



**KENYA/JAPAN**

**SOCIAL FORESTRY EXTENSION MODEL  
DEVELOPMENT PROJECT**

**PROCEEDINGS OF THE WORKSHOP ON  
SOCIO-ECONOMIC AND RESOURCE  
SURVEY METHODOLOGY**

**HELD AT:**

**KITUI REGIONAL SOCIAL FORESTRY  
TRAINING CENTRE , 2ND-6TH MARCH 1998**

**Compiled by: Bernard Owuor  
Lucas Rateng**

**July 1998**

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P.O BOX 892  
KITUI**



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## 1.0 BACKGROUND

The phase I and II of the Social Forestry Training Project implementation was started from November, 1986 and was successfully completed in November, 1997. The Project was a joint co-operation between the Government of Kenya and the Japanese Government. The Project was implemented through JICA and KEFRI on behalf of the two Governments respectively.

The project was divided into two components training and technology development sub-projects. On the completion of the phase II in November, 1997, the Kenya/Japan Government signed another co-operation agreement on the implementation of the Social Forestry Extension Model Development Project for Semi-arid for a period of five years, mainly concentrating in Kitui District.

Social Forestry Extension Model Development Project(SOFEM) is a joint project involving Forestry Department(FD), Kenya Forestry Research Institute(KEFRI). JICA in collaboration with KEFRI/FD intends to develop Social Forestry Extension Model through practical establishment/planting of farm forests on selected farmers' shambas under different conditions. The implementation of the project will involve planning and conducting of several stages of surveys, including basis Socio-Economic and Resource survey, target selection surveys and profile surveys.

## 2.0 INTRODUCTION

After the commencement of the SOFEM project, the members of the core team recognized the need to conduct a general survey in target project areas before selecting areas and farmers to work with. As a prelude to this, the members proposed to have a workshop on the basic theory and methodologies on the survey so that the project staff could be equipped with the necessary knowledge and skills on survey. The Japan International Co-operation Agency (JICA)/SOFEM then approached the PRA Programme, Egerton University, on behalf of Kenya Forestry Research Institute and Forest Department to facilitate a Workshop on Socio-Economic and Resource Survey methodology which was held as from 2nd-6th March, 1998 at Kitui Drylands Regional Research Centre. The cost of the workshop was met through cost sharing by the participating institutions.

JICA paid for Resource Persons, meals and accommodation while KEFRI/FD paid for travel expenses for their members of staff.

### 2.1 Objective

The Workshop was intended to equip the Project staff (KEFRI/FD) with the basic theory and practical methodology of rural survey, and to prepare a list of survey items or checklist for the socio-economic and resource survey which will be implemented after the workshop.



## **2.2 Terms of reference**

The following items listed below are the terms of reference for the facilitation of the Workshop:-

- 1) The facilitator will co-ordinate the whole workshop activity, including presiding and providing guidance during the presentation of the target are, and the draft list of survey items.
- 2) Give lectures the theory and methodology of socio-economic and resource survey including the following;
  - Basics of rural survey
  - How to prepare a list of survey items
  - Outline of programme package for statistical analysis of survey results (SPSS)
  - How to identify survey area/households (sampling methods)
  - PRA
  - Field practice using the prepared list of survey.
- 3) Provide guidance for the formation of survey teams.
- 4) Formulate an outline of the survey schedule.

## **3.0 WORKSHOP EXPECTATIONS AND GAINS**

### **3.1 Expectations from the workshop**

- Tools to prepare, execute and present a socio-economic survey.
- Gain knowledge.
- To understand SOFEM
- Prepare questionnaire and analysis data.
- Basis for household survey, and to produce appropriate packages for farmers.
- Using PRA in project and in future.
- Understand PRA and baseline survey.
- Gain knowledge on how to prepare questionnaire.
- Learn how to conduct PRA.
- Learn how PRA can be used to improve living standards.
- Understand basics of rural survey.
- To know colleagues better and share experiences.
- Exposures to SPSS and to gain knowledge on its capacity.

