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## Rapid food security assessment: a pilot exercise in Sudan

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### • Introduction

These notes report on an application of RRA techniques to the question of understanding the causes, dimensions and characteristics of food insecurity: a procedure I have dubbed 'Rapid Food Security Assessment' (RFSAs). The 'pilot' in the title betrays the fact that this was a first attempt on an experimental scale - just nine communities across the whole of Sudan in only two working weeks. The eventual intention *is* to structure RFSAs in the mode of a 'sondeo': multiple case studies in a single area, carried out over the course of a week by a multi-disciplinary team and resulting in a written report before leaving the field area. The pilot gave us enough information to confirm that this is a feasible and worthwhile objective.

We need to know more about food insecurity so that we can assess the impact of existing policies on food insecure groups and plan better policies to help them. The starting point is a model of food security that goes beyond the simple question of access to food ('enough food for an active, healthy life', (World Bank, 1986)) and locates food security in the context of secure and sustainable livelihoods for poor people. A recent definition runs as follows:

"A country and people can be said to be food secure when their food system operates efficiently in such a way as to remove the fear that there will not be enough to eat. In particular, food security will be achieved when the poor and vulnerable, particularly women, children and those living in marginal areas, have secure access to the food they want. Food security will be achieved when equitable growth ensures that these groups have

sustainable livelihoods..." (Maxwell, 1988).

### • Starting with secondary sources

Our task in Sudan was to support food security planning by putting together a picture of food insecurity for the country as a whole. To fit the model, this meant combining specific data on malnutrition with more general data on poverty and access to resources. The secondary sources were of some help, but left surprising gaps. Thus:

- we knew that levels of malnutrition were high across the country and not just in marginal areas; but we knew very little about the socio-economic characteristics of malnourished or undernourished individuals;
- we knew that income distribution was poor and getting worse, but we had very little information about the social relations underlying poverty, especially in rural areas where there was said to be a land frontier; and,
- we knew from the experience of the drought in 1984/85 that many people in Sudan were vulnerable to a sudden collapse of livelihood and food security; but it was not clear how vulnerability was distributed through the population, nor how vulnerable groups could be identified.

We hypothesised that poverty, vulnerability and malnutrition were three interlocking phenomena and that the most severe problems of food insecurity (what the World Bank calls 'chronic' food insecurity) would be concentrated where the three overlapped. A large number of people would be poor and

vulnerable but not currently malnourished: these would be subject to possibly frequent episodes of food insecurity (what the World Bank calls 'transitory' food insecurity). By manipulating the data on nutrition and poverty, we were able to estimate that 2m people (13% of the population) were probably in the category of chronically food insecure (that is poor, vulnerable and malnourished) and that another 7m (37%) might be transitorily food insecure (poor, vulnerable but not currently malnourished). But could we find out more?

### Field work in nine communities

We started with a checklist (see Appendix) and set out to investigate food insecurity in communities across the country. We were constrained by time, access and language, but were able to cover nine communities: three of these were in illegal settlements of mostly displaced people around Khartoum; two more were in the poorest parts of the towns of Nyala and Gedaref; the remaining four were in villages, one in Kabbala Province and three in different parts of Darfur. The biggest omissions were the camps of displaced Southerners along the border between North and South Sudan; and nomadic groups in Northern, Darfur, Northern Kordofan and Red Sea Hills.

The RFSAs were carried out by a mixed team of Sudanese and outsiders. The outsiders were members of a World Bank food security team (and included one eminent Sudanese); in Khartoum, the insiders were staff of the Ministries of Agriculture and Health and the Economic and Social Research Council; elsewhere they were staff of the Ministry of Agriculture or of projects working in each area. The size of the team varied from 2 to a dozen and the time spent in each community from three hours to about six.

In each case, our procedure was roughly as follows:

- Preliminary meeting of the team to explain the purpose of the study, review the questionnaire and discuss background information.
- Make contact with the sheikh or other local leader, explain the purpose of the visit, conduct a preliminary interview on

the history and current situation of the community and discuss food issues. This often turned into a group interview. One important outcome was a social stratification of the community to provide the basis for the next step.

- With the sheikh's assistance, identify representative households in the community, for example, a landless family, small and middle sized farmers, a female-headed household etc... Interview these families in their own homes, using the checklist as the basis for an unstructured conversation. Some of these case study interviews also turned into group interviews: there were about fifty of them altogether across the nine communities studied.
- Visit the shops or market, if any, to collect data on food prices and have further conversations. Again, these visits often resulted in group interviews or discussions, sometimes with twenty or thirty people.
- Walk around the village to observe conditions and chat to passers-by.
- Regroup out of the village for a detailed review of findings and a discussion of possible interventions.
- Write up a brief report of the visit, the same evening if possible, using a laptop computer.

Mostly, we just talked to our respondents, singly or in groups, but we also tried some tricks of the trade, with generally satisfactory results. For example:

- To help put together a picture of social stratification, we used a plate of sorghum or small stones to represent the village. We could then ask the sheikh (or the group) to estimate what proportion of the village was landless, or female-headed or from Northern Darfur or whatever, by dividing the grain into piles. This was particularly successful in a group situation and could develop into quite a sophisticated analysis by taking grains or stones away as the village was

progressively stratified: first the landless are taken out, then the farmers below 5 feddans, then those from 5-15 feddans and so on. We were able to cross-check the results by repeating the exercise with different groups. On several occasions, the exercise was carried out by drawing a large circle in the sand and taking slices off it.

