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Community-based monitoring of relief food aid in Ethiopia: Report of a pilot survey in three woredas

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CIET, Addis Ababa
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Abbreviations

BS	Boloso Sore
CIET	Community Information & Epidemiological Technologies
CSA	Central Statistical Authority
DPPB	Disaster Prevention and Preparedness Board
DPPC	Disaster Prevention and Preparedness Commission
DZ	Dessie Zuria
EPRU	Emergency Preparedness and Response Unit (WFP)
Fd	Fedis
PA	Peasants' Association
SC (UK)	Save the Children (UK)
SNNP	Southern Nations, Nationalities and Peoples
VAM	Vulnerability Analysis and Mapping Unit (WFP)
WFP	World Food Programme

Summary

There are several mechanisms to monitor the extensive relief food aid programme in Ethiopia, yet these do not provide all the evidence needed to assess targeting, use and impact of the food aid at the community level. The reason for this is simple. Most monitoring mechanisms focus on who receives food aid; but programme managers also need to know who does *not* receive food that should do, and why are they left out.

In preparation for on a national community-based monitoring initiative, a pilot survey in three woredas set out to adapt the CIET method, already used in monitoring food security and service delivery surveys in other countries, to the Ethiopian food aid context. The exercise was intended to establish a base for social audit capacity building in Ethiopia and to demonstrate the feasibility of collection and use of community-based data in monitoring and informing the food aid programme.

The Monitoring Steering Committee -- representatives from DPPC and food aid donors, and chaired by DPPC -- oversaw the pilot exercise. A Technical Group included representatives from CIET, WFP EPRU, WFP VAM, DPPC and CSA.

Pilot woredas

The survey was carried out in three pilot woredas, *not* intended to be representative of the regions in which they are situated or the country at large. The woredas were selected with the DPPBs of the agreed regions. Ten Peasants' Associations (PAs) were selected randomly from a list in each woreda, and 120 contiguous households in each were visited in each PA, radiating from a fixed point with no sub sampling. The pilot woredas were all considered highly food insecure according to the VAM index of chronic food insecurity. They were Dessie Zuria in South Wollo (Amhara), Fedis in East Hararghe (Oromiya) and Boloso Sore in Walayita (SNNPR).

Instruments

The six instruments used in the cross-design survey were:

- A household questionnaire administered to contiguous households in each site
- An interview with a knowledgeable person for a profile of the community
- An interview with a local trader about availability and prices of foods
- An interview with chairman/member of the PA committee
- An interview with the chairman of the woreda distribution committee
- A review of the food distribution centre serving each site.

Data collection, management and analysis

Three field teams were trained and undertook data collection in the three woredas, including anthropometry of children aged 6-59 months. In Addis Ababa, data were coded and double entered with validation to eliminate keystroke errors. Preliminary findings were discussed in gender-stratified focus groups in the same sample communities and with government and other stakeholders at a workshop in September 2001. Further analysis took into account input from communities and stakeholders.

Information base

3,628 households
19,334 people
3372 children up to 5 years

29 community key informants
12 trader key informants
29 PA committee members
3 woreda committee members

8 reviews of distribution centres

20 focus groups of men
20 focus groups of women

The pilot sample

Around 1200 households were interviewed in each of three pilot woredas. Nearly two thirds of the household respondents were female, more in Fedis than in other woredas. One in seven households had no male members over the age of 14 years.

Vulnerability

Economic status of households was reflected in several indicators, including income in the last month: 7% of households reported no income in the last month in DZ, 12% in Fd and 11% in BS. Some households reported no land or less than 0.5 timad: 4% in DZ, 9% in Fd and 12% in BS. The proportion of households reporting no livestock was 16% in DZ, 33% in Fd and 30% in BS. The proportion owning plough oxen was: 49% DZ, 22% Fd and 26% BS.

In order to assist the focus of food aid on those less able to resolve their own food security issues, "vulnerable" households were defined as those with no adult males *or* no livestock: 24% in DZ, 38% in Fd and 38% in BS. "Especially vulnerable" were those with no adult males *and* no livestock: 6% in all three woredas. More able to meet their own food needs, "well off" households had plough oxen *and* a reported income of more than 20Birr in the last month: 17% Fd, 37% DZ and 21% BS.

An additional indicator of vulnerability was developed from the history of food crops. Those who produced food and had enough to sell were rated least vulnerable (24%); those who produced but did not have enough to sell were more vulnerable (68%) and those who had no production at all were the most vulnerable (8%). This categorisation was strongly predictive of food security and malnutrition.

Food security

Sufficient food: Some 93% of households reported shortage of food as their 'main problem' in Fedis, 88% in DZ and 65% in BS. Similarly, the proportion of households reporting *enough food in the last week* was 29% in Fd, 58% in DZ and 81% in BS. Vulnerable and especially vulnerable households are more likely to report not having enough food in the last week.

Food storage can be one indicator of food security. Some 5% reported no stores in DZ, 55% in Fd and 69% in BS. The type of food staples stored varied between woredas.

Food sources: Food aid was the main food source in the last month for 18% in DZ, 9% in Fd and 5% in BS. Households who reported not having enough food in the last week spent less on food in the last month. More than half the households reported purchase or barter as their main source of food in the last month: 54% DZ, 72% Fd and 51% BS. Some households reported eating wild foods unusually for the time of year: 10% in DZ, 51% in Fd and 0% in BS. Households with not enough food in the last week were more likely to report eating wild foods unusually.

Food production: A proxy measure of failure of harvest was based on the gradient between those who produced food and had enough to sell (20%), those who produced but did not sell (71%), and those who had land, but had no crop in the last year (9%). Most households expected production in the coming harvest, but community focus groups seemed more pessimistic. Focus group participants also reported erosion of community support mechanisms for households worst affected by food shortages.

Nutrition of children

The proportion of children aged 6-59 months who were wasted (low weight for height; acute malnutrition) was 8% in DZ, 17% in Fd and 4% in BS. A child from a household reporting not enough food in the last week was more than twice as likely to be wasted compared with a child from a household reporting enough food. This provides some support for the validity of the self-reported food sufficiency. In households that produced enough food to sell, 7.3% were wasted; in those that produced food but did not have enough to sell 9.7% and in those who had land but produced no food, 18% were clinically wasted.

Some households reported non-breastfed children under five years of age eating less than three times a day: 7% in both DZ and BS, and 26% in Fedis.

Food aid programme performance

Distribution policy: There were very different coverage patterns in the three pilot woredas: In DZ, all ten PAs received food aid, in Fd, six out of ten, and three of the ten in BS – but in these three PAs nearly all households were beneficiaries. Routine monitoring data show that dispatched amounts were close to assessed need in DZ. Data are incomplete for Fd and BS, which received 100% and 25% of their food aid respectively from NGOs during the period before the survey.

COVERAGE: received food aid

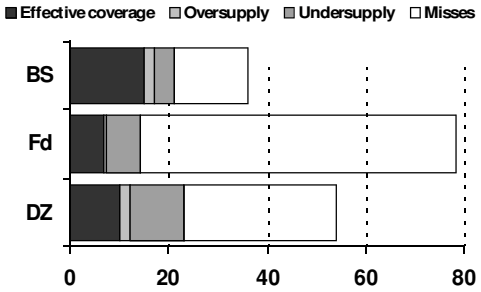
MISS: insufficient food and did not receive food aid

UNDERSUPPLY: insufficient food despite receiving food aid

Coverage: The coverage of food aid in the last month was 23% in DZ, 14% in Fd and 21% in BS. Coverage (at least once) in the last six months was 58% in DZ, 18% in Fd and 27% in BS. The average amount of food aid received per person in beneficiary households in the last month was 12.13 kg in DZ, 9.63 kg in Fd and 5.35 kg in BS. In households with more than five members, the average per person was significantly lower. Sharing some of the ration between households was rarely reported in DZ and BS (0.4% and 4% respectively), but reported by 39% of household respondents in Fedis.

Programme misses (exclusion errors): Among those that produced enough food to sell, 29% said they did not have enough food in the last week and received no food aid in the last month. Among those who produced food but insufficient to sell, the proportion missed (excluded) was 36% while among those with land who produced no crops, 56% were missed. The rate of *programme misses* was higher in Fd (64%) than in DZ (31%) or BS (15%). Conversely, the proportion of households that *did not need* aid was 64% in BS, 46% in DZ and only 22% in Fd (Figure 11). These complement the Emergency Needs Assessment (ENA) estimate that the percent of population in need (PPND) was 20% in BS, 43% in DZ and 48% in Fedis. The food aid programme apparently performs better in woredas where more households already have enough food to eat without receiving food aid. This pattern suggests that there was a problem of *overall lack of food aid relative to need,* particularly in Fedis, at the time of the survey. Additional aid could improve the performance, but only if effectively targeted to the most needy households.

Figure 11
Performance of the food aid programme



Targeting:
In DZ and BS, those who produced food but insufficient to sell were indeed more likely to receive food aid than those who had enough to sell – a positive indicator of targeting – but they were also more likely to receive food aid than the worst off, those who produced no crop. Vulnerable and especially vulnerable households – measured by available labour and livestock -- were more likely to be programme misses than other households. This was true of all three woredas. The implication of this important finding is that food seems to be channelled *away from* the most vulnerable or, put another way, distribution mechanisms favour the already better-off. This could be partly related to the link between food aid and employment schemes. Among households receiving food aid at least once in the last six months, 78% reported at least one member participating in EGS or FFW schemes in DZ, 79% in Fedis and 46% in BS. Vulnerable and especially vulnerable households are less likely to report a

member participating in EGS or FFW schemes, while well-off households are more likely to have a member participating.

If food aid were retargeted from those who produced enough food last year to sell some of it, to those who produced none, the miss rate among those who produced none would drop from 81% to 49%.

And if food aid was retargeted from households of better-nourished children to households of wasted children, the miss rate among households of wasted children would drop from 81% to 0%.

Community views about food aid

Only 16% of beneficiary households said they were satisfied with the *amount* of food aid received in the last month in DZ, 23% in Fd and 37% in BS. Households receiving less than 12.5kg per person are more likely to be dissatisfied with the amount of food aid received. Most beneficiaries were satisfied with the *type* of food aid received: 81% in DZ, 77% in Fd and 96% in BS.

More than one half of beneficiary households thought they had been selected due to poverty or lack of resources; more than one third of non-beneficiaries who answered this question did not know why they were not selected to receive food aid.

Most beneficiary households (79%) were satisfied with the selection process. Most focus groups expressed general satisfaction with the selection processes, although some people mentioned unfair practices. Households were generally not able to suggest ways to improve the selection of beneficiaries. In focus groups, some people felt that the scarce resources should go specifically to the very needy, while others felt they should be spread across the community.

Discussion

The pilot set out to achieve four specific objectives: design and implement a household survey of access to and experience of the food aid programme; establish links with other monitoring modalities of the food aid programme; link household data with data from the food aid programme, and investigate associations between household and community impact, and service-based information; and discuss the findings with community focus groups, administration and service providers locally and nationally.

As anticipated, the pilot designed and implemented a household survey of access to and experience of the food aid programme.

The pilot findings should not be over-interpreted as they come from only three *woredas* – they are not representative of regions or of the national picture – and reflect only one time point.

In a large-scale survey it would be important to *translate the instruments* into each local language for the different regions, and to improve the method of *estimating the exact age of children* (for estimation of low height for age, or stunting). *Migration and dietary habits*, particularly those that are relevant in pastoral areas, clearly play a big role in food insecurity, and would need attention in a full scale survey. A full-scale survey should include more about the use of and access to *farming inputs*, market conditions and prices, and possible negative effects of food aid.

Part of the strength of this community-based monitoring system was the ability to link to service based data (for example, the assessed requirements and dispatched amounts of food aid, which can be compared with individual household receipts). Given the purposive sampling of the pilot woredas, however, most comparisons are not very relevant, as woreda-specific data are not available from many sources. Household population figures have been compared with projections from the 1994 census; anthropometrical findings have been compared with the Demographic and Health Survey findings.

Subjective responses from households – such as reported food sufficiency – were combined with and validated against other 'harder' data, such as anthropometrics. Where relevant, household responses were compared with responses from community and *woreda* key informants, such as development agents. The pilot tested the feasibility of collecting individual households' accounts of food access vulnerability, other aspects of food security and experience of the food aid programme. It was able to analyse these indicators to form an interpretation of the performance of the food aid programme. Tracking programme performance through repeated surveys would be a useful dimension of monitoring food aid, permitting fine-tuning of the programme.

- The main problem identified in the pilot was programme misses (households without enough food that did not receive food aid).
- The greater number of programme misses in one woreda (Fedis) was probably due to an overall undersupply of food aid relative to need.
- The higher proportion of programme misses among vulnerable households (no adult males or no livestock) indicates sub-optimal targeting, possibly even a bias in tracking food aid

to better off households. Although not relevant outside the pilot woredas, the survey demonstrates the feasibility of identifying more effective targeting strategies.

- The link between food aid and employment-generating schemes is logical from many points of view. However, the pilot shows this strategy may contribute to leaving out those most in need of food aid – those who cannot do physical work.
- Clear differences in policy about distribution between PAs in the three pilot woredas were associated with different levels of performance; in the two woredas where not all PAs received food aid, a policy of choosing specific PAs seems to have led to increased performance in reaching vulnerable households.

With community feedback as an integral part of the information gathering process, the pilot demonstrated the feasibility of including the voice of all stakeholders in the decision-making process.

