

SESSION 10

Transect Walks and Observation

Session Objectives

By the end of this session, you will...

- U...Evaluate your own observation skills*
- U...Understand the importance of observation in PLA*
- U...Identify uses for observation and transect walks in PLA*
- U....Demonstrate observation skills during a transect walk*



CONTEXT: *This session covers transect walks, which usually follow mapping. You will also learn good observation skills, which are necessary for transect walks as well as the other PLA techniques.*

Transect walks are walks which PLA teams take around the community in order to observe the people, surroundings and resources. Transect walks are therefore **spatial data-gathering tools**.

~~~~~WHEN TO DO TRANSECT WALKS~~~~~

Transect walks should be conducted early in the PLA process, after the mapping exercise. Transect walks provide the PLA team with an overall view of the community and help it to identify issues that might merit further exploration. They can take as little as an hour or as long as a day, depending on the size of the community and the amount of time available.

Transect walks are planned by drawing a "transect line" through a map of the community (such as the map that has been developed as part of the PLA process). The line goes through, or "transects" all zones of the community in order to provide a representative view.

Accompanied by several community members, members of the PLA team follow the line on the map during their walk in order to observe conditions, people, problems and opportunities in each of the zones. Members of the PLA team talk to the local people they meet along the way in order to obtain additional information. Depending on the focus of the PLA workshop, the team members will be interested in observing different types of

things in the community. Following are examples of different things that transect walks can be used to observe:

~~~~~EXAMPLES OF THINGS TO OBSERVE DURING TRANSECT WALKS~~~~~

- Housing conditions
- Presence of "street children" (urban areas)
- Informal street commerce and prostitution
- Availability of public transportation
- Types of non-governmental organisations or church organisations in the community
- Types of stores in the community (e.g., pharmacies, grocery stores)
- Interactions between men and women
- Food sold in open-air markets
- Sanitary conditions
- Children's labour
- Presence of health facilities

Before conducting a transect walk, it is helpful to develop an **observation guide** to provide a reminder of general themes for the walk. In a multidisciplinary team, each member develops his or her own observation guide, according to the members' sector or specialty.

Information gathered during transect walks is presented in a diagram showing the different zones of the community along the top of the page, with columns descending from each zone. In the lefthand column, different categories are written (e.g., social conditions, hygiene conditions, types of stores). Information is filled in for each category and zone.

Following this page is an example of a transect diagram from Sudan.

VILLAGE OF SIDRA
KORDOFAN, SUDAN



<u>SOIL</u>	rocky	gravel	gravel	sand	clay
<u>LANDUSE</u>	forest	farmland grazing	village	farmland grazing	farmland
<u>CROPS AND VEGETATION</u>	trees, bamboo	grass, shrubs, millet, sesame		sesame, beans, hibiscus	sorghum, groundnuts
<u>PROBLEMS</u>	erosion	drought, pests		drought, pests, low soil fertility	drought
<u>OPPORTUNITIES</u>	fuelwood, timber, bamboo	pasture, rainfed farming	market, transport, water, credit, health- care, school	pasture, rainfed farming	flood- recession farming

Source: Thies, J. and H. Grady. 1991. *Participatory Rapid Appraisal for Community Development*. Save the Children and IIED.

SESSION 11

Time Lines and Sequencing

Session Objectives

By the end of this session, you will...

U...Understand the purposes and uses of time lines, seasonal calendars, and daily schedules in PLA

U...Demonstrate the creation of time lines, seasonal calendars and daily schedules



CONTEXT: *This session introduces PLA techniques which explore temporal relationships and sequencing.*

Time Lines

Time lines are **time-related data-gathering tools** that link dates with historical events. A time line is usually divided into many sections, with the date written on one side and the event written on the other side. Time lines can cover any time period, but they are most commonly used to examine a sequence of events over many years. They can be used to describe a community's history, personal histories, or project histories. In addition to presenting significant events, time lines identify changes over time.

~~~~WHEN TO DO TIME LINES~~~~

Time lines are good ice breakers, because people generally like to talk about events their community. Therefore, the PLA team may want to construct a time line at the beginning of the PLA workshop, along with the map and transect walk. The construction of time lines is a good way to involve elders, since they often know the most about the community's history.

Time lines can easily be drawn on the ground with sticks and other objects. Another variation (in communities with high literacy rates) is to have each person involved to write different events on paper and then have the group arrange the papers in chronological order. This helps to ensure that one group member does not "hijack" the pencil.

When constructing a time line, it is not necessary to have absolute dates, especially in cultures that do not put an emphasis on calendar dates. Time lines can simply be used to

put events in chronological order, and time can be illustrated by the distance between events.

Time lines can be used not only to get a general idea of the community's history in terms of major events, but also to examine specific trends in different sectors. In addition, they can be used to construct personal histories of selected community members. Below are some examples of how time lines can be used:

~~~~~EXAMPLES OF TIME LINES~~~~~

- Political events
- Major disease outbreaks
- Periods of crisis or emergency
- Development of educational systems
- Changes in natural resources
- Cultural changes (e.g. changes in social values)
- Development of project histories
- Development of infrastructure
- Introduction of modern technology
- Changes in industry or agriculture
- Personal histories of selected community members

Following this page is an example of a village time line from East Java, Indonesia.

