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Notes from a food and nutrition PRA in a Guinean fishing village

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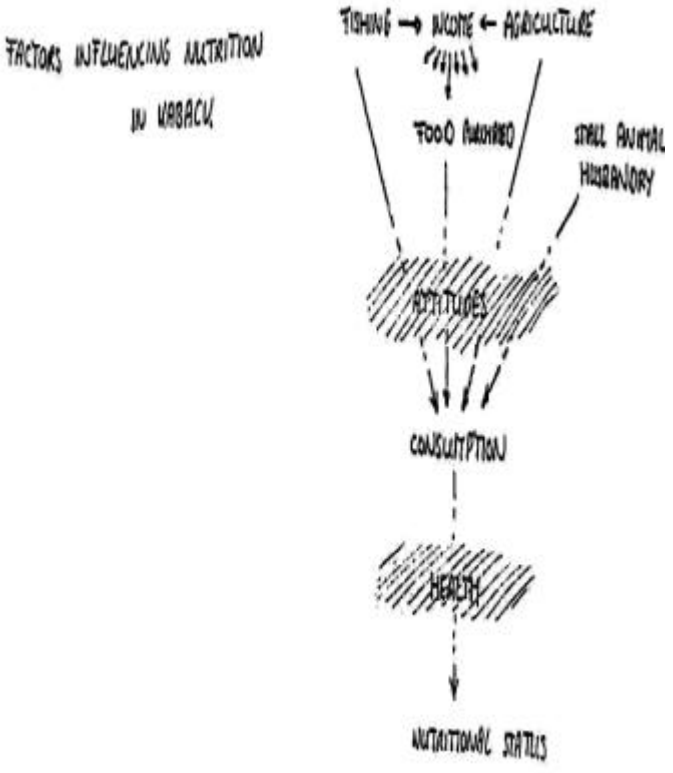
· Introduction

In an ongoing FAO artisanal fisheries project in coastal Guinea, on-the-job training in PRA for local project staff focused on food and nutrition, a theme about which these technicians and administrators knew little. The training and the exercise, including boat transport between villages and fixing up eating and sleeping arrangements, took two and a half weeks, and led to action on food and hygiene, both by the population and the project.

The actual assessment exercises highlighted food and health gaps and needs to be worked on together as opportunities arise. The PRA experience also left the whole team with a critical awareness of our own outsider judgmental attitudes, and increased our understanding of constraints on livelihood improvement and our respect of fisher household decision-making. One of the more important gains for the villagers was the simple visualisation of issues, which they constructed and so were '*writing our own papers*'.

Two international nutritionists led the training and assessment. The PRA team consisted further of a project manager, an administrator, an electrician and a biologist-turned-community development officer. All four were local Soussou or Soussou speakers, the electrician being the son of a Kaback fishing and farming family. Two of the six team members were women. The training and team sessions were conducted in French, and the actual PRA sessions in local Soussou.

The principle of participation started with the trainees' involvement in determining the content and extent of the training and the actual PRA. Their and the nutritionists' ideas on what 'nutrition' is and how to find out about it were combined, first into a master-checklist, and then as opinion statements of where nutrition problems in Kaback lay, which became known as our 'hypotheses'. From this, checklists of actual topics of conversation and related questions were formulated, as were eventually the choice of techniques and informants. The team defined the context for this thematic PRA as follows:



Source: RRA Notes (1992), Issue 16, pp.77–85, IIED London

Working hypotheses

Nutritional status is poor because:

- diets have insufficient variety, due to absence of vegetable gardens;
- women have no time to devote to the nutritional needs of the family;
- environmental sanitation is poor due to poor quality water and poor hygiene; and,
- health (especially child health) is not priority for household expenditure.

The training continued for a week with examples and pictures from RRA exercises elsewhere, reworked in Kaback with a view to encouraging greater participation in problem identification and solving by the villagers. Half of the PRA team was already working with them on fishing-gear improvement, credit, processing and marketing, and community financing but not with agriculture, health or education yet. So the exercise was seen as a continuation of project work.

To practise seasonal calendars, we spent time comparing our twelve-month calendar with Soussou seasons. Considerable time was also spent on 'un-learning' direct questioning and reinforcing an open-ended approach. Six visualisation techniques were presented, discussed, practised and allocated to a type of situation envisaged. One week was allocated to visits to two villages, and two days to discussions with those and a third village, where the project office was based.

