

## THE PROBLEM STATEMENT

### 2.3 PARTICIPATORY RURAL APPRAISAL

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**Problem:** Decisions on transport planning and prioritisation are often made without considering the transport requirements of the rural poor.

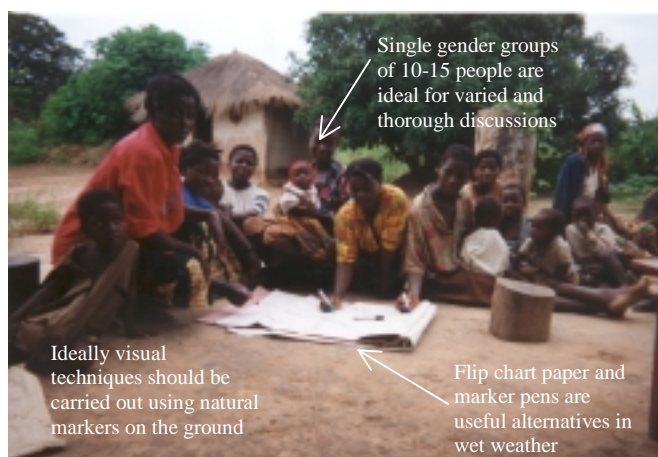
**Solution:** More emphasis on consultation of the poor using appropriate participatory survey techniques throughout the planning process.

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#### BACKGROUND

Participatory Rural Appraisal Techniques (PRA's) and Rapid Rural Appraisal Techniques (RRA's) are used to undertake an intensive, systematic but semi-structured learning experience carried out in communities for the extraction of qualitative data, allowing for reflective practice (refer to **Appendix B** for a participatory mapping checklist). PRA entails local people analysing their own conditions and choosing their own means of improving them. PRA uses visual tools to represent different livelihood issues of community groups, with the support of a trained facilitator. RRA draws principally on verbal communication and precipitates extraction of information more cost effectively and with relatively less disruption to local livelihoods.

**Figure 1: Mobility mapping exercise**



#### KEY PRINCIPLES FOR CONDUCTING PRA

The participatory development paradigm suggests that PRA should:

- Involve local people in the selection, design, planning and implementation of programmes and projects that will affect them, ensuring that local perception, attitudes, values and knowledge are taken into account fully.
- Generate more continuous and comprehensive feedback as an integral part of all development activities.

PRA techniques are used to prioritise the transport needs of the rural poor, and to determine the supply and demand

relationship of transport methods. PRA and RRA is a method of in-depth data collection which should be used to supplement base line data from quantitative surveys including household, village and transporter level questionnaires, origin and destination surveys and traffic counts. PRA should not be used exclusively, but should reinforce the factual information derived from additional surveys.

**Preparation:** PRA's require thorough preparation. Requirements for effective implementation include:

- Secondary data on the locality and specific subject areas to be reviewed prior to survey implementation.
- A team of at least two facilitators, fluent in the language of the ethnic group under survey is imperative for facilitation of PRA methods and visuals, and comprehensive recording of visual and verbal data (note taking is sufficient). Ideally, facilitators should have detailed knowledge of the locality and customs, and bear no prejudice or hierarchical position.
- Surveys should avoid large PRA teams, which might intimidate the indigenous population.
- In very remote areas, it may be useful to stay overnight in the village to save travelling time, and to maximise interaction with local people. Camping equipment may therefore be necessary.
- Due to the poor condition of rural roads, it is necessary for the PRA team to have access to a four wheel drive vehicle equipped with spare parts in the event of a breakdown or emergency.

