

# ***RURAL DEVELOPMENT FORESTRY NETWORK***

A TALE OF TWO APPROACHES :  
CONVENTIONAL QUESTIONNAIRE SURVEYS VS PRA

**A Inglis**

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## **SUMMARY**

This paper is written in the form of a three act play. It is written mainly from personal experience, but also from ideas, examples and incidents of which the author has heard. The questions asked by the foresters conducting the questionnaire are taken from an actual survey which was carried out 2 years ago, as are the extracts from the subsequent report. There is a vast amount of literature dealing with the subject of PRA for forestry, and a bibliography of selected publications and list of contacts are given at the end of the paper.

## **RESUMEN**

Este artículo se desarrolla en tres actos. El autor se apoya en su experiencia personal, pero también hace referencia a otras ideas, ejemplos y hechos de su conocimiento. Los protagonistas llevan a cabo una encuesta forestal y las preguntas de su cuestionario son sacadas de una verdadera encuesta realizada hace dos años (al igual que los extractos de su informe). Al final, incluye una bibliografía selecta sobre métodos de Evaluación Participativa Rural forestal (PRA) y una lista de organizaciones para contactar sobre este tema.

## **RÉSUMÉ**

Ce document, rédigé sous la forme d'une pièce en trois actes, est en grande partie le résultat d'une expérience personnelle mais aussi d'un ensemble d'idées, d'exemples et d'incidents que l'auteur a pu entendre autour de lui. Les questions posées par les forestiers responsables du questionnaire sont tirées d'une enquête qui a réellement été menée il y a deux ans; il en est de même des extraits du rapport qui suit. A la fin du document apparaissent une bibliographie des ouvrages sélectionnés, traitant de la technique de PRA (Evaluation Participative Rurale) en foresterie, ainsi qu'une liste d'organisations pour contacts éventuels.

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**CHARACTERS (in order of appearance):**

<b>John and Ruth</b>	Two foresters
<b>Ralph</b>	A statistician
<b>Alfred</b>	A forest ranger
<b>Fatmata</b>	Head of household/Villager
<b>Karim</b>	A post graduate student

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## ACT ONE

**Scene 1: A District Forest Office, November. The two foresters, John and Ruth, are sitting in their office.**

John: Well, I have the same tree planting targets for this year, but I don't know what to do. I've been meeting the targets for the past 3 years, but there must be more to this job than just getting the numbers right.

Ruth: Yes I agree. A lot of that stuff we have been planting isn't being looked after. In fact I saw a piece we planted 2 years ago, and over half the trees were dead, and the place was crawling with goats and sheep.

John: Yes, I saw that as well. The idea of just carrying on planting even more of these trees doesn't fill me with any enthusiasm at all.

Ruth: Do we know why the locals won't look after them?

John: No, not really. But it's strange. They've looked after the fruit trees the agriculture people gave them and according to the research the poles and fuelwood trees that we give them to plant will save them much more money in the end than they will make selling oranges and mangoes.

Ruth: Yes, I know, but I have heard some of the Rangers say that the locals don't like using the wood from these trees for cooking and they always try to use the local stuff first.

John: But it's one of the best fuelwood trees in the world! That was one of the reasons why we chose it from the species the trials showed were suitable for these planting sites. Are you sure they don't like it?

Ruth: I don't know. I was wondering that maybe we should try to find out, but it sounds like a lot of bother and it won't really solve the problem of the goats, will it?

John: No. But we could try to go further than finding if they don't like it or not and also find out what [species] they do like.

Ruth: Alright, sounds like a good idea, but how?

John: Well I don't really know, but I vaguely recall attending a lecture on the use of questionnaires in the social forestry module of my training course. It is almost 5 years ago now, mind you, but I still have my notes somewhere. I'll try to dig them out tonight and see what they say.....

**Scene 2: Next day, in the District Office again.**

John: Ah, Ruth! I found the notes. I got a bit carried away thinking about the old days when I started going through them, but I eventually found the stuff about the questionnaires.

Ruth: What did they say?

John: Well not very much I'm afraid. Some bits and pieces about different sampling techniques and about the need to ask clear, directed questions. But one of the handouts mentions that you should contact the ministry or department responsible for community development or social welfare or whatever to ask for advice. I suppose that for us that will be the Ministry of Rural Development. Know anybody who works there?

Ruth: Yes. One of my cousins. He works in the information office.

John: The *information* office? Good grief! From what I've heard of that place, I don't think he'll be much help himself then. But if you give me his name, I'll look him up when I go to the capital next week....

**Scene 3: District office again. A week later.**

Ruth: How did you get on John? Was my cousin able to help you?

John: It went very well. Your cousin had a friend in the statistics branch, some computer whiz kid called Ralph, who does these questionnaire surveys all the time. When I told Ralph what we wanted to do, he said he would need more details but it sounded OK and he would help us.

Ruth: That's great John. When are you seeing him again?

John: Two weeks time, so we should put something on paper before then. Our objectives, things like that.

Ruth: Good idea. I'll help you and come with you the next time....

**Scene 4: Two weeks later, in Ralph the statistician's office in the capital.**

John: .....so the main thing, Ralph, is that we want to know how many people in these villages collect firewood, where they collect it from and what species they prefer to use.

Ralph: Yes, OK. Fine. But do you really think that all the different groups of people will all have the same preferences and everything?

Ruth: Well no, I suppose not. We hadn't really thought of that, had we John? Some of the richer ones won't collect at all will they?

John: No, they won't. But they will maybe buy and still have species that they would rather buy.

Ralph: Exactly. It'll mean adding a lot of questions to the ones you have given me, so we can work it all out for each socioeconomic group. It'll be quite a long one. I saw one the other day that was done for something very similar to this and it had 278 questions! But don't worry, I reckon I can get this one down to less than 200, but it will take me a couple of weeks to put it together.....

**Scene 5: 3 weeks later, back in the District Forest Office.**

Ruth: John, I heard that you got something from Ralph.