Precise maps of each of the villages existed already, so we concentrated our first efforts in each village on '*focused walk*', an adaptation of the transect walk. For this we identified types of sites of functional interest in food, health and hygiene discussions: the beach, noting all uses; latrine sites; fish-cleaning sites; fish-smoking sites; kitchen areas; other housing; water sources; food sources; traditional health-care. We jotted down notes in a matrix comparing sites with functions. The focused walks led to suggestions by team members of how to investigate access to food and other entitlements, as well as specific topics of health and hygiene which could be discussed with key informants and focus groups. The way we tackled food and household budgets, 'thinness', time-allocation and household reproduction are described separately below.

The final meeting with villagers from all three sites started with a simple description by us of what we had observed. With no prompting, this led to further explanations by the villagers of their calendars and charts which were reproduced as posters. Their comments, and in particular their suggestions of what to do about problems, and who should do it were written on a large wall-chart, which was later made accessible to everybody by Alseny's interpretation of them in drawings. The main recommendations for immediate action were:

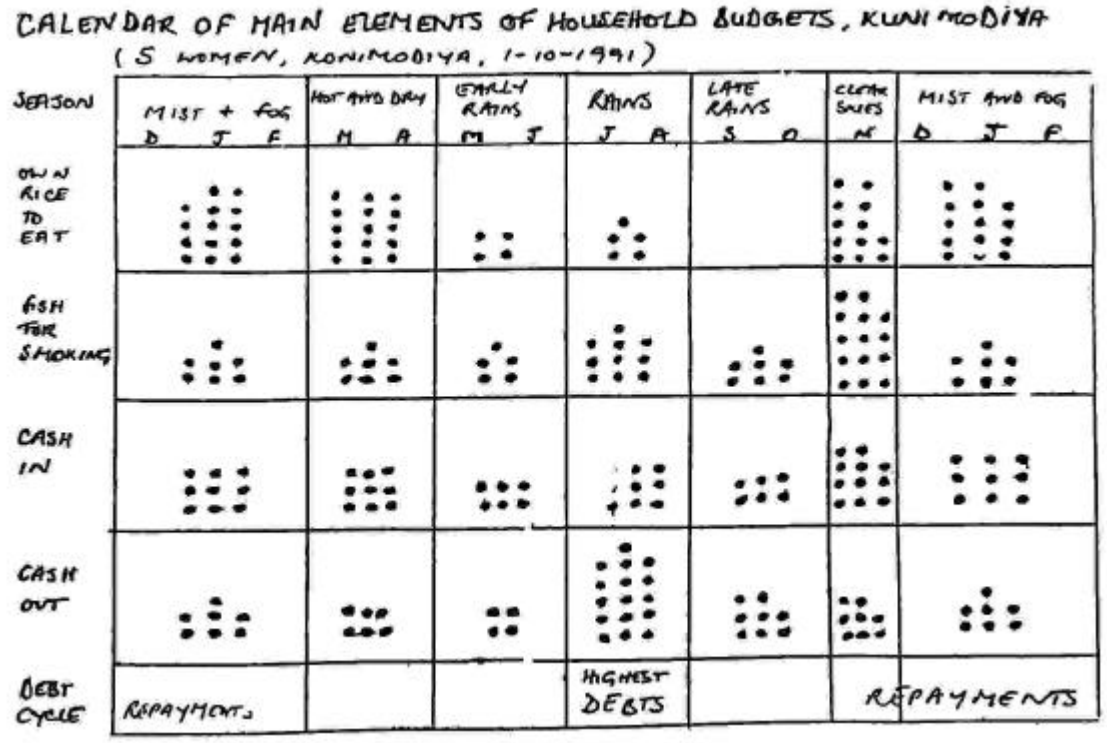
- investigate feasibility and costs of stocking Kaback rice;
- Khunyi women will encourage covering of drinking water and beach cleaning;
- Khunimodiya's Imam encouraged following Koranic hygiene rules, and teach them in Koranic schools; and,
- a project officer will work with girls as well as mothers on ways to encourage better child feeding.

Tale of a food calendar (Figure 1)

Having heard about a 'hungry season' during the Khunimodiya focused walk, we decided to investigate the general diet and seasonal variation by constructing a calendar of foods with a group of five poor-to-average-income women fish-processors who also grew crops on their own or others' land behind the beach.

