



PACIFIC-GERMAN
REGIONAL FORESTRY PROJECT



A MANUAL on Processing and Reporting of Participatory Rural Appraisal (PRA) Data for Natural Resource Management

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1 INTRODUCTION

As the importance of community participation is increasingly recognized in natural resource management and community development, participatory tools are increasingly utilized. With this, a vast pool of community information is collected and there is a need for agencies to make knowledgeable and accurate interpretations of this data.

This manual is used as a resource material during the Workshop on Processing and Reporting of PRA (Participatory Rural Appraisal) Data for Natural Resource Management sponsored by the SPC¹/GTZ² Pacific-German Regional Forestry Project.

It is designed to contribute towards defining appropriate mechanisms for collecting, processing, and disseminating data on local land use patterns and community demands. This will serve to assist in informed decision-making, and towards developing effective and sustainable land use and resource management plans.

2 OBJECTIVES

The resources in this manual aim to:

- Provide appreciation some of the basic approaches in organizing and interpreting PRA data as basis for decision making;
- Present the basic processes involved in the analysis and interpretation of data conveying perspectives, approaches and coverage of the different tools to local officials and policy implementers;
- Provide basic steps in writing and presenting the findings and recommendations of the study.

3 CONCEPTUAL FRAMEWORK

The manual provides basic understanding and approaches on analyzing participatory rural appraisal (PRA) data and in the preparation of report and presentation to the villages and other concerned organizations/agencies. It contains four major sections that begins with the review of the basic concepts and principles of PRA and is completed in discussing approaches to writing and presenting reports.

The general purpose is to provide knowledge support to participants of the workshop that will utilize PRA results as input for decision making in introducing program interventions to the communities.

The matrix below presents the conceptual framework.

1 Secretariat of the Pacific Community

2 German Agency for Technical Cooperation

CONCEPTUAL FRAMEWORK

SECTIONS	PRA REVIEW	MAKING SENSE OF ALL THE DATA	WRITING THE REPORT	MAKING PRESENTATIONS
OBJECTIVES	<ul style="list-style-type: none"> ▪ Get common understanding of PRA ▪ Identify PRA approaches used in the field ▪ Identify problems encountered in the conduct of PRA 	<ul style="list-style-type: none"> ▪ Get understanding of how to organize, process and interpret field data gathered 	<ul style="list-style-type: none"> ▪ Understand how to develop report outline and objectives ▪ Outline basic approaches in organizing information in logical manner 	<ul style="list-style-type: none"> ▪ Provide some pointers/tips in making more effective presentations
CONTENTS	<ul style="list-style-type: none"> ▪ Key ideas underlying PRA ▪ Purpose of PRA ▪ Main Uses of PRA ▪ Main Applications ▪ Limitations ▪ Summary List of Methods 	<ul style="list-style-type: none"> ▪ The analytic process ▪ Essential Elements of the analytic process ▪ Critical Stages of the analytic process 	<ul style="list-style-type: none"> ▪ Planning and organizing ideas ▪ Analyzing and sorting results ▪ Structuring/Outlining report ▪ Writing the rough and final drafts 	<ul style="list-style-type: none"> ▪ Presenting the results ▪ Guidelines for making presentations

4 PARTICIPATORY RAPID ASSESSMENT (PRA) REVIEW

4.1 Background

Participatory Rural Appraisal/Assessment (PRA) is an approach and range of techniques that enable stakeholders to analyze their problems and then plan, implement and evaluate agreed-upon solutions.

It is a process of learning about rural conditions in an iterative and expeditious manner. More often than not, it is multi-disciplinary in nature and has an in-built flexibility in the process of collecting information. It has been defined as "*any systematic activity designed to draw inferences, conclusions, hypotheses or assessments, including acquisition of new information in a limited period of time*". The methodology is popular and is being used in the identification of community problems, and for monitoring and evaluation of ongoing activities.

It is a systematic process of learning about conditions of an intervention or an issue related to it in an intensive, cumulative and efficient manner. It is information/data collection and structuring, developing hypotheses about problems, constraints and potentials. It is done on-site. In the field of land use planning, the PRA approach can be useful to gather information on a broad range of community activities; to develop a better understanding of systems' dynamics; and to appreciate the interlinked factors influencing land uses and management.

4.2 Basic Concepts of PRA

4.2.1 Key Ideas underlying PRA

- Triangulation - This a way of “cross-checking” sources of information. Every issue should be looked at from different angles and different approaches. Triangulation means looking at any problem from as many perspectives as possible, but at least three. When doing a study, triangulation works at three levels.
 - Triangulation of the perspectives on the team by having at least three people with different points of view (women/men, social scientists/technical specialists, insiders/ outsiders, youth/elders, etc.).
 - Triangulation of the perspectives of informants by ensuring that a wide range of people are interviewed and all information is verified by at least three different sources (women/men, old/young, diverse ethnic groups, etc.).
 - Triangulation of information - gathering methods by addressing the same issue using several different tools (historical interviews, spatial maps, seasonal calendars, etc).
- Participatory Learning - A guiding principle is learning from, with and by people in the community. The PRA practitioners attempt to see “with the eyes of the people” concerned, especially the poor strata of society. Analytical instruments are applied together with the population.

