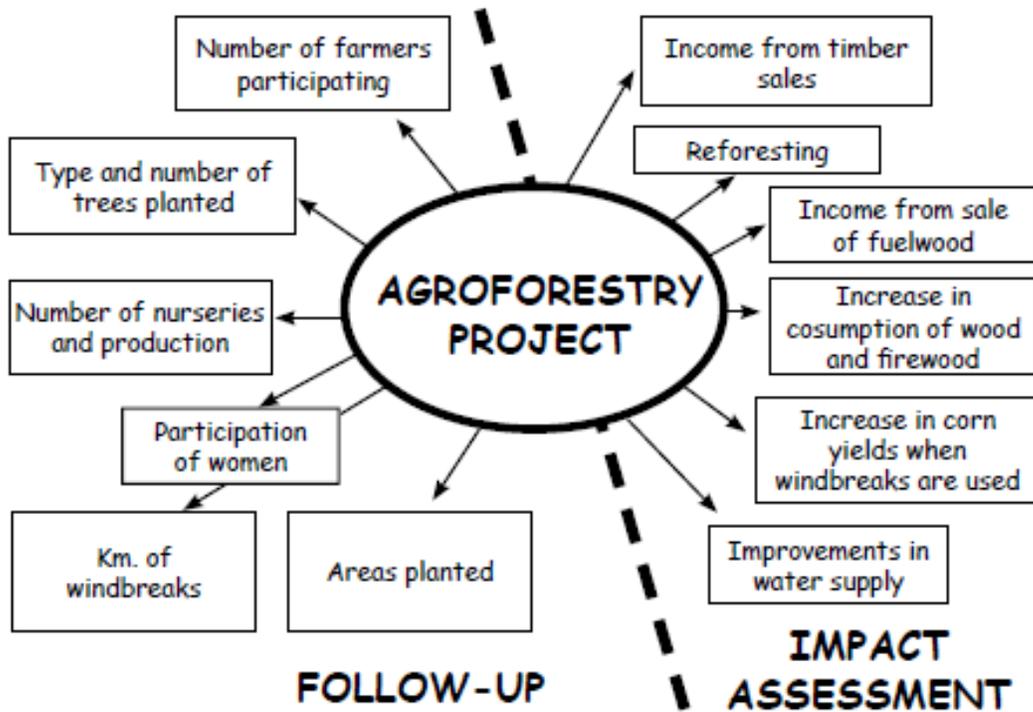
Steps:

Hold a meeting with project participants. During the meeting, a matrix will be drawn-up to indicate the different activities and their expected results, how measurement will be accomplished (indicators), who will do the measuring (responsibilities), how it will be presented (products), and when (timeline).

1. Analysis of participants and of the group's situation: "What do we know about the different actors in the project and their respective responsibilities?"
2. Analysis of expectations and fears about activities scheduled: "What are our expectations (expected results) and fears (potential problems) about the project?" This allows the group to expand their vision and enriches the search for indicators.
3. Analysis of indicators: "How can we observe progress and the impact of activities?" (See indicator matrix).
4. Analysis of follow-up responsibilities: "Who should observe the different indicators?" At this level, a decision should be made about setting up of a follow-up committee as well as who will be on it.
5. Analysis of follow-up tasks: "Who will carry out the follow-up and evaluation, and what products are expected?"

Source: Geilfus, Frans. 2008. 80 Tools for Participatory Development. San Jose, Costa Rica: IICA.

BRAINSTORMING ABOUT INDICATORS



FOLLOW-UP AND EVALUATION MATRIX

ACTIVITY SUB-ACTIVITY	INDICATORS	MEANS OF VERIFICATION	PERSONS IN CHARGE	TIMELINE													
				J	F	M	A	M	J	J	A	S	O	N	D		
<u>PLANTING PROGRAM</u>																	
1. Planting promoted	- Number of farmers participating	- Planting plans	- Reforestation Committee														
2. Plan consolidated	- Number of trees and total area	- Reforestation plan 1997	- Reforestation Committee														



Follow-Up Indicator Matrix

To draw up a matrix showing the indicators to be used in monitoring or following up on the project. (Here we have made a distinction between follow-up indicators and impact assessment indicators, but in some cases, this is not necessary). Reaching consensus on indicators is a very important aspect of participation in the project.