John: Yes, a draft questionnaire. It looks really good, and as far as I can see it covers all the areas we told him. Here have a look.

Ruth: Yes, it looks impressive. And he's only used 170 questions. Great. What happens next?

John: Well I think we should both read it carefully, maybe try it out on a forest ranger, and then if we are happy with it, we organise and do a survey.

Ruth: We? I was wondering about that. We are going to do it, the interviews and analysis and all that, I mean?

John: Well, yes and no. Yes to the interviews. No to the analysis. We just have to send Ralph the filled in questionnaires and he will put the results into a statistical programme he says is really powerful and just the job for a survey like this, press a few buttons, and do the analysis.

Ruth: That part sounds great, but what did he say about us doing the interviews. I mean none of us have done them before.

John: Ralph said not to worry. He reckons it will take us and 6 other, what did he call them, enumerators or something, the guys that ask the questions anyway, about a couple of months. I asked him if we could use the Forest Rangers. He said yes, and that he would arrange some training for all of us.

Ruth: A couple of months! I didn't realise it would take that long!

John: Yes, well neither did I, but Ralph has produced this list of households in the 10 places we agreed upon. His computer made it up from the last census figures. He said that this is the size of sample that is necessary, and he estimates that it will take about 8 weeks to cover all of the names on the list.

Ruth: I'm not so sure about this, John. Two months! What about our normal work? What about the planting targets for this year? What do you think?

John: Well, I must say this 2 months bit took me a bit by surprise as well. It's a long time, and a lot of work, but I've thought a lot about it and I'm really fed up with seeing these neglected woodlots everywhere and almost forcing and bribing people to plant these trees every year. Really fed up. And I think, if we don't try to do something different, this will go on, year after year after year. And so I want to try to get some information that we can use to make things better and our work more meaningful and enjoyable in the future, and I don't have any other ideas apart from this. What about you?

Ruth: No, I don't have any other ideas either, and I've been thinking more about these woodlots and they really are a disaster and an embarrassment. That agriculture guy never misses an opportunity to say something or crack a joke about them. So I suppose we should try it...

**Scene 6: One month later, at the front door of a house in a village. Ruth and Alfred, a Forest Ranger.**

Ruth: At last. Over an hour! It's murder trying to find these houses on the list when there are no street names or house numbers. Right, Alfred, who is the head of household here according to the list?

Alfred: Mrs Fatmata Sesay. Lets hope she's here, not like yesterday when we didn't find any heads of household in.

Ruth: Well, seeing it's a woman we may have a better chance. I've noticed that it's the men who always seem not to be there. OK, here goes, I'll knock on the door...

Fatmata: Yes. Hello. What can I do for you?

Ruth: Good morning, Mrs Sesay. We are from the Ministry of Forestry. We are conducting a survey of fuelwood collection and use in the area and would like to ask you some questions.

Fatmata: From the Ministry of what?

Ruth: Forestry. We plant trees and manage the nation's forests for the good of all.

Fatmata: Do you collect taxes for anything?

Ruth: No, of course not! We are foresters!

Fatmata: Well, I don't know what foresters do, do I? Anyway, I'm just about to start cooking.

Ruth: Well, this won't take too long. You are on our list, and we can't really come back again. We have to leave the village tomorrow.

Fatmata Well, OK then. Come in.....

**Scene 7: In Fatmata's house, her front room.**

Alfred OK, Mrs Sesay. First question. "How old are you?"

Fatmata I thought you said this was about firewood?

Ruth It is, but we have to ask some basic background questions first. For the analysis.

Fatmata Oh, I see, 40.

Alfred Between 30 and 44 then, OK. "When you dished food last evening, how many people did you dish for?"

Fatmata What! Why? Are you sure this is nothing to do with taxes? Who does this information go to?

Ruth: Mrs Sesay. We are not collecting taxes. We are foresters and in any case the information will be kept anonymous. We just want to know how many people you have to cook for. You see, its connected to fuelwood.

Fatmata Oh, I see. well, about 7.....

**Scene 8: 30 minutes later, same location.**

Alfred ..... "Did you have the opportunity to go to school", Mrs Sesay?...

Fatmata Good grief!!

**Scene 9: 15 minutes later, same scene.**

Alfred "Do you collect any tree products from the natural forest?"

Fatmata What's a tree product?

Alfred Well, it says here "bundles of fuelwood, twigs, branches, posts, poles or timber."

Fatmata Oh I see. What was the question again?

Ruth Do you collect any of these from the natural forest, Mrs Sesay?.

Fatmata No I don't, Mrs? I'm sorry, but what is your name, again?....

**Scene 10: 15 minutes later.**

Alfred Mrs Sesay. "Do you buy and/or collect your bundles of firewood?"

Fatmata Yes.

Ruth Which? Buy or collect?

Fatmata Both.

Alfred "Where do you or other household members collect your bundles of firewood? Natural forest? Mangrove forest? Woodlot? Own farm? Home compound? More than one answer possible."

Fatmata Let me see what it says... well, natural forest and own farm.

Ruth But Mrs Sesay. You already said that you didn't collect fuelwood from the natural forest?

Fatmata Yes. That's right, but my sons do.....

**Scene 11: 10 minutes later, still in Fatmata's front room.**

Alfred Now then, question 33. What type of wood do you prefer for fuelwood, Mrs Sesay? Plum tik, which is Parinari excelsa? Black tumbula, which we call Dialium Guineense? Lophira wood, which we call Lophira lanceolata? Mangrove wood? Other? Any wood?

Fatmata Fambul tik.

Ruth What's that Alfred? Is it another name for one on the list?

Alfred No, I don't think so. I heard somebody mention it yesterday after we had finished an interview. Do you know any other name for it Mrs Sesay? Is it another name for plum tik?

Fatmata No of course it's not. I thought you said you foresters knew about our trees and forests? Fambul tik is fambul tik and as far I am concerned it's the best firewood.