- Focusing by iteration - Daily reflection and flexible procedures lead to a repetition of analysis building a better understanding of the situation on a daily basis. Step by step the analyses focuses more in-depth understanding of the crucial issues.
- Conscious Advocacy for Disadvantaged Groups - PRA practitioners are conscious of existing social differences, also with respect to groups in the communities which at first glance look homogenous from an outside point of view. They are also conscious of their own values and their own social background so they will consciously look for information from those parts of a group in the community which are overlooked: women, the disadvantaged ones, people at remote households. The PRA practitioners will reflect on what was said but also try to observe what was not said, will discuss perceived contradictions, pose questions again, attempt to gain confidence. It will try to find out own errors and withstand from value judgments concerning others.
- On-site Process Work - The results of the PRA are discussed and reflected by the whole team daily – usually in the evening hours – and the proceedings for the next day are flexibly agreed upon.

4.2.2 Purpose of using PRA

- To avoid problems of long and costly formal surveys including the:
 - Collection of too many data
 - Collection of irrelevant data
 - Production of late and inappropriate results
 - Lack of participation and ownership by the people concerned
- To avoid the risks of hurried and unstructured “development” surveys, including
 - Obtaining only snapshots of the area or topic
 - Relying on previous assumptions
 - Working without a framework which guides the collection and analysis of information
- To help overcome the biases created by:
 - Meeting only more accessible and well-to-do individuals or groups
 - Looking only for the quantitative, apparent data, and missing the more qualitative, in-depth information and insights
 - Dealing with the local people in a “top-down” manner.
- To encourage participation of local people in the process of development by:
 - Studying local insights and thereby collecting more relevant data
 - Involving local people in the study and design thus increasing commitment and empowerment

4.2.3 Main Uses of PRA

- Mostly in less developed (but also in developed) countries;

- Mostly in rural (but also in urban) situations
- Mostly in the agricultural field (but largely gaining more application in other fields, e.g. economics, health, nutrition, forestry, natural resource management, energy, etc)
- Mostly at the village level (but also in larger scale interventions)

4.2.4 Main applications of PRA

The PRA approach can be used throughout the development cycle:

- When exploring an area, when learning about key problems and opportunities
- When planning research or development interventions (e.g. agro-ecosystem analysis)
- When investigating one specific topic, question or problem
- When involving local people in research and planning
- When monitoring and evaluating a research or development activity
- When dealing with conflicting differences with different groups (conflict resolution)

The applicable PRA method by type of information required include the following:

Information	Applicable PRA Method
Relative importance, preferences or priorities	Ranking, Scoring, List Making
Descriptions	Community Planning Dialogue Process (semi-structured interviews, group process)
Relationships	Diagrams (Venn, Sociogram, etc)
Time Frame	Seasonal Calendars, Histogram, Trend Line, Time Line

4.2.5 Limitations of PRA

- PRA techniques do not replace but complement other research methodologies (statistical surveys, long-term anthropological studies, etc.)
- PRA techniques may be rapid, but the process of development is not
- PRA approaches to research may raise local expectations, hence follow-up is necessary
- PRA techniques may not be cross-culturally transferable, they need to be adapted to local situations
- Appropriate use of PRA techniques requires the training of facilitators and support staff
- PRA produces questions, hypotheses, or “best bets” – not final answers

4.2.6 Summary List of PRA Methods

METHOD	DESCRIPTION	APPLICATION OF METHODS
<p>1. Review of existing data</p>	<p>Participatory methods demand from the researchers some basic understanding and background of the likely issues to be addressed through research. This information could be from two sources:</p> <p><i>Documents:</i> Research and other official and unofficial studies and reports on socio-cultural, political, ecological conditions, national and area-specific statistics, topical and area-specific articles from journals and newspapers, archives and files, aerial and satellite photos and maps.</p> <p><i>'Folklore':</i> Mythology, oral tradition, local and topical stories, proverbs and poetry.</p> <p>However, the researcher must be careful in the selection and analysis of secondary data, as too much emphasis on previous analyses and opinions can be misleading.</p>	<p>Provide an understanding of the issues related to trends in resource utilization, impact of resource extraction and resource utilization practices on the resources, taxonomy, ecology, extraction rates, changes in bio-physical conditions.</p>
<p>2. Direct observation</p>	<p>This helps identify different zones within appraisal area, economic activities, key indicators of conditions, new topics or issues for discussion, besides helping in the assessment of differences between reported conditions and real conditions. These observations cannot be assumed to be anything other than a starting point but will give the outsider a useful reference point for explorations during the appraisal exercises</p>	<p>Direct observations help the researchers in understanding the interface between the users, i.e., villagers, and the natural resources, to assess extraction and utilization patterns, and to appraise opportunities for more sustainable resource utilization, alternate income generation within and outside the particular resource sector, etc.</p>
<p>3. Transect walks and guided field walks</p>	<p>The researcher and key informants conduct a walking tour through areas of interest</p>	<p>Transect walks and drawing up transects helps the researchers to understand the socio-economic</p>