This went beyond householders answering questions. The teams returned to the communities, where they discussed targeting issues systematically in gender-stratified focus groups. In this way, the communities in each region can contribute to policy making, while food aid programme managers also have access to quantitative indicators on which to base priorities and assessments of progress.

All participants in the September 2001 stakeholder workshop were in favour of a larger scale survey, with a sample representative of regions, probably undertaken in collaboration with CSA, with input from DPPD and DPPBs and repeated at intervals to track the programme performance. Lessons from this pilot survey should inform roll out to national or sub-national level.

Introduction

The relief food aid programme in Ethiopia is extensive, with the recent food emergency in 2000 an acute on chronic challenge. In 2001, the population requiring relief food aid was calculated as 6.2 million, approaching 10% of the total population.

Effective monitoring of this large programme is crucial to its success, and efforts to improve monitoring are underway. At a macro level, the COMPAS system tracks food aid from the port in Djibouti to the primary distribution warehouses. The reporting system for food aid was reviewed recently and a consultancy with DPPC supported to improve reporting formats. A community-based monitoring system will complement these existing components of a monitoring system by focusing on what happens between woreda distribution centres and households.

Earlier surveys suggest there may be important problems with food aid targeting, between and within priority woredas. Community-based monitoring should address several aspects of the food aid programme. It should validate the current routinely available data about the distribution of food aid at local levels. It should also provide evidence on how well the food aid targeting works in practice.

Community-based monitoring of food aid will fill important gaps in the knowledge base about food aid. It will track vulnerability, targeting, coverage and impact of the food aid at community level. Households and communities participate as sources of information about their access to and experience of the programme, and their views and suggestions are combined with information from service providers. The resulting information about what works and what does not work in the programme is useful for planners and also offers a substrate for meaningful dialogue between residents and service providers. It will thus support improved responsiveness and accountability.

Aims of the pilot survey

1. Adapt the CIET method to the Ethiopian food aid context

2. Establish a base for social audit capacity building in Ethiopia.

3. Demonstrate the feasibility of collection and use of community-based data in the food aid programme

Origins of the pilot

Discussions between donors, WFP and the DPPC concluded that, before embarking on a process to cover and represent all food insecure areas across the country, a pilot survey should be undertaken in limited geographic areas. The present survey is intended as a pilot for a larger scale operation, to provide representative information of the food insecure areas.

Specific objectives

1. Design and implement a household survey of access to and experience of the food aid programme, in representative sites in three pilot woredas.
2. Establish links with other monitoring modalities of the food aid programme.
3. Link the data from households and communities with internal data from the food aid programme, especially at local level, and investigate associations between household and community impact and service-based information.
4. Discuss the findings with community focus groups, local administrations and service providers locally and nationally.

Scope of the pilot

The pilot took place in three woredas. While these are from known food aid dependant areas, their selection was oriented to demonstrate feasibility of monitoring in different circumstances. Consequently, the findings in these woredas are not intended to represent the national picture in food dependant areas. The survey sample, however, includes representative sites within each woreda to provide a picture of the situation in communities within the three pilot woredas. Thus it is possible from the pilot to understand the range of conditions and experience of the food aid programme at household level in communities in the three pilot woredas. But it is *not* appropriate to extrapolate from the pilot findings to other woredas, zones or regions.

Methods

The pilot applied the methodology proposed for the larger survey. This was developed by the CIET group and has been used to monitor food aid in emergencies[1] and in post-conflict situations[2], as well as in relation to development efforts[3-5], public services reform[6-9] and evidence-based planning of public health services[10].

CIET methods follow a rigorous, tightly focussed process. After a thorough review of existing information on the proposed topic and the local population, a careful selection of sentinel communities is made to ensure a representative sample. Fact-finding instruments such as household questionnaires, institutional reviews, key informant interviews, focus group discussions are designed to produce quantitative and qualitative data. Analysis focuses on coverage, cost, and impact of particular services. Data are then returned to the communities where discussions hinge on interpretation of results and how these lead to strategies for communication and action. The philosophy behind the method is described elsewhere[11] and its features are summarised in Annex 1.

Organisation of the pilot

The pilot was undertaken under the auspices of the *Monitoring Steering Committee*. This committee comprises representatives from DPPC and from the major food aid donors and is chaired by the DPPC, usually by the Deputy Commissioner, Ato Berhane. The CIET team gave regular briefings to this committee at the outset and during the project.

A *Technical Group* was formed to assist with technical issues concerned with the pilot survey. Specifically, the group had a remit to assist with the design of instruments and the survey sample selection. The group comprised representatives from CIET, WFP EPRU, WFP VAM, DPPC and CSA. The Technical Group met several times during May 2001, and members of the group also undertook specific tasks between meetings (such as reviewing drafts of the instruments, drawing the sample and translating the household questionnaire). The Technical Group agreed the final versions of the survey instruments and the survey sample.

The sample

The pilot covered three woredas in different regions of the country. These woredas are not representative of the regions in which they are situated, nor are the regions representative of the country at large. The selection was simply to pilot the methodology in three quite different contexts, in order to consider a range of issues for community-based monitoring of the food aid programme.

The selection of the pilot woredas was made in two stages. First, a meeting with Ato Berhane of DPPC selected three regions: Amhara, Oromiya and SNNPR. The project team visited the DPPBs of the three regions to brief them about the pilot survey and with them chose one woreda to be included in the pilot survey. In each case, the pilot woreda was one classified as "very highly food insecure" or "highly food insecure" according to the composite index of chronic food insecurity developed by the VAM unit of WFP. The woredas chosen were:

- From Amhara: Dessie Zuria (DZ) in South Wollo
- From Oromiya: Fedis (Fd) in East Hararghe
- From SNNPR: Boloso Sore (BS) in Walayita

The Emergency Needs Assessment (ENA) estimated the percent of population in need (PPND) was DZ 43%, Fd 48% and BS 20%.

In each woreda, the sample comprises 10 sites, each of around 120 households. The sampling process, carried out by Kebede Beyene of CSA, was as follows:

- Ten Peasants' Associations (PAs) were selected randomly, with probability proportional to size, from among the listing of PAs in the woreda (the old PAs rather than the new, larger units).
- Within each PA selected, the field team covered a group of 120 households. To avoid bias, they started at a fixed point and radiated out to cover 120 contiguous households.
- The field teams also collected information from the PA administration on the total number of households currently in the sample PAs, as this information was necessary for the calculation of the sample weights.

By this process, a sample of 1200 households per woreda represented the population – beneficiaries and non-beneficiaries, in each of the three pilot woredas.

Survey instruments

The survey instruments evolved through discussion in the Technical Group. A standards-based approach was used, relying where possible on questions validated in previous surveys, including those used by CIET in community-based monitoring of food aid in other countries, and those used in Ethiopia in surveys of nutrition, food aid impact at community level, food economy and food security. The sources used in development of the survey instruments are given in Annex 2. The instruments developed for the pilot survey include:

- Household questionnaire administered to all households in each site
- Interview with a knowledgeable person for a profile of the community
- Interview with local trader about availability and prices of foods
- Interview with the chairman/member of the PA committee
- Interview with the chairman of the woreda distribution committee
- Review of the food aid distribution centre serving each site.

Data collection

Field teams

For the pilot survey, it was not possible to involve CSA enumerators because they were all fully occupied with preparation for the forthcoming agricultural census. Nor was it feasible at the time to liase with a university department and perhaps use students to participate in the fieldwork. Three field teams were formed, with members drawn from three sources:

- WFP monitors attached to field offices relevant to the pilot regions and woredas

- DPPB and DPPD personnel from the three regions and relevant zones, allocated by the DPPBs
- Personnel previously working with SC(UK) on their nutritional surveys.

A number of these personnel had previous training and experience in anthropometry.
Each field team comprised: one team leader; two members responsible for the anthropometry and key informant interviews; and six interviewers who carried out the household interviews.

Training

The training took place in Addis Ababa. The programme covered the background to the methodology and the pilot survey; the elements of the household questionnaire and of the other instruments, review of anthropometry, and logistics and fieldwork planning. One day of the training was a field practice in a site about 30-40 km from Addis Ababa. The training took three days for the interviewers and an additional fourth day for the anthropometry operators and team leaders.

Data collection

Fieldwork took place between 21 May and 15 June 2001. Each team covered the ten sites in one woreda, allowing two days per site. During the two days, they completed the household interviews, the anthropometry on children aged less than five years, and the key informant interviews.

Each interviewer completed about 20 household interviews per site, over about one and half days. On the first day, as many of the children under five years of age as possible were weighed and measured by two team members trained specifically in anthropometry. The anthropometry took place in a suitable central place in the site. At the end of the first day, the listing in the central site was checked to see which children from the interviewed households did not come to be weighed and measured. Part of the task on the second day was to revisit those households and persuade the parents to bring the children to the central measuring site.

Data coding, entry, verification and cleaning

In Addis Ababa, data entry and cleaning commenced on completion of the data collection. Coding and data entry by a team trained specifically for the purpose was completed by early July. Coding categories were developed to cover the responses to open-ended questions in the household questionnaire; WFP and CSA colleagues were included in this process. Double data entry and validation to eliminate keystroke errors relied the

public domain software Epi Info, version 6. Further logical checks and cleaning of the dataset were undertaken before analysis.

Before analysis, land holding in Fedis was converted to permit direct comparison with the other two woredas (see footnote to Table 4).

Analysis and feedback

The analysis used Epi Info and SPSS. Preliminary analysis of the main quantitative dataset formed the basis of a preliminary key findings report. This included basic frequencies of the important variables in the three woredas, with some initial analysis of associations in the dataset.

Focus group discussions
The results of the preliminary analysis were used to develop guides for focus group discussions in the survey sites. Two members of each of the initial field teams returned to the same ten sites in each woreda and conducted separate focus group discussions with men and women about the findings.

Workshop of key stakeholders
A report on the preliminary analysis of the main quantitative findings from the household questionnaire was discussed in a workshop in Addis Ababa in September 2001.

Workshop participants included members of the Food Aid Monitoring Steering Committee, members of the Technical Group for the pilot survey, other representatives of DPPC and the Regional DPPBs, representatives from the zones and woredas in the pilot survey, and other representatives from WFP. A separate report of the workshop has been prepared, and comments from workshop participants have been taken into account in preparing this final report. Findings from the other survey instruments – key informant interviews and focus group discussions – are also included in this report.

Analysis
Further analysis of the dataset was undertaken to look at associations with outcomes of interest in relation to the food aid programme and aspects of programme performance at community level. This analysis mainly used the Epi Info software package, and also SPSS where necessary. Directions for the further analysis included those gleaned from discussions in the September workshop and from separate discussions with key stakeholders.
The CIETmethod complements quantitative epidemiological analysis with qualitative elements from key informants and

focus groups using meso-analysis. For example, if food was distributed in one PA and not another, the PAs can be coded to reflect this. Focus groups often generate richer and more textured evidence than structured interviews with key informants or individual quantitative questionnaires. Information thus generated by the focus groups can be coded, as can that from key informants, linking to records of individuals in the same domain as the qualitative data. Meso-analysis essentially deals with factors operating in the community or peer group by linking them to the experience of the individuals in that community[12].

Promising associations were analysed using standard epidemiological techniques to identify potentially modifying or confounding effects like socio-economic status, income, and other factors. Risk analysis used the Mantel-Haenszel procedure[13,14]. Contrasts are reported mostly as an odds ratio (OR). The interpretation of this is straightforward. For example, a household with no adult males was 87% *more likely* to report no income in the last month[1] or a vulnerable household (no adult males or no livestock) was 65% *more likely* to report having insufficient food in the last week[2].

Only associations that remain after taking account of other co-determinants studied in the survey (such as socio-economic status) are reported. Unless otherwise stated, this was tested using stratification and the Mantel Haenszel procedure. It is conceivable that unknown factors explain the associations reported here. However, after excluding the most probable co-variants as explanations for the associations in question, within the bounds of scientific probity, the findings do offer an indicative starting point – within the limits of the pilot -- for action.

Only associations where chance is an unlikely explanation ($p<0.05$, or 95% confidence interval of Odds Ratio not including 1.0) are reported. Confidence intervals are those of Cornfield unless otherwise stated.

1 73/464 (16%) compared with 281/3099 (9%). Odds Ratio 1.87 (95% CI 1.40-2.50)

2 617/1215 (51%) compared with 976/2401 (41%) said they did *not* have sufficient food. Odds Ratio 1.51 (95% CI 1.31-1.74); odds ratio unbiased by woreda 1.65 (95% CI 1.41-1.93).

Findings

The information base

3,628 households
19,334 people
3372 children under 5 yrs

29 community key informants
12 trader key informants
29 PA committee members
3 *woreda* committee members

8 reviews of distribution centres

20 focus groups of men
20 focus groups of women

The information base

A total of 3,628 households participated in three pilot woredas. These interviews produced data on 19,334 people, 3372 of them children less than five years of age (Table 1). The proportion under five years old in the sample households in the three woredas was similar to that in the population projections to July 2000 (medium variant) from the 1994 population census[15]: Amhara and Oromiya 18% each and SNNP region 17%.

Nearly two-thirds of respondents to the household interview were female, the proportion of female respondents being higher in Fedis than in the other two woredas (Table 2).

In addition to the household information, key informants in each site and woreda also provided valuable input. In separate focus groups, men and women discussed preliminary findings to add an experiential dimension.

Table 1
The survey sample in the three *woreda*s.