?	original forest cut
1860	Kater Village is established
~1910	Acacia/Teak plantation already established by Dutch
1938	20 Houses
1942	45 Houses
1945	All teak already cut by farmers during WWII
1962	Land reform by Agraria
1962/3	All 'durian' trees already cut down
1967	Replanting of Teak by Perum Perhutani
1969	Typhoon - subsequent cutting of trees surrounding houses
1976	Extension began for tegal and sawah, on fertilizers, pesticides.
1977	Introduction of Orange trees and ceramic production began
1978	Dissemination of Katiandra / Elephant Grass regreening seeds from Kabupaten
1979	Introduction of Clove trees
1980	Transmigration
1981	Off-farm 'Kanakisi' work began
1983	Transmigration
1985	Introduction of UESA regreening experiment; Check dam constructed
1987	867 houses; Introduction of UACP

Source: McCracken, JA et al. 1988. *An Introduction to RRA for Agricultural Development*. International Institute for Environment and Development. In Institute for Development Studies. 1996. *PRA Tools & Techniques Pack*.

Seasonal Calendars

A seasonal calendar is a **time-related data-gathering tool** that shows in diagram form the main activities, problems, and opportunities throughout a recurring time cycle. A seasonal calendar helps identify periods of greatest difficulty and vulnerability, or other significant variances that have an impact on people's lives. Seasonal calendars are also useful for exploring the temporal relationships between recurring events in a community.

~~~~WHEN TO DO SEASONAL CALENDARS~~~~

Seasonal calendars can either be conducted early in the PLA workshop, in order to get a general information about a community (e.g., workload patterns, income flow, harvests), or later in the PLA workshop, in order to explore relationships between events in more depth (e.g., the relationship between migration patterns and disease outbreaks).

Seasonal calendars are often drawn with the months of one year (or another time period chosen by the community) laid out in a horizontal row. Remember that a seasonal calendar should reflect the indigenous concepts of time and does not have to start with January. Be sure to ask community members how *they* would organize the calendar. In some parts of the world the Western calendar is not used, and non-monthly intervals are more relevant. For example, communities may decide to use rainy and dry seasons instead of months. After the time intervals are laid out horizontally, vertical rows are then created, with each row representing a different seasonal factor (e.g., diseases, income, workload).

Like maps, seasonal calendars can be drawn on the ground, and objects such as seeds, rocks or leaves can be used to indicate the intensity of different factors for each time period. Sticks can be broken into different lengths and used to indicate relative magnitudes.

Often, it will be necessary to improvise when collecting data if exact statistics are not available. For example, if you are unable to obtain monthly data about rainfall, determine the four wettest months, the four driest months and then subsequently the four middle months. When asking for quantitative information, also try to probe for qualitative information. For example, if asking a community member to name the busiest months of the year, ask also what activities are conducted during those months.

Following this page are some examples of different types events that can be plotted on seasonal calendars and relationships between events that can be explored.

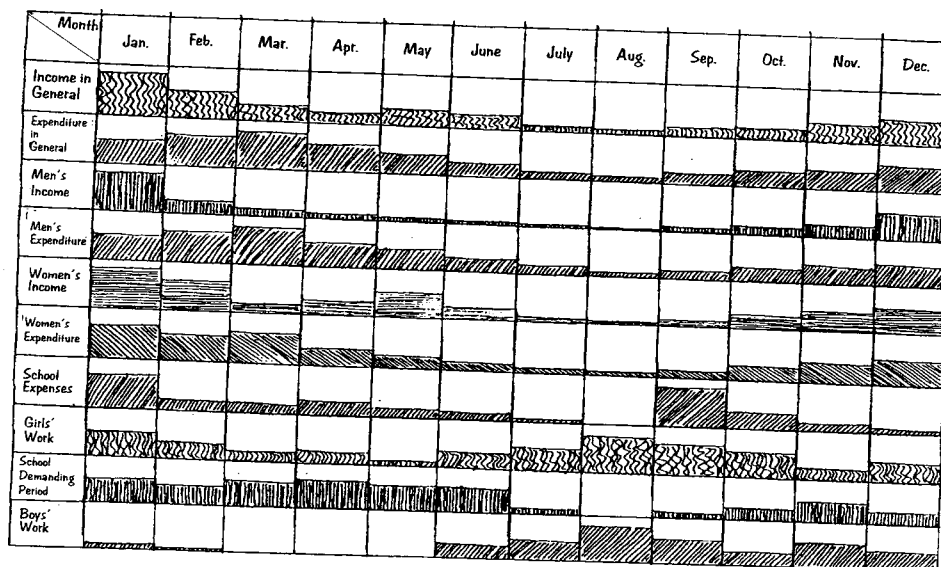
~~~~~EXAMPLES OF SEASONAL CALENDARS~~~~~