### 3.2 Expected contributions to the workshop

- Give field experience on survey to be conducted.
- Experiences on conducting PRA.
- Commitment to the Project.
- Give guidance and share experiences.
- Planning with the communities concerned.
- Share on planning, implementing and monitoring with communities.
- Skills on training frontline staff on the methodologies.
- Common idea on a socio-economic study for SOFEM.
- Understand what are farmers' needs, and what SOFEM should do for the farmers.
- How to report survey outcome.
- Gain knowledge from the farmers on the target areas.
- Gain experience on field data collection.
- How to constitute a survey team (Roles).
- To handle qualitative and quantitative data.
- To conduct effective interviews.
- Conduct a survey.
- Develop a strategy for the coming field survey on socio-economic and resource survey.
- Learn skills on dealing with the community.

### 4.0 WORKSHOP PARTICIPANTS.

Participants of the workshop were drawn from: the Kenya Forestry Institute headquarters and Kitui Regional Research Centre where the SOFEM project is based; Forestry Department staff from headquarters, Kitui District offices and Divisional Forestry Extension staff; JICA/SOFEM project staff. All the participants are SOFEM project staff or involved in project activities one way or the other both at field or headquarter level. There was a total of 27 participants (see annex 1).

### 5.0 WORKSHOP TRAINING MATERIALS AND METHODS

Conceptual and practical issues of the socio-economic and Resource Survey methodology workshop were tackled through lectures, discussions and practical sessions, most if not all participants had field experiences which were tapped through well co-ordinated lectures that logically built into and complemented each other through the leadership of the resource persons. The workshop was accomplished through lectures, group work, presentations, discussions, field visit sessions. These were balanced in such a way that participants derived great benefits in terms of learning of new skills, sharing experiences and seeking classifications. Group works enhanced interaction and the learning process.

## **5.1 Lectures**

The lectures mainly concentrated on topics that would be of immediate practical application to the participants in conducting the socio-economic and resource survey which the workshop was a prelude to. The lectures were made interactive such that they brought both the resource persons and participants at the same learning platform in order to facilitate and enhance the exchange of knowledge and experiences(see annex 2)..

## **5.2 Field Visit (Pilot Survey)**

This was a very crucial part of the workshop for it helped link theory and practice. The participants were divided into four groups for pre-testing the draft questionnaire through interviews with farmers.

## **5.3 Discussions**

There were several discussion sessions which were used to thrush out and discuss pertinent issues, several arising matters were also discussed as they came up during the lecture sessions. These discussion sessions encouraged more interaction between resource persons and participants. The resource persons played a guiding role in these discussion. At several stages during the workshop the participants were split into groups to discuss various issues in details. Each group compiled a report and then gave a presentation to all the other participants( plenary sessions). The presentations generated discussions that helped in understanding and clarification of various issues that came up.

## **5.4 Training materials**

Participatory learning techniques were employed during the workshop through the use of various visual aids. These included the use of flipcharts,overhead projector, etc. These facilitated and augmented the learning process. Lecture notes were given at the end of the lectures to act as reference materials.

## **6.0 WORKSHOP CONTENTS**

### **6.1. Outline on target area**

This was the first topic in the programme. It gave background information about the District with greater emphasis on the 4 target Divisions namely: Chulumi, Mutomo, Kabati, Central. Salient features that were highlighted and discussed included geographic features, demographic data (population size, density, structure etc) Natural resources land tennure and ownership regimes, socio-economic conditions of the rural communities, land use practices, settlement patterns



## **6.2. Basics of Rural Survey**

The details of what entails rural survey were given and discussed. This started with the definition and concepts of rural survey. Rural survey is part of social research which is normally undertaken to find out about people, verify facts, develop new tools, explain previously unexplained phenomenon, analyse interrelationships involved in the society. Rural survey targets people and aims at solving defined societal problems. These surveys are carried out through interviews.

## **6.3 How to prepare a list of survey items**

Prior to conducting a survey, it is imperative to compile a list of survey items. These should be well thought out and be able to generate the desired information. This should be looked at critically against the project objectives and the prevailing social, cultural, and economic conditions of the target rural communities.

## **6.4 Preparing data for statistical analysis**

Once data is collected, it has to be ordered and arranged in such a way that it can be statistically analysable. This process starts right from the design of the questionnaire through the collection and handling of the data. The type of information to be collected and the statistical package to be used to analyse the data has to be decided beforehand for this will determine which questions should be asked, how the data should be collected and arranged. During the survey, editing needs to be done for omissions and wrong entries. Before starting the analysis, coding is done to categorize and classify the data. Symbols are then assigned to the codes. Units are standardized for ease of comparison. Variables are given names and labels and each questionnaire is treated as a case.