Population	DZ	Fedis	BS
Households	1213	1208	1207
People	5875	6876	6583
Mean hh size	4.84	5.69	5.45
Children under 5 years	908	1237	1139
% children under 5 years	15.5%	18.0%	17.3%

Table 2
Sex of the household respondent and relationship to the household head

Respondent	DZ	Fedis	BS
	% (no.)	% (no)	% (no.)
Female	49 (591)	79 (951)	55 (666)
Relationship to head			
Head	64 (781)	37 (444)	65 (788)
Wife of the head	26 (310)	60 (726)	31 (373)
Other relative	10 (121)	3 (38)	4 (46)

The households surveyed

The survey produced demographic information about the sample (Table 3). Female-headed households were less common and illiteracy was more common in Fedis than in the other two woredas. Overall, 6.5% of households reported having someone with a disability, although no details are available on the nature of the disability. The proportion of households reporting at least one member with some sort of disability (as perceived by the household) was higher in DZ than in the other two woredas.

The economic status of the households can be estimated from replies to questions about income, farming land and livestock holdings (Table 4). Overall, Fedis had the least favourable indicators.

Table 4 shows the differences between woredas in the pattern of household income, land farmed and livestock ownership. In addition to its higher levels of illiteracy, Fedis also reported the lowest levels of income and least livestock. This clustering of risk factors also held for individual households.

Table 3. Household demographics in the three *woreda*s

Demographic features	DZ % (no.)	Fedis % (no.)	BS % (no.)
Female household head	23 (277)	16 (199)	24 (284)
Illiterate household head	73 (885)	94 (1133)	53 (9638)
No males over 14 years	15 (181)	11 (136)	14 (169)
Children under 5 years	53 (647)	67 (810)	68 (816)
All members over 64 yrs	2 (27)	1 (10)	0 (2)
Disabled member	11 (137)	5 (61)	4 (45)

Table 4.
Household economic status indictors in the three *woreda*s

Indicator	DZ % (no.) hh	Fedis % (no.) hh	BS % (no.) hh
Total household income in the last month			
No income	7 (80)	12 (144)	11 (130)
1-20 Birr	26 (301)	16 (186)	17 (208)
21-40 Birr	15 (170)	31 (369)	23 (277)
41-75 Birr	17 (204)	30 (353)	23 (278)
76-1000 Birr	36 (418)	12 (146)	25 (299)
Mean (Birr)	91.08	44.47	65.30
Median (Birr)	50	37	40
Farming land*			
None /less than 0.5 timad	4 (47)	9 (109)	12 (144)
0.5-1.0 timad	13 (154)	24 (287)	65 (786)
1.25-3.0 timad	55 (659)	55 (660)	21 (254)
3.5 and more timad	29 (347)	12 (141)	2 (20)
Mean (timad)	2.72	1.96	1.07
Median (timad)	2.5	2.0	1.0
Livestock ownership			
Plough oxen	49 (593)	22 (266)	26 (314)
Other cattle	55 (662)	33 (400)	58 (705)
Horses/mules/donkeys	28 (333)	35 (422)	6 (71)
Sheep/goats	31 (380)	28 (334)	8 (94)
Poultry	62 (748)	10 (121)	26 (319)
Any livestock	84 (1018)	67 (807)	70 (839)

*The unit of land in Fedis was half the size of that in the other two *woreda*s. For the purposes of comparison of land holding across the three *woreda*s, a conversion factor has been applied (reported holding in Fedis divided by two) so that all land holding was expressed in Timad.

For example, a household with no adult males was significantly more likely to report no income in the last month[3], to have no livestock[4] and to have no land[5]. Food insecurity and vulnerability hinge on this clustering of risk factors.

Defining food access vulnerability

To support decision-making about food aid programme responses, food access vulnerability was defined primarily in terms of capacity to resolve household food insecurity. Households were categorised as vulnerable based on lack of adult males and on lack of livestock. *Vulnerable households* either had no adult males *or* they had no livestock. *Especially vulnerable households* had no adult males *and* no livestock. Based on this working definition, Figure 1 shows the proportion

3 73/464 (16%) compared with 281/3099 (9%). Odds Ratio 1.87 95%CI 1.40-2.50

4 227/486 (47%) compared with 734/3139 (23%). Odds Ratio 2.87 95%CI 2.34-3.52

5 115/484 (24%) compared with 185/3124 (6%). Odds Ratio 4.95 95%CI 3.79-6.47)

Fig 1. Percent of households classified as vulnerable and especially vulnerable

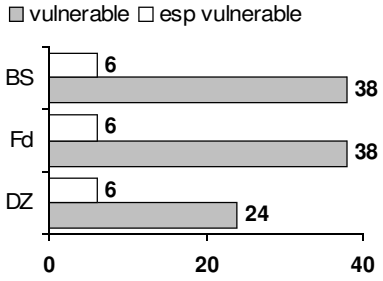
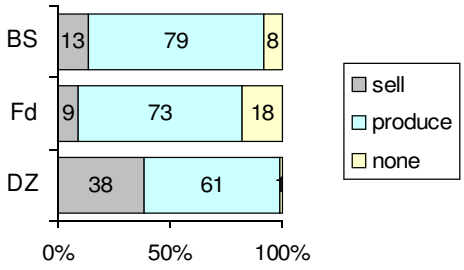


Fig 2. Vulnerability based on food production % of households



of vulnerable and especially vulnerable households in the three woredas.

For purposes of this report, households were categorised as well off by two main variables: their livestock holding and reported household income in the last month. *Well-off households* were those with plough oxen *and* a household income of more than 20 Birr in the last month. The proportion of well-off households was 37% in DZ, 17% in Fedis and 21% in BS.

An additional indicator of vulnerability was developed from the history of food crops. Those who produced food and had enough to sell were rated least vulnerable (20%); those who produced but did not have enough to sell were more vulnerable (71%) and those who had no production at all were the most vulnerable (9%). Figure 2 shows the proportion of these three categories in each woreda. This categorisation was strongly predictive of food security and malnutrition (see below).

There are other possible categorizations of vulnerability and wealth status, and several methods of defining wealth at community level in Ethiopia exist[16]. This pilot survey focused on operational categories to guide and to fine-tune the food aid programme. The vulnerability categories are empirical, based on the clustering of risk factors in this survey. In other regions and contexts, other operational categories may have greater relevance.

In a larger scale survey, associations between vulnerability and food aid performance could be examined with more detailed vulnerability categories, perhaps using region-specific factors.

Household food security

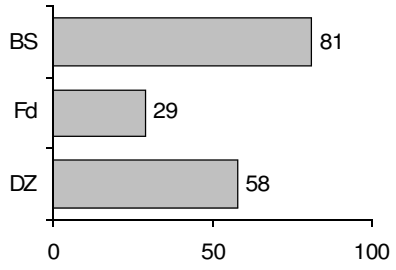
Household perception of 'enough food'

Early in the questionnaire, households were asked what they perceived to be their main problem at present. Most households (82%; 2969/3622) said shortage of food. This response was more common in female-headed households[6].

There was some variation in the main problem reported (Table 5). Compatible with the emerging picture of Fedis (more illiteracy, lowest incomes and least livestock), a higher proportion there said food was their main problem. Significantly fewer households in BS (Table 5) said this was their problem; shortage of plough oxen and land, featured more prominently.

6 653/759 in FHH compared with 2316/2863 in male headed households; odds ratio 1.45 95%CI 1.15-1.84

Fig 3. Percent of households reporting sufficient food in the last week



In response to a direct question, more than one half of the households (56%; 2026/3619) said they had enough food in the week prior to the survey. There was considerable variation between the pilot woredas: 29% in Fedis, 58% in DZ and 81% in BS (Figure 3). This does not necessarily mean that all those who said "no" to the question actually did not have sufficient food. But it is improbable that those who said they *had* sufficient in reality did not have.

Vulnerable households (no adult males *or* no livestock) were significantly less likely to report having enough food in the last week[7]. The association was stronger still for especially vulnerable households[8] (no adult males *and* no livestock). Well-off households (as defined above) were less likely to report not having enough food in the last week[9].

Table 5. Main problem reported by households in the three *woreda*s

Main problem	DZ % (no.)	Fedis % (no.)	BS % (no.)
Shortage of food	88 (1061)	93 (1121)	65 (787)
Shortage of plough oxen	0.6 (7)	1 (12)	15 (176)
Shortage of land	0.4 (5)	1 (13)	10 (116)
Lack of money & money problems	0.2 (3)	2 (29)	5 (54)
Health problems	2 (18)	0.5 (6)	2 (19)
Other problems	2 (25)	1 (13)	2 (20)
No problems	8 (92)	1 (12)	3 (33)

Table 6. Household stores of dietary staples (among those who had the item in store)

Households having store of:	DZ % (no.)	Fedis % (no.)	BS % (no.)
% with store of tef	37 (443)	0	0 (3)
Mean amount tef in store (kg)*	42.42	-	43.33
% with store of maize	54 (656)	1 (15)	8 (98)
Mean amount maize in store (kg)*	22.29	9.00	33.32
% with store of wheat	18 (219)	14 (164)	4 (50)
Mean amount wheat in store (kg)*	24.48	15.66	12.92
% with store of millet	26 (312)	31 (377)	0 (2)
Mean amount millet in store (kg)*	26.94	36.96	31.00
% with store of barley	11 (133)	0 (1)	0 (2)
Mean amount barley in store (kg)*	30.73	5.00	7.50
% with store of potato	0 (3)	0 (1)	17 (210)
Mean amount potato in store (kg)*	8.66	7.00	420
% with store of enset	0 (2)	0	2 (26)
Mean amount enset in store (kg)*	19.50	-	56.34
% with store of beans	24 (290)	0 (4)	3 (35)
Mean amount beans in store (kg)*	32.04	1.50	76.62

Household stores

7 617/1215 (51%) compared with 976/2401 (41%) said they did *not* have sufficient food. Odds Ratio 1.51 (95% CI 1.31-1.74); odds ratio unbiased by woreda 1.65 (95% CI 1.41-1.93).

8 138/225 (61%) compared with 1455/3391 (43%) said they did *not* have sufficient food. Odds Ratio 2.11 (95% CI 1.58-2.82); odds ratio unbiased by woreda 2.70 (95% CI 1.95-3.72)

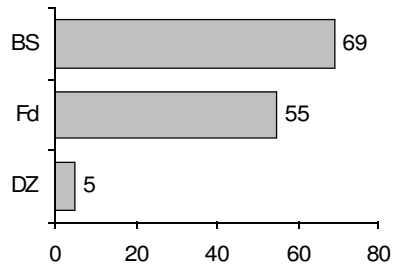
9 296/880 (34%) compared with 1283/2672 (48%) said they did *not* have sufficient food. Odds Ratio 0.55 (95% CI 0.47-0.65); odds ratio unbiased by woreda 0.54 (95% CI 0.46-0.65)

Household stores of dietary staples may reflect food security. A household with no food stores, in conditions of food scarcity, would typically be in a worse situation than one with food stores. The proportion and type of food stores was different between the woredas in this pilot, varying with dietary habits of the three regions (Table 6).

The pattern of stored items in the households also reflected in the availability of items in the local markets visited in each woreda (see Annex 4). In DZ, none of the six markets visited had any sweet potato, enset or haricot beans available. None of the markets in Fedis had tef, barley, sweet potato, enset or haricot beans. In the markets in BS, all the staples were available.

Food stores were greater in DZ than in the other two *woreda*s. The proportion of households reporting *no* stores of any staple, another useful indictor of food insecurity, varies from 5% in DZ to 69% in BS (Figure 4).

Figure 4. Percent of households reporting no stores of dietary staples



Vulnerable[10] and especially vulnerable households[11] as defined in this report were more likely to have no stores. Not surprisingly, households without stores of dietary staples were also more likely to report insufficient food in the last week[12]. This relationship was stronger when excluding the specific effect of woreda in a stratified analysis. The relationship between lack of stores and reported food insufficiency was independent of the relationship between vulnerability and reported food insufficiency. Each persisted when the other was taken into account by stratification[13]. The implication of this finding is that food stores reflect a different aspect of food security than does the presence of males in the household or livestock ownership.

Overall, one third of households (33%; 1170/3564) reported they had drinking coffee in the house on the day of the interview. However, this varied across woredas: 87% in DZ, 10% in BS and virtually none in Fedis. The presence or absence

10 710/1219 (58%) compared with 843/2403 (35%). Odds Ratio 2.58 (95% CI 2.23-2.99). Weighted OR stratified by woreda 2.43 (95% CI 2.05-2.88)

11 136/227 (60%) compared with 1417/1978 (42%). Odds Ratio 2.09 (95% CI 1.57-2.78). Weighted OR stratified by woreda 3.36 (95% CI 2.30-4.93)

12 816/1550 (53%) compared with 776/2067 (38%). Odds Ratio 1.85 (95% CI 1.61-2.12). Weighted OR stratified by woreda 4.63 (95% CI 3.74-5.73)

13 For lack of stores and food insufficiency, OR 1.85; weighted OR stratified by especial vulnerability 1.80 (95% CI 1.58-2.06). For especial vulnerability and food insufficiency, OR 2.11; weighted OR stratified by lack of stores 1.91 (1.45-2.53)

of coffee thus seems more likely to be due to coffee production and drinking habits than to adequacy of household resources to allow this 'luxury' item.

Selling household goods or animals

Only a small proportion of households reported selling household goods in the last month (3%; 91/3620), roughly the same across the three woredas. Compatible with the idea that some households sell goods when they run out of food, those who sold goods were significantly more likely to report insufficient food in the last week[14].