- Price variations for food or other items
- Patterns of disease prevalence
- Types and quantity of cooking or heating fuel
- Social events
- Migration
- Income and expenditures
- Annual holidays
- Indigenous seasons
- Climate (rain fall and temperatures)
- Crop sequences, pests and diseases
- Variations in food supply
- Livestock diseases
- Income-generating activities
- Workload of men, women, and children

~~~~~EXAMPLES OF RELATIONSHIPS TO BE EXPLORED WITH SEASONAL CALENDARS~~~~~

- Income and expenditures
- Weather and disease outbreaks
- Home workload and school drop out
- Income and health centre utilisation
- Pregnancy patterns and income
- Migration and disease outbreaks
- Initiation ceremonies and school workload
- Workload and disease patterns

Below is an example of a seasonal calendar from The Gambia.



Source: Kane, E. 1996. *Groundwork: Participatory Research in Girls' Education. A Manual to be Used with Groundwork: The Video.* Washington, DC: The World Bank/Economic Development Institute.

Daily Schedules

Daily schedules are **time-related data-gathering tools** that explore daily work patterns and other activities. They allow researchers to examine one person's daily activities and to compare the daily activities of two or more people.

In general, daily schedules have been used to....

- Look at the timing of activities
- Note periods when two or more activities are being carried out concurrently
- Discuss new activities and their implications for time use
- Compare differences between schedules
- Explore convenient times for meetings, training sessions and other activities
- Generate discussions about gender issues (e.g., comparing the schedules of women and men or girls and boys and how these differences have an impact on health or education)
- Explore daily workloads of different community groups (e.g., factory workers vs. street vendors, or students vs. children not in school)

~~~~~WHEN TO DO DAILY SCHEDULES~~~~~

Daily schedules are often conducted early in the PLA workshop, in order to get general information about men's and women's workloads and identify subjects to be explored in more depth through other techniques. They can also be conducted late in the PLA workshop, however, in order to determine the most convenient times for scheduling project activities.

There are three principal ways to construct daily schedules:

1. Make a daily time line, divided by hour, time period (morning, afternoon, evening) or changes in activity. Different activities are placed along the time line, and are either represented by words, symbols, blocks of time, or graphs.
2. Use a daily time line with an emphasis on symbols. Symbols are placed along the time line, and then small objects (e.g., seeds or beans) are placed next to the symbols to indicate the amount of effort expended for each activity.
3. Construct a matrix of activities, with the time blocks along one side and activities along another side. This makes it easy to illustrate multiple activities taking place simultaneously.