The village project contact, Tidiane, arranged this to take place during a slack afternoon (before high tide and the landings), under the coconut palms between the houses and fields recently ruined by salt-water invasions. Tidiane had not met these people before, so asked if they would mind telling him about food in the village, what they had eaten that day and how it was prepared, followed by questions about the availability of each ingredient they mentioned.

Source: RRA Notes (1992), Issue 16, pp.77–85, IIED London



Catherine, a team member, drew out a six-season calendar framework in the sand as the women talked about their main staple food, rice, marked the top line with a grass frond to represent the rice, and allocated palm-nuts in each of the six sections according to the women's remarks on availability. *"Is that our rice you're writing about?"* was one rapid reaction. The conversation stopped while they explained the 'writing' to each other. Discussion ensued about Catherine's allocation of nuts, and they insisted that one season be left empty, not because they have nothing to eat then, but because their own rice has been eaten or sold off to repay debts. They buy 'foreign' rice for that period.

The next constant item in the diet is fish. *"If there's no fish we don't eat"*. However, the frequency of fish consumption is more or less constant throughout the year, making for a steady line on the calendar. The conversation about fish livened up with the women bringing out the seasonal variation in actual landings. "*Give me those nuts*" said a lady in red, *"we can do this kind of writin"*. She and the other women took over the calendar, identifying the different seasons according to the relative amounts of own rice eaten (i.e. the top line). One of the children sitting watching fetched his toy-boat when we started talking of fish (an enchanting coconut model, complete with sail and outboard motor) and offered to lend it to mark the fish on the calendar.

When the fish availability line was complete, the conversation was so far removed from the idea of a food calendar, that we did not return to foods. But having established that fish was the main and almost exclusive source of cash for household use in the village, we asked instead how income from fish-smoking varied during the year. The women explained about fluctuations in purchase and selling prices, before summarising how total income for fish varies and producing a pattern on the calendar which largely follows the fishing seasons.

The lady-in-red sat back and dusted the sand off while we all studied the document in the sand before us. Someone on the team pointed out there were far more outgoing than income in the slack season. Another women explained.

> "*Well, we have to eat. That's when we borrow to buy foreign rice ... How do we pay it back? After the rice harvest of course. That's why we don't have any left later!*"

Source: RRA Notes (1992), Issue 16, pp.77–85, IIED London

"But you have a lot of household expenditure then too.."
"Of course! After the harvest we all eat well and party, and that's when people get married, in a good year".

We continued comparing the income and expenditure slots for each season, with the PRA team listening to their analysis of the permanent debt cycle whose contours were outlined in the sand.

Both the women and the PRA team discovered new information in the calendar while making it. The village women talked for a quite a while about how the post-harvest feasting related to debt, and discussed how cutting down on some of it would reduce debts later. However, when this ideas was raised at the PRA village meeting it was not popular with those who had not done the calendar. Since then project staff have used the calendar to discuss household and community finances further. The project staff learned that women view the existing project credit scheme as available only for fishing and processing, while consumption and health-care loans had to be arranged elsewhere, and thus irrelevant to their household needs.

For the team it became clear that 'hungry season' in this village meant lack of own rice to eat, and that the absence of a preferred food led to eating less. However, it was the villagers who suggested how to tackle this at the final village meeting. The men brought up the project rice-bank, an arrangement whereby the project bought local rice against immediate payment or future credit. *"But it is the men that sell the rice"* piped up one lady, *"And if it's food we are talking about, we want a bank of our own rice, not a money arrangement"*. Many voices chimed in. Ten minutes later the project manager offered to hold a separate meeting immediately afterwards to discuss how to fund, set up and manage such a rice-store within the current village management structures.

· Nutrition surveys can be kid's stuff

The staff of the FAO artisanal fisheries project in the PRA team jumped into the preliminary discussions about "what is nutrition anyway, and how do we study it?" by claiming that the nutritional status of children in the Kaback coastal fishing villages really is very bad. The expatriate nutritionist/trainers pointed out that the children we could see walking around the village looked OK, but that if they insisted we would have to find a way of examining this, a way which also involved the villagers.

Part of the problem with standard nutrition surveys is that they do things to people that mean nothing to them, and frequently do not mean much to the people hired to do them. Clinical tests are seen as `doctor's stuff', and anthropometry (weighing and measuring and calculating) is frequently a mystery, or *"must be for the coffins*".