Alfred What will I put, Ruth? "Other?"

Ruth I suppose you'd better.

Alfred OK, Mrs Sesay. Next question. "How many small bundles of fuelwood do you estimate that you use per week with your household?"

Fatmata Well, it depends. How many more questions are there? My children will be

coming home from school, and I haven't started the fire yet!

Ruth            Just a few more, Mrs Sesay. How many bundles?

Fatmata        Seven.

Alfred          Good. Between 5 and 7. OK. Next. "How many of those bundles do you buy per week?"...

**Scene 12:        45 minutes later, still in Fatmata's front room.**

Alfred          Nearly finished, Mrs Sesay. Question 133. How much rent do you pay per month?

Fatmata        Listen. You said there were only a few more questions ages ago. I really have to go and start cooking now. That's all the questions I'm going to answer.

Ruth            Mrs Sesay. Only a few more. I promise. Please, can we finish?

Fatmata        No. My children will be very hungry when they come in. Come back later if you want.

Ruth:            OK, then. Well thank you Mrs Sesay. We'll come back this evening....

**Scene 13:        Outside Fatmata's house.**

Alfred          Well, that wasn't much fun, was it, Ruth?

Ruth            No, not all. I'm not sure that she understood *anything*!

**Scene 14:        Nine weeks later, the District office.**

John            If I never see or have to fill in a questionnaire ever again in my life, then that is just fine by me.

Ruth            I know exactly how you feel. Did you deliver the pile of them to Ralph?

John            Yes, all 210 of them. He reckons he'll have some preliminary results to send us in a few weeks time.

Ruth            I hope it was all worth it.

John            Yes. So do I.

Ruth            At the end, that last week. I thought it was never going to end. Sleeping on the

floor in these villages all that time, and trying to keep Alfred going as well as myself.

John Yes. I had similar problems. And I still find myself asking all those questions in my dreams every night. But won't it be great when we get the results and be able to base our work on what people want! You know, give them the trees they really want, not only the ones that we know how to grow in the nurseries.

Ruth You're right. It would make it all worthwhile. Yes, won't it be great?

**Scene 15: Four weeks later, the District Office again.**

John Ah, Ruth. I got a message from Ralph. He wonders if we can go to meet him.

Ruth Did he not send any results?

John No. Just that message.

Ruth Well, I suppose so. The planting season is over now anyway. Pity we didn't meet our targets. I only managed half of mine. I'll probably get a memo about it. Shall we go next week, Wednesday maybe? I can't make it before then.

John Yes. That's fine by me. I'll let Ralph know. I wonder what he wants though. I hope nothing is wrong.

Ruth What could be wrong? We did all the hard work with these interviews, and now he's only got to press a few buttons.....

**Scene 16: In Ralph's office, the following Wednesday.**

Ralph Thank you both for coming. There's a bit of a problem with the analysis that I need to talk to you about.

Ruth A problem? What's wrong? Is it serious?

Ralph Quite serious. Tell me, how did you divide up the interviewing work?

John Well, as you recommended. I worked with Joseph, Ruth worked with Alfred, Julius worked with Mustafa, and Thomas and Grace, the older forest rangers, went together. Why do you ask?

Ralph Because I found some strange results when I first analyzed the data. I then asked my staff to make some inquiries, and it looks like our Thomas and our Grace filled in most of their questionnaires themselves, and probably most of them sitting in bars, if the beer stains and the handwriting on some of them are anything to go by.

John Are you sure? I saw them go off interviewing most mornings.  
Ralph Yes, unfortunately very sure. If it's any consolation, it's not the first time this has happened in a survey like this, and will not be the last.

Ruth Not really, but why does it happen?

Ralph Well, apparently some enumerators get really bored with asking all the same questions all the time..

Ruth Yes? That's terrible! How unprofessional!

John Yes, really!

Ralph Yes, and especially if they are getting some hostility from the respondents, the option of filling them in themselves is very attractive. Obviously it became too attractive for Grace and Thomas.

John Well, sorry about this, Ralph. What now? Can you still use the questionnaires we did?

Ralph Yes, but the statistical validity of the analysis will be reduced, probably even lost, because the sample size will now be smaller. And I'll have to take out all the suspect inputs and start to re-analyze the results all over again. Another month at least.

Ruth Well the planting season is well over now anyway, so the time isn't so important I suppose. As long as we get some results in time for the nursery planning time in 4 months time.

Ralph No problem, I'll be in touch.

**Scene 17: 2 months later, the District Office .**

Ruth John, Alfred told me that you got the report from Ralph.

John Yes, here it is.

Ruth Let me see. What a huge report, and what a lot of tables and graphs! What does it say about the preferred species, John?

John I'm not sure yet. I just had time to read it quickly yesterday, and I couldn't really take it in. Lets see. Ah, here it is. Page 26. It says: "The type of fuelwood that is preferred is shown in FIGURE 15. Most households are not very demanding and prefer any wood. In most cases this is due to the fact that not sufficient trees of the preferred species are available anymore."

Ruth What does that mean? I don't recall anybody saying that, and its surely beside

the point anyway.

John Yes, I agree. Wait, there's more: "The highest preference is however shown for Parinari excelsa (Plum tik) followed by mangrove wood and Dialium guineense (Black tumbula). But this preference is influenced by the availability of species in the surroundings."

Ruth Well I don't think that tells us anything awfully useful, does it. And we can't exactly immediately start a planting programme using these species. We haven't done any propagation or silvicultural trials. It'll take years.

John Yes, I was thinking that as well.

Ruth What about the rest of the report? There's about fifty pages there, isn't there?

John Yes. Well there's a lot of detail about prices and where different age groups get their different tree products from, and if they went to school or not, but it doesn't give us any real clues as to which of the trees that we have in our nurseries the locals would like to plant and use.

Ruth No? Are you saying that all that time and stress was for nothing?