A small proportion of households also reported having to sell animals in the month before the survey. Households reporting no animal ownership may have had to sell the animals previously – this will affect the estimation of the average number sold among those who had animals at the time of the survey (Table 7).

Table 7. Household sale of animals in the three *woreda*s

Households selling:	DZ	Fedis	BS
	% (no.)	% (no.)	% (no.)
% who sold plough oxen	4 (52)	1 (7)	3 (36)
Mean number oxen sold*	1.21	1.00	1.02
% who sold other cattle	3 (39)	1 (8)	6 (75)
Mean number cattle sold*	1.15	1.00	1.05
% who sold camels	0	0	0
Horses/donkeys/mules	2 (22)	0 (2)	1 (7)
Mean number horses etc sold*	1.14	3.50	1.00
% who sold sheep/goats	15 (178)	4 (49)	2 (24)
Mean number sheep/goats sold*	1.85	1.78	1.08
% who sold poultry	6 (73)	0 (2)	3 (35)
Mean number poultry sold*	2.21	1.00	2.49

*Of those who sold animals

The cash value of different animals in the pilot woredas was ascertained in interviews with local market traders. The values were higher in DZ and lowest in BS. This type of analysis can be important to pursue in a larger sample, as impoverishment through food insecurity includes households in dire need having to sell goods and animals below their market value.

Buying food

Nine out of ten households (92%; 3302/3597) reported spending money on food in the last week (94% in DZ, 87% in Fedis and 95% in BS). The mean and median amount spent on food in the last week was lowest in Fedis, the most impoverished woreda according to the indicators in this survey (Table 8).

14 59/91 (65%) compared with 1530/3520 (44%). Odds Ratio 2.40 (1.51-3.81). Weighted OR stratified by woreda 2.67 (95% CI 1.60-4.47)

Prices of foods were recorded in the local markets of DZ and Fedis (prices were not recorded from BS markets). Cereals were less expensive in DZ, but other items (such as oil, eggs, milk) were more expensive. This may be relevant for in-depth comparisons of household expenditure on food.

Table 8. Household expenditure on food in the last month (of those who spent anything)

	DZ	Fedis	BS
Households	% (no.)	% (no.)	% (no.)
Households who spent on food	94 (1127)	87 (1037)	95 (1138)
Mean amount spent (Birr)*	61.05	41.07	45.75
Median amount spent (Birr)*	40.00	38.00	37.00

Table 9. Reported household expenditure on food in the last month, in relation to having enough food in the last week

Households	DZ	Fedis	BS
Households with enough food			
Mean amount spent (Birr)*	65.15	46.39	47.81
Median amount spent (Birr)*	50.00	43.00	40.00
HH without enough food			
Mean amount spent (Birr)*	54.96	40.08	36.57
Median amount spent (Birr)*	40.00	35.00	30.00

*Of those who spent anything

Table 10. Main food items purchased in the last month

Food item	DZ	Fedis	BS
	% (no.)	% (no.)	% (no.)
Cereals	100%	100%	92 (1045)
Tubers	0	0	47 (533)
Pulses	7 (84)	18 (182)	4 (50)
Salt	60 (681)	52 (538)	46 (524)
Coffee	45 (515)	1 (9)	5 (61)
Spices	40 (457)	15 (158)	4 (41)
Other*	2 (17)	5 (49)	33 (371)

*Includes: meat, sugar, butter/ghee, vegetable oil, milk/milk products, vegetables, fruit, mitatis, enset

Understandably, households that spent money on food in the last month were more likely to report enough food in the last week. This varied across pilot woredas, reflecting the different agricultural bases and typical diets. In all three woredas, however, among households that spent money on food, those who reported not having enough food in the last week spent less on food in the last month (Table 9).

The main food items purchased are summarized in Table 10 (up to 5 items recorded). Tubers were only purchased in BS and pulses were mainly purchased in Fedis. Coffee was only purchased to any extent in DZ, where more spices were purchased than elsewhere. Other products such as vegetables and milk products were mainly purchased in BS. The patterns of purchase were also reflected in the patterns of availability in the local markets; for example, no markets in DZ or Fedis had tubers available for sale.

These data will help fine-tune the monitoring instruments for rollout to a national monitoring scheme. From the three pilot

woredas, it is clear there are marked variations in food purchases and storage.

Household food consumption

Households reported their *main food* for the last month and their *usual main food* at the time of year (the survey was undertaken in May/June 2001) (Table 11). In DZ, there was a measurable drop off in consumption of *teff* (51% to 20%) and barley (29% to 4%) and a dramatic increase in consumption of less expensive maize (14% to 49%), sorgum (4%-14%) and other cereals (3% to 12%). In BS, there was a decrease in *enset* (20% to 8%) and an increase in less expensive maize (21%-28%) and tubers (50% to 56%). Normal consumption patterns were not much changed in Fedis. This does not mean people were coping well with their evident food shortage (Fedis was consistently the worst off of the three *woredas)*. It could also mean that their food systems decompensated a while ago, and we are seeing here a picture of chronic or entrenched food scarcity, not notably affected by food aid.

Household sources of food

More than one half of the sample households (59%; 2136/3623) reported purchase or barter as the *main source* of food in the last month. The main sources of food in each woreda are shown in Table 12.

Aid food was the main source of food in the last month for 44% of households who received food aid in the last month and 3% of households who did not receive food aid in the last month, a pattern seen in all pilot woredas. Considering food aid received at least once in the last six months, aid food was reported as the main source of food in the last month by 31% (388) of beneficiary and only 2 (0%) non-beneficiary households.

Table 11. Main food items for last month and usual main food items for the time of year

	DZ	Fedis	BS
Main food item	% (no.)	% (no.)	% (no.)
Sorghum last month	14 (175)	73 (860)	0 (2)
Sorghum usually	4 (49)	73 (884)	0
Teff last month	20 (247)	3 (39)	0 (3)
Teff usually	51 (616)	8 (91)	0
Tubers last month	0	0	56 (679)
Tubers usually	0	0	50 (595)
Maize last month	49 (588)	1 (17)	28 (336)
Maize usually	14 (164)	1 (16)	21 (247)
Barley last month	4 (52)	0	0
Barley usually	29 (350)	0	0
Other cereals last month	12 (140)	22 (262)	3 (37)
Other cereals usually	3 (32)	17 (206)	2 (21)
Enset last month	0	0	8 (96)
Enset usually	0	0	20 (237)
Pulses last month	1 (8)	1 (7)	2 (25)
Pulses usually	0 (1)	0 (6)	5 (64)

Other foods last month	0 (1)	0	2 (28)
Other foods usually	0	0 (3)	3 (32)

*Includes: meat, vegetables, fruit

Table 12. Main sources of food in the last month in the three *woredas*

	DZ	Fedis	BS
Food source	% (no.)	% (no.)	% (no.)
Purchase or barter	54 (650)	72 (868)	51 (618)
Own produce	26 (317)	11 (135)	40 (482)
Aid food	18 (223)	9 (110)	5 (57)
Loan or gift	2 (23)	8 (93)	4 (47)

Fig 5. Percent of beneficiary households reporting aid food as main source of food in the last month

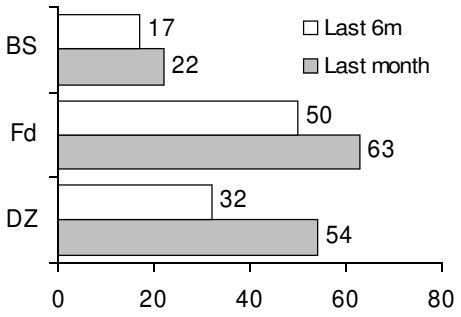
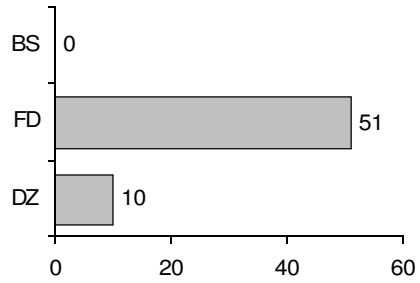


Fig 6. Percent of households eating wild foods unusually for the time of year



These data show the importance of food aid to the household food economy of recipients. Among beneficiary households, the proportion reporting aid food as their main source of food in the last month varies between the three *woreda*s (Figure 5). Reliance on food aid among the beneficiary households was heaviest in Fedis and lowest in BS. This is compatible with better food security in BS, with more alternative sources of food accessible to food aid beneficiary households (see section below on food aid programme performance).

Eating wild foods

Overall, one third of households (1203/ 3626) reported eating wild foods (mainly leaves). Some households (14%, 513/3626) said they normally eat wild foods at this time of year (May/June). More households (20%, 733/ 3625) reported eating wild foods now but did not normally do so at this time of year. The proportion of households who reported eating wild foods *unusually for the time of year* varies between the *woreda*s (Figure 6). The fact that no households in BS reported eating wild foods unusually for the time of year supports the notion of relatively good food security there, compared with the other two woredas. Eating wild foods unusually for the time of year indicates lack of access to other foods. Not surprisingly, in DZ and Fedis there was a strong association between reporting insufficient food and eating wild foods unusually for the time of year[15].

The apparent association between household vulnerability based on productive resources (no adult males *or* no livestock) and eating wild foods unusually for the time of year was not present stratified by woreda[16]. In Fedis, there were more vulnerable households and more households eating wild foods unusually for the time of year.

15 578/730 (79%) compared with 788/1683 (47%). Odds Ratio 4.32 (95% CI 3.50-5.33). Weighted OR stratified by *woreda* 2.88 (95% CI 2.32-3.59)

16 276/757 (37%) compared with 455/1660 (27%). Odds Ratio 1.52 (95% CI 1.26-1.84). Weighted OR stratified by *woreda* 1.14 (95% CI 0.93-1.41)

Community key informants were asked about unusual migration of families from the community in the last three months. In Fedis, households in those communities with migration were more likely to report eating wild foods unusually[17], but in DZ the opposite was true: in the community with migration of families, households were less likely to report eating wild foods unusually[18]. This emphasizes the different reasons for migration: in the five communities with out-migration in Fedis, the key informant reported the most important reason was food shortage, whereas in the one community with out-migration in DZ, the reason was land shortage.

Community support for needy households

Asked how households cope with food shortage, focus groups listed a series of mechanisms: reducing meal amounts and frequency, petty trading (salt, maize, local brew), getting food for service to the better households or by supplying grass and fire wood; casual work in town or food in kind, selling grass and fire wood and payment in kind; collecting wild fruit for sale or consumption; borrowing food or money using land as collateral; borrowing food or money with interest; eating enset root (locally known as *kocho*); dismantling the house and selling the wood; and seasonal migration and begging.

"We had it in the past, but there are no such support mechanisms now. This is due to impoverishment of the whole community"
Male focus group

In focus group discussions in the sample communities, participants were asked how the community supported households particularly affected by food shortage. The general view was that such support mechanisms have been eroded in recent years. Some participants blamed loss of community support mechanisms for migration of affected families in times of particular difficulty. In other places, respondents said that migration usually affected only younger people, who returned "without money".

"Even mothers and children have stopped helping each other."
Female focus group

Previous harvest

Community key informants reported a belg harvest in all the ten sample communities in DZ and all ten in Fedis. In BS, the last harvest was reported as the previous year's meher in three of the communities. Households were asked about the timing of their last harvest. As expected, this was different between the three woredas (Table 13). A *belg* harvest is anything before August, meaning the majority of respondents reported a *meher* harvest (Sept-Dec). Importantly, a proportion of respondents had no harvest in the last year: 2% in DZ, 9% in BS and 20% in Fedis

"I was not able to support my brother and his family, when he was in an extremely desperate situation. So he had to emigrate with his seven children."
Male focus group

17 379/605 (63%) compared with 237/602 (39%). Odds Ratio 2.58 (95% CI 2.03-3.29)

18 3/120 (3%) compared with 112/1092 (10%). Odds Ratio 0.22 (95% CI 0.06-0.75)

(considering only those who had land, these proportions were slightly lower).

A proxy measure of failure of harvest was based on the gradient between those who produced food and had enough to sell (20%), those who produced but did not sell (71%), and those who had land, but had no crop in the last year (9%) (Table 14). This proxy has a series of important relationships with other indicators of food security. For example, in households that produced enough food to sell, 73% (530/722) said food was their biggest problem; in those that produced food but did not have enough to sell 84% (2157/2580) and in those who had land but produced no food, no less than 88% (282/320) said food was the biggest problem. In the same order, 35%, 44% and 66% respectively said they did not have enough food in the last week.