**Facilitation:** PRA facilitators are likely to be experts. However, factors to consider when undertaking PRA methods include:

- External professionals should display good facilitation skills, which encourage local people to participate in the investigation, mapping, modelling, diagramming, ranking, scoring, quantification, analysis, presentation and planning.
- Information acquired from the PRA techniques and data analysis should be disseminated to the villagers, as well as institutional and Government representatives at the district, provincial and national level, to maintain communications between decision makers and beneficiaries of transport focused policy.
- In order to reinforce interaction with villagers, PRA visual representations should ideally be carried out on the ground, using natural markers such as stones, beans, seeds, leaves etc, and writing on the ground using sticks, chalk, charcoal (see **Figure 2**). A member of the PRA team should copy down the visual onto paper as a permanent record as soon as possible. In the event of adverse weather conditions, flip chart paper and marker pens can be used. However, the use of paper as an alternative to the ground limits the amount of space available for villagers to participate.

### APPLICATION OF PRA METHODS

Many of the methods used in PRA are visual and therefore accessible to a larger group of people. Group activities can be very dynamic and promote further discussions. Here follow some examples of PRA methods and their applicability.

**Triangulation:** Triangulation is a method of linking different survey methods to cross-check the information collected from each method. These are often carried out in groups of three to increase the credibility of each survey technique. Triangulation is useful for mapping, ranking and scoring, flow diagrams, venn diagrams and wealth ranking techniques, as these involve group participation which may require some verification.

**Observation:** Researchers should have some realistic objectives of the PRA surveys. Techniques employed in PRA are flexible in their content and design, but it is important to have some questions in mind at all times. Researchers should act on what they see, and recognise distinctions in gender, age, and wealth etc. amongst the community. Observation aids improvisation when carrying out diagramming techniques, encouraging use of household implements and natural markers.

**Ranking and scoring techniques:** Used to assess people's expectations, beliefs, attitudes, preferences and opinions. Ranking and scoring means placing something in order:

- Ranking: putting in order
- Scoring: weighting differences

This is a useful tool to be used in generating basic information which helps to focus further questioning. It can also be used for obtaining sensitive information such as income or wealth as ranks or scores are easier to obtain than absolute measurements. In a transport context, ranking and scoring techniques are useful for obtaining information such as journey origin and destination, journey mode, journey purpose, frequency and cost etc.

**Matrix ranking:** Matrix ranking involves listing key criteria (which have been predetermined by the community) down one side of a matrix table, and the measure by which they are judged, gained from informal discussion or pairwise ranking, across the top. Each element is then considered in terms of each criteria and a score is given on the basis of each criteria. This method can be undertaken to establish local perceptions of efficiency for different transport modes in relation to their cost, frequency, availability, energy and time consumption.

**Wealth ranking:** Wealth ranking enables villagers to divide households in the community according to economic and other 'well-being' categories including animal ownership, type of house, size of family, farm size and bicycle or ox-cart ownership etc. This helps identify target group members for projects, specifically the poorest sections of a society. Differences in wealth and well-being affect peoples perceptions and coping strategies. It is important to understand this prior to further appraisal or planning.

**Figure 2: Trend analysis matrix**



**Mobility chart:** This is a schematic diagram used to illustrate trip distance, destination, frequency and modal choice of daily income and non-income earning activities. This exercise is most effective when undertaken in groups disaggregated by age and gender to capture demographic variations in mobility. Using a spider diagram format, the facilitator asks participants to draw arrows from the 'household' at the centre of the diagram in varying thickness and colour to denote frequency of trips and different transport modes respectively. The arrow points towards a drawing which represents a particular activity for which the journey has been made. The discussion that accompanies the drawing of such diagrams can be extremely informative for establishing accessibility and mobility patterns.