John It looks like it. You read the report if you like. maybe you can find something useful in it that I can't.

Ruth I'll try, but what did Ralph think he was doing?

John I don't really know. His job, I suppose.

## **END OF ACT ONE**

## ACT TWO

### Scene 1: District office, 2 years later.

- John            There's somebody here from the university, Ruth. He wonders if we can spare him five minutes.
- Ruth            Yes. But only five. I have to finish off my annual tree planting report this morning. No nasty memos this year for me! Met the targets with no problem. Pity we still had to use these trees but never mind, they are the best we have for these sites, and you remember what happened 2 years ago?
- John            Yes. How could I forget. Anyway, lets ask this guy in. Karim is his name. Karim! Come on in and take a seat. This is my colleague Ruth. Ruth, meet Karim.
- Karim           Pleased to meet you. I hope I am not interrupting anything important?
- Ruth            No. No. Just finishing my tree planting report for the past year.
- Karim           Ah. That's a coincidence, because I was hoping to ask you some questions about the trees you are planting around here.
- Ruth            Oh. Well, of course. I'm a forester so I hope I'll be able to answer them.
- Karim           Good. Why are you planting the trees you have been planting?
- Ruth            Because they are the best for the planting sites.
- Karim           Who for?
- Ruth            Well, the local people, of course. It's the Ministry's policy, you know.
- Karim           What do the local people use them for?
- Ruth            Ah, John. Can you answer that. Have you got Ralph's report handy. We did a survey 2 years ago, you know. We got some interesting results, didn't we John?
- John            Yes, well, some. Let me see if I can find it.
- Karim           Oh, please don't bother, John. I've read it. There is a copy in the University library. I used it as one of my secondary sources for the PRA exercise I want to facilitate in the area.
- Ruth            Secondary source? PRA? What are you talking about?
- Karim           Well, PRA is the short name for Participatory Rapid Appraisal, which is an approach which can be used for local resource management for all sorts of

situations, including forestry and tree planting. It is, not surprisingly, participatory and rapid. And the use of what I called secondary sources, but which is really using whatever written material that already exists, is one of the methods that the PRA approach uses.

John. You mentioned you were planning something for here, Karim?

Karim Yes, I'm a post graduate student doing a Masters in Resource Management with the School of Forestry. I have been interested in PRA for some time and I have been following its development from other approaches. You may have heard about Rapid Rural Appraisal, RRA for short? Anyway, up until now all I have done is attend a 3 day workshop in the capital which was facilitated by an experienced PRA man called Parmesh Shah, and was followed by a short PRA exercise in the neighbourhood around the workshop venue. I have also read about it, mainly stuff produced by Robert Chambers at IDS and by the Sustainable Agriculture Programme of IIED. And now I want to use it for my dissertation.

John Well, I've not heard of these people or organisations before, but never mind. Where do you want to do this PRA, and to do what?

Karim Well, here, and in a way to do what you tried to do when you did that questionnaire survey. To come up with locally useful trees being planted and used willingly by local people. That's what your aim was, was it not?

Ruth Are you a forester, Karim?

Karim No, and for PRA that doesn't matter. One of its features is that it is multidisciplinary, that people from different professions and occupations should facilitate a PRA exercise, along with local people themselves of course.

Ruth Local people themselves! What do you mean?

John Well, PRA uses local people's knowledge, what they understand to be problems, and what they want. It tries to cater for, most of all, what people care for, and to gather and analyze data with them, but only data that is useful and can be used in their interest.

Ruth But why?

Karim Well partly because we shouldn't ignore skills and initiatives that exist in local communities. For instance, it has been shown that local forest users are sometimes the only real experts on local ecological conditions, and on the forestry constraints and opportunities imposed by these conditions.

John Yes, I was reading something about that last month. Somewhere in India, I think it was. I remember that the foresters said they were impressed with the technical knowledge of the locals.

Karim Yes, and to make the most of it when and where it exists, we should try to establish partnership arrangements between formal forestry science on the one hand and local environmental knowledge, or peoples' science, on the other. I think it was in something written by an anthropologist called Paul Richards that peoples' science is worth pursuing, not because of some sentimental view of some mythical Merrie Olde Africa or wherever, or out of spontaneous admiration of the peasantry, but on the grounds that this peoples' science has invariably been found to be very good science.

Ruth And you agree with him?

Karim Yes. And I got the feeling that because you undertook that questionnaire survey, so, in a way, do you.

John Yes, I think I see what you mean, Karim.

Ruth I think originally we were, John. But I have some doubts about this approach now. Karim, are you sure that what people want is really what they need and best for them?

Karim Well, if you will excuse a bit more development jargon, what we are talking about here are two key concepts: sustainability and empowerment. If local people have no stake in or incentives to manage a resource or get involved in tree planting, then they, like you or me, won't do it. At least not without external pressure. If the expected outputs don't match with what they want or feel they need, their aspirations in other words, they won't ensure that it is managed productively. Also, the more that local opinions and local solutions can be used in local resource management, the more benefits and the more confidence the local people acquire. This is what some people call "local empowerment".

Ruth And this PR whatever can do all this?

Karim Well yes. And in fact, according to what I have read PRA can do even more.

John Such as?

Karim Well, firstly it usually results in a more productive and enjoyable working relationship between local people and outsiders such as foresters. It may even help build a better understanding between managers and field level staff. And in contrast to the questionnaire survey you did, it can generate very useful and timely information for local resource management decisions.

Ruth How does it do all that?

Karim Well it uses a variety of methods and tools; look, some of them are mentioned here in this handout about PRA a colleague of mine has written. It's only a draft, but you can keep it (Appendix 1).

John Thanks. Let me see. "Diagrams, conducting semi-structured interviews, group meetings, interviewing key informants, do it yourself, ranking, agro-ecosystem analysis." That last one sounds a bit intimidating.

Karim Yes, but it's not as complicated as it sounds, John. Basically a working diagram of a farm or forest or something.