Table 13. Timing of last harvest in the three woredas (survey in May/June 2001)

Last harvest	DZ	Fedis	BS
	% (no.)	% (no.)	% (no.)
Dec 2000 or later (meher)	95 (1114)	80 (880)	39 (449)
Sept/Oct 2000 (belg)	3 (37)	0	52 (605)
1 year or more ago	2 (17)	20 (215)	9 (99)

Table 14. Proportion of last harvest used for different purposes

	DZ	Fedis	BS
Use of the harvest	% (no.)	% (no.)	% (no.)
Households who consumed some	99 (1159)	99 (884)	99 (1102)
Mean % consumed by household*	81	84	89
Households who shared some	1 (13)	8 (69)	2 (26)
Mean % shared*	22	14	33
Households who exchanged/sold some	39 (456)	12 (103)	15 (164)
Mean % exchanged/sold*	20	17	34
Households who used some to repay loan	28 (324)	34 (305)	14 (155)
Mean % used to repay loan*	16	21	40
Households who used some for seeds	53 (615)	57 (504)	6 (66)
Mean % used for seeds*	13	10	7

*Among the households who used any for that purpose

Table 15. Reasons for expecting production in the coming season, among those who expect production in the three *woreda*s (2093)

	DZ	Fedis	BS
Reason	% (no.)	% (no.)	% (no.)
Good weather	50 (304)	58 (360)	68 (472)
Already planted & looks good	35 (269)	14 (87)	21 (149)
With God's help	7 (57)	27 (170)	4 (25)
Good preparation/fertile soil	7 (56)	1 (3)	6 (40)
Other	1 (4)	0 (1)	1 (6)

Table 16. Reasons for not expecting production in the coming season, among those who do not expect production in the three *woreda*s (1249)

	DZ	Fedis	BS
Reason	% (no.)	% (no.)	% (no.)
Army worm	14 (36)	64 (328)	1 (3)
Lack of agricultural supplies	18 (48)	6 (29)	51 (243)
No land	16 (43)	20 (103)	10 (45)
No rain/bad weather	40 (105)	2 (11)	13 (61)
Small land	1 (3)	0 (2)	23 (109)
No labour/not planted/planted late	11 (28)	7 (38)	3 (14)

"If we do not get these agricultural inputs free, how on earth can we repay the huge loan?"
Female focus group

Expectations about the coming season

More than one half the households (58%; 2102/ 3622) said they expected to produce food from land they farmed in the coming season: 64% of households in DZ, 52% in Fedis, and 57% in BS. The main reason for positive expectations was the favourable weather (Table 15). Bad weather in Dessie, Army Worm in Fedis and lack of supplies in BS were reasons for negative expectations (Table 16).

Community focus groups also discussed their expectations of the coming harvest. No focus groups were held in Fedis, due to security problems at the time. In both BS and DZ, focus group participants were rather negative about the coming harvest.

In BS, all groups said they did not expect a good harvest, mentioning problems with heavy rain causing damage to the crops, as well as lack of agricultural inputs and no loans available to buy inputs. They felt they could improve future harvests by crop rotation techniques, and that supply of seeds and fertilizers and loans to purchase oxen would help them.

"We are very confused. Last year there was a good supply of inputs at a reasonable price but no rain. When god gave us rain this year, the government cut the supply or raised the price."
Female focus group

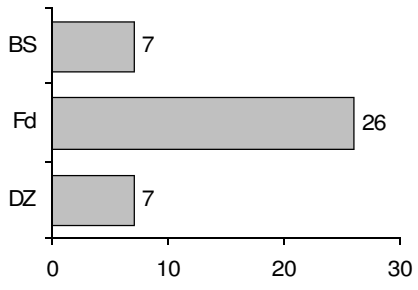
In DZ, most groups were also pessimistic about the coming harvest, mentioning rain damage or simply that "anything can happen". They suggested they could improve future harvests by proper land preparation, taking action to prevent soil erosion, and use of more natural fertilizers. They felt they would be helped by more loans to get oxen and provision of pesticides and veterinary drugs.

Health of children under five years of age

Breastfeeding and frequency of child feeding

Initiation of breastfeeding was virtually universal; only three children were reported never to have been breastfed. The proportion of children exclusively breastfed dropped to one in three (34%; 71/207) among children aged 7-9 months, and to 4% (4/99) among children 13-15 months old. Breastfeeding (with or without other foods) was nearly universal up to 21 months, falling to 43% in children aged 22-44 months, to 22% in those aged 28-30 months, and to 3% in those aged 40-42 months.

Fig 7. Percent of non-breastfed children up to 5 years eating less than 3 times a day



If frequency of feeding young children is not in itself an indicator of household food security, it could be a useful indictor of the likely effect on children of food insecurity. Some 14% (276/1960) of the children up to the age of five years who were not still receiving breast milk were reported to eat twice a day or

less over the last week. This proportion was much higher in Fedis than in the other two woredas (Figure 7).

A child who ate less than three times a day was also 70% more likely to be wasted than one who ate three or more times a day[19]. Children eating less than three times a day were more likely to come from households reporting not enough food in the last week[20], a finding concentrated in Fedis and BS. There was also an important relationship between number of meals and vulnerability based on crop production. In households that produced enough food to sell, 16% (110/688) had less than three meals, in those that produced food but did not have enough to sell 17% (352/2084) and in those who had land but produced no food, 36% (87/243) had less than three meals.

Diarrhoea

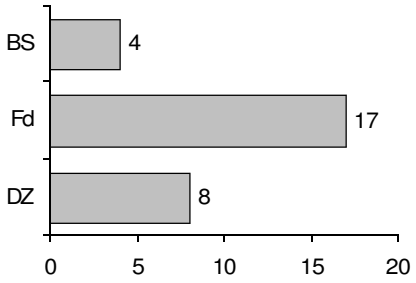
Overall, around one quarter (23%; 770/3296) of the children under the age of five years had diarrhoea in the last two weeks. The rate was higher among children in the first two years of life and varied between the three pilot woredas (Table 17).

Table 17. Diarrhoea in the last two weeks by age group in the three woredas

Age	DZ	Fedis	BS
	% (no.)	% (no.)	% (no.)
0-12 months	25 (45/179)	39 (120/306)	34 (72/209)
13-24 months	25 (50/200)	36 (102/282)	35 (68/193)
25-36 months	14 (31/215)	21 (69/334)	23 (70/306)
37-48 months	12 (29/239)	19 (39/210)	16 (43/269)
49-60 months	5 (6/114)	11 (7/62)	11 (19/178)
All children	17 (161/947)	28 (337/1194)	24 (272/1155)

Low weight for height (wasting)

Fig 8. Percent of children aged 6-59 months who were wasted



There were 3372 children under the age of five years in the sample. Anthropometrics (height, weight, exact age in months) was completed on 2977 children aged 6-59 months. As is often the case in field surveys, there were difficulties in the recording age in months. Consequently, this report refers only to acute malnutrition (also referred to as wasting or low weight for height).

In this survey, a child was classified as 'wasted' if the weight/height was below two standard deviations from the median of the reference population. Across all three woredas, one in ten children aged 6-59 months (10%; 293/ 2975) was wasted. The proportion varies between the woredas, being higher in Fedis than in the other two pilot woredas (Figure 8). The findings from this pilot for the proportion of children

19 72/525 (14%) compared with 194/2281 (8.5%). Odds ratio 1.71 95%CI 1.26-2.31

20 208/276 (75%) compared with 709/1681 (42%). Odds Ratio 4.19 (95% CI 3.10-5.68). Weighted OR stratified by *woreda* 2.74 (95% CI 2.00-3.77)

wasted in the three pilot woredas are compatible with figures from a recent Demographic and Health Survey in Ethiopia[17].

Children with diarrhoea in the last two weeks[21] and those from households that report not having enough food in the last week[22] were more likely to be wasted. The coincidence of declared food insufficiency in the last week and wasting is useful validation of the household reports about food sufficiency. The association between wasting and recent food sufficiency will probably be modified by variables such as the priority given to feeding children (whether children get fed first or last). These were not examined in this study.

After taking account of the association of wasting with recent food insufficiency, there was unconvincing evidence of a difference in malnutrition between vulnerable (no adult males or no livestock) and less vulnerable households[23]. The implication is that malnutrition may be more closely linked with the report of insufficient food than with vulnerability, at least as defined in this pilot assessment.

A child from a household reporting not enough food was more than twice as likely to be wasted compared with a child from a household reporting enough food.

There was also an important relationship between wasting and the quality of the harvest – illustrating yet again the importance of the harvest in food security. In households that produced enough food to sell, 7.3% (49/667) of children aged 6-59 months were found to be wasted; in households that produced food but did not have enough to sell 9.7% (200/2064) and in those who had land but produced no food, 18% (44/245) were clinically wasted (χ^2 22.9, 2df p=0.00001). A plausible mechanism for this malnutrition is not hard to find: a child from a household with no harvest was significantly more likely to have less than three meals a day (see above). The relationship between food aid and malnutrition is dealt with in some detail below (page 37).

No significant difference could be identified in malnutrition by sex of the child or sex of the head of household.

21 127/722 (18%) compared with 164/2243 (7%). Odds Ratio 2.71 (95% CI 2.09-3.51). Weighted OR stratified by *woreda* 2.57 (95% CI 1.99-3.31)

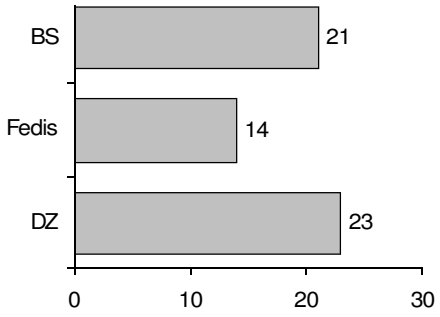
22 191/1366 (14%) compared with 102/1603 (6%). Odds Ratio 2.39 (95% CI 1.84-3.11). Weighted OR stratified by *woreda* 1.42 (95% CI 1.08-1.87)

23 98/862 (11%) compared with 195/2111 (9%). Odds Ratio 1.26 (95% CI 0.96-1.65). Weighted OR stratified by reported not enough food 1.19 (95% CI 0.92-1.54)

Coverage of food aid

Each household respondent was asked if they had received food aid in the last month and, for those who had done so, the number of times the household had received food aid in the last six months.

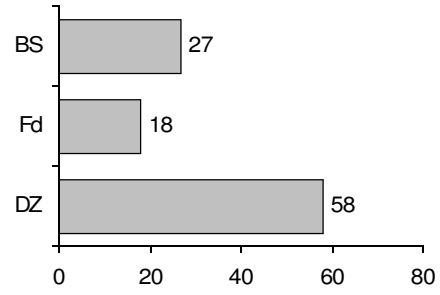
Fig. 9. Proportion of households that received food aid in the last month



Overall, some 19% of the sample reported receiving food aid in the last month (700/3628). The proportion was significantly lower in Fedis than in the other two woredas (Figure 9).

Around a third of households said they had received food aid at least once in the last six months (35%; 1252/3626). Again, there were differences between the pilot woredas, a much higher proportion of households in DZ being covered at least once during the last six months (Figure 10).

Fig. 10. Percent of households that received food aid in the last six months



The number of times households had received food aid in the last six months was also higher in DZ. In this woreda, some 38% (467) of the households had received food aid twice or more in the last six months, compared with only 14% (176) of households in Fedis and just two households in BS. Food aid was received, among households who received it at all in the last six months, on average 2.5 times in DZ, 2.1 times in Fedis and 1.0 times in BS.

Although this pilot did not set out to determine performance differences between pilot woredas, the apparent mismatch between coverage and need merits attention. Fedis, with the lowest coverage of food aid, has more illiteracy, lowest average income, least access to livestock, highest proportion saying food is their biggest problem, lowest proportion who report enough food in the last week and the highest unusual use of wild foods.

In all sample PAs in DZ, some households received food aid in the last month, although the proportion receiving food varied. In Fedis, four PAs received no food aid, and in BS only three PAs had any households receiving food aid in the last month. While the overall proportion of households receiving food aid was similar in DZ and BS (Figure 9), their distribution was very different. Coverage was spread across all sample PAs in DZ and concentrated in just three PAs in BS.

A similar picture emerged for receipt of food aid in the last six months. Some food aid was received in all the sample PAs in DZ, compared with only three PAs in BS, but nearly all households in these PAs in BS receiving food. Household reports about receipt of food aid tally with data from interviews with the chairman or a member of the PA committee in each of the sample PAs.

The different coverage pattern across PAs and woreda may reflect different policies at local level. In each woreda, the chairman or a member of the woreda DPP committee was interviewed. The woreda officials described a process for deciding the beneficiary list at woreda level that seemed to include more input from PAs in DZ and Fedis, than it did in BS, where the decisions were essentially made at woreda level. In DZ and Fedis, the beneficiary list was said to be the same for the duration of the programme, while in BS, there was reportedly rotation of beneficiaries.

The results of the apparently different implementation policies, in terms of effective targeting of food aid, are discussed below. Generalisation of the findings beyond these three pilot woredas is not warranted, since the woredas were not selected to represent regions or zones.

Food aid programme performance

COVERAGE: received food aid

MISS: insufficient food and did not receive food aid

UNDERSUPPLY: insufficient food despite receiving food aid

An ideal relief food aid programme would provide sufficient amounts of food, accurately targeted to households in need. It would ensure that no households had insufficient food, while not "oversupplying" food to those households who already have enough food from other sources. Needy households can suffer either from insufficient food aid supply, or as a result of poor targeting with 'leakage' to well-off households. In this pilot, analysis of food aid receipts, reported food sufficiency, vulnerability and socio-economic status were components in an evaluation of food aid programme performance.

Households who did not have enough food in the last week and did not receive food aid were termed **misses** and those who did not have enough food despite receiving food aid were termed **undersupply**. Those households reporting enough food in the last week and not receiving food aid were appropriately not receiving aid. Those who had enough food in the last week and received food aid were **effective coverage**. However, some of these actually represent **oversupply**. Households categorised as well-off (with plough oxen and with an income above 20 Birr in the last month) who received food aid in the last month and who did not report lack of food in the last week have been defined as oversupply for the purposes of this analysis. Annex 3 gives more details of the definitions of these programme performance indicators. Table 18 shows an important variation in the performance of the food aid programme in the three woredas.