- Getting income and expenditure to add up is notoriously difficult in informal interviews of this kind. On several occasions, we used small stones or grains of sorghum to represent daily or weekly income and then subtracted progressively the main items of expenditure listed by the household. This gave us a graphic demonstration that reported expenditure exceeded income and provided the basis for further questioning.
- Group interviews were held in almost every community. We did not try wealth ranking, but we did try to characterise rich and poor people, for example by holding up two shoes, one representing a rich person and one a poor person, and asking people what was the difference between them. It took quite a bit of probing to move beyond stock responses like “it is the will of Allah” and establish the importance of e.g. cash to hire labour; and on one occasion, the group became restless because “these people are trying to make trouble between us”.
- We were interested in the balance between food crops and cash crops, millet and groundnuts particularly, and developed comparative ranking lists of crops e.g. in South Darfur, millet is regarded as less work and more drought tolerant, but has a more variable price, is more susceptible to pests and has greater weed problems than groundnuts.
- Cross-check ‘surveys’: on many occasions in group interviews, we broke off general discussion, which was often inevitably dominated by a few individuals, to ask each person individually for a piece of information e.g. whether they owned land, their main occupation, whether they

worked yesterday, the wage rate for a particular job, meals eaten yesterday etc...

## • The results

RFSa made an important contribution to our work in bringing the statistics to life and in making it possible for our report to be written, so to speak, from the bottom up, starting with the food security situation of the people we met and moving from there to policy. It also gave us useful insights into food insecurity among the poorest people in Sudan (see Maxwell, 1989, for full results):

- Confirmation that urban poverty and food insecurity are far more prevalent than might be expected in Sub-Saharan Africa, mainly because of large scale migration to Khartoum by refugees from the civil war in the South.
- The discovery of sharp income inequalities even in villages with good rainfall and a land frontier, mainly because poorer households cannot afford to cultivate their own land throughout the rainy season and have to seek a cash income by labouring for richer households. We recommended new forms of consumption credit or asset distribution that would allow poorer households to develop their own farms.
- The striking vulnerability of the poorest people, especially to illness or natural disasters and the absence of assets, savings or other buffers in times of need. This led us to recommendations about a programme to provide assets for the poor, along the lines of the Indian IRDP or the Grameen Bank in Bangladesh.
- The operation of a scissors effect between wage income and food prices, analogous to that between livestock prices and cereal prices. In good years, the amount of employment in agriculture and the average wage both rise; at the same time, the price of cereal staples falls. In bad years, wage income falls and food prices rise, sometimes by up to four times. This led us to recommendations about income support through public works; and grain price stabilisation through village grain banks

and improvements to government sorghum policy.

- The very high proportion of functionally female-headed households among food insecure groups, up to 50% in some villages, coupled to a high degree of social and economic isolation for women. We developed proposals for easier transmission of remittances and for targeted interventions aimed at women.

### Follow-up

None of these insights is particularly startling but they are not generally common currency in the literature on food insecurity in the Sudan. RFSA gave us some confidence that the literature had missed important phenomena. We can confirm our findings with wider-scale and better structured RFSA and we have also identified topics that require more rigorous and longer-term research.

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#### NOTE

This note is a spin-off from a World Bank mission in November 1988 of food security issues in the Sudan. The mission report is expected to be published in 1989, under the title "Toward an action plan for food security: stimulating growth and designing interventions". Thanks are due to the Bank and in particular to Jack van Holst Pellekaan for allowing publication of this account of part of our work. Responsibility is mine.

#### REFERENCES

- Maxwell, S. 1988. "National Food Security Planning: First thoughts from Sudan". Paper presented to Sudan Food Security Workshop, 4-5 October 1988, IDS, Sussex, mimeo.
- Maxwell, S. 1989. "Food insecurity in North Sudan" Discussion Paper, IDS, Sussex, (forthcoming).
- World Bank. 1986. Poverty and Hunger: issues and options for food security. Washington.

## Appendix

### Food insecurity case studies

#### Information checklist

##### Introductory note:

The purpose of this checklist is to help you gather the information you need to write up short case studies of individuals or families thought to be food insecure. It is not a questionnaire. This means it is not necessary to present the questions in the order asked, nor use the exact phrasing in the checklist. However, you should try to cover all the points listed in the checklist and present your report in the order of the questions.

The questions on the checklist fall into four main sections:

- Information on the community;
- Background information on the family;
- Current sources of livelihood; and,
- Food issues.

#### Checklist

##### The community

(NB: These questions can often be answered by community leaders at the beginning of the visit)

- History of settlement;
- Size and composition of population (ethnic, family structure, occupations);
- Social/political leadership;
- Government and voluntary agency programmes; and,
- Community problems and needs.

##### Background information

- Location;
- Name of respondent;
- Family composition (adults, including children over fifteen; children; other dependants);
- Length of time in present location;

- Place of origin, date of leaving, reason for leaving;
- Occupation in place of origin; and,
- Future plans to stay or move.

### **Current livelihood**

- Resources available to the family (land, land improvements - including trees), labour, animals, machinery, equipment, household goods, cash, gifts/zakat;
- Security of tenure;
- Description of housing (materials, size, cooking facilities);
- Activities undertaken (amount and description, including seasonality, location and who in the family does what): agriculture, herding, employment self-employment, trading etc.;
- Estimate of income earned, per period, by person;
- Level of risk and coping strategies in times of hardship; illness, theft, physical security, natural disasters; changes to normal pattern of activity; and,
- Access to services (health, education, transport).

### **Food issues**

- Level of nutrition of family members;
- Composition of diet, by family member and time of year;
- Sources of food: production, purchase, exchange, free distribution;
- Problems of availability of food in the market (especially bread, sugar, sorghum);
- Ownership/validity of ration card;
- Prices paid for food in most recent purchase, sugar, bread, sorghum, beans etc.;
- Source and price of water; quantity consumed; storage;
- Source and price of fuel for cooking; and,
- Views on food security issues.