METHOD	DESCRIPTION	APPLICATION OF METHODS
	to observe, to listen, to identify different zones and conditions, and to ask questions to identify problems and possible solutions.	conditions of villagers, access to resources for different stakeholder groups (traditional, modern, industrial etc.), and possible options for responsible management of natural resources. Also they reveal multiple use of the various ecosystems in the environment, influence of other sectors in the natural environment, such as pollution, siltation, etc.
4. Transects	Transects are cross-sectional maps or diagrams of an area. They are constructed as a joint exercise with local informants during walks through the area for observing, discussing and registering the endowments and problems of the area.	They help in obtaining information on the distribution of natural resources and of resource systems in the area, as perceived by villagers. They also point out areas of joint use with other sectors, and possible areas of conflict with other resource users.
5. Do-it-yourself	The researcher tries to assimilate into the milieu in which research is to be done, and the target groups are encouraged to teach the researcher how to do various activities 'their way'. The researcher will learn how much skill and strength are required to do day-to-day rural activities, gaining an insider's perspective on a situation.	This gives an understanding of the dynamics of different resource management systems. The researchers get to understand the villagers' perceptions of resource management, location of resources, climatic and environmental conditions and sustainable livelihoods. The researchers obtain an idea of the gaps in information related to indigenous systems of resource utilization and resource management.
6. Night Halts	The researchers live in the village during the research process. This facilitates all interactions between the outsiders' attitudes, and allows for early morning and evening discussions, when villagers tend to have more leisure time.	Gives an opportunity to the researcher to experience life in a community as it is lived. The post-resource extraction aspects at different times, and its impact on the villagers could be studied. (e.g. night fish landing)
7. Informal interviews	The informal interview is perhaps the most widespread method of RRA. It needs careful handling, striking a sensitive balance between open-endedness and directed enquiry. Much information can be generated this way, but care is needed to weed out the useless information, and in validating much of the	This provides an insight to the researchers into the livelihood strategies of villagers, information on the changes in the resources over time, villagers' perceptions of what causes resource declines and how resources can be more sustainably utilized.

METHOD	DESCRIPTION	APPLICATION OF METHODS
	<p>generated data. Interviewees can be typically key individuals, focus groups or mixed groups.</p> <p>Chains of interviews between the different key individuals, groups and specialists can be a useful sequencing of data collection.</p>	
8. Group Meetings	<p>Group meetings will be one of the most important tools for community information gathering, and communication of information. They can help communities give and receive information, discuss issues of relevance, gain a consensus on an issue; identify problems and solutions; plan activities and negotiate conflicts, and validate interpretations of evaluation results and formulate recommendations.</p>	<p>They help the research team to establish rapport with the villagers, and lay the ground for problem identification - i.e., declines in resources, and work out a possible research methodology incorporating indigenous knowledge systems. They also cast light on the dynamics of the group that can assist in researching community institutions.</p>
9. User group (focus-group) interviews	<p>Established groups of fishers, or people using the same resource are interviewed together. This technique can help identify collective problems affecting a particular group of stakeholders and solutions.</p>	<p>They help identify problems associated with access to resources by different stakeholder groups - in traditional, modern and industrial resource utilization etc. - and opportunities to overcome imbalances in accessing resources.</p>
10. Semi-structured interviews	<p>Semi-structured interviews use some predetermined questions and topics but allows new topics to be pursued as the interview develops. The interviews are informal and conversational but carefully controlled. The facilitator not only has to be an effective communicator but also a good listener and quick thinker.</p>	<p>They help in studying the villagers' perceptions of resource management, changes in the resource systems and trends in resource utilization. They help in deciding how indigenous and 'traditional' research methods can fit into a common framework and mutually support each other in implementing the research. Also this allows quieter/shyer individuals to voice their opinion, which is not possible in groups.</p>
11. Short questionnaires	<p>Short and issue-specific questionnaires can be useful if</p>	<p>As above</p>

METHOD	DESCRIPTION	APPLICATION OF METHODS
	conducted late in the research process.	
12. Key probes	A question addressing a key issue is asked of different informants, and the answers are compared.	This helps in obtaining the responses of different stakeholders - traditional, modern and industrial users, for instance - to issues like, the effective and equitable use of a common natural resource.
13. Local researchers and village analysis	With some training, local people can conduct the research process. Ad hoc investigations by local residents can be extremely valuable. A person who has links with an area can be not just a key informant but also a key researcher, able to find out very quickly and efficiently what needs to be known, and in validating the data.	Villagers can assist in collection of research samples, providing the vehicle for research purposes, regular data collection, and providing/gathering information on socio-economic issues related to their lives, and institutional information on traditional resource management.
14. Portraits, profiles, case studies and stories	Household histories or stories of local importance are recorded. This can be an efficient way to learn about the local biodiversity, management systems, and taxonomies	The researchers obtain an idea of the evolution of resource utilization systems over time, and the impact of excessive resource extraction effort or dedining resources on the socio-economic conditions of the villagers. Also provides information on the changes in the biodiversity in the resource environment, and possible causes.
15. Folklore, songs, poetry and dance	Local folklore, songs, dance, and poetry are analyzed to provide insight into values, history, practices, and beliefs.	As above. Also, this helps to understand the needs and aspirations of the communities, and to build up rapport between the outside researchers and communities.
16. Intriguing practices and beliefs	Indigenous practices and beliefs are noted, even if they are based on myth and superstition. Even practices that are unusual or don't fit in with conventional scientific thinking are worth exploring because they are meaningful to local people.	These help the researchers to understand how some of the traditional management measures - such as resource holidays, rotation systems of resource gathering, etc. - came to be effectively implemented.