Time: 2-3 hours

Difficulty: moderate

Materials: Blackboard, newsprint, cards, markers

Communicative language tasks: Ask follow-up or clarifying questions; Ask questions; Facilitate a group discussion; Solicit ideas/responses

Steps:

Hold a meeting with project participants

1. Explain the objective of the meeting and the need for follow-up and evaluation. Participants are usually not familiar with the concept of an “indicator”, so practical examples should be given to explain it: take as an example one of the activities in the plan of work and suggest they brainstorm about the question, “How can we know if the activity is being carried out according to plan?” It is easier to identify potential indicators if they are organized under four categories:
 - Input availability indicators: Do we have the necessary resources to carry out the activity?
 - Product availability indicators: Do we have the products needed for the activity?
 - Task performance indicators: Are the requisite tasks being performed?
 - Process indicators: Are the processes taking place?
2. The second step entails determining how the indicators will be measured. This enables the group to realize that there are two main types of indicators:
 - Quantitative indicators: these can be measured in terms of quantity (usually inputs and products);
 - Qualitative indicators: these cannot be measured in terms of quantity (usually tasks and processes).
3. If a large number of indicators has been listed, it may be necessary to prioritize them; one criterion could be to determine if the indicators are measurable.
4. The exercise should be repeated for the different activities and sub-activities, thus constructing the matrix of indicators and results.

Source: Geilfus, Frans. 2008. 80 Tools for Participatory Development. San Jose, Costa Rica: IICA.

FOLLOW-UP INDICATOR MATRIX

ACTIVITY	SUB-ACTIVITY	INDICATORS	MEANS OF VERIFICATION
Establishing the nursery	<ul style="list-style-type: none"> ● Organize the Nursery Committee 	<ul style="list-style-type: none"> ● The Committee serves with the members appointed to it 	<ul style="list-style-type: none"> - Minutes - Meetings - Attendance of members
	<ul style="list-style-type: none"> ● Prepare the land 	<ul style="list-style-type: none"> ● The land is fenced, cleared and seed beds ready and bags full 	<ul style="list-style-type: none"> - Evaluation meeting during the second week of February - Materials
	<ul style="list-style-type: none"> ● Planting and maintenance 	<ul style="list-style-type: none"> ● Fruit and timber species planted ● Number and quality of plants 	<ul style="list-style-type: none"> ● % germinated by the second week of April ● % of survival and quality by the fourth week of May
	<ul style="list-style-type: none"> ● Planning for planting of timber species 	<ul style="list-style-type: none"> ● Plantation plan with members 	<ul style="list-style-type: none"> ● Plan agreed on by 11 members by May
	<ul style="list-style-type: none"> ● Training in grafting techniques 	<ul style="list-style-type: none"> ● 3 workshops ● Members perform grafting 	<ul style="list-style-type: none"> - Evaluation of workshops - Number of plants and % of grafts that have taken



Farm Plan

To specify in a plan the options available for developing the farm and the steps necessary to accomplish it. The plan should be agreed on by the farmers with the help of promoters or extension workers. It should not entail total transformation of the farm according to an “ideal” scheme, but rather a compromise on actions that are feasible over the short term and the medium term, so as to work towards the vision laid down in the farm planning map. Planning the farm should not be a complex process like a project; however, as a minimum the logical steps of diagnosis – problem assessment – selection of options – design of the plan, should be followed.

Time: Varies greatly

Difficulty: moderate

Materials: Blackboard and chalk, newsprint, cards, markers

Communicative language tasks: Ask follow-up or clarifying questions; Ask questions; Solicit ideas/responses

Steps:

1. Review the problems identified and list each one on a separate card.
2. Explain to the participants that they are going to try to identify the problems and their causes. Give a simple example. Ask them to identify a problem they consider very important. Place the card in the middle of the blackboard or paper.
3. Ask the participants to review the other cards to see if other problems might be causing the one that was placed in the middle. Put the “cause” cards under the middle card, in the “causes” line; brainstorm to see if they can identify other causes. Discuss each step.
4. Repeat the exercise to identify other problems that might be a “consequence” of problems already placed on the board.
5. Review all the cards that have not been put up to see if there might not be a relationship between them and some of the cards already placed on the board.
6. At the end, there should be one or more problem “trees”. It is very important to be able to determine if there is a “central” problem on the tree or trees that leads to most of the other problems.
7. Ask the participants what they think of the exercise. Write down the result and give the paper or a copy of the results to the group.