John Ah, OK. What else? "Activity profiles, seasonal calendars, thematic maps, key indicators, livelihood analysis, they do it", secondary sources." Ah yes, you mentioned that one earlier, Karim. "Reconnaissance surveys and modelling."

Ruth I haven't heard of any of them before, and I can't see how they can do all these things you said Karim. And how do you sample?

Karim Well I've read that PRA can do all these things, but you have a point Ruth, probably not in every situation. But the material I have read about it almost unanimously says that PRA always gives you something that is worth knowing and it is also a useful learning experience for outsiders to go through. I will give you my list of recommended reading (Appendix 2) and some reading material if you want. As to sampling, you don't, at least not in a formal sense. You use a mixture of some of the tools and methods described on that handout and a variety of informants, ideally groups and individuals, and cross check the results. If all the results are in agreement, you can feel reasonably confident about them. If they are not, you go back and investigate the matter some more. This process is called triangulation. PRA uses it to produce reliable enough results to help enable good local resource management decisions to be taken almost immediately.

John But that's what we tried to do with that survey 2 years ago. Where do you think we went wrong?

Karim Well, looking at your questionnaire, your survey probably wasn't the best that has ever been designed, but perhaps that wasn't the real problem. In my opinion, it was just a simple case of using the wrong tool for the job.

John You mean questionnaires are no good at all for this local stuff, Karim?

Karim Well, not quite. It's always important not to throw the baby out with the bathwater, so before criticising them, I should say that questionnaire surveys certainly have some strengths: their results can be aggregated; results from different locations and groups can be directly compared; a degree of statistical significance of the results can be ascertained; and the reports can be very impressive and persuasive when presented to decision-makers.

John Well, sometimes.

Karim Yes, I don't know all the details of your survey, but in my opinion just the report and how you have been able to use it shows some of the major problems

questionnaire surveys can have. And it appears that you collected a lot of information that you really didn't need. Perhaps, and I don't know, questions were put in for things it would have been nice to know, which is different from things you need to know. And on top of all that, it is debatable whether the high degree of statistical significance of the results, which your survey tried to produce was necessary. It may be necessary for scientific experimentation, but is it really necessary for local forest management decision-making?

John Yes, I mean no. I see what you mean. At the end of that survey, I was left with the feeling that we had been trying to use a blunt chainsaw to split firewood. After all we went through, I think Ruth and I would tend to agree with you. Ruth?

Ruth Yes, Karim, as John well knows, I am, to say the least, no fan of questionnaires after that survey experience. But I am still not convinced about this PRA you've told us about. You mentioned that you want to do a PRA exercise here? Who will be involved?

Karim Ah. I'm glad you've asked that question, Ruth. At the moment I have some people who will be involved. A final year rural economist, a demographer and a community worker. However, I would like some foresters to be on the team, and I was wondering if you, Ruth and John, and maybe some of your staff would join us, first of all for 2-3 days training, then 2 weeks of fieldwork?

John When?

Karim Starting in 10 days time.

Ruth Well, I don't know. It sounds awfully daunting, and I'm a bit reluctant to go to the villages again after these questionnaires. Remember the experiences we had the last time, John?

John Oh, come on Ruth, that was a long time ago. We still have these woodlot problems and we will have as long as we don't try to change the tree planting programme to something the local people want. I think we should try it. What have we got to lose?

Ruth Maybe. You have a point, John, but I'd like to know more about PRA first, before I commit myself. Can you let me have that reading list and these reading materials you have, Karim?

**END OF ACT TWO**

## ACT THREE

### Scene 1: Outside Fatmata's house, 3 weeks later.

John Good afternoon. Can I ask you if you're planning to cook later today?

Fatmata Yes, just now as a matter of fact. Why?

John Well, can my colleague and I help you while you do it. My name is John and this is Alfred.

Fatmata Yes, of course. In fact you could be a great help. I haven't split the firewood yet, so if you go round the back you'll find the wood and a cutlass. My name is Fatmata, by the way. Don't I know you from somewhere, Alfred?..

### Scene 2: Fatmata's kitchen, 20 minutes later.

Fatmata Well, thanks very much, John. Everything is on the boil now. But why are you here doing this?

John Well, we are here to try to find out what sort of firewood people here like and why, so we can plant some trees that will be of benefit to you, Fatmata, and your fellow villagers and the school teacher told us that you would probably be able to help us.

Fatmata Oh. I see. I thought I remembered you from somewhere, Alfred. You were here before, asking all these senseless questions about my schooldays, weren't you.

Alfred Yes, I was Fatmata. But this time it's different.

Fatmata Yes, I can see that. My children are going to eat today, not like the last time, eh Alfred?

Alfred Yes. But not only that. There's no big list of questions this time. Do you think I enjoyed doing that, all those same questions, day after day?

Fatmata No, I suppose not. Well, how can I help you this time?

John Fatmata, I want to ask to ask you, if you had plum tik and mangrove wood in your wood pile, and you could only choose one of them to cook with, which one would you choose?

Fatmata What! I can only take one? Well, let me see. I'd use the Plum tik.

Alfred Why?

Fatmata Plum tik lights better, especially if its wet and doesn't spark. Also, we try not to use mangrove wood round here. There's some superstition about it being bad luck for the fishermen if we cut it.

John Good! What about Spice tik and Fambul tik.

Fatmata That's easy. Fambul tik.

Alfred Why?

Fatmata Because it's strong, catches fire when wet, and makes good charcoals for the iron.

John Next, Plum tik and Monkey apple. Which one?

Fatmata Plum tik

Alfred Why?

Fatmata Monkey apple is terrible for cooking, the worst. Everybody knows that. It burns quickly, makes a lot of ashes, won't light when raw.

John Any other reason?

Fatmata No.

John OK. Next. Plum tik and Spice tik.

Fatmata Plum tik. Because it catches better, makes better coals, produces more heat.

John Black tumbla and fambul tik.