However, nutritionists do have a standard method in their repertoire that makes sense to most people. MUAC, mid-upper arm circumference, may be a very rough-and-ready measure, but it does actually look as though you are trying to see how thin someone is. As such it lends itself admirably to RRA, and even to the PRA. We trained project staff to carry it out in Kaback, although it did need adapting for an illiterate and innumerate population.

When we got to Khunyi, one of the things Aboubekar, a PRA team member, raised in our introductory chat with the elders, was whether we could also work with the children. They were horrified that we might ask them for information, but we made it clear that we just wanted to keep the bigger, noisier ones busy with a game, measuring the thinness and fatness of their little brothers and sisters, while we talked business with the adults. That was fine, and as it turned out, everybody in the village took part in it somehow or other the next day, making it the most participated-in technique we used.

The long beach village of 200 houses had four natural divisions. So four local teams of four 10-12 year olds were selected (all boys as their sisters were busy with chores). Each was allocated one of the specific tasks of selecting, measuring and recording.

Selection

The team-leader made sure they visited every house with children, and asked the mother or child-carer if they could feel the arms of the small children. Ages are not important in

Source: RRA Notes (1992), Issue 16, pp.77–85, IIED London

Kaback, as they are not known, so instead of asking for 1-5 year olds, the children asked for any child already able to stand alone and take at least one step (approx. 1 year) and still no taller than one of Aboubekar' poles measuring 95 cm (the tallest of some identifiable 5 year olds we measured on the spot).

Measurement

The second child held one of the short sticks (15 cm long) that Aboubekar and Alseny had shaved to 12.5 cm diameter, the recognised cut-off point for malnourished 1-5 year olds. The technique was to encircle the children's upper arms with thumb and forefinger, without squeezing them, and compare this `measure' to the stick, pronouncing them 'thin' or 'not so thin'.

Recording

The shortest child in each team popped a palm-nut into the bag we had provided him with every time the measurer pronounced a child 'thin'; the fourth child in each team was in charge of 'counting' the not-so-thins in the same way.

When all the 1-5 year olds in the village had been measured (apart from 2 whose mothers objected to the sticks; and 11 who were absent for the day), the teams reported back to the village project contact, who counted the palm-nut records and noted down how many refusals there had been and the reasons for this. The results did indeed show a lot of thin children: over one-third had a MUAC of 12.5 cm or less.

This result surprised the nutritionists, who could only conclude that most of them belonged to so-called invisible smaller children, i.e. those hidden inside cloths on their mothers' back or sleeping or playing inside the smoke-houses.

It was not difficult to discuss 'thinness' since everyone was now measuring everyone else's arms. Our questions about thin infants were treated in focus group discussions with women of different ages as well as with individual child-carers. In addition to the diseases they volunteered to describe, we asked about feeding. Soussou children do not necessarily receive any other food than breastmilk before the age of 2 years. Although nutritionists think that this can result in undernourished children who succumb more easily to disease and get even thinner, Kaback women see no connection between food and the state of the body. They do see one between disease and thinness, although thinness is also seen as a disease. Furthermore, there was little awareness that poor environmental hygiene could make people sick, and therefore thin.

Although the discussions of 'thinness' went on for some time among villagers at every level as a result of the arm measuring, they raised more questions and problems for the team to consider and investigate than answers and solutions. Is there a positive motivation for late weaning? For example, are women aware of the contraceptive benefits? Would feeding an infant on supplements to breastmilk encourage earlier weaning from the breast, and consequently shorter birth intervals? Ideas on how to tackle these issues other than through conversation would be welcome.

Whether or not this is a way to control fertility, nutritionists are left with devising ways of tackling the 'information' gap on the link between food consumption and nutritional status, the basis for advice on weaning practices. In the case of Kaback one of the project officers proposed to work with young girls who look after their siblings to explore this further, and to look for experience among health educationists elsewhere in Guinea. The project should also pursue the discussions it has started through the PRA on economic decision-making, and find a way to link the advantages of well-fed and healthy children with the advantages of having time to make more money, a conclusion one could draw from such statements as, *"He just hangs round my skirts all the time when he's ill, stopping me getting on with things"*.

Why not surveillance by children? There are many places where populations have marginal nutritional status at the best of times, far too many places to mount the sophisticated type of nutritional surveillance recommended by UN committees for early warning purposes. This type of community measuring, by the children, could be developed as a first-indicator approach, triggering other, more sophisticated investigations when needed. The most

Source: RRA Notes (1992), Issue 16, pp.77–85, IIED London

important community function of this kind of monitoring would nevertheless be that of involving all types of people throughout the community in keeping an eye on the state of their children.