Distinguishing between the problems and causes is important in order to correctly define objectives (see, for example, the objectives matrix).

Source: Geilfus, Frans. 2008. 80 Tools for Participatory Development. San Jose, Costa Rica: IICA.

FARM PLAN

PROBLEMS

- 1) LOW CORN PRODUCTION
- 2) SOIL EROSION
- 3) SHORTAGE OF ANIMAL FEED
- 4) LOW PRICE OF CORN
- 5) SHORTAGE OF FUELWOOD

Name of farmer:

Juan Pérez

Community: San Jacinto

Group: La Esperanza

SOLUTIONS

SHORT-TERM (1-3 YEARS)

- 1) PLANT HEDGES (VETIVER AND MERKER)
- 2) LEAVE THE STUBBLE
- 3) TRY BEANS AS FERTILIZER
- 4) PLANT A HAYFIELD
- 5) GET A GRAIN SILO
- 6) PLANT MADRECACAO FENCE

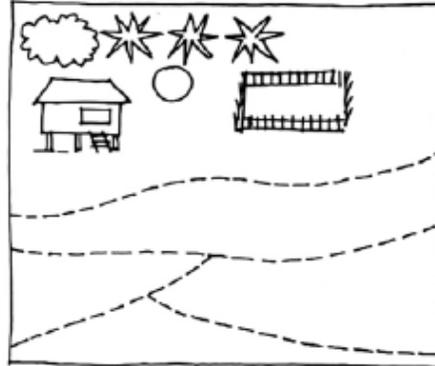
LONG-TERM

- 1) BUY A PLOT FOR FORAGE CROPS
- 2) EXPAND THE VEGETABLE GARDEN
- 3) PLANT GRAFTED FRUIT TREES THAT ARE SUITABLE FOR TIMBER

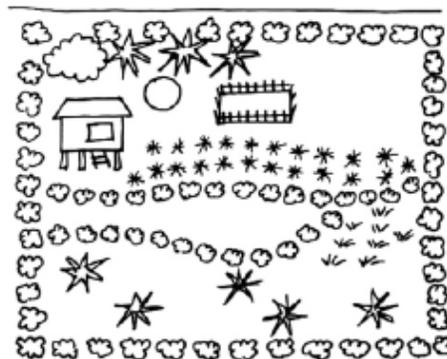
LIMITATIONS

- 1) FAR FROM THE ROAD
- 2) THERE IS NOT FLAT LAND
- 3) THERE IS NO WATER CLOSER

THE FARM TODAY



THE FARM FIVE YEARS FROM NOW





Participatory Follow-Up Forms (Task Completion)

To facilitate for the community some simple forms to enable them to monitor progress with the activities. For quantitative indicators, the forms show simply and clearly the flow of resources, products, income, etc. This exercise is designed for the community, so they can get an idea of the progress being made with activities and have feedback for the evaluation meetings. It should not be used as a tool for the development institution, which should conduct its own follow-up process.

Time: N/A

Difficulty: moderate

Materials: Paper, fine cardboard, markers

Communicative language tasks: Ask question; Solicit ideas/responses

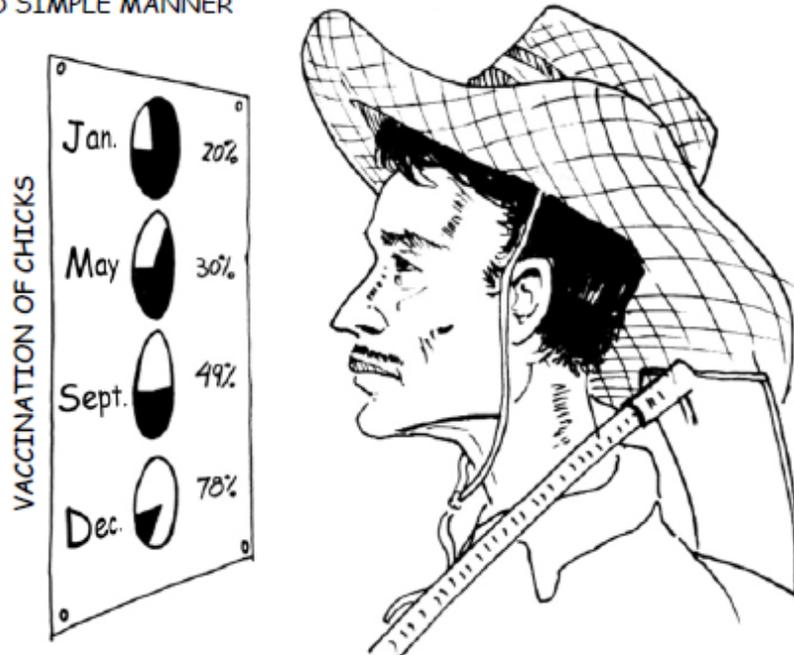
Steps:

- See the general instructions in “Participatory follow-up form (task completion).”
- Different types of forms can be used. For quantitative indicators, simplified versions of the forms normally used are recommended.
- Tables with figures are meaningless to people who barely know how to read. Replacing these with a simple graph enables anyone in the community, after a short briefing, to interpret the data. They can easily learn how to draw the graph, and the members of the local committee should be responsible for follow-up and evaluation.
- The participatory follow-up forms should be large, and should be put in a clearly visible place in the area where the working group meets.

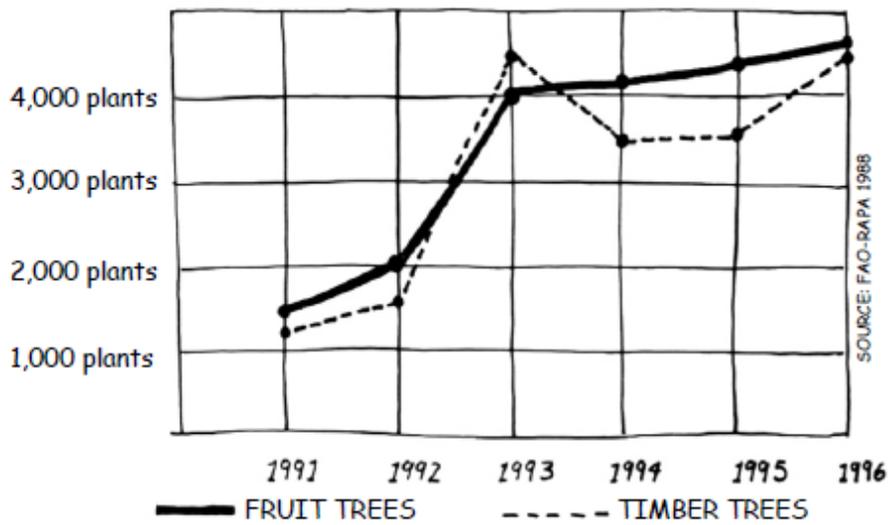
Source: Geilfus, Frans. 2008. 80 Tools for Participatory Development. San Jose, Costa Rica: IICA.

QUANTITATIVE INDICATORS

SHOULD BE ILLUSTRATED IN A CLEAR AND SIMPLE MANNER



NURSERY PRODUCTION





Participatory Follow-Up Forms (Qualitative Indicators)

To offer the community some simple forms to enable them to monitor progress with the activities. Many important activities cannot be evaluated with exact quantitative measurements: people's attitudes, changes in participation, organization, leadership, perceptions, etc., can be represented graphically. This exercise is designed for the community, so they can get an idea of the progress being made with activities and have feedback for the evaluation meetings. It should not be used as a tool for the development institution, which should conduct its own follow-up process.

Time: N/A

Difficulty: moderate

Materials: Paper, fine cardboard, markers

Communicative language tasks: Ask question; Solicit ideas/responses

Steps:

- See general instructions in “Participatory follow-up forms (task completion).”
- Different types of forms can be used. For qualitative indicators, we recommend the use of simple symbols to express different degrees of appreciation (like “smiley faces”) so as to allow for qualitative monitoring that is not confusing.
- The participatory follow-up forms should be large, and should be put in a clearly visible place in the area where the working group meets.

Source: Geilfus, Frans. 2008. 80 Tools for Participatory Development. San Jose, Costa Rica: IICA.