## **6.5 Collection of statistical and non-statistical data**

During surveys, both qualitative and quantitative data are collected. The workshop participants were taken through how to handle survey data. Qualitative data can be collected quantitatively, coded then analysed. Qualitative evaluations are always subject to errors of human judgement.

## **6.6. Participatory Rural Appraisal (PRA)**

This is an approach that involves the rural communities in the various phases of project activities. PRA as a process recognizes, respects and promotes: capabilities of communities, sharing and spread of information and knowledge to a wider audience, empowerment of communities, improvising by communities and development workers. PRA has several potentials and these include: making



technologies more suitable to farmer circumstances, motivation of farmers, tapping of indigenous knowledge, enhancing capacity of farmers to adapt technology, Farmers role become critical and cost effective, compliments station based research, Farmer to Farmer dissemination.

#### **6.7. How to identify survey area (Sampling methods)**

Sampling assumes that the sample is representative. Background information about Kitui District was given and discussed at length. The administrative boundaries and agroecological zones were used as a basis for sampling. Farmers to be interviewed were to be selected through stratified random sampling. It was decided that the minimum number of interviews to be conducted should be 30. However, the total number of interviews to be conducted was to depend on factors such as finances available, time and labour.

#### **6.8. Field Practice(Pilot survey)**

For purposes of this exercise and final survey, survey teams were formed. These teams were composed such that there was a balance of expertise, experience and understanding of the local conditions. There was also a mix of staff from all the collaborating institutions. The survey teams went out in the field to test the questionnaire. This was a very crucial part of the workshop for it helped link theory and practice.

#### **6.9. Review of field practice**

The field practice involved pilot survey which was done to pre-test the questionnaire to ensure its suitability for the survey. After the field practice the participants gathered for discussion on their experiences in administering the questionnaire. It was fine tuned through incorporating various comments/amendments by participants. It was discussed section by section and the questions therein improved accordingly. The difficulties experienced during the pilot survey were used to change, modify or delete some questions.

#### **6.10. Finalisation of survey list**

This was done after the review of the field practice to incorporate comments and observations from the field practice. Several questions were changed, others were modified, while others were removed completely. All these were done in line with the experiences from the field with a view of making the questionnaire more suitable for generating valuable information that will form a basis for subsequent SOFEM Project activities.

### **6.11. Formation of survey teams**

Four survey teams were formed to conduct the survey. These were comprised of members of staff from the various collaborating institutions. In each team there was a translator who is a resident of the District and is also well versed with the local conditions. Each team had 3-5 members from different backgrounds and institutions.

### **6.12. Adopting questionnaires for computer based Social Science Research**

This was a hands-on session in which participants' past experiences were employed in building the capacity to prepare or collect data in a format that is compatible with available Social Science Research Data Analysis Computer Software. The resource person stressed that this should be performed in a manner that ensures technical information is not sacrificed at the expense of computer compatibility. The session exposed participants to a wide range of available software without necessarily being committed to a specific software. The topics covered included the following: Objectives of the survey, survey instrument, types of data, types of questions, statistical software terminologies, coding data, Data entry methods, statistical software for social scientists. After covering these topics and detailed discussions that ensued, the participants were given a sample questionnaire which they gave answers to and these were as test data for the session's practicals (see Annex) computers were available for the session and each participant entered his/her data based on the agreed code book which was prepared under the able guidance of the resource person.

## **7.0. QUESTIONNAIRE DESIGN**

The objectives of the SOFEM project were used as a basis for designing the Socioeconomic and Resource survey questionnaire. The questionnaire content was such that it will generate valuable information that will form a basis for planning of project activities that will help achieve the set objectives. A task force was formed to design the questionnaire and came up with a draft that went through discussions during the workshop. The resource persons helped tailor the questionnaire to suit the social, cultural economic and environmental conditions of the target area and to generate valuable information that will form the basis for planning subsequent project activities.