· Time-lines and women's work

The local Guinean team disagreed early on over possible reasons why many small children are malnourished in these fishing villages. One contested hypothesis was that women have no time for childcare: one male team member was honest enough to say maybe they were just lazy.

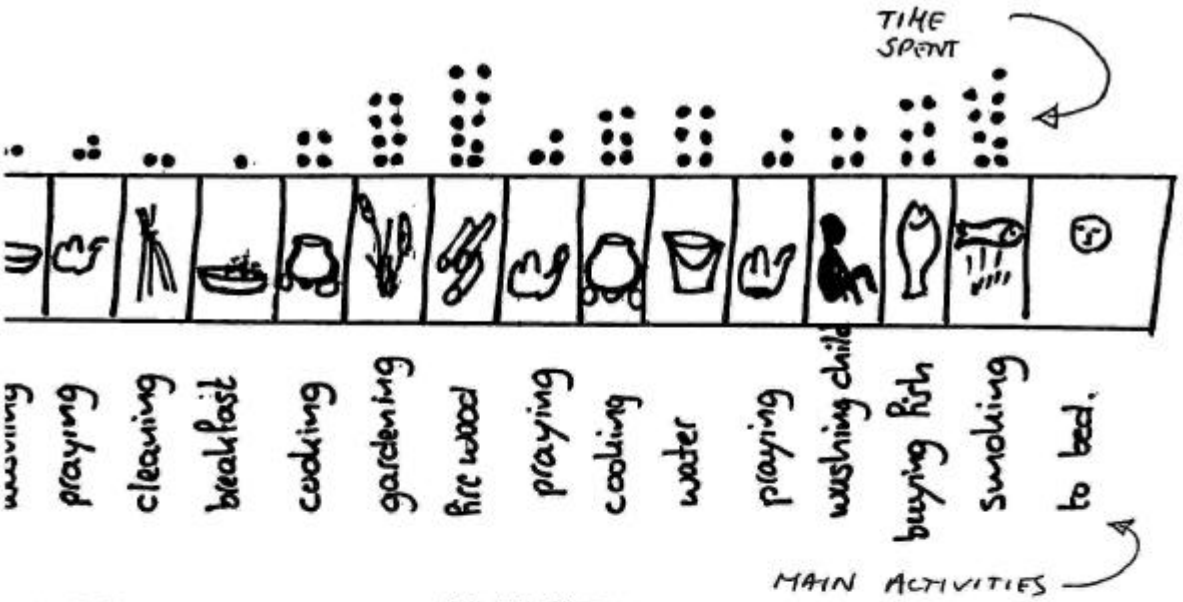
The nutritionist/trainer proposed to use a time-line as visualisation technique around which to discuss time use with women and other household members who neither own watches nor are literate. The team accepted the suggestion that we approach the issue as twenty-four hour recalls, in a linear representation of time, rather than dividing up a predetermined whole into proportional parts. We would deal with proportion and actual time spent through a comparison of time spent on identified activities, distributing nuts to each rather like one can distribute nuts etc. to show relative amounts in a calendar or a matrix ranking. We consequently prepared to involve a key informant (fish-smoker with small children including one under three) and her neighbours.

The question of how much time village women actually spend on work related to fish processing first came up naturally towards the end of one day in Khunimodiya as the team sat chatting about child-health to a woman in her dark smoke-house while she laid out the day's catch, gutted and slit, over the fire. Catherine asked questions about the sequence of her main activities through the previous day's catch, prompted by Tidiane from the ground where he was scratching a long time-line across the banda floor, representing her different activities by line drawings. However, the light faded before we got through the 'day'. Since the small oil lamps used to inspect the progress of the processing were insufficient to see the drawings in the dirt and we had not brought our torches, the session was wound up. None too soon in the event, for the lady had become reticent when neighbours gathered round, clearly making her uneasy about publicising a visit she had made outside the village the day before.