QUALITATIVE INDICATORS



MONTH: MARCH 1996			
ATTENDANCE AT MEETINGS	✓		
HELP WITH NURSERY		✓	
VISIT OF TECHNICAL TEAM	✓		
EXCHANGES	✓		✓
MEETING PLANNING GOALS		✓	

WHAT DID WE LEARN THIS WEEK?	SELF-EVALUATION: SEWING COURSE WEEK: 2					
		Excellent	Good	Acceptable	Fair	Bad
	JOHANNA					✓
	MARY				✓	
	ELIZABETH	✓				
	FLOWER					✓
	JOHANNA		✓			
	NATALY					✓
	FRANCIS		✓			
	ALBA MARIA			✓		
	JOSEPHINE					✓
	LISETTE	✓				
	SONIA		✓			
	TOTAL	2	3	1	1	4



Impact Assessment Indicator Matrix

To draw up a matrix with the indicators that will be used in evaluating the impact of the project. Reaching consensus on indicators is a very important aspect of participation in a project.

Time: 2-3 hours

Difficulty: text

Materials: Blackboard, newsprint, cards and markers

Communicative language tasks: Ask follow up or clarifying questions; Ask question; Solicit ideas/responses

Steps:

Hold a meeting with project participants

1. Explain the objective of the meeting and the need for the assessment. Participants are usually not familiar with the concept of “indicator”, so practical examples should be given to explain it: take as an example one of the activities in the plan of work and suggest they brainstorm about the question, “How can we know if the activity is being carried out according to plan?” It is easier to identify potential indicators if they are organized under four categories:
 - Social indicators: these help measure changes in the social situation of participants (e.g., access to services, housing, education, land tenure, health, gender equality, adoption of new practices);
 - Economic indicators: these help measure changes in the economic situation of participants (e.g., indebtedness and investments, access to credit, production goods and others, income, levels of production, levels of self-employment, use of wage-earners, levels of technology, etc.);
 - Political-organizational indicators: these help measure changes in the degree to which the beneficiaries are organized and have control over the decisions that affect their lives (e.g., degrees of organization and social control, leadership, distribution of benefits among participants, etc.);
 - Environmental indicators: these help measure changes in the environment (e.g., deforestation and reforestation, pollution, protected areas, water sources, wildlife, adoption of practices and level of awareness about the environment, etc.).

The facilitator should organize the cards and conduct several rounds of brainstorming until everything has been covered.

2. The second step entails determining how the indicators will be measured. This enables the group to realize that there are two main types of indicators (see follow-up indicator matrix).
3. If a large number of indicators have been listed, it may be necessary to prioritize them; one criterion could be to determine if the indicators are measurable. The exercise should be repeated for the different activities and sub-activities, thus constructing the matrix of indicators and results.

Source: Geilfus, Frans. 2008. 80 Tools for Participatory Development. San Jose, Costa Rica: IICA.

IMPACT INDICATORS

Objective: To increase and normalize the community's water supply

SOCIAL INDICATORS

WELLS DO NOT PROVIDE ENOUGH WATER FOR ALL

THE WATER IS SUITABLE FOR HUMAN CONSUMPTION

DISEASES AND PARASITES HAVE BEEN REDUCED ONLY 30%

ECONOMIC INDICATORS

INCOME FROM PRODUCTION OF FUELWOOD AND TIMBER

PRODUCTION OF VEGETABLES IN SUMMER

ANIMAL PRODUCTION HAS INCREASED 20%

ORGANIZATIONAL INDICATORS

A WATER COMMITTEE IS ACTIVE

COMMUNITY PLANNING MAP

WATER USE REGULATIONS

BURNING UNDER CONTROL

ENVIRONMENTAL INDICATORS

GREATER FLOW OF WATER

WATER ALL YEAR ROUND

REFORESTED AREAS

MORE BIRDS

NATURAL REGENERATION

RELATED RESOURCES & CONTENT

More participatory tools!

The tools in this Sector Booklet are borrowed from the following source, which contains dozens of additional participatory tools that can be used as part of sector-specific PACA.

80 Tools for Participatory Development

Geilfus, Frans. 2008. 80 Tools for Participatory Development: Appraisal, Planning, Follow-up and Evaluation. San Jose, C.R.: IICA.