METHOD	DESCRIPTION	APPLICATION OF METHODS
17. Ethnobiographies	Local histories of a crop, an animal, a tree, a pest, a weed etc.,.	The ethnobiographies can help to understand the history of local resource species from the villagers, to relate the biology of different species to the utilization patterns in the traditional systems, etc.
18. Murals and posters	They provide a useful way to focus, discuss, analyze and present visual objective statements, develop community extension messages, show problems, solutions, activities and/or objectives, present past, present and future images for inspiration.	Murals and posters are a good way to raise awareness related to a number of issues involving community-based resource management, and the potential for the villagers to take a pro-active role in this regard.
19. Games, role plays and street theater	They are optimal methods for bringing sensitive issues into the open. Activating people to play normally requires skilled facilitators, but this has been seen to be a very effective way to bring out different facets of a problem.	These methods make it convenient to gather information on various resources, harvesting, processing and disposal systems. They also help to discuss the problems of inequitable distribution and overexploitation of resources, and explore solutions.
20. Participatory diagramming	People are encouraged to display their knowledge on pie and bar charts and flow diagrams. Diagrams can give clearer and more precise information, especially with less articulate individuals. One important feature of diagramming is that it can be conducted with people who are illiterate or semi-literate.	This can be useful in getting the villagers' knowledge and impressions on the distribution of resources, and in identifying how conflicts could evolve between the different resource users, and in exploring conflict avoidance systems.
21. Venn Diagrams	Used to depict the participants' sense of relations between local groups and organizations. Overlapping circles are used to represent people, villages, or institutions indicating the degree of interrelationship between the different decision makers in the village; lines are added to reflect inputs and outputs.	Venn diagrams are useful in understanding the usage of the resource environment by multiple users, and the interactions between different user groups. This facilitates the optimization, and a rational exploitation of the resources for different uses.

METHOD	DESCRIPTION	APPLICATION OF METHODS
22. Trend Analysis	People's accounts of the past, of how things close to them have changed, ecological histories, changes in land use and cropping patterns, changes in customs and practices, changes and trends in population, migration, fuels used, education, health, credit... and the causes of changes and trends.	As above.
23. Diagrams exhibition	Diagrams, maps, charts, and photos of the research activity are displayed in a public place to share information, facilitate discussions, and provide an additional crosschecking device. The exhibition can inspire more villagers to take part in research activities.	This helps in taking the information generated on natural resources to a higher level, and acts both as a triangulation (validation) procedure to cross check all significant information, as well as to add more information as it comes from other sources.
24. Timelines	A very simple means of establishing the chronological sequence and relative importance of events is through the creation of a 'time line' with the important events reported by local people being shown in chronological order along a single line. Major historical community events and changes are dated and listed. Understanding the cycles of change can help communities focus on future actions and information requirements.	This explains the changes in the availability of different resources down the years, and the villagers' responses to the changes in the resource composition and quantity. This helps in forecasting the likely changes in the availability and usage of the resource, and the potential implications for resource development.
25. Seasonal calendars	All the major changes that occur within the rural year are represented including those concerned with climate, cropping patterns, livestock and labor demand, etc. There should be room on the calendar to include the types of problems and constraints and point out opportunities.	Availability and abundance of different resource species in a year can be understood, as also the possible breeding/regeneration periods for different species. Periods of non-activity and migration to other areas can be identified.
26. Daily activity profiles	Researchers can explore and compare the daily-activity	This helps to establish the pattern of resource utilization from production to

METHOD	DESCRIPTION	APPLICATION OF METHODS
	<p>patterns of men, women, youth, and elders by charting the amount of time taken to complete tasks. This in turn helps plan the inputs in terms of time and effort that the target individuals can spare for/save through the intended outputs of any research effort. Particularly relevant in gender and poverty analyses.</p>	<p>utilization, and the amount of time it takes to do each task. This might have implications in the post-utilization, and open up avenues to explore the possible loss reduction methods to reduce wastage.</p>
<p>27. Social and resource mapping</p>	<p>Farmers are asked to draw a simple map or diagram of their area, locality or farm. This type of exercise can generate a lot of local knowledge and information regarding the physical features, infrastructure, geographical distribution of households; names of resource people in the community.</p>	<p>Draws out the indigenous knowledge of the community with regard to different resources in the area, and the possible means for maximizing its utilization without overexploiting it.</p>
<p>28. Direct matrix- pair wise ranking and scoring</p>	<p>Used to discover local attitudes on various topics. Wealth ranking can be used to identify wealth criteria and establish the relative position of households. These techniques are useful in discovering, weighting and prioritizing problems as presented by groups during the early stages of identifying and setting the research agenda.</p>	<p>Ranking and scoring help the researchers in understanding the relative access of different resources to different sections of the society, in terms of technology and reach, depending on their social standing and wealth, and the impact of any measures at conservation on different segments ranging from the poor to the wealthy.</p>
<p>29. Wealth and well being rankings</p>	<p>Wealth ranking is a simple socio-economic study technique by which researchers, planners and rural development workers can learn the ways in which people's wealth or well-being differs from one another. People are asked to sort cards representing individuals or households from rich to poor or from sick to healthy. This technique can be used for crosschecking information and for initiating discussions on a specific topic.</p>	<p>Same</p>