Figure 3: Mobility chart

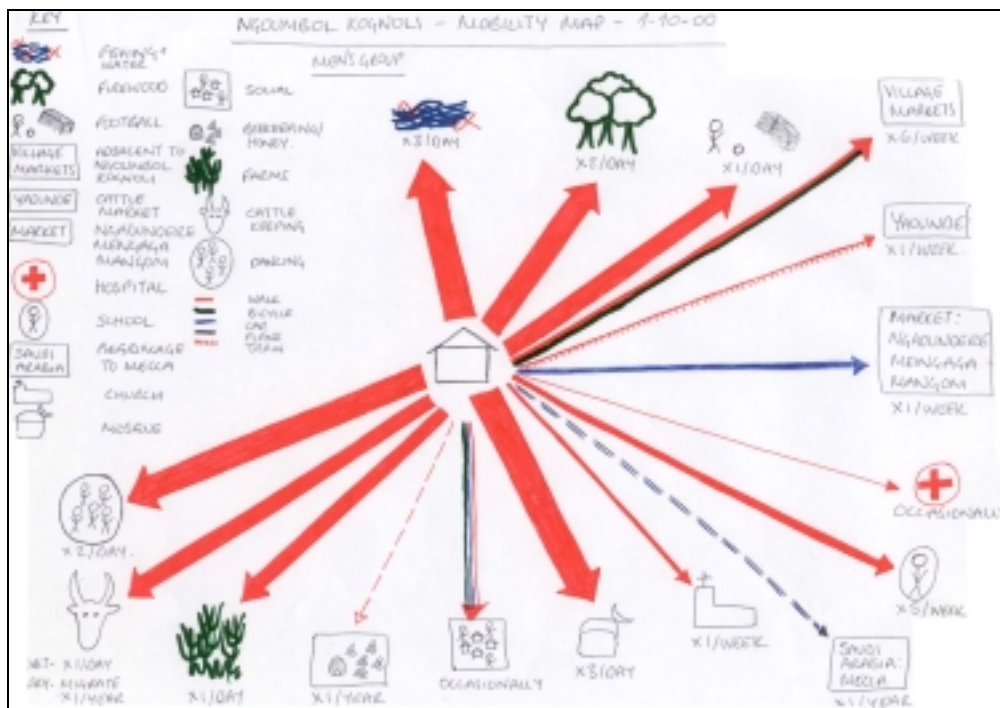
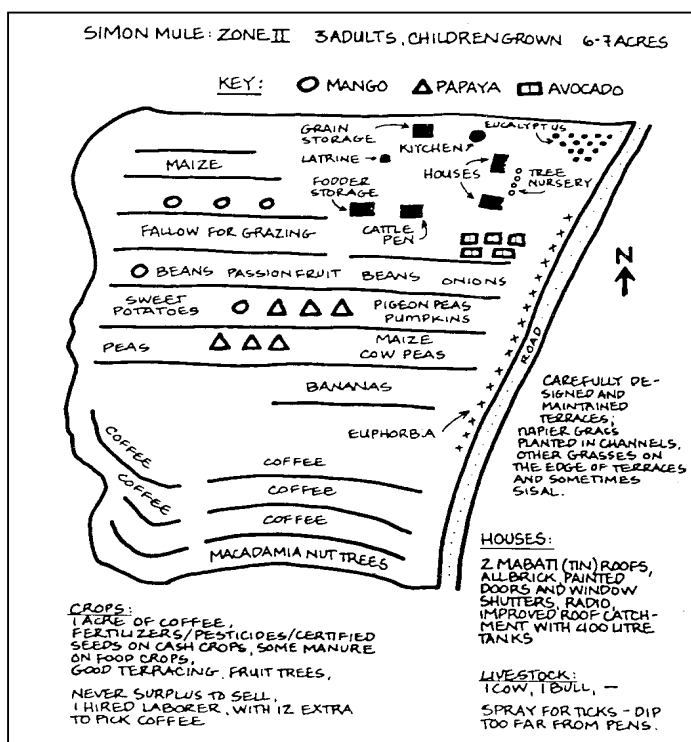


Figure 4: Participatory map



**Participatory mapping:** Maps can be used to identify the comparative location and importance of different resources within an area. Social maps can be used to locate houses, services and infrastructure within an area. Maps should be used as a visual stimulant, to identify the parameters faced by local people and to facilitate discussion about the importance people place on infrastructure provision etc.