## **8.0. FIELD SURVEY/QUESTIONNAIRE PRE-TESTING**

In the process of modifying the questionnaire and making it more useful and potent in terms of what it was encouraged to achieve, a field survey was undertaken to pretest the questionnaire. Based on the difficulties exercised in administering the questionnaire, some questions were changed, others removed and others added to ensure that all the relevant information was collected. The participants were divided into 4 groups for this exercise. After the pretesting, there was a discussion session in which various pertinent issues were discussed. This exercise was conducted under the guidance of the key resource person. The final questionnaire was then developed (see annex 3).



## 9.0 WORKSHOP EVALUATION:

Finally, at the end of the workshop, there was an evaluation which was carried out by resource persons. Evaluation forms were given to all participants who filled them and handed them back to the resource persons. There was a general feeling among the participants that the workshop was very useful, they learnt a lot it gave them a forum to exchange and share knowledge and experiences.

## Annex 1. PARTICIPANTS LIST

NAME	TITLE	ORGANIZATION
1. Forence Chege	Training Manager	KEFRI-MUGUGA
2. Benard Owuor	Training Officer	KEFRI-MUGUGA
3. Joshua K. Cheboiwo	Centre Director	KEFRI-KITUI
4. Benar Muok	Pilot Forest Manager	KEFRI-KITUI
5. J.K. Musyoki	Extension Method and Information	KEFRI-KITUI
6. Lucas Rateng'	Extension Method and Information	KEFRI-KITUI
7. Ali. A. Atanas	Farm Forest Establishment (EXT)	KEFRI-KITUI
8. Samuel Auka	On-Station Tech. Development	KEFRI-KITUI
9. Osore C. Mudanya	On-Station Tech. Development	KEFRI-KITUI
10. Ezekiel M. Kyalo	Farm Forest Establishment Tech.	KEFRI-KITUI
11. J. Baraza Wangwe	Forest Extension Services Branch	FD HQTS-NAIROBI
12. J. Mathenge Ngatia	Forest Extension Services Branch	FD HQTS-NAIROBI
13. Charles Gathage	Project Manager	WFP-NAIROBI
14. Anthony Mwangi Gondo	District Forest Officer	FD-KITUI
15. E.I. Mutie	DFEO	FD-KITUI
16. J.M. Mungai	DFEO	FD-KITUI
17. B.M. Mainga	DFEO	FD-KITUI
18. J. Kiarie Kamau	DFEO	FD-KITUI
19. S.M. Musee	Asst. DFEO	FD-KITUI
20. Elijah D. Oyugi	Asst. DFEO	FD-KITUI
21. J.S. William	Asst. DFEO	FD-KITUI
22. Seiichi Mishima	Chief Advisor	SOFEM/JICA
23. Katsuro Saito	Co-ordinator	SOFEM/JICA
24. Kenichi Kemmochi	Farm Forest Establishment (EXT)	SOFEM/JICA
25. Minoru Sato	Extension Planning	SOFEM/JICA
26. Tatshuiko Minami	Farm Forest Establishment Technology	SOFEM/JICA

## RESOURCE PERSONS

1. N. MUHIA	LECTURER PRA-PROGRAMME	EGERTON UNIVERSITY AGRICULTURAL ECONOMICS DEPARTMENT
2. PAUL GAMBA	LECTURER	EGERTON UNIVERSITY



# WORKSHOP PROGRAMME

(2nd-6th March, 1998)

	8:30-10:00	10:30 - 1:00	2:00 - 3:30	4:00 - 5:30
<b>DAY 1</b> 2.3.1998	Arrival and Registration		Presentation of outline on Target Area	Presentation of draft Survey list
<b>DAY 2</b> 3.3. 1998	Basic of rural surveys	How to prepare a list of survey items.- Review presented list	-Preparing Data for Statistical Analysis. - Statistical Analysis(SPSS)	Continue with SPSS
<b>DAY 3</b> 4.3.1998	Non-Statistical data collection Analysis	-PRA. - It's applicability to JICA/KEFRI approach. - Sharing on other participatory approaches	-How to identify survey area. - Sampling methods	Survey/Sampling process for JICA/KEFRI Project
<b>DAY 4</b> 5.3.1998	Pilot Survey in the field	- Pilot Survey Cont. - Review of field experiences	-Finalization of survey items	Formating of Survey teams
<b>DAY 5</b> 6.3.1998	Documentation and report writing	-Formation of survey schedule. - Workshop Closure		