METHOD	DESCRIPTION	APPLICATION OF METHODS
30. Livelihood Analysis	This helps understand stability, crises and coping, relative income, expenditure, credit and debt, multiple activities etc.	This shows the extent of dependence of different village groups on the resources, and points the need for sustainable options to be in place before resource management efforts can take place effectively.
31. Matrices	Matrices can be used to establish relationships between different variables - gender and well being, for instance - and to facilitate or focus analyses and discussions.	Matrices can be used to study relationships, e.g., the impact of increasing or decreasing utilization of a particular resources or on different stakeholders depending on resources and so on.
32. Futures Possible	People are asked how they would like things to be in 1 year and to predict what will happen if nothing is done or if something is done. People's desires, wishes, and expectations are revealed. Also, it tells the direction that the research should take, and the possible opportunities and constraints.	The villagers' expectation of the research, how they expect responsible management and sustainable livelihoods to go hand in hand etc.
33. Field Report Writing	Key findings are recorded before 'leaving' the village. Brief summaries are made of each diagram, model, and map, as well as of the process involved in creating them.	This helps the researchers to check all community related information as it arrives and validate it by exchanging it with the villagers on a day-to-day basis. This facilitates making changes to the approaches adopted for the research.
34. Self-correcting field notes	Field notes help the team remain focused on what has been done, what was learned through the exercise, and what needs to be done.	This helps the researchers to check all village related information as it arrives and validate it by exchanging it with the villagers on a day-to-day basis. This facilitates making changes to the approaches adopted for the research.
35. Shared presentations and analysis	Participants are encouraged to present their findings to other villagers and to outsiders, providing another opportunity for crosschecking, feedback, comment, and criticism.	The villagers feel encouraged to play a more active role in the research, the information becomes more refined and the processes behind the traditional practices or observed phenomena become more understandable.

5 MAKING SENSE OF ALL THE DATA

5.1 Introduction

Sense making is one of the most important abilities in the interpretation and analysis of PRA data. It helps people see meaning in the world of information around them and it helps us see our environment as a coherent and predictable network in interrelationships.

In the analytic process, observations are selected, put into relations with each other, and interpreted. A purpose of analysis is to find explanations that fit our understanding and, therefore, seem emotionally plausible.

5.2 The Analytic Process

Analysis and interpretation start from the moment the data are collected. It is a way by which data are broken into parts or dissected in order to understand the true meaning of the data, and to determine the relevance and significance to the objective of the study. It should include also the implications, conclusions and recommendations that will be the basis in making decisions about the projects or actions to be undertaken.

The analytic process involves:

- Observing events
- Selecting observations within the event on which to focus
- Interpreting (drawing conclusion about) the perceived situation
- Critically examining the constructed theory (conclusion)

Interpretation of the data occurs when we move beyond description and try to make some statement about what various responses mean and to suggest relationships among data. Finally, we build a model of the research data by trying to get the larger picture in focus by assembling the various indicators and themes into a more self-explanatory set of relationships.

Theories result from continuously looking at the collected data, posing questions and seeing how these hang together. An incubation period is often needed before ideas and theories began to surface.

5.3 Essential Elements of the Analytic Process

- Reading data involves closely scrutinizing data in order to recall the events and experiences they represent. What was done? What was said? What really happened?
- Selecting data involves separating important factors from unimportant factors; group similar factors; sorting and, where possible, simplifying complex details. Choose only the data necessary to help reach the conclusions. Excessive data or data only loosely related to the conclusions will obscure them and confuse your readers.

- Presenting data involves reducing selected data to a form that is easy to take in at a glance, such as a written outline or a diagram
- Interpreting data and drawing conclusions involves explaining relationships and constructing a practical theory (or model) to fit the situation being studied.

Critical examination of data includes:

- Questioning during your observation (the most important questions could w hy and so w hat?) it signals for deeper inquiry as to the behavior/trend/outcome of the results
- Observing w hat seems to contradict your interpretation
- Taking a definite action to test your interpretation

5.4 Critical Stages of Data Analysis

Two methods of data analysis may be used: constructive methods and critical methods.

5.4.1 Constructive Methods

- Making Data Summaries: review data immediately after they have been collected. Write a summary. The purpose of a summary is to provide easy access to the data later and to get an overview of what the data offer concerning the study. The summary might contain answers to the following questions:
 - What is the context in w hich the data w ere collected? (Why were they collected, w hy is this particular situation, w hy use this method of collection)
 - What are the most important facts in the data? (Is anything surprising, about w hich issue are the data most informative, do the data give rise to any new questions, points of view , suggestion, ideas; do the data suggest what should be done next, in terms of further data collection, analysis or action)
- Mapping the Data (Developing Categories and Coding Data): data are organized to gain “conceptual leverage” in presenting observations and conclusions. The categories need to be chosen from concepts which are relevant to the study and w hich express the contents of the data.