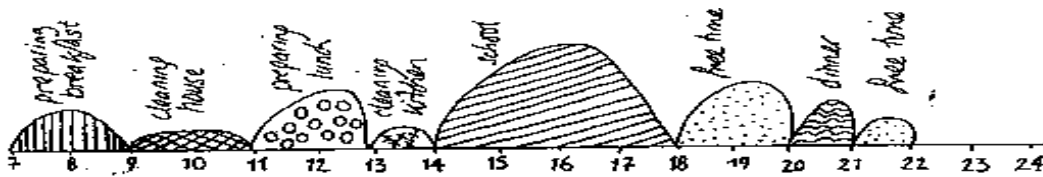
~~~~~EXAMPLES OF DAILY SCHEDULES~~~~~

Daily schedules are generally used to map out all of the activities in the typical day of men, women or children, and to compare the workloads of the different groups. They can be done with focuses on special issues, however, such as the following:

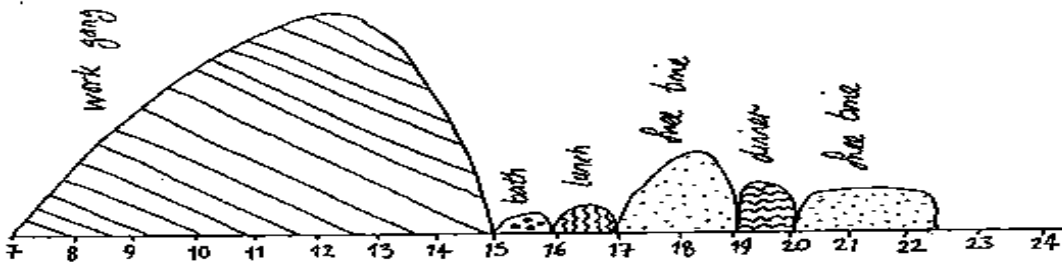
- Domestic chores
- Tasks outside the home (e.g., factory work, farming, income generation)
- A typical school day (from either the students' or the teachers' viewpoint)
- A typical day in a health centre (e.g., created by health centre staff)

Below are examples of daily schedules from Cape Verde and Gaza.

Daily routine of a young woman in a village in Cape Verde



Daily routine of a young man in a village in Cape Verde

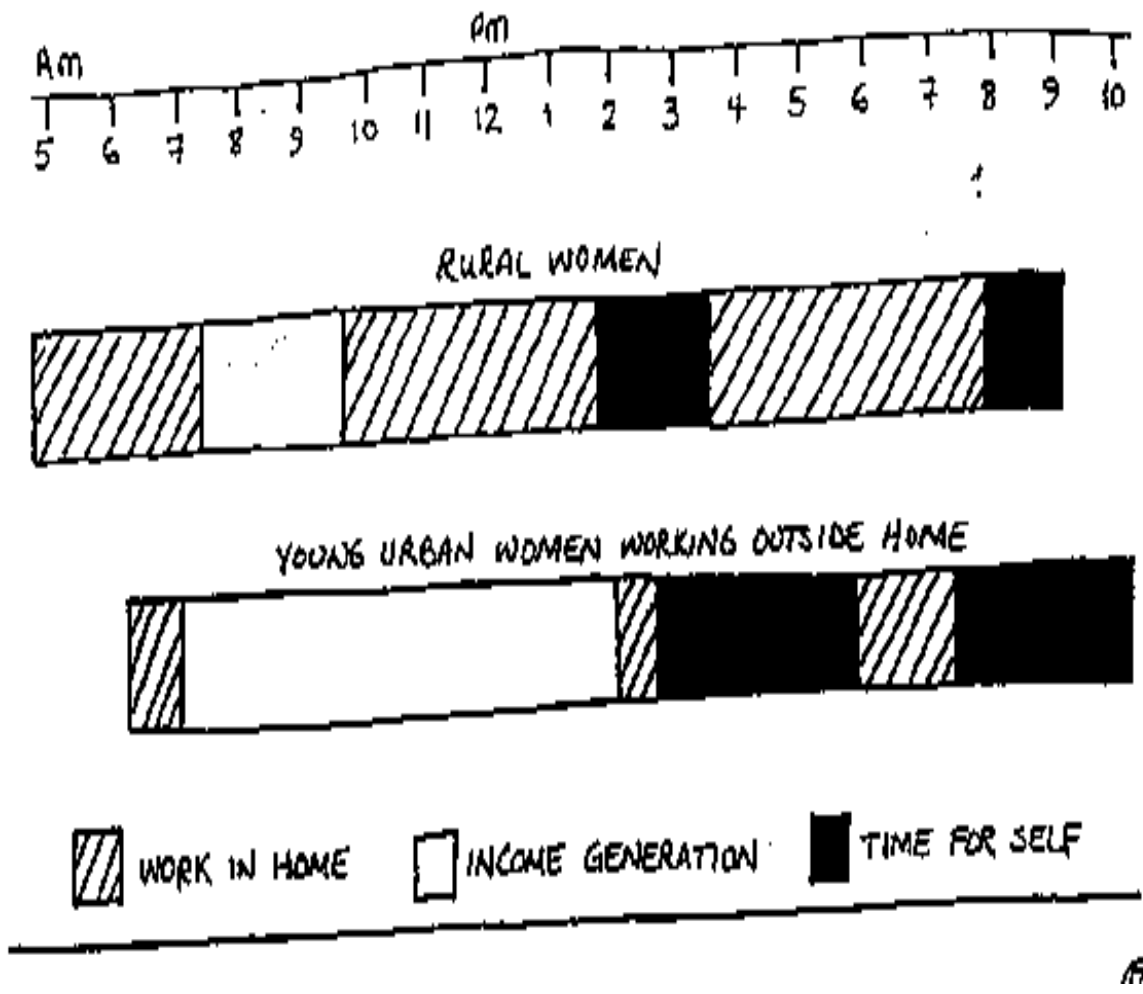


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Gender Differences and PRA. International Institute for Environment and Development. In Institute for Development Studies. 1996. *PRA Tools & Techniques Pack*.

## TYPICAL DAILY ROUTINE WOMEN IN THE GAZA STRIP



Source: Guijt, I. 1992. Gender Differences and PRA. International Institute for Environment and Development. In Institute for Development Studies. 1996. *PRA Tools & Techniques Pack*.

## SESSION 12

### Diagramming

#### Session Objectives

By the end of this session, you will...

*U...Understand the purposes and uses of chappati diagrams, Venn diagrams, and flow charts in PLA*

*U...Understand the use of diagramming in the context of an actual PLA project*

*U...Demonstrate the creation of three different diagrams*

*U...Identify additional uses for diagrams in PLA*



**CONTEXT:** *This session covers different types of diagrams, which have a variety of analytical and data-gathering uses in PLA.*

#### Chappati diagrams

Chappati diagrams (also known as pie charts) are **social data-gathering tools** that can be used to illustrate proportions. They consist of a circle which is divided into different sized "slices", depending on the importance of the different elements being discussed.

#### ~~~~WHEN TO DO CHAPPATI DIAGRAMS~~~~

Chappati diagrams can be conducted early during the PLA workshop, because they are short exercises which are easy to do. This helps to build the confidence of the community members. The information generated through chappati diagrams is used to generate more in-depth discussions. Chappati diagrams can also be used later in the PLA process, however, to explore specific topics which have been identified through other methods.

The diagram can either be drawn on the ground, or sticks can be placed in the circle to represent the lines. The advantage of using sticks is that they can be moved around during the discussion. If it is not possible to use the ground, a large round bowl can be filled with grain or seeds, and participants can use small sticks to divide the chappati.

Chappati diagrams can be used to examine a community's demographics, explore people's perceptions of issues and identify constraints or problems. Following are some examples<sup>12</sup> of the ways chappati diagrams have been used in PLA:

~~~~~**EXAMPLES OF CHAPPATI DIAGRAMS**~~~~~

- Ethnic or religious composition of communities
- Occupations of community members
- Educational level or literacy
- Reasons for girls dropping out of school
- Causes of maternal mortality
- Main health problems
- Sources of drinking water
- Distribution of household expenses
- Types of family planning methods used in the community

Pie diagrams (also known as "Chappati" diagrams) are **social data-gathering tools** that can be used to illustrate proportions. They can be used to examine a community's demographics, explore people's perceptions of issues and identify constraints or problems. Examples¹³ of the ways pie diagrams have been used in PLA include:

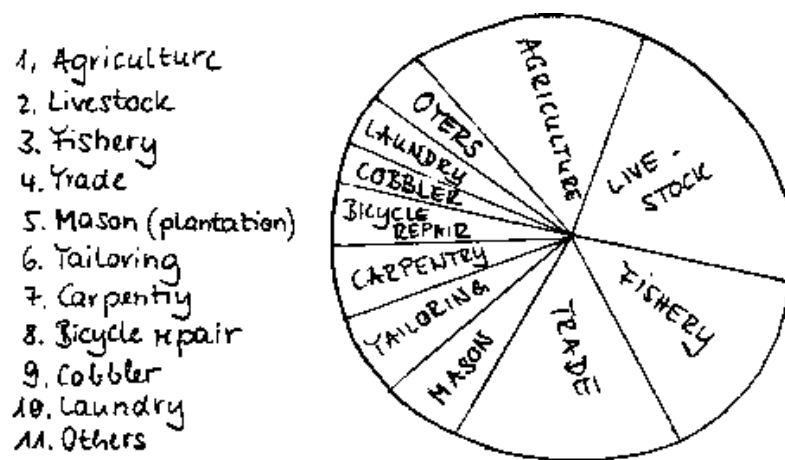
- Ethnic composition of villages
- Use of health care facilities
- Land use or allocation
- Educational level or literacy
- Proportion of people involved in different occupations
- Distribution of household expenses

The diagram can either be drawn on the ground, or sticks can be placed in a circle to represent the lines. If it is not possible to use the ground, a large round bowl can be filled with grain or seeds, and participants can use small sticks to "divide the pie."

¹²Institute of Development Studies. 1996.

¹³Institute of Development Studies. 1996.

Below is an example of a pie chart showing sources of income in Kenya.



Source: Schubert, et al. 1994b. *Facilitating the Introduction of a Participatory and Integrated Development Approach (PIDA) in Kilifi District, Kenya. Volume II: From Concept to Action: A Manual for Trainers and Users of PIDA.* Humboldt-Universität zu Berlin.

Venn diagrams

Venn diagrams are **social data-gathering tools** that use circles to illustrate how different components of the institution or community are linked. They are especially useful for showing relationships within an institution or community, which would be important to know when discussing solutions or sources of help for problems.