The next time we took up the theme was on an overcast morning in Khunyi, while talking to a group of women neighbours after they had smoked and stacked the previous day's fish landed at high tide the evening before. They were able to sit out in the open comfortably, where it was easy to see drawings on the ground. Tidiane scratched two long lines 50 cm apart across the yard, as Catherine enquired into household chores, eventually asking the lady of the house for yesterday's sequence of main tasks. Each activity was either drawn or represented by an object. The lady herself offered her kettle to denote (washing before) prayer time in the Muslim village, her broom to denote cleaning time, pots to denote cooking time, twigs for time spent collecting firewood, and her toddler was placed on the line as she told us about fetching water and washing her towards the end of the day. She then fetched a dried fish to represent time on the beach waiting for the boats to come in at high tide, time spent haggling over prices, then cleaning, gutting and slitting them, and she constructed a tiny model of a smoking banda to represent the time spent watching the fire and turning the fish before banking down the fire and going to bed (see Figure 2).

Asked about who took care of the small children while she was busy, she smiled broadly *"I have to do more than one thing at a time most of the day!"* Her even broader smile when asked how much time she rested during the day evoked *"None"*.

Source: RRA Notes (1992), Issue 16, pp.77–85, IIED London



The next step was to determine relative amounts of time spent on each major activity. Catherine asked which activity took least time, and which the most, placing one palm nut against 'breakfast' and ten against 'collecting firewood'. Relative time was judged according to these two indicator values, and the lady put down the appropriately sized pile of nuts for 'more', 'the same' or 'less' than the adjacent activity. Aboubekar did rough mental calculations to check whether there were approximately equal amounts of time between

Source: RRA Notes (1992), Issue 16, pp.77–85, IIED London

prayer sessions (which is a very useful measurement of time in Muslim societies), and how time spent tallied with the tide and the fish-landings. The tide was our other fixed point on the clock, not just because we had tide-tables, but because the beach was so shallow and the tide so long that the boats timed their return for within an hour of high tide. From this information he and Alseny, the only fisherman on the team, judged that she got up around 5.30 am and went to bed around midnight, then went through the whole sequence with her again to check how far the activities tallied with the total time.

Although the group that had gathered added instructive comments and corrections, we were anxious to have some discussion of choice in time-allocation. Catherine asked the lady what she would spend more time on if she had more, and offered her ten more palm-nuts saying she could put them anywhere she liked on the time-line. She took a couple of minutes to look it over again before bending over and putting a pile against 'collecting wood' and another pile against 'buying fish'. Why? "*I can always get enough wood for myself, but there are women here who don't so I can sell any extra to them. You see I always need cash for something or other for the family.*" And what about the fish? "*The longer you haggle, the lower the price goes, so I can get more for the same, and make more money that way*". A further handful of palm-nuts were offered, but she laughed. "*After all that I'd just have to rest!*"

Asked whether she had enough time to look after the children, she explained that she occasionally had to drop everything if a child was really ill, but she only did that in an emergency, because she had to make some cash every day to keep going. The neighbouring women who had gathered round concurred that their days are equally hectic. A similar group elsewhere in the village was asked on another occasion about the frequency of cooked meals for younger children, and they confirmed the general view that they do not have time to cook, i.e. eat, more than twice a day; many cook, i.e. eat, only once a day. The whole conversation, including making the time-line around which it focused, took just over one hour.

The teams' round-up discussion showed that the men were now convinced that many women have little time for exclusive child-care. All team members admitted that they were somewhat idealistic about women needing special child-care time in the day to ensure their health and nutrition; they now felt that the economic arguments relating income to food consumption and variety in the diet are at least as important for family well-being. All team members were surprised how very clearly the women's choices about time-use were economically determined.

Other reflections provoked by the exercise concerned the request the project had received for a health service. The project staff had hitherto associated this with a clinic service in one spot. They now realised that time constraints meant that any service would have to be mobile, particularly if any preventive health care was to be involved. The community costs would probably be no higher than what fisher families already pay for their own transport individually each time they judge that they urgently need help.

At the PRA final meeting with fisher people from all three villages visited, the villagers had tabled topics for the agenda, including health and disease. However, they were so eager to discuss the Koran on hygiene practices, and ideas about rice-banks (see *Tale of a food calendar* above), that health services were relegated to a later date. The ideas and reflections of the project staff arising from this exercise will be carried forward in discussions between project staff and Ministry of Health over the form of health services to set up, with the project staff now much more aware of perceived health priorities, and of some of the constraints to imposing 'our' organisation of health services on `them'.

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Source: RRA Notes (1992), Issue 16, pp.77–85, IIED London