Two well recognized methods of coding data are the deductive method and inductive method. In practice it is most helpful to use a mixture of both methods. It is helpful to w rite definitions for each category. Categories are key concepts that form the nuclei of ideas for possible actions.

It is important to try to chart or map these relationships to determine clusters of topics within themes, categories or components. A good part of the analysis is spent constructing tables and frequencies. The advantage of PRA is that the data are already presented in tables or diagrams.

It would be helpful to know what type of analysis is applicable for each PRA tool:

PRA Tool	Analysis
Dialogues	Summaries, tables, charts, diagrams
Diagrams	Descriptions, relationships/interrelationships, trends
Tables & charts	Summaries, totals, averages, preferences, priorities
Spatial tools (e.g. transect walk)	Patterns, constraints, opportunities

- **Writing Theoretical Notes:** this is appropriate at any stage in the PRA process. In writing, note any ideas or theories that come to mind relating to research question: what certain data mean, how facts could be explained, how an important concept could be defined, etc. Always date each note and label it with suitable keyword. Make a brief note of the data or event that prompted or gave rise to the idea.
- **Quantification:** some elements of quantification are of great importance in people's thinking. Quantification can be used in analyzing PRA to carry out a preliminary survey and get some data quickly (e.g. number of villagers who participate – and demographics on villagers), to reveal biases or to explore the possibility generalizing findings through statistics.
- **Shaping Metaphors:** metaphors transfer meaning (from one field of experience to another), generate meaning (e.g. label direct interaction). Enrich the PRA process looking for metaphors. It widens the horizon of inquiry and enables a better understanding of the task at hand. It also provides alternative approaches to reality. It is good at communicating complex matters, and comes to mind naturally during conversation.

5.4.2 Critical Methods

Two activities should make up the critical methods: testing the findings, and communicative validation. These activities should be conducted only after findings are clearly formulated. In conducting critical analysis, one must be open to data that question the assumptions, which the study is based upon – and not just confirm them.

- **Testing the Findings:** write on separate cards or paper sheets important results of analysis (this can be done for each PRA tool). Sort the findings according to issues to which they refer (e.g. poverty, environmental degradation, etc). Classify information that seems to relate with each other to form one category. Compare data and sentences, and then expand. Modify observations by illustrating each sentence by writing additional sentences or rewriting the original card of paper sheet. This creates the backbone of a written report that will be rich in detail and grounded in the data.

- Communicative Validation: data interpretations should be communicated to the PRA participants (e.g. villagers) and validate or see if they agree. The amount of agreement indicates the validity of the results of the analysis.

6 WRITING AND PRESENTING THE REPORT

The PRA results has limited value unless it is collected and published in a usable form and presented to those w ho may apply it. For this reason, the PRA analysis is not complete until they are conveyed in a report.

The results of the PRA could be presented either in the public or in w riting. The purpose is to inform the general public about the assessment and evaluation made. It enables the people and the local leaders to view the situational condition of their community. Problems may be identified and probable solutions may be given. The author/presenter has to convince the village [and others w ho may read the report] that the study findings can be acted on for their ow n benefit.

The PRA report may be used as a valuable tool in determining or planning projects or any activity for community development or natural resource management. A w ell-structured report that has clear objectives w ill get more attention and is more likely to produce the intended results

Preparation of an adequate PRA report takes time. It requires simplicity, clarity and directness to be effective. The content must be w ell organized and presented in proper form and style. The style should be natural and straightfow ard.

The basic orientation of a research report depends on its audience. Before w riting the report, the author/presenter must know their audience. They may have to make assumptions about the composition, background and interests of the target readers.

6.1 Stages in Writing the PRA Report

6.1.1 Planning and Organizing Ideas

Report preparation begins w ith planning the PRA w here the objective/purpose of the study is determined as w ell as the general content of the report. In most cases, a preliminary report outline is prepared at the beginning of the program.

In the design of the PRA, the PRA techniques/tools are also determined based on the purpose of the study to maximize the information that w ill be collected at the village level.

The PRA results should be organized based on the categories/study areas.

To plan w ell, one needs to follow several steps:

- Define the aim/purpose of report
- Collect your ideas
- Select the material and decide how to show the significance of facts
- Structure your ideas

Collecting ideas maybe started by jotting down ideas in note form. Do not write sentences at this stage. Remember your aim and concentrate on the questions in the readers' minds. This will help include only those ideas which are relevant, rather than writing everything the author knows about the subject.

Not all of the ideas will come at once, so plan to meet deadlines. Be prepared to spend some time on noting initial ideas and then set the document aside. Later, one will find that ideas earlier jotted down have gelled and the way ahead can be seen more clearly.

6.1.2 Analyzing and Sorting the Results

The second stage of the report preparation, data analysis and sorting, is probably the most difficult because it requires considerable mental effort to decide what you want to tell the readers/audience of the report and which of the data collected need to be included in the report.