Table 18
Performance of the food aid programme at household level

	DZ	Fedis	BS
Performance	% (no.)	% (no.)	% (no.)
Programme misses	31 (378)	64 (772)	15 (174)
Undersupply	11 (128)	7 (88)	4 (53)
Effective coverage	12 (146)	7 (81)	17 (202)
Oversupply*	2.5 (29/1169)	0.2 (2/1194)	2.4 (29/1189)
Enough food without aid	46 (559)	22 (263)	64 (775)
	100 (1211)	100 (1204)	100 (1204)

*Oversupply shown in Table 18 is a sub-set of the effective coverage category.
The denominator is slightly less than for the other variables, because of missing data
The shaded rows in Table 18 are households that did not receive food aid.

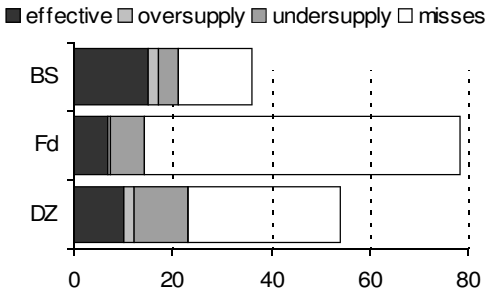
The food aid programme performs better in woredas where more households already have enough food to eat without receiving food aid.

In all three pilot woredas, programme misses were much more frequent than were cases of undersupply. There was a frequent complaint from beneficiary households about the amount of food aid received (see below). But fewer households that received food aid in the last month actually reported insufficient food in the last week[24], compared with households not receiving food aid in the last month, who commonly reported insufficient food in the last week. Programme miss rates ranged from 15% in BS to 64% in Fedis, reflecting the very different targeting and programme management in these woredas.

Many households reported sufficient food in the last week, despite not receiving food aid in the last month. These households were able to get enough food from other sources, including their own produce and purchase. The proportion of households managing well – having enough food without food aid – was quite different across the pilot woredas, ranging from two-thirds of households in BS to less than a quarter of households in Fedis. The better performance of the food aid programme in BS and DZ can be explained in part by the higher proportion of households managing without food aid in these woredas, compared with Fedis.

Relatively few households reported sufficient food in the last week and also received food aid (maximum 17% in BS). This does not leave much scope for oversupply – the sub-set that was well off and would presumably have had enough food even without the food aid. Oversupply, as defined in this analysis, was no more than 2.5%, and virtually absent in Fedis.

Fig 11.
Performance of the food aid programme



Effective coverage, oversupply, undersupply and misses of the programme in the three woredas are shown in Figure 11. The remainder (to make 100%) said they had sufficient food without food aid (DZ 46%, Fd 22% and BS 64%). This complements the Emergency Needs Assessment (ENA) estimate of the percent of population in need (PPND) as DZ 43%, Fd 48% and BS 20%.

24 269/698 among those who received compared with 1324/1593 who did not said they were short of food in the last week; odds ratio 0.76 95%CI 0.64-0.9

Table 19
Assessed requirements and dispatched amounts of food aid in March, April and May 2001 (survey took place mid May to mid June) – all in metric tonnes

	DZ		Fedis		BS	
Month	Required	Dispatched	Required	Dispatched	Required	Dispatched
March	1343	1146	1336	0	996	36
April	1343	42	1336	0	996	305
May	1764	1645	1336	0	996	715

Programme misses were more common and effective coverage was lowest in Fedis, where the need for aid was greatest.

This pattern suggests a problem of *overall lack of food aid relative to need,* particularly in Fedis, at the time of the survey. This does not mean, however, that simply increasing the amount of food aid would reduce the proportion of programme misses in Fedis, or in the other two woredas. If increased supply were channelled to well off households, this would simply increase the oversupply. Unless there is sufficient food aid to 'flood' the area, a targeting strategy is needed to improve effective coverage.

Food aid requirements and targeting

Problems with targeting at national, regional or zone levels have been reported[18]. This pilot survey does not allow examination of these levels, but it does allow illustrative evaluation of targeting at woreda level.

Routine data from monitoring of the food aid programme include the assessed requirements for food aid and the amounts dispatched to the three woredas in the months prior to the household survey (Table 19). The amount supplied was closest to the assessed amount required in DZ.

Woreda policies about food aid distribution between PAs affect the chances of households being missed by the programme

However, this was not the whole picture. Woreda DPPC members interviewed at the time of the survey were asked about the source of food aid in the woreda. In DZ, 85% of food aid was reported to be from DPPC; in BS 75% was from the DPPC and 25% from Oxfam-UK and MSF; while in Fedis 100% was from the Hararghe Catholic Secretariat. It proved impossible to get information about the amounts of food aid dispatched by the NGOs. These amounts were apparently not recorded in the routine monitoring system.

Those who were most vulnerable based on their food harvest were not more likely to receive food aid. However, among those who did produce food crops, households that did not produce enough to sell were more likely to benefit from cereal food aid.

Overall, but more markedly so in DZ and BS, those who produced food but insufficient to sell were more likely to receive cereal food aid than those who had enough to sell – a positive indicator of targeting – but they were also more likely to receive cereal food aid than the worst off, those who

produced no food crop[25]. However, at least in Fedis, there was evidence of appropriate targeting of supplementary food aid: 14% (43/315) of households with land that produced no food crop in the last year received supplementary food, compared with 6% (42/723) of those who sold and 7% (176/2564) who produced, but insufficient to sell.

However, the ***average amount of cereal aid*** was greater (amount per household and amount per person) to those households who produced enough food to sell, than in the other categories of vulnerability (10.8kg compared with 8.6 and 8.8kg respectively).

Performance of the food aid programme could also be examined by these food crop vulnerability categories. ***Programme misses*** (exclusion errors) were most common among those most in need, from the standpoint of food crops. Among those that produced enough food to sell, 29% (210/721) said they did not have enough food in the last week and received no food aid in the last month. Among those who produced food but insufficient to sell, the proportion missed (excluded) was 36% (936/2578) while among those with land who produced no crops, 56% (178/320) were missed.

Undersupply followed a similar pattern: 5.7%, 7.5% and 10.6% for the three groups in increasing order of vulnerability.

Programme performance (coverage of food aid and misses) in relation to ***targeting PAs*** could be examined in Fedis and BS. In Fedis, logically, households in PAs that received some food aid were less likely to be programme misses than those in PAs that did not receive food aid[26]. In BS, however, the chance of a household being missed by the food aid programme was the same for households in PAs receiving food aid and those PAs not receiving food aid[27]. This was in the context of a lower rate of programme misses in BS than Fedis (see Figure 11).

The illustrative evidence from this pilot study suggests that the ***method of distributing*** food aid between PAs in BS -- which sought to provide aid for nearly all households in relatively few selected PAs -- may better reach households needing food aid, than the method used in Fedis, which relies on internal targeting in a larger number of PAs in the woreda. If this finding were to be replicated across a large number of representative woredas in

25 14% (103/723) among those who sold, 21% (536/2584) of those who produced but did not sell and 19% (61/321) of those who had land but produced no food – received food aid.

26 426/722 (59%) compared with 346/482 (72%). Odds Ratio 0.57 (95% CI 0.44-0.73).

27 54/362 (15%) compared with 120/842 (14%). Odds Ratio 1.05 (95% CI 0.73-1.52)

different regions, it could have implications for policies of beneficiary selection at woreda level.

Vulnerable households were more likely to be missed by the food aid programme.

If the food aid programme effectively targeted vulnerable households, this should reduce programme misses. In this pilot survey, however, vulnerable and especially vulnerable households were *more* likely to be missed than were other households[28] [29]. This increased risk of being missed as a vulnerable household suggests ineffective programme targeting. More detail of food aid coverage and programme misses in relation to different aspects of household food access vulnerability is given in Annex 4.

This finding is compatible with greater access to food aid by the better off households. It could be related to greater ability to participate in EGS and FFW schemes by better off households (see below). "Food aid capture" by better off households and the more influential segments of society is well recognised. This could be tackled, from a programme management viewpoint, by increasing targeting, strengthening programme management and introducing community based monitoring.

There are problems of targeting food aid to households within PAs as well as problems of targeting between PAs.

The increased risk of vulnerable households being missed is independent of whether their PA received food aid and of woreda[30]. Within each woreda, the increased risk of these households being programme misses cannot be explained by sub optimal targeting of PAs to receive food aid; within PAs receiving food aid there was still an increased risk of vulnerable and especially vulnerable households being programme misses. Thus there was a problem with effectively targeting vulnerable households at the level of selecting beneficiaries within the PA.

More resources or better targeting?

If food aid were retargeted from those who produced enough food last year to sell some, to those who produced none, the miss rate among those who produced none would drop from 81% to 49%

And if food aid was retargeted from households of better-nourished children to households of wasted children, the miss rate among wasted children would drop from 81% to 0%

One interesting indicator was the case of disability (not an official targeting criterion). A household with a disabled member was 62% more likely again to receive cereal food aid than one with no disabled member[31]. Nonetheless, over 70% of households with disabled (177/243) did not receive cereal food aid. The same is true of supplementary food: nearly 90% of households with a disabled member (214/243) did not receive supplementary food.

28 505/1215 (42%) misses among vulnerable households compared with 819/2401 (34%) among the rest. Odds Ratio 1.37 (95% CI 1.19-1.59). Weighted OR stratified by woreda 1.41 (95% CI 1.20-1.65)

29 112/225 (50%) among especially vulnerable households compared with 1212/3391 (36%). Odds Ratio 1.78 (95% CI 1.34-2.36). Weighted OR stratified by woreda 2.13 (95% CI 1.56-2.90)

30 For vulnerable households, weighted OR 1.38 (95% CI 1.18-1.63)). For especially vulnerable households, weighted OR 2.15 (95% CI 1.58-2.94

31 66/243 compared with 631/3374. Odds ratio 1.62 95%CI 1.19-2.21.

Although children in female-headed households (FHH) were *not* more likely to be malnourished[32], FHH *were* more likely to be missed by the food aid programme: In DZ 36% of FHH were missed compared with 31% overall; in Fedis, 70% of FHH were missed compare with 64% overall; and in BS, 18% of FHH were missed compared with 15% overall. This picture is compatible with more marginalized households being more easily left out of cereal food aid.

Food aid and malnutrition

Programme managers expressed a concern about the extent to which food aid is reaching the malnourished children in the three pilot *woredas.*

Some 83% (242/293) of children who showed clinical wasting were not in the households that received cereal food aid. On the other hand, 91% (536/587) of those who received food aid were not malnourished by this standard. There was no significant variation in this finding between the pilot woredas.

The situation is roughly the same with supplementary food, though in this case there was better chance that a malnourished child would receive food aid, in comparison with a well-nourished one[33]. To verify this question, a supplementary question was asked at the end of the interview: Has *this* child received supplementary food aid in the last month? Overall, a wasted child was twice as likely to have received supplementary food aid[34].

Notwithstanding the better chances of receiving supplementary food aid, 86% of children with clinical wasting (247/286) did not receive supplementary food while 83% (194/233) of those who did were well nourished.

In the last six months, the household of a malnourished child was 30% more likely to receive no cereal food aid, in comparison with the household of a better-nourished child[35]. This probably reflects the fact that malnutrition is not an eligibility criterion for cereal food aid and households with malnourished children are in general more marginalized or less empowered than others.

32 Un DZ, 5% of children in FHH were wasted compared with 9% overall; in Fedis, 18% in FHH compared with 21% overall and in BS 4% compared with 5% overall

33 39/233 malnourished children compared with 247/2705 better nourished children. Odds ratio 2.0 95%CI 1.36-2.94

34 25/275 wasted children compared with 106/2588 better nourished children, odds ratio 2.34 95%CI 1.44-3.78

35 208/293 households of wasted children compared with 1757/2581 better-nourished children. Odds ratio 1.3 95%CI 1.01-1.69

Another possible explanation is that households with better-nourished children *appear* to receive more food aid because the aid is effective: children are no longer malnourished, though they might have been so before receiving the food aid. The pilot study is not able to disprove this unlikely explanation. However, even if it is the case, there remains much to be done to reach the 83% of malnourished children who did not receive food aid. A wasted child was more than twice as likely to live in a household that claimed not to have had sufficient food in the last week[36].

The experience and views of food aid beneficiaries

How much food aid

"There is no benefit for me for the quality food my neighbour eats"
Male focus group

Among the 700 households who received food aid in the last month, 693 reported the amount received. The mean amount was 43.16 kg per household (median 37 kg). Dividing by the number of people in the households, the mean amount per person was 9.03 kg (median 7.1kg). For the 368 households with five members or fewer, the mean ration per person was 11kg (median 10kg); while for the 325 households with more than five members, the mean ration was 6.80 kg per person (median 6.30 kg).

"If a household with ten members is handed only five rations, that is equivalent to starving the remaining five members."
Male focus group

The amounts of food aid received in the last month per household and per person varied substantially between the pilot woredas (Table 20). In all three pilot woredas, the ration per person was less for households with more than five members than for households with five members or less. The amount received per household and per person was notably lower in BS than in the other two woredas.

Table 20. Reported amount of food aid received in the last month, among the beneficiary households in the three *woreda*s

	DZ	Fedis	BS
Food aid (kg)			
Mean per household	51.90	53.65	27.11
Median per household	50.00	50.00	25.00
Mean per person	12.13	9.63	5.35
Median per person	12.50	8.30	5.00
Mean/person hh with <6 members	13.65	12.29	6.73
Median/person hh with <6	12.50	12.40	6.30
Mean/person hh with >5 members	9.27	8.05	3.95
Median/person in hh with >5	8.30	7.65	3.60

36 191/293 wasted children compared with 1176/2677 better nourished ones, odds ratio 2.39 95%CI 1.84-3.11

Many beneficiary households reported receiving less than 12.5kg per head: 49% in DZ, 74% in Fedis and 95% in BS.