Fatmata Fambul tik. It's stronger, lasts longer in the fire, makes better coals.

John Mangrove and monkey apple?....

**Scene 3: Still in Fatmata's kitchen 10 minutes later.**

John OK, Fatmata, this is the last time. Spice tik and Black tumbla.

Fatmata Let me see. More difficult choice this one, they are both about the same, but Black tumbla because it lasts longer in the fire.

John Great. Alfred, show Fatmata the diagram and the ranking results.

Alfred Do you think they are alright, Fatmata? Any important type of firewood that you use missing?

Fatmata No. Let me see. It looks right. You know, I didn't really realise my preferences were so strong. It's mainly been sort of sub-conscious. That was good fun. Anything else?

John Well, we do need to know where people in the village go to collect their firewood from and things like that, but it's better to find this out with a group.

Fatmata Why don't you come to the Women's Guild meeting this evening. I am the president and I can get you on the agenda if you want.

John Fantastic. What time and can I bring my colleagues along?....

**Scene 4: Later that day, a PRA team meeting in the village bar.**

Karim Good, thanks for coming everybody. I know it's a bit late after the Guild Meeting went on so long, but I thought it was important that we still have our nightly team meeting to discuss how things are going, what problems or great successes anybody has had, and if anybody has any bright new ideas or interesting findings.

Alfred First of all, Karim, I want to say how much I enjoyed the Guild Meeting. It was a very interesting and lively discussion and then it was a stroke of luck that Ramatu volunteered to do the fuelwood source diagram on the flip chart? Wasn't she good with both the pen on the paper and her tongue on the hecklers. And what a laugh when that woman who came in late stood looking puzzled at the circles and lines on the fuelwood flow diagram for five minutes, then shouting out that it looked nothing at all like a map of the village!

Ruth Yes, what a laugh, really. But that diagram was interesting, wasn't it. I found that a lot of things came out in it that also came up in the village transect and the observation walks we did yesterday, Karim. I was very impressed.

Karim Yes, I was impressed with the diagram as well, but I was also impressed by the whole meeting, and in particular the way it was chaired by the President, Fatmata Sesay. John, did you let on that you knew she was the President of the Guild when you did the preference pair ranking exercise this afternoon?

John No, no. I thought it would be better not to and to wait to see if she offered to put something on the agenda for us. And yes, Fatmata was good tonight, but she was also very good this afternoon. She alone gave almost all the fuelwood preference criteria that we have got over the past few days here.

Ruth Let me see them, Alfred, since you have the list in front of you. Yes, they are all there right enough, and they match with those I got yesterday and today. Good triangulation there as well, then.

John Yes, and these criteria are very important, probably more important for us than

the actual preference ranking if we want to plant trees that local people will want. What I can see happening is that we now try to find out which are the most preferred criteria, and then match these up with the characteristics of the trees we have in the nurseries that will grow at least adequately in the planting sites which they want to use. It was good that they agreed to hold an extra Guild Meeting for next week, because I think we can discuss all these things and come up with some concrete recommendations for action then. I also think I shall try to get in touch with the Regional Forestry Officer and invite him to come to that meeting. For one thing it may save Ruth and I getting a few nasty memos next year about our tree planting programme, but also because I think he will learn something.

Karim Good ideas, John. But don't get completely hooked up on these criteria. They are only more important if we are still only going to be looking at tree planting. If we are also looking at the possibility of managing or manipulating the existing natural vegetation, then the most preferred species are then more important than the preference criteria. In any case, this can be discussed at that meeting next week as well, and I'm very pleased that you want to invite your Regional Forestry Officer. I hope he can make it. OK. Anything else?

John Karim, I've got a sort of question. I know that to try to limit the selection biases of who we interview, we agreed that we would interview everybody who asks us what we are doing. OK, we've all had our share of drunks and abuse because of this, but I think it's a good policy and we probably get a wider range of views because of it. But I'm still concerned that we, or anyway, Alfred and I, aren't getting off the main roads enough? Does anybody agree.

Ruth Yes, now that I think about it, Karim, everybody we have been in contact with lives on one of the three main roads of this village.

Karim That's a very good point. Any comments from the rest of you?

Alfred Yes. Well, since John told me he was going to bring this up tonight, I've been wondering what we could do about it and the only idea I came up with was this: why don't we have another team rule that if one member sees a tiny path or track or whatever and suggests to go down it, then his or her partner has to agree?

Ruth Well I don't know. It could use up a lot of time, Alfred.

Karim Perhaps you are right, Ruth, but it would probably be time well spent. I think it's a very good idea, Alfred. If nobody has any strong objections why don't we all try it out tomorrow and see how it goes. Then we can decide at the next team meeting whether to carry it on or not. OK?

John Yes, fine by me Karim. By the way, despite my concern for main road bias, we got lots done today.

Alfred Yes, I agree, John. I've been working around here as a Forest Ranger for 21 years, and it's the first time that I've heard a lot of what we have learnt during the

past week.

Karim           What do you think, Ruth? I've noticed that you've been very quiet this evening?

Ruth            Well. I've been given a lot of food for thought this evening because of Fatmata. Maybe you don't know, but Alfred and I interviewed her during the survey 2 years ago, and I remember saying something after the interview, something not very complimentary about her understanding of the work we were doing. Now, after this evening, I am feeling very embarrassed, especially in front of Alfred, because I realise now that it wasn't her, who didn't really understand the work we were doing. It was ME!

**THE END**

## THE PRA HANDOUT\*

### PARTICIPATORY RAPID APPRAISAL (PRA)

A structured process of learning with, and from communities about their own situation and conditions of life. Originated from Rapid Rural Appraisal (**RRA**) and a number of methodological experiences in anthropology and sociology, PRA represents a quiet methodological revolution applicable in a variety of environmental contexts (rural as well as urban) and for different topical interests, including forestry. (Community development, community health and nutrition, agricultural extension, urban environmental improvements are some others.)