Larger circles represent larger, or more important components and smaller circles represent smaller, or less important organisations. (NOTE: This "importance" is very subjective.) The distance among the circles represents the level of interaction among the organisations. The circles are drawn to overlap each other in areas where the different components of the institution collaborate or participate in joint decision-making. A small circle can be drawn within a larger circle to illustrate that one component is part of another (e.g., a clinic can be drawn inside of a health district).

~~~~WHEN TO DO VENN DIAGRAMS~~~~

Because the concepts behind a Venn diagram can be difficult to grasp, it is better to use this tool after you have established a rapport with the community and they have been able to build their confidence through other activities. It can be particularly useful to do this exercise after the community's problems and solutions have been identified, since it can help to identify the organisations that would be involved in implementing the community action plan.

Venn diagrams can be created by cutting out paper circles of varying sizes. The circles can be labelled with words or symbols to represent different organisations (with the larger circles representing organisations that play a more important role in the community). The papers can also be different colours to signify different types of organisations (e.g., non-governmental, governmental). Community members arrange the circles on the ground, with the circle in the middle representing the community. Other circles are placed around the community circle, with the distances among the circles representing the level of contact among (and NOT geographical distance between) various organisations. To create the diagrams on the ground, community members can draw symbols to represent each organisation on a piece of paper.

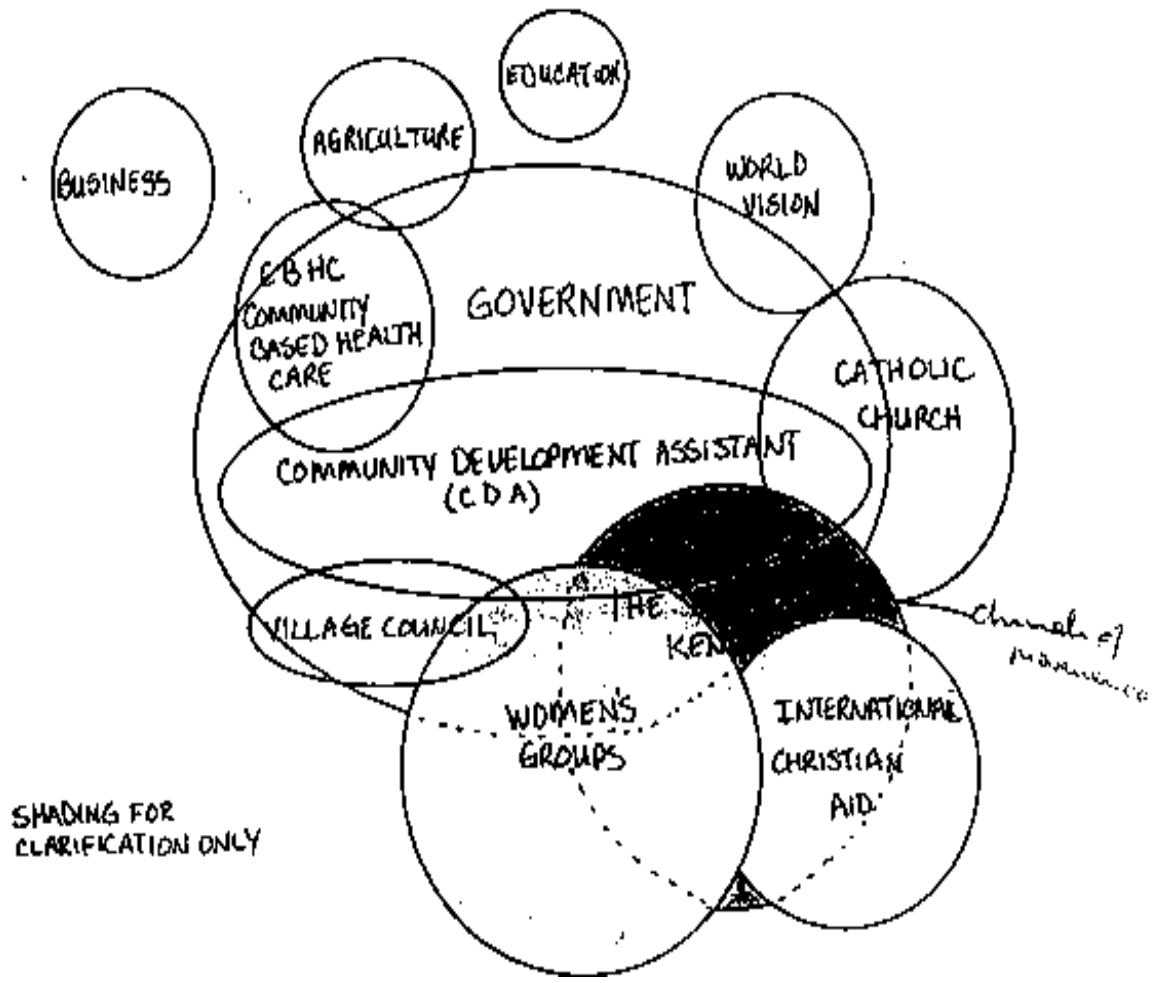
Another way to create the diagram is to tape small pieces of paper to rocks of varying sizes in order to represent the different organisations. Both local and external institutions can be represented in the diagrams. The diagrams have been used to generate the following types of discussions¹⁴:

~~~~EXAMPLES OF VENN DIAGRAM DISCUSSIONS~~~~

- Levels of communication among organisations
- The role of project bodies
- The improvement of missing links between organisations
- The potential for working through existing organisations
- The roles and significance of various institutions to community members
- The potential roles for new organisations
- The roles and significance of various institutions to a specific organisation

¹⁴Institute of Development Studies. 1996.