## GENERAL SURVEY QUESTIONNAIRE

### Section A: General

1. Date of interview.....
2. Name of interviewer.....
3. Name of head of homestead.....
4. Interviewee(s).....
5. Division.....
6. Location.....
7. Sub-location.....
8. Slope: 1. Plain      2. Moderate      3. Steep
9. Agroclimatic zone.....Altitude.....
10. Latitude.....Longitude.....
11. Soil types: 1. Sandy    2. Loam    3. Clay    4. (Others specify).....
12. Natural vegetation: 1. Sparse    2. Moderate    3. Dense

### Section B: Family structure

1. How many belong to homestead ?
2. Number of male members
3. Number of female members
4. How many people live in this homestead currently ?.....
5. How many are employed (wage/salary employment) ?
6. What are the ages of your homestead members who live here currently ?
  - 1). Less than 6 years.....
  - 2). 6-20 years .....
  - 3). Over 21 years.....
7. How many members of your homestead who currently live here have had
  - 1) Primary education
  - 2) Secondary education
  - 3) Tertiary education
  - 4) Adult literacy classes
8. Who make decisions in this homestead regarding land use ?

### Section C: Farm information and settlement pattern

1. What is the total area of your land (ha./ acre)?
2. What area is under cultivation (ha./ acre)?



3. What is the size of your grazing area (ha./acre)?
4. When did you settle in this land.....
5. If migrated from else where, from where.....
6. What is the tenure system under which you occupy your land:
  1. Freehold    2. Unsurveyed    3. Communal

#### Section D: Crop farming

1. List the food crops you grow on your farm

- 1.....
- 2.....
- 3.....
- 4.....
- 5.....

2. List the cash crops you grow on your farm

- 1.....
- 2.....
- 3.....
- 4.....
- 5.....

3. From whom do you get advice on farming practices?

1. MoA    2. NGOS    3. Administration    4. None    5. Others  
(specify).....

How often do they visit your farm ?

Organisation	Frequency of visit
	1. Weekly    2. Monthly    3. Quarterly 4. Twice a year    5. Yearly 6. Bi-annually    7. Rarely

4. Do you apply any of the following inputs on your farm

1. Fertiliser    2. Manure    3. Pesticides    4. None    5. Others  
(specify).....

5. Is soil erosion a problem on your farm ?

1. Yes                      2. No

If yes, do you have soil conservation structures on your farm

1. Bench terrace                      2. Checkdams                      3. Bench terrace with trees  
4. Bench terrace with grass                      5. Bench terrace with grass and trees  
6. Cut off drain                      7. Others specify.....

6. What is the fertility level of your land ?

1. Fertile                      2. Moderately fertile                      3. Poor

7. How much did you harvest (indicate unit, e.g. bags, debes, weight)?

Type	Quantity (Unit)	Unit price

9. Do you have food shortages during the dry seasons ? 1. Yes      2. No

10. What are your main sources of food during droughts ?

1. Reserve    2. Relief    3. Purchase    4. Support from relatives.

11. What quantity of food items did you purchase ?

Food item	1997	1996
Maize		
Beans		
Pigeon peas		
Cow peas		
Others		

12. Suggestions on how to solve problem of food shortage in the area.

.....  
.....  
.....



13. What is your major problem in crop production and possible solution

	Problem	Possible Solution(s)
1.	.....	.....
2.	.....	.....
3.	.....	.....
4.	.....	.....

#### Section E: Livestock production

1. Which livestock do you keep on your farm

Animals	Numbers	Benefits
Cattle		
Goats		
Sheep		
Poultry		
Donkey		
Beehive		
Others		

2. How do you keep your livestock ?

1. Free range    2. Zero grazing    3. Paddock    4. Tethering

3. How much did you earn from livestock/livestock product sales in 1997

Type	Number sold	Amount

4. What problems do you encounter in livestock production and what solution can you suggest for the problems.

Problem	Solution
-----	-----
-----	-----
-----	-----

Section F: Afforestation and Forest resources

1. Have you planted trees on your farm ? 1. Yes 2. No

If yes, fill the table below:

Species	Where planted	Purpose of planting
	1. Compound 2. Border 3. In farm 4. Woodlot	