#### A study conducted with PRA methods is:

- **Participatory.** PRA requires the full involvement of local people, and regard for them by outsiders as main subjects and not objects of research. This means there should be:
  - respect for local perceptions and choices;
  - sympathy for local problems;
  - a focus on the application of the research for future improvements;
  - humbleness on the part of external researchers;
  - involvement of local people in planning the research;
  - the use of visual material rather than written material only;
  - enough time spent in the locality, nights included;
  - importance given to establishing a good rapport with people; and
  - an emphasis on the importance of feed-back.
- **Relevant.** PRA focuses on:
  - qualitative, in-depth information;
  - micro-environments;
  - minorities;
  - validity and reliability of data;
  - systematic and well structured procedures and recording of notes; and
  - the triangulation of information collected.
- **Flexible.** PRA mixes a variety of techniques to adapt to the local situation, to reach the most difficult to reach and to fit phenomena that change rapidly.
- **Rapid and Low-cost.** PRA implies:
  - a trade-off between quantity and relevance;
  - accuracy and timeliness;

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\* adapted from an extract from Grazia Borrini's 'Environment and Health as a Sustainable State', Istituto superiore Di Sanita, ICHM, Rome, 1992 (in print).

- a maximum use of local resources; and
- the reaching optimal 'ignorance' or appropriate 'inaccuracy.'
- **Empowering.** PRA wishes to contribute to social change. It includes:
  - the collection and systematisation of local views, thus enhancing their visibility and 'official validity';
  - it provides incentives to local leadership and local institutions; and
  - promotes local intersectoral dialogue and cooperation.

**The PRA methods of data generation include:**

- **analysis of secondary sources** (studies, reports, censuses, statistics, maps, aerial photos, community records, etc are identified, collected and analyzed; this may take a long time and involves building rapport with whoever has and/or knows about the data);
- **direct observation** (eg observation walks, participant observation, do-it-yourself with the supervision of locals);
- **conversations and interviews with informants** (in unstructured conversations, information is gathered following the spontaneous process of conversation; in semi-structured interviews, a list of topics is planned ahead and followed in an open way, eg by questions like 'who? what? when? where? why? how?' or entries like 'suppose that...'; in structured interviews, a list of questions is prepared ahead). Chains of interviews can be specifically planned. It is useful to talk with reference to something visible (maps, graphs, out in the field, out of the window, etc). It is important to establish a personal rapport with the people interviewed, to listen carefully, pay attention to non-verbal expressions and record answers carefully (possibly with a tape recorder and notes). The reliability of the informant should be evaluated and the information processed as rapidly as possible.
- **group meetings** (casual groups, community groups, focus groups, workshops, feed-back meetings, etc; in a focus group the people are gathered according to a common characteristic such as gender, age, occupation, social class, residence, etc; the group meetings need to be conducted by at least two people: a facilitator and a note-taker);
- **surveys** (usually late in the PRA process, or Rapid Epidemiologic Assessment procedures, like measuring the arm circumference of a sample of children to assess nutritional status, or even short questionnaires).
- **local testing and laboratory analysis of samples** (fuelwood density and calorific value, water quality, food quality, soil quality, material quality, etc)

Techniques that can be used during PRA interviews and/or group meetings include:

- Brainstorming and round-robin questions;
- Mapping (eg risk maps, resource maps, maps of environmental problems, maps locating cases of diseases, etc) and modelling;

- Listing, ranking, and scoring exercises (with probing of criteria);
- Making sketch drawings and building diagrams (transects, seasonal calendars, Venn diagrams, flow charts, mobility maps, conceptual frameworks of the roots of a problem, etc);
- Games, role playing and drama;
- Discussion of pictures, slide shows and films;
- Identification and use of local terms and indicators (local taxonomy);
- Nominal group technique.

Tools that can be used during interviews and/or group meetings include:

- Checklists, lists of topics and questions;
- Maps, sketches, drawings and models, use of colour codes;
- Flannel boards, flannel figures and paper cut outs;
- Relevant objects and samples;
- Pictures, slides and films.

Methods can be used in any sequence, according to local needs and conditions. One can begin by a review of secondary data, direct observations and unstructured conversations with informants. These can be followed by more structured interviews with key-informants, structured observations (eg transect walks, collection and analysis of samples) and group meetings (focus groups, workshops, etc making use of a variety of techniques). If necessary, the process can be complemented by a local survey.

The whole process should be well planned. Meetings should be set in advance, at convenient times (eg not when people are likely to be at work or busy with daily activities) and places (eg not in places where some individuals may be uncomfortable or feel to have been co-opted into a pre-existing group, like a local association, church or organisation). In order to enhance genuine participation, the PRA facilitators should be aware and respectful of local protocol, explain clearly what they are doing and why, be friendly (sleeping and eating locally usually helps), do not overpower the locals (eg two or three outsiders interviewing one local informant), use ice-breakers and humour to facilitate group meetings, keep observing the mood of the groups (eg whether people are tired or bored), start with the questions that are easier to answer (eg the historical profile of the local community), do not overload sessions, keep debates open but not open-ended, be alert but also relaxed, and enjoy the exercises.

The range of data that can be collected with PRA methods may be broad and open (exploratory PRA, for instance local environmental problems and resources available to solve them) or narrow and quite specific (topical PRA, for instance risk factors for child diarrhoea). It includes:

- **Physical and technical data** (climate, geo-morphology, ecological zones, flora and fauna including disease vectors, agricultural production, domestic animals and cattle, food production, housing conditions, water and sanitation, drainage, garbage disposal, local sources of air, water and soil pollution, risk factors for particular diseases, local resources, etc)
- **Demographic, health and socio-economic data** (numbers of people and households, age, gender, fertility, diseases, accidents, mortality, occupation, occasions of employment, social roles and status, wealth and poverty, cost of life, market opportunities, social services, mobility patterns, education, local institutions, organisations, activities, etc).