At this stage of report writing, the conclusions are drawn. This is the most important step because the conclusions are the reason for the report and the basis for report preparation. They dictate what to include in a report and how to organize it. Trying to organize and write a report without knowing the conclusions is like starting on a car trip without knowing the destination. Therefore define the program conclusions before organizing and writing the report. This is best done by writing down all significant results in no particular order, and then sorting them so that the results pertaining to a common factor are grouped together. Once the conclusions are drawn, list them in descending order of importance.

Selection of the data used in the report is another important part of this step. Choose only the data necessary to help readers reach the conclusions being drawn. Excessive data or data only loosely related to the conclusions will obscure them and confuse readers.

The next step involves organizing the selected data into illustrations for the report. Sometimes the PRA figures are enough on their own and can be used only with minor modifications.

After the illustrations have been prepared, write the significant points about each on an attached sheet of paper. What is the figure supposed to show? How were the data obtained? Are there any qualifications to the figure (table)? This information will be useful when starting to write the report.

6.1.3 Structuring/Outlining the Report

It is important to structure the content in a logical and clear way to help the readers take in the message of the report.

Outlining is a necessary preliminary step to report writing. It involves the planning needed to prepare a clear report that is logically organized, concise and easy to read. Without an outline most inexperienced authors write reports that are confusing and difficult to follow.

The outlining stage is a natural progression from the analysis and sorting stage. In the sorting stage concentration is on what results should be presented in a report. In the outlining stage, attention is directed to how these results should be presented.

Often the preliminary outline prepared at the beginning of the program can be used as a starting point for the report outline. But it should be revised and expanded to emphasize the conclusions drawn in the analysis and sorting stage. The revised outline should contain descriptive headings of each significant part of the report. This expanded outline should show the complete scope of the report, the relation of the various parts of the work discussed, and the amount of space to be given each part, the order of treatment, the places of inclusion of illustrations, and the conclusions.

Structuring the report means dividing the content into several sections and sub-sections – each of which should have a clear heading or sub-heading.

Each heading, subheading should have as much detail as needed to trigger thoughts when the corresponding sentences and paragraphs are written. Make sure there is a sequence of headings and sub-headings which will act as signposts to help the readers find the information they need.

A well-structured report will help readers in different ways:

- Many readers may not want to read the whole report; they will want to read the parts that are relevant to them. A well-structured report will help them to find information quickly.
- Readers will want to concentrate on only one aspect at a time.
- A good structure will make it easier for the readers to refer back to specific sections of the report.

A well-structured report will help the author/writer:

- Decide where to put each fact or idea
- Help to think clearly
- To start writing at any point – It is not necessary to start at the beginning. If different people are contributing to the report, they will know what to cover

Format and Content of a Simple PRA Report

The format of a report is the layout, plan or pattern that will be used as a guide in the preparation of a report. Reports are broken into the following elements, but it

should be noted that not all these elements are needed in all reports. For example, an index is only needed for long reports where readers need to locate items; a glossary of terms may help if the readers are unfamiliar with terms used, but not otherwise.

As previously mentioned, the way in which report is presented will vary according to what is being written and for whom.

A simple format contains the following headings:

- Introduction: this includes background, objectives, and relevance of the study of the project. A brief summary of other relevant studies and the concept of the study.
- PRA Methodology: contains the PRA design, nature or subject of the study, data collection techniques and the method of analysis.
- Results or Body of the Report: this is the main body of the report. It is in this portion where the researcher presents, organizes, analyzes, interprets and evaluates the data in such a way as to be clearly understood.
- The Implications Draw n from the Results: it embodies the conclusions and recommendations draw n from the analysis and interpretation of data.
- Summary: contains the objectives of the PRA, the procedures, the major findings and the major conclusions draw n from them.

A more detailed format may include the following:

- Title Page. This will include the title of the report, who has written it and the date it was written/submitted.
- Acknowledgements. Thanks to the people or organizations who have helped.
- Contents Page. As in a book, this lists the headings in the report, together with the page numbers showing where the particular section, illustration etc. can be located.
- Executive Summary. This is a most important part of many reports and may well be the only section that some readers read in detail. It should be carefully written and should contain a complete overview of the message in the report, with a clear summary of your recommendations.
- Terms of Reference. This section sets the scene for your report. It should define the scope and limitations of the investigation and the purpose of the report. It should say who the report is for, any constraints (for example your deadline, permitted length) - in other words, your aims and objectives - the overall purpose of your report and more specifically what you want to achieve.