2. Who makes decisions regarding tree planting on your farm ?
3. When did you start planting trees on this farm ?  
1. 1950-1960 2. 1961-1970 3. 1971-1980 4. 1981-1990 5. 1991-1998
4. Do you have a tree nursery ? 1. Yes 2. No  
If yes, is it 1. Your own private nursery 2. Group nursery  
If group nursery name the group.....
5. Are you engaged in any communal tree planting activities ? 1. Yes 2. No
6. Where do you obtain seedlings for planting ?  
1. Group nursery 2. School nursery 3. FD 4. DANIDA 5. JICA 6. Own nursery 7. MoA 8. Commercial Nursery 9. Direct planting  
10. Others specify.....
7. From whom do you get advice on tree planting ?  
1. FD 2. JICA 3. NGOS 4. Administration 5. None 6. MoA  
7. Others (specify).....

How often do they visit your farm ?

Organisation	Frequency of visit
	1. Weekly 2. Monthly 3. Quarterly 4. Twice a year 5. Yearly 6. Bi-annually 7. Rarely



8. Has anybody in the homestead received training in tree planting ?

1. Yes 2. No

If yes, who trained ?

1. JICA field seminar 2. JICA residential training 3. FD 4. MoA

5. Others

9. Did you purchase any of the seedlings that you have planted ?

1. Yes 2. No

10. Which tree species do you prefer to plant ?

1.....

2.....

3.....

4.....

11. How do you care for your trees ?

1. Large hole size 2. Weeding 3. Water catchment 4. Protection

5. Pruning 6. Watering

12. What are the natural tree species on your farm

Species

Use

.....

.....

.....

.....

13. What has been the trend of natural vegetation on your farm in the last 20 years.

1. Increasing 2. Same 3. Decreasing

14. Do you have any traditional believes or taboos about tree planting, cutting and utilisation ? 1. Yes 2. No

If yes, specify.....

.....

.....

.....

15. What forest products did you sell in 1997

Product	Where sold	Quantity	Unit price	Amount

16. In what form do you sell/use the forest products

Product	1. Raw 2. Processed 3. Packaged

17. Did you buy any forest product in 1997

Product	Where bought	Quantity	Unit price

18. What problems do you face on tree planting tending and management.  
Can you suggest possible solutions ?

Problem

Solution

-----  
-----  
-----  
-----

-----  
-----  
-----  
-----

19. Where do you get your firewood

Place

Time spent

.....  
.....  
.....  
.....

.....  
.....  
.....  
.....

20. Do you have problem with obtaining firewood. What are the possible solutions to the problems ?

Problem

Solution

.....  
.....  
.....  
.....

.....  
.....  
.....  
.....



21. What kind of cooking facilities do you use?

1. Three stone      2. Improved jiko   3. Paraffin stove   4. Others  
specify.....

#### Section G: Water resources

1. Where do you get water (tick appropriate)

Water source	Free	Purchase	Distance	Transport
Rainy season				
a) Domestic				
b) Livestock				
c) Trees/ nursery seedlings				
Dry season				
a) Domestic				
b) Livestock				
c) Trees/ nursery seedlings				

\*NB: 1 hour walk is approximately 4 km

2. What water related problems do you experience and what are the possible solution.

(i) During rainy season

Problem

Solution

.....  
.....  
.....  
.....

.....  
.....  
.....  
.....

(ii) Dry seasons

Problem

Solution

.....  
.....  
.....  
.....

.....  
.....  
.....  
.....

## Section H: Socio-economic information.

1. What are your main sources of income

- |        |        |
|--------|--------|
| 1..... | 4..... |
| 2..... | 5..... |
| 3..... | 6..... |

2. What were your major expenditure in 1997 and how much did you spend in each category.

Category of expenditure

.....

.....

.....

## Section I: Health and nutrition

1. What human diseases are most common in your villages

Disease

Cause

.....	.....
.....	.....
.....	.....
.....	.....

## Section J: Infrastructure and development

1. How far is the nearest hospital (km) ?

2. How far is the nearest primary school (km) ?

3. How far is the nearest secondary school (km) ?

4. How far is the nearest market (km) ?

5. How far is your home from a road that has public transport ?

6. How far is the locational office from your home (km) ?

7. List development institutions (both government and NGOs) operating in your area.

Institution

Activities

.....	.....
.....	.....
.....	.....

8. What infrastructure related problems do you face in your area ?

.....

.....

9. What are your suggestion infrastructure related problems ?

.....

.....

.....