- **Cultural and opinion data** (local stories, myths, songs and poetry, felt problems, wishes, expectations, perception of resources and opportunities, etc).
- **Space distributions of the above** (geographic maps, transects, settlement patterns, locations of people, problems and resources, etc)
- **Time distributions of the above** (seasonal calendars, historical profiles of communities, personal portraits, case-histories, sequence of activities, trends of problems, resources and demographic indicators)
- **Structured analysis of the above** (livelihood analysis, gender analysis, activity profiles, daily routines, patterns of social interaction, etc).

If accurate quantitative information (eg demographic indicators with very low estimated error) is desired, statistical methods should be included in the PRA package. But qualitative information should always be collected prior to setting up any statistical sampling and extensive survey, to improve the **relevance**, **validity** and **reliability** of all collected data. For instance, prior to developing a questionnaire for a survey of child mortality, information should be gathered on what local people understand to be a case of child death, if and when they may be reluctant to admit or likely to lie about death of a child (eg single mothers, fear of sorcery, fear of appearing in a "bad light" with the service providers, hope for special assistance, new in the area, etc), what important information can profitably be collected in the same survey with a minimum of extra effort (eg number of dead siblings, caste, state of household, etc).

Information collected through the various methods should be made available and fed back to the interested communities (**feed-back meetings**, **Microplanning workshops**). This implies that the analysis of data (including triangulation of information, building of qualitative matrices) should be done in the field, possibly in a participatory way. Importantly, a PRA process usually raises the expectations of the people involved. They should never be merely "used" as a source of information, but perceive and obtain some form of direct return.

**Triangulation** - ie the use of different sources and methods of gathering information - is a most important feature of PRA. It identifies the 'truth' by assessing the coherence among diverse information rather than by statistical criteria. When triangulation reveals an information inconsistency, the point should be further pursued. The analysis of data can best be carried out in a participatory setting, so that local people and service providers can participate in their interpretation and, possibly, directly link problems and resources with opportunities for solution (eg Microplanning for economic initiatives, management of communal resources, Primary Environmental Care, service improvements, etc). The data can also be used as a baseline for monitoring and evaluation while implementing activities and services.

Governmental personnel providing services at the local level, non-governmental organisations and aid agencies interested in working with communities can and should profitably adopt the PRA approach. In order to do so, however, such institutions often need to be re-oriented (eg continuing education and training in new knowledge, skills and attitudes). PRA is not a set of methods defined once and for all, but an evolving practice. Currently, the following questions are explored by a large number of PRA practitioners:

- how can traditional professionals (eg academic-oriented researchers, 'top-down' experts) rapidly and effectively gain PRA's behaviour and attitudes?
- what mechanisms and techniques best integrate the knowledge and skills of local and outside experts (which, together, provide a better basis for development than either alone)?
- how can governmental services be re-oriented from an authoritarian to a participatory style, and balance their responsiveness between top-down orders and bottom-up needs?
- how can communities best identify their conflicts and deal with them?
- how can appraisal most rapidly and effectively be linked to planning?
- how can the quality of approach be assured when PRA is adopted by a variety of practitioners with differing perceptions, expertise and attitudes?

(see also: management, situation analysis, conceptual framework, approach, criteria, indicator, information, relevance, Rapid Rural Appraisal, Microplanning, Primary Environmental Care)

## Appendix 2

### SOME PRA FOR FORESTRY READING AND USEFUL CONTACTS

#### READING

**Campbell, L & Gill, G**, (February 1991), *Participatory Rural Appraisal for Nepal: Concepts and Methods*, HMG Ministry of Agriculture - Winrock International, Research Report Series Number 4. (See address below)

**Davis Case, D'Arcy**, (1990), 'The Community's Toolbox: the idea, methods and tools for participatory assessment, monitoring and evaluation in community forestry', *Community Forestry Field Manual 2*, FAO Forests, Trees and People Programme, Rome. (See address below)

**Gueye, B, Schoonmaker Freudenberger, K**, (1991), *Introduction A La Methode Accelerée De Recherche Participative (MARP), Quelques Notes Pour Appuyer Une Formation Pratique*, IIED, London. (See address below)

**Molnar, Augusta**, (1989), 'Community Forestry: Rapid Appraisal', *Community Forestry Note 3*, FAO Forests, Trees and People Programme, Rome. (See address below)

**Theis, Joachim & Grady, Heather H**, (1991), 'Participatory Rapid Appraisal for Community Development: a training manual based on experiences in the Middle East and North Africa', IIED and Save the Children Federation, IIED, London. (See IIED address below. Also available in Arabic from Center for Development Services, address below).

All back copies of **RRA NOTES**, a set of very useful informal reports of field experiences. Currently produced and sent free by the Sustainable Agriculture Programme, IIED. (see address below)

**PRA/PALM Series**. A useful series of papers from MYRADA, including papers on participatory mapping and modelling, transects and how to make PRA more participatory. (See address below)

#### SOME CONTACTS FOR MATERIALS AND ADVICE ABOUT PRA TRAINING

**Aga Khan Rural Support Programme** (India), Choice Premises, Swastik Cross Roads, Navrangpura, Ahmedabad 380 009, India.

**Centre for Development Services**, 4 Ahmed Pasha Street, Citibank Building (6th floor), Garden City, Cairo, Egypt

**Forest Trees and People Programme**, FAO Forestry Department, Via Delle Terme di Caracalla,

00100 Rome, Italy.

**Winrock International**, PO Box 1312, Kathmandu, Nepal.

**MYRADA**, 2 Service Road, Domlur Layout, Bangalore 560 071, India.

**National Council for Applied Economic Research**, 11 I.P. Estate, New Delhi 110002, India.

Robert Chambers, **Institute of Development Studies**, University of Sussex, Brighton, BN1 9RE, England.

**Sustainable Agriculture Programme**, IIED (International Institute for Environment and Development), 3 Endsleigh Street, London, WC1H 0DD, England.

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