**Semi-structured interviews:** PRA methods have adjusted the conventional interview to make it more conversational, while still controlled and structured. The semi structured interview (SSI) predetermines only some of the questions and topics, whilst the majority of questions are developed during the interview. Questions are asked according to a flexible checklist and not from a formal questionnaire.

Source: NES (1990)

**Venn diagrams:** Venn diagrams depict key institutions, organisations and individuals, and their interaction with the local community. Key players in decision making are shown, and institutions analysed can be both local ones internal to the community, and external ones that have a local influence. Each institution is represented, usually by a circle. The size of the circle represents the importance, significance or power of that institution, and the degree of overlap between the circles represents the level of interaction that occurs. In the rural transport context, Venn diagrams can be used to demonstrate the interaction between local villagers, transport operators and local government.

**Causal impact analysis:**

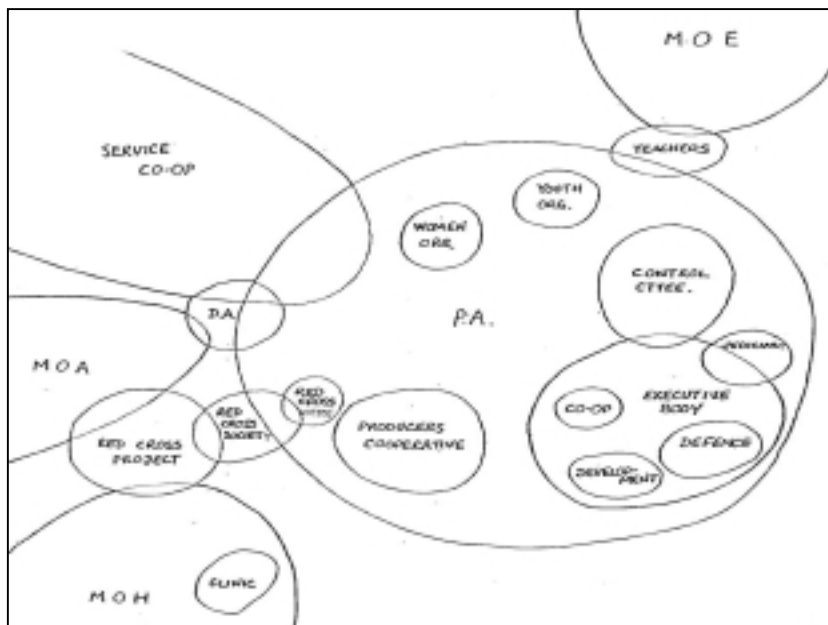
This exercise is used to probe into the cause and effect of particularly acute problems faced by communities, their strategy for alleviating the impact of these problems, and their prioritisation for problems that require external intervention most urgently. This can be achieved through use of a flow diagram with the problem statement at the centre and cause and effects of the problem emanating from the midpoint.

**Discussion starters:**

When discussing transport issues with a community, visual aids are a useful

mechanism for generating debate and obtaining ancillary information. Laminated 'flash cards' showing, for example, different types of intermediate means of transport (IMT) including bicycles, ox-carts, power tillers, and tractors, give rise to commentary relating to the utility of intermediate modes and their effectiveness under different climatic conditions.

**Figure 5: Venn diagram of decision makers in a Peasant Association**



*Source: Ethiopian Red Cross Society (1988)*

### CONSTRAINTS OF PRA METHODS

The following list details lessons learnt from existing PRA surveys:

- Local Government officials should be contacted at the start of the survey, as should the local Chief and village Headman where applicable.
- There should be continual analysis of the qualitative data whilst in the field.
- PRA surveys should coincide with the availability of villagers. Harvest time is not recommended as villagers will be tending to their crops.
- When PRA is practised hurriedly, it becomes more extractive than interactive with inadequate time for relaxed interaction.
- Facilitators should adhere to a 'code of conduct':
  - Time suitable to the villagers
  - Cultural protocol
  - Avoid raising expectations
  - Avoid lecturing - listen and learn
  - Stay in the village throughout the training session

### KEY REFERENCES

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