"We are not happy because what we got was just 50kg for two households."
Male focus group

Members of PA committees who were interviewed all correctly recognised the ration of food aid per person was 12.5kg: the official ration. The members in DZ and BS all said the household ration was limited to a maximum number of people, while the committee members in Fedis claimed there was no such limit on the household ration. In DZ PA committee members said the household ration was limited to that for five people, whereas in BS members said it was limited to that for four people.

In community focus group discussions, participants gave their views about having a maximum amount of food aid per household (usually the ration for five people). Most groups concluded that there should be no maximum amount and the distribution should be based on the number of members in the household. Some were in favour of keeping the 'ceiling' of five rations per household but including all households, or increasing the ration size.

Households who received food aid in the last six months were asked about collecting the food aid. Overall, the person collecting the food aid was male in 70% (863/1235) of cases. This proportion varies between the three woredas (Table 21), with the highest proportion of males in DZ, perhaps related to the difficult terrain in DZ and the longer distance of the distribution centres from the communities reported by community key informants in DZ.

Table 21. Person collecting the food aid in the three *woreda*s

	DZ	Fedis	BS
Person collecting food aid	% (no.)	% (no.)	% (no.)
Male	80 (547)	59 (129)	57 (187)
Relation to household head			
Head	65 (446)	61 (133)	58 (191)
Wife	5 (35)	25 (54)	25 (80)
Other relative	30 (207)	14 (31)	17 (56)

Table 22. Costs associated with collecting food aid

	DZ	Fedis	BS
Cost element	% (no.)	% (no.)	% (no.)
Paid for travel	68 (478)	8 (17)	20 (65)
Mean for travel (Birr)*	6.58	3.05	3.21
Paid for bags	97 (685)	15 (33)	17 (56)
Mean for bags (Birr)*	1.07	3.89	2.01
Paid for the food	1 (8)	17 (38)	2 (6)
Mean for food (Birr)*	6.12	3.10	1.83
Paid other costs	14 (95)	7 (16)	33 (107)
Mean for other costs (Birr)*	5.61	1.50	1.30

*Among those who paid anything for that cost element

"Because of the distance I have to travel to collect my ration, I spend more than the value of the food I receive." Male focus group

Most households reported costs associated with collecting food aid: travel, bags to carry the food, direct sale costs of food (officially given free) and other costs (Table 22). The average time on foot from community to distribution centre was 4.6 hours in DZ, 1.9 hours in Fedis and 1.5 hours in BS. In DZ, seven of the of the ten distribution centres were more than two hours on foot from the community, compared with two of the eight in Fedis and two of the ten in BS. In all three pilot woredas, the person collecting the food aid was less likely to be male if the distribution centre was within two hours journey from the community[37].

Households in communities within two hours on foot of the distribution centre were less likely to report transport costs to reach the centre[38]. In DZ nearly all the beneficiaries reported paying for bags, with only small proportions paying for bags Fedis and BS. The much higher rate of paying for bags in DZ than in the other two woredas is independent of distance from the centre[39].

"Government was giving us the big and expensive thing: the food. But it was taking away the very small thing: the bags." Male focus group

In community focus group discussions, participants complained about the costs associated with collecting food aid, including the costs of travel to centres some distance from the community, the costs incurred because of delays in distribution and therefore having to pay for accommodation near the distribution centre, and the requirement to pay for bags.

Potentially important is the suggestion that the families of wasted children were more likely to have to pay for the cereal food aid than other households with children of the same age. Among those who paid for anything (food, bags, transport, other), a household with a malnourished child was nearly five times as likely to pay for food aid[40]. They were no more likely to pay for travel, bags or other costs, possibly pointing to the increased value they placed on the food, or the conspicuous disadvantage in which they found themselves before those who distribute the food. Since relatively few households were involved in this, however, it may be worth re-examining in a larger study before drawing any firm conclusions.

37 418/688 (61%) compared with 447/549 (81%). Odds Ratio 0.35 (95% CI 0.27-0.47). Weighted OR stratified by *woreda* 0.43 (95% CI 0.32-0.59)

38 221/691 (32%) compared with 340/562 (61%). Odds Ratio 0.31 (95% CI 0.24-0.39). Weighted OR stratified by *woreda* 0.51 (95% CI 0.38-0.70)

39 686/705 (97%) compared with 89/548 (16%). Odds Ratio 186.21 (95% CI 108.63-322.66). Weighted OR stratified by time to reach the distribution centre 181.94 (95% CI 103.64-319.41)

40 13/85 households of wasted children compared with 35/926 others. Odds ratio 4.6 95%CI 2.2-9.6

Table 23. Use of food aid received in the last month

Use of the food aid	DZ % (no.)	Fedis % (no.)	BS % (no.)
Households who consumed some	100 (274)	100 (169)	98 (250)
Mean % consumed by household*	87	79	87
Households who shared some	0.4 (1)	39 (65)	4 (11)
Mean % shared*	10	21	21
Households who exchanged some	3 (8)	17 (28)	2 (6)
Mean % exchanged*	18	10	21
Households who sold some	33 (90)	14 (24)	2 (5)
Mean % sold*	14	17	26

*Among the households who used any for that purpose

Use of the food aid

"We just say that the food shall be distributed to the very poor ones, but we will know how to share it."
Male focus group

Virtually all beneficiary households used the food aid they received for household consumption (Table 23). Sharing and exchange of part of the food aid received was more common among beneficiaries in Fedis while sale of food aid was more common in DZ. The proportions of the food aid used for purposes other than household consumption, even only considering only those households who used any for the other purposes, were relatively small. In BS about half the groups mentioned sharing the food aid, which was not mentioned by groups in DZ.

Men decided how to use the food aid in over one half the beneficiary households (58%; 715/1236). The decision-maker about use of the food aid does not vary much between the three woredas (Table 24).

Employment generation (EGS) and food for work (FFW)

Overall, about two thirds (69%; 867/1251) of households who received food aid at least once in the last six months reported at least one member involved in EGS/FFW in the last six months. Common types of work mentioned in the schemes were soil conservation, water conservation and road construction and maintenance. The proportion of beneficiary households with a member in EGS/FFW in this period was notably lower in BS, as were the total number of days of EGS/FFW among those households who did any. (Table 25).

Table 24. Person deciding about use of the food aid in the three *woreda*s

Person deciding about use	DZ % (no.)	Fedis % (no.)	BS % (no.)
Male	50 (343)	68 (149)	68 (223)
Relation to household head			
Head	71 (488)	84 (183)	85 (279)
Wife	25 (173)	15 (32)	9 (30)
Other relative	4 (30)	1 (3)	6 (19)

Table 25. Participation in EGS/FFW in the three woredas among households receiving food aid at least once in the last six months

	DZ	Fedis	BS
Participation in EGS/FFW in last six months	% (no.)	% (no.)	% (no.)
Households with at a member in EGS/FFW	78 (547)	79 (170)	46 (150)
Mean days of EGS/FFW*	60.01	31.20	12.09
Median days of EGS/FFW*	60	27	10

*Among the households with any members undertaking EGS/FFW

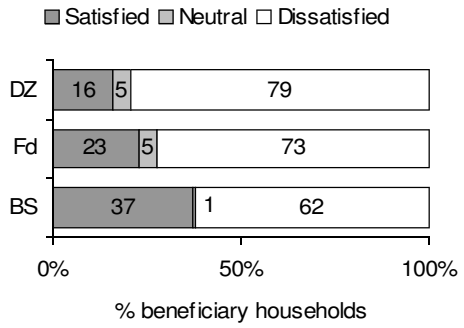
Vulnerable[41] and especially vulnerable households[42] were less likely to have members undertaking EGS/FFW; while well-off households were more likely to have members undertaking EGS/FFW[43]. Inability to participate in EGS/FFW schemes could be one reason for poor targeting of food aid to vulnerable households, if a high proportion of the food aid was distributed as part of EGS/FFW schemes.

Members of PA committees estimated the overall proportion of households in each PA that participated in EGS or FFW schemes: on average 58% in DZ, 24% in Fedis, and 36% in BS. In three communities in Fedis, no households participated in EGS and FFW; in these three communities the member of the committee interviewed did not report any food aid coming there at all.

Satisfaction of beneficiary households with the food aid

About three-quarters of the beneficiary households (74%; 924/1253) said they were not satisfied with the *amount* of food aid they received on the last occasion.

Fig 12. Satisfaction of beneficiary households with amount of food aid received



The proportion of households satisfied was somewhat higher in BS (Figure 12). This was despite the lower amount of food aid received (in the last month) in BS, both per household and per person (see Table 20).

Households were more likely to be dissatisfied with the amount food aid received (in the last month) if they had insufficient to eat in the last week[44], if they received less than 12.5kg food aid per person[45], and if they reported eating wild foods unusually for the time of year in the last month[46].

41 244/464 (53%) compared with 622/786 (79%). Odds Ratio 0.29 (95% CI 0.23-0.38). Weighted OR stratified by woreda 0.36 (95% CI 0.28-0.47)

42 36/88 (41%) compared with 830/1162 (71%). Odds Ratio 0.28 (95% CI 0.17-0.44). Weighted OR stratified by woreda 0.24 (95% CI 0.15-0.39)

43 233/293 (80%) compared with 618/934 (66%). Odds Ratio 1.99 (95% CI 1.43-2.76). Weighted OR stratified by woreda 1.81 (95% CI 1.30-2.51)

44 224/269 (83%) compared with 305/428 (71%). Odds Ratio 2.01 (95% CI 1.34-3.01). Weighted OR stratified by *woreda* 1.57 (95% CI 1.07-2.30)

45 384/500 (77%) compared with 144/192 (75%). Odds Ratio 1.10 (95% CI (0.73-1.66). Weighted OR stratified by *woreda* 2.03 (95% CI 1.28-3.20)

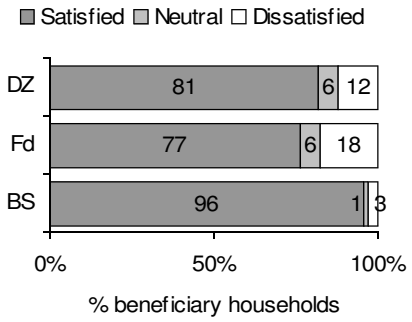
46 146/170 (86%) compared with 385/528 (73%). Odds Ratio 2.26 (95% CI 1.37-3.75). Weighted OR stratified by *woreda* 2.22 (95% CI 1.16-4.22)

Households were more likely to be dissatisfied with the amount of food aid received if they received less than 12.5kg per person, once the masking effects of the other variables were disentangled [47].

Many participants in community focus group discussions emphasized their dissatisfaction with the amount of food aid received, both in relation to household size and in general.

Most beneficiary households (85%; 1056/1250) said they were satisfied with the type of food aid they received on the last occasion. Satisfaction was again highest in BS, but more than three-quarters of households in all *woreda*s were satisfied with the type of food aid received (Figure 13).

Fig 13. Satisfaction of beneficiary households with type of food aid received



"Our major concern is the quantity not the type of grain. The quantity is very inadequate"
Female focus group

"Many individuals who feel dissatisfied with the selection do not have the courage to openly expose the unfair selection."
Female focus group

Household views about selection of beneficiaries

Knowledge about beneficiary selection

Asked how their household was selected to receive food aid or not, the commonest response (54%) among beneficiaries was poverty or lack of resources. Others mentioned selection by a committee (11%), lack of land or harvest (9%) and other specific vulnerabilities (9%), such as a disabled member. Unfortunately, this question was not always posed to non-beneficiary households. Among those who were asked, over a third (37%) said they did not know why they were not selected, and another third (33%) said it was because they were not considered needy.

Discussions in focus groups also revealed mixed levels of understanding. In BS, people said it was based on the degree of poverty. In some groups, participants said that all households were selected, but not all members of the household get a ration. The groups in DZ seemed to have a better understanding of the process of selection: many participants said the PA and community leader select the beneficiaries, or that the selection committee was responsible.

47 Not enough food: weighted OR 1.45 (95% CI 0.97-2.16). Eating wild foods: weighted OR 1.79 (95% CI 0.87-3.70). Less than 12.5kg per head: weighted OR 1.72 (95% CI 1.06-2.78)

Satisfaction with selection of beneficiaries

"The very weak and the poor have managed to survive thanks to the government's food assistance."
Female focus group

Among beneficiary households, not surprisingly, the majority (79%; 981/1239) of respondents reported being satisfied with the selection of beneficiaries for food aid. The proportion satisfied with selection varies a little between woredas: 75% in DZ, 69% in Fedis and 95% in BS. Among non-beneficiary households who answered this question (n=1102), 17% said they were satisfied with the selection of beneficiaries, 15% were neutral and 68% were frankly dissatisfied.

Community focus groups included both beneficiary and non-beneficiary households. In BS, most groups expressed general satisfaction with the selection of food aid beneficiaries, in some cases because they said they all shared the food anyway. In DZ, again most of the groups said they were satisfied with the selection of beneficiaries. One female group complained about nepotism in the process, and others felt that it was unsatisfactory that only the most needy were targeted.