- Methodology/Procedures. This section outlines how the area was investigated. How information were gathered, where from and how much (e.g. if a survey was used, how the survey was carried out, how the target group was decided on, how many were surveyed, how were they surveyed - by interviews or questionnaire?)
- Introduction/Background. This will help to tune readers in to the background of the report. It is not another name for a summary and should not be confused with this. They can be two separate sections or combined: background detail could include details of the topic being written.
- Findings/Analysis. This is the main body of the report, where ideas are developed. Make sure that it is well structured, with clear headings, and that readers can find information easily. Use paragraphs within each section to cover one aspect of the subject at a time. Include any graphs or other visual material in this section if this will help the readers. The nature of this section will depend on the brief and scope of the report. The sections should deal with the main topics being discussed - there should be a logical sequence, moving from the descriptive to the analytical. It should contain sufficient information to justify the conclusions and recommendations that follow. Selection of appropriate information is crucial here: if information is important to help understanding, then it should be included; irrelevant information should be omitted.
- Conclusions. These are drawn from the analysis in the previous section and should be clear and concise. They should also link back to the Terms of Reference. At this stage in the report, no new information can be included. The conclusions should cover what was deduced about the situation - bullet points would be satisfactory.
- Recommendations. Make sure that any actions that need to follow on from this study is highlighted. Readers will want to know what they should do as a result of reading the report and will not want to dig for the information. Make them specific - recommendations such as "It is recommended that some changes should be made" are not helpful, merely irritating. As with the Conclusion, recommendations should be clearly derived from the main body of the report and again, no new information should be included.
- References/Bibliography. References are items referred to in the report. The Bibliography contains additional material not specifically referred to, but which readers may want to follow up.
- Appendices. Use these to provide any more detailed information which the readers may need for reference - but do not include key data which they really need in the main body of the report. Appendices must be relevant and should be numbered so they can be referred to in the main body.
- Glossary of terms and abbreviations. Provide a glossary if it will help readers but do not use one as an excuse to include jargon in the report that the readers may not understand.

6.1.4 Writing the Rough Draft

With a logically organized outline and the necessary tables and illustrations already prepared, writing the rough draft should be much easier.

Try to start writing the first version of the draft immediately after completing the outline while the ideas developed there are still fresh. Write this first version as rapidly as possible. Concentrate on what you want to say rather than how to say it. Sometimes writing the first version will reveal some unexpected problems that require a change in the outline.

In the second version of the rough draft, writing style becomes important. With the technical content in a well-organized form from the first version, this is the time to concentrate on the how it should be written or said. Keep the intended readers in mind. Remember that the purpose of writing the report is transmitting the information needed to support the conclusions drawn from the study. To make sure the readers understand the conclusions, transmit the information clearly, logically, concisely, honestly and tactfully.

6.1.5 Writing the Final Draft

The last stage of report preparation, rough-draft revision, is just as important as the previous stages, but it is one most scorned by inexperienced writers. The best approach is to set aside the draft for a few days or at least overnight. This time lag should give a fresh viewpoint and allow changing to the role of the reader.

Some of the widely used methods to review and revise the rough draft for a final draft include the following:

- Review material in the report. Ask these questions: are the conclusions valid? Is sufficient information given to support the conclusions? Is enough background information given to explain the results? Have all irrelevant ideas been deleted? Are the illustrations pertinent and necessary?
- Review mechanics and organization. Are the subject and purpose clearly stated? Does the report flow smoothly from topic to topic? Are the relations between topics clear? Is each illustration clear and properly labeled? Are all required parts of the report included?
- Review spelling and grammar. Give particular attention to punctuation and sentence structure. Is each sentence written effectively? Are the sentences varied in length and complexity to avoid monotony? Are the words specific rather than vague? Have all unnecessary words been deleted?

Make sure that these questions are answered before considering the draft finalized.

6.2 Presentation of the Report

Presentation may be facilitated through organized community meetings. The field workers may opt for a general assembly meeting or through divided groups. The latter however may prove more effective, as higher percentage of attendance can be expected and more active participation can be achieved.

Another expected output of the presentation is the validation of the data gathered during the PRA. The group can agree or disprove the relationship established with the acquired data from what is actually experienced in the community.

The final output of the PRA may be funneled or presented to each of the other functional areas of the project or other agencies/organizations, which shall serve as basis for designing and planning interventions for the community.

- Institutional: the data are used to help understand the people, their problems and issues, classes and sectors in the community from which the correct approach and method of organizing can be determined and which shall also provide the basis for planning and programming of organizing activities.
- Finance: it helps them provide the basis for determining income level of families in the community and analyze the data gathered to determine their capability to pay the system to be installed.
- Health and Sanitation: the data shall be plotted in a behavioral data map, which will show the existing facilities and practices of the people in the community regarding health and sanitation. These can be then tied up with the design of the system that will be installed.

6.2.1 Presenting the Results

The presentation will depend on the audience of the study. The presentation must adhere to the language of reporting, which includes clear exposition and ensuring conclusions are fair and based upon careful selection of concepts and indicators.

First, summarize the problem studied and present summary tables of the main findings. Then interpret what those findings mean within the context of the study. Finally, the report should describe how the actions taken have improved or not improved the problem and posed new lines of study or new proposals for inquiry.

6.2.2 Some guidelines when preparing a presentation

- Take into account the level of readers' technical sophistication, their interest in the project, ability to understand as well as the circumstances under which they will receive the message of the presentation report and how they will use it.
- A good presentation does not mean a lengthy presentation. Time is gold. Be considerate of the people attending the presentation.

- The presentation report must show that the research objectives have been accomplished.
- The order of messages should be easy to follow .
- It should be well organized and logically structured.
- Key information presented should be reinforced with tables, graphs, pictures, maps, and other visual devices to break the monotony of texts.
- During oral presentation, people may seek clarification. The speaker should be patient and should not show signs of anger or frustration. He or she should be natural, establish eye contact with the audience, and interact with them. Body language and descriptive gestures are also quite useful.
- When making a presentation before donor or government agencies, a summary handout maybe given where they can write questions or comments that they may have during the presentation.