Example of a Venn diagram from The Gambia.



Source: Ford, R. Et al. 1992. Sustaining Development Through Community Mobilization: A Case Study of Participatory Rural Appraisal in The Gambia. Clark University. In Institute for Development Studies. 1996. *PRA Tools & Techniques Pack*.

Flow Diagrams

Flow diagrams are graphical representations of processes or chains of events. They help communities to analyse the impact of different problems and solutions and they help to illustrate linkages between different events. PLA facilitators can use flow diagrams to...

- Identify problems
- Explore the feasibility of proposed solutions
- Highlight gaps in understanding or identify potential connections
- Evaluate activities

~~~~WHEN TO DO FLOW DIAGRAMS~~~~

Flow diagrams are best conducted later in the PLA workshop, because they are relatively complex diagrams which require analysis. They can be used to examine the causes of problems which have been identified through other activities in order to come up with potential solutions. They can also be used to look at the potential impact of solutions that have been proposed.

Flows can be represented by lines of different thicknesses and colours, in order to represent different types of relationships and their significance. The lines can be drawn in the dirt or created with chalk, and local objects can be used to represent the different events or stages in the process.

Flow diagrams can be used to examine many different types of processes and chains of events¹⁵:

~~~~EXAMPLES OF FLOW DIAGRAMS~~~~

- Causes and effects of diseases
- Resources flows (income/expenditures)
- Reasons for non-use of health facilities
- Reasons for school drop out
- Effects of unhealthy behaviour
(e.g., drinking alcohol)
- Functioning of agricultural systems
- Differences in life cycles of girls and boys
- Functioning of credit systems
- Effects of harmful traditional practices
(e.g., female circumcision)
- Impact of drought and pollution

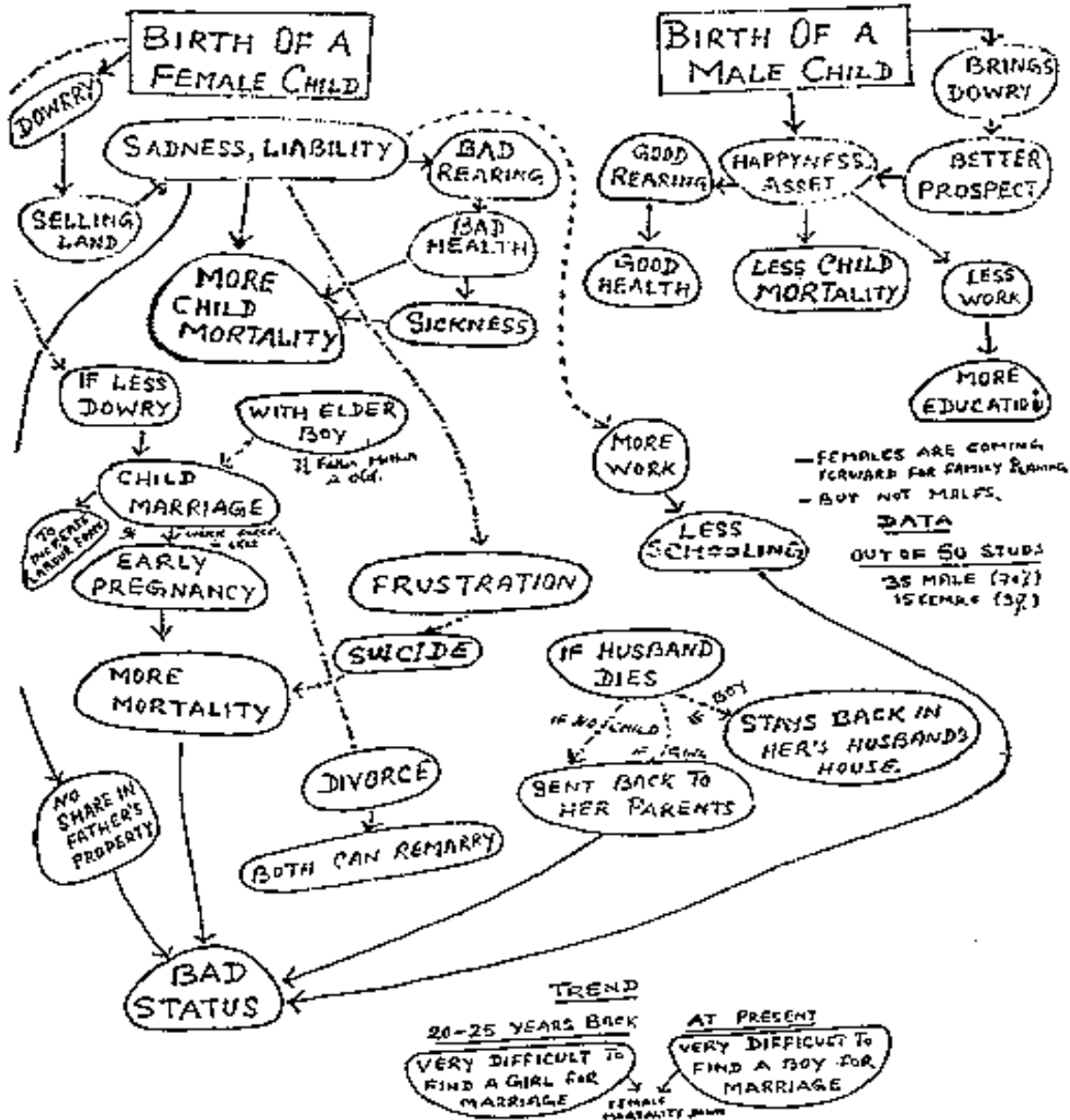
¹⁵Institute of Development Studies. 1996.