"Nature has made all households equal, so all households must be included in the relief programme."
Female focus group

Most household respondents were not able to suggest improvements in the present selection of beneficiaries (61%; 68% of beneficiary households and 51% of non-beneficiary households), and a further 4% did not know what might improve the selection. The commonest suggestion (7%) among beneficiary households was to take into account the last harvest. The commonest suggestion among non-beneficiary households (14%) was for clearer criteria of selection.

"We very much think that the process of beneficiary selection that is currently being used is the best way."
Male focus group

There was a difference of opinion about selection in the focus groups: many concluded that the present method of selecting beneficiaries was satisfactory, while others felt that the situation was better in previous times, or called for more community participation in the process to ensure fair selection of beneficiaries.

"We have to be strong and courageous enough to reveal any unfair selection because keeping quiet does not help us."
Female focus group

There were also differing opinions about how to manage when the amount of food aid available was not enough to meet all needs, revealing differing views about targeting. Some people felt that the scarce resources should go specifically to the very needy, while others felt they should be spread across the community.

Discussion

At its outset, this pilot set out to achieve four specific objectives.

1. Design and implement a household survey of access to and experience of the food aid programme, in representative sites in three pilot woredas.
2. Establish links with other monitoring modalities of the food aid programme.
3. Link the data from households and communities with internal data from the food aid programme, and investigate associations between household and community impact, and service-based information.
4. Discuss the findings with community focus groups, administration and service providers locally and nationally.

1. Design and limits of interpretation

As anticipated, the pilot designed and implemented a household survey of access to and experience of the food aid programme. Since it covers only three woredas that do not represent the national picture, the woreda findings are reported separately, as far as possible avoiding combined figures that might be quoted inappropriately as 'national' figures.

This is a drawback of a pilot. At the outset, it is not intended to represent the bigger picture. As time passes and the pressure for hard evidence increases, it is easy to forget the pilot conditions and objectives. Evidence was drawn from a sample of households in three woredas not selected to represent zones or regions. Nothing can therefore be said about the overall food aid programme, except perhaps that findings like this do exist. If similar evidence emerges from a representative sample, it could be useful to track the performance of the programme and indicate areas for improvement of targeting at woreda and PA levels.

It may be worth reiterating that measures like FOOD SHORTAGE IN THE LAST WEEK and RECEIVED FOOD IN THE LAST MONTH have a short shelf-life. It is quite possible that, six months earlier, these three woredas could demonstrate a high performance food aid programme. It is possible also that, one month later, things improved dramatically. Within the limitations of the assessment, we cannot comment on this. We can only say what it was like at the time of the assessment.

By design, the one-off pilot reflects one time period: a 'snap-shot' of the situation. As with all evaluations of this nature, there

could be unusual factors operating at that particular time, making the evaluation findings atypical of the usual situation. Repeated surveys would be needed to confirm this (see below).

One aim of the pilot was to adapt the CIET method, already used to evaluate food aid in other countries, to the Ethiopian context. Some indicators (like coffee in the household to indicate disposable cash) were not useful, and would be subject to fine- tuning of the instruments for a larger scale roll out.

Defining vulnerability: This pilot centred vulnerability analysis on household resources to resolve food insecurity (male adult labour and plough oxen). Additional or modified questions could help to construct a more comprehensive indicator of household vulnerability. In particular, it will be important to know household criteria for food aid in all woredas and ask about them. Equally important will be the management of expectations where partners would like to see results from household data on issues that were not asked of households.

When asking about main food for last month and usual main food (Table 11), one might ask about wheat as a crosscheck for other information on food aid.

In a large-scale survey it would be important to *translate the instruments* into each local language for the different regions, and to improve the method of *estimating the exact age of children* (for estimation of low height for age, or stunting).

Migration and dietary habits, particularly those that are relevant in pastoral areas, clearly play a big role in food insecurity, and would need attention in a full scale survey.

A full-scale survey should include more about the use of and access to *farming inputs*, market conditions and prices, and possible negative effects of food aid.

2. Links with other monitoring systems and data sources

Part of the strength of this community-based monitoring system is the ability to link service based data (for example, Table 19 shows the assessed requirements and dispatched amounts of food aid, which can be compared with individual household receipts). These data can then be compared with levels of satisfaction and programme performance.

To the limited extent possible, comparisons with other data sources have been included. Given the purposive sampling of the pilot woredas, however, most comparisons are not very

relevant, as woreda-specific data are not available from many sources. Household population figures have been compared with projections from the 1994 census; anthropometric findings have been compared with the Demographic and Health Survey findings.

A draft report of the 2000 WFP food utilisation study is available, based on 70 food aid distribution centres. As well as distribution centre officials, some 1462 beneficiaries at the distribution centres were interviewed; there was no community-based household survey. Ration size was calculated on the basis of total amount dispatched divided by total beneficiaries reported. Beneficiaries were also asked about the amount of food aid received and the number in the household. In both cases the actual ration size calculated was less than the official 12.5Kg per person. This finding about actual ration size is similar to the finding about this in the CIET study. The WFP study also asked the interviewed beneficiaries if they were satisfied with the way the beneficiaries were selected; perhaps not surprisingly, most said yes.

The main link with the WFP food utilisation study was the method for institutional review in the three-woreda pilot assessment. Many of the same questions were used. In a roll out of this pilot, this could be refined and developed further.

Several SCUK studies were also reviewed[48]. These studies were undertaken in areas covered by the SC(UK) programme. They included sites in Legambo, Gidan and Meket woredas, in Amhara region and Girawa woreda in Oromiya region. The methodology includes discussion with key informants to define wealth groups locally, then interviews with key informants and focus group discussions with members of different wealth groups. These SC(UK) studies did not cover the same woredas as the present pilot study and the methodology did not include individual household interviews.

It was not possible to compare with findings from the SERA project in the same woreda, since these were not available when this report was being prepared.

A single survey offers a limited opportunity for supporting decision taking or comparisons with other sources. What matters is reiteration, with visible tangible gains from each repetition. CIET methods call for data collection cycles to be repeated at regular intervals. In the course of repetition of the steps for each cycle, local researchers become increasingly capable of conducting these surveys themselves. With each new cycle,

48 Ellen C Mathys and Emebet Kebede "Monitoring the impact of food aid: the SC(UK) programme in north and south Wollo Ethiopia in 2000"

information on the previous cycle is disseminated to communities, success of the solutions derived from previous cycles is measured and topics for investigation can gradually be tuned to the needs and perspectives of the communities. In this way, evidence based cycles of food aid will hopefully provide a basis for sustained, critical dialogue on issues that have a profound effect on people's daily lives, while building local technical capacities to do the job with decreasing external assistance.

3. The evidence on programme performance and targeting

Subjective responses from households – such as reported food sufficiency – were combined with and validated against other 'harder' data, such as anthropometry. Where relevant, household responses were compared with responses from community and woreda key informants, such as development agents. For example, key informant reports about receipt of food aid in the community tally well with reports from households in the community. The pilot survey also tests the value of combining input of individual households with those of focus groups – the contrast between responses can sometimes be as informative as a validation of responses.

The picture of programme performance and targeting is enriched by including information from food aid requirement assessments and dispatch information, together with the reported source of food aid (DPPC and other sources) in each pilot woreda.

The pilot tested the feasibility of collecting individual households accounts of food access vulnerability, other aspects of food security and experience of the food aid programme. It was possible to analyse these indicators to form an interpretation of the performance of the food aid programme. Earlier concerns that "all households would claim insufficient food" were not borne out in practice. As in other evaluations of food aid, household reports of food sufficiency and receipt of food aid could be used as performance indicators of the food aid programme. Tracking programme performance through repeated surveys would be a useful dimension of monitoring food aid, permitting fine-tuning of the programme.

- The main problem in the pilot woredas was programme misses (households without enough food that did not receive food aid).
- The greater number of programme misses in one woreda (Fedis) was probably due to an overall undersupply of food aid relative to need.
- The higher proportion of programme misses among vulnerable households (no adult males or no livestock) indicates

sub-optimal targeting, possibly even a bias in tracking food aid to better off households. Although not relevant outside the pilot woredas, the survey demonstrates the feasibility of identifying more effective targeting strategies.

- The link between food aid and employment-generating schemes is logical from many points of view. However, the pilot shows this strategy may contribute to leaving out those most in need of food aid – those who cannot do physical work.
- Clear differences in policy about distribution between PAs in the three pilot woredas were associated with different levels of performance; in the two woredas where not all PAs received food aid, a policy of choosing specific PAs seems to have led to increased performance in reaching vulnerable households.

4. Discussions with stakeholders

With community feedback as an integral part of the information gathering process, the pilot demonstrated the feasibility of including the voice of all stakeholders in the decision-making process.

This goes beyond householders answering questions; data from these interviews are returned to the communities, where they are discussed systematically in gender-stratified focus groups and, later, between focus group participants and community leaders. In this way, the communities in each region can contribute to policy making, while food aid programme managers also have access to quantitative indicators on which to base priorities and assessments of progress. The methods developed in this pilot thus offer a very concrete way of increasing citizen participation in monitoring and decision taking in relation to food aid.

The pilot included discussion with community focus groups about the findings and their opinions and suggestions about the food aid programme. Repeated cycles of data collection, feedback and discussion could help to involve households and communities in the implementation and management of the food aid programme.

The workshop of government and other stakeholders in Addis Ababa in September 2001 provided important input for further analysis, reporting of the pilot and considerations for a larger scale process. The possibility of undertaking a larger scale survey was discussed in the workshop. Participants in all the small group sessions in the workshop concluded they were in favour of extending the community-based monitoring to a larger scale exercise.

Conclusions and implications for roll out

If replicated in a larger representative survey, certain findings have important implications for the way the food aid programme is managed, particularly at local level, in order to make it as effective and equitable as possible.

The sample should be representative of regions. Sample woredas and sites within woredas should be selected in collaboration with the Central Statistical Authority. The actual number of regions included will depend upon resources available for the roll out.

Timing of repeated surveys: Bearing in mind the cost, it is not realistic to undertake the community based monitoring process more than twice a year. Once a year seems more realistic, given the time it takes to redirect a food aid programme based on results of each evaluation cycle.

Partnerships for implementation: The collaboration with the Central Statistical Authority could be continued, including their field officers as interviewers in a larger scale survey. It may also be appropriate to involve a university department, perhaps with their students being trained as interviewers for the survey. For the pilot survey, CSA enumerators were fully occupied with preparation for the forthcoming agricultural census. Nor was it feasible at the time to liase with a university department and use students to participate in the fieldwork.

Capacity building: Four cycles of a repeated larger scale survey would permit full skill transfer and capacity building within the CSA, DPPC and regions, so as to institutionalise capacities for undertaking this sort of survey process. In the first cycle, emphasis would be given to quality control and data handling, with skill building in design, data entry and cleaning. The training emphasis of the second cycle would be on communication of evidence to communities, planners and partners (donors). The third cycle would focus primarily on epidemiological analysis, geomatics and report writing. The fourth and final cycle would concentrate on management of the entire community monitoring process, including budgeting and accountability. If there was sufficient interest, a short course on methodology of food aid programme assessment could be run for programme managers.

Ownership: If the CSA is the implementing agency, this should involve DPPC/B/D and the Kebele selection committees (who are responsible for targeting) in order to ensure ownership and full utilisation of the results.

References

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Annex 1 CIET methodology

Features of CIET Methodology

 Data collected from cluster sites, selected to be representative of a district, a region or a country.

 Repeated cyclical process, each cycle including planning and instrument design, data collection, data analysis and interpretation, and communication of results.

 Each cycle focuses on particular area or problem, not trying to collect data on a wide range of problems.

 Quantitative data from household questionnaires combined with qualitative data from focus groups, key informant interviews and institutional reviews *from the same communities* (that is, the data are coterminous) to allow a better understanding of the quantitative data. This combined analysis is called mesoanalysis1.

 Data analysis not only in terms of indicators (for example, coverage of food aid) but also in terms of *risk* (for example the risk of a household with malnourished children being missed by foord aid programme)

 Analysis gives results in a form that assists planning at household, community, district and national levels.

 The same sites are revisited in subsequent cycles of data collection, allowing easy estimation of changes over time or as a result of intervention.

 Each cycle of data collection and analysis requires a communication strategy to get the information to those who need it for planning.

 Transfer of skills of data collection, analysis and communication via workshops.

The CIET methodology[1] was originally conceived to build capacities while producing accurate, detailed and actionable data rapidly and at low cost. Ordinarily, the focus is on the use of epidemiological data in local or national planning[2]. This may be at the level of a municipality, a city[3], a state, a number of provinces[4] or an entire country[5]. The approach permits community-based fact finding through a reiterative process, addressing one set of issues at a time. CIET methodology is a cross-design of qualitative and quantitative techniques that permits a holistic picture of -- and locally designed solutions to -- a particular problem. It is a cost-effective way to collect community data, presenting them in an appropriate form for planning at local, regional and national levels. CIET methods have been used in community surveys in many different countries[6].

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Annex 2 Sources for instruments

Development of instruments

The instruments for the pilot survey were developed taking a standards-based approach, so far as possible incorporating questions that have already been successfully used in other relevant instruments. This implies the questions have already been tested in the field. It also facilitates comparisons between data collected from different surveys.

Main sources for household questionnaire

1. The 1996 Bosnia vulnerability survey. CIET, Sarajevo, August 1996
2. The 1995 Bosnia food aid survey, CIETinternational.
3. WFP VAM unit, utilization survey 2000, draft report
4. Mathys E, Emebet Kebede. Monitoring the impact of food aid: The SC(UK) programme in North and South Wollo Ethiopia in 2000. Save the Children (UK) Ethiopia, November 2000