Following are two examples of flow diagrams from India describing the life paths of boys and girls and the causes of child mortality:

CONDUCTED
BY: R.D. STUDENTS
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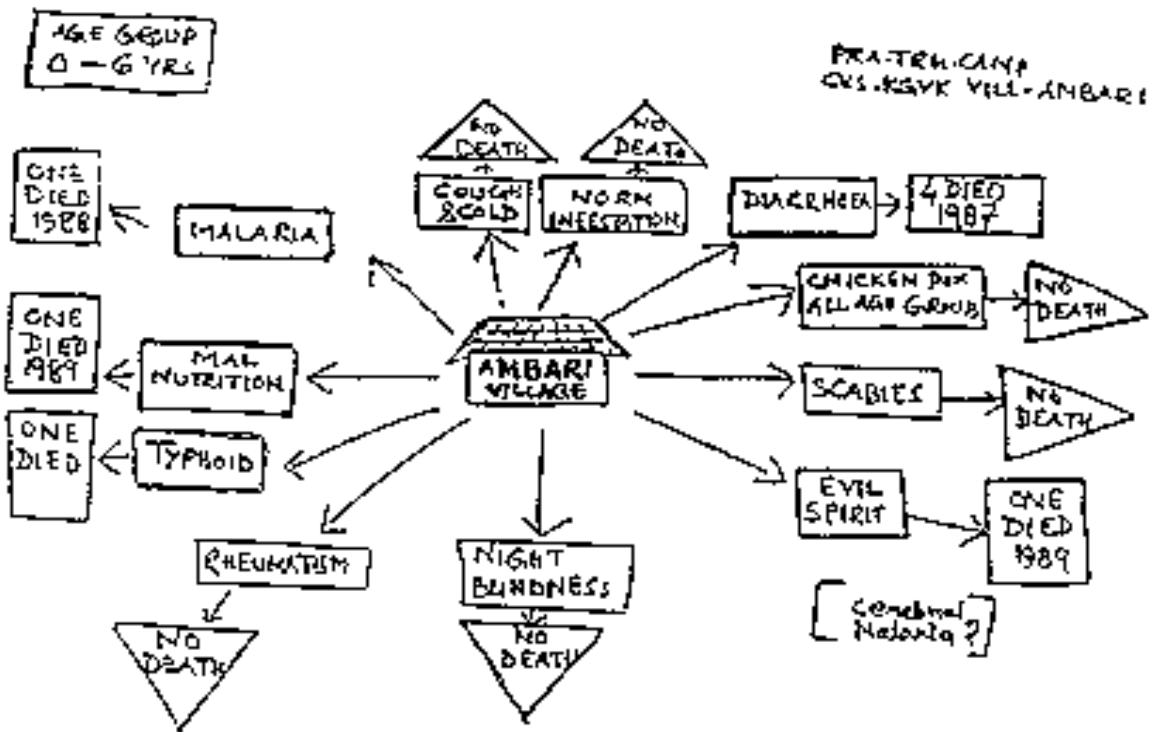
WOMEN'S STATUS

VILL: GANJU TOLI
(HESALONG)
DATE: 29.10.91.
INDIA.



Source: Jones, C., ed. 1996. *PRA Methods Pack*. Institute of Development Studies.

CHILD MORTALITY



Source: Kumar, A. (Undated). Trends in Health Care. In Institute for Development Studies. 1996. *PRA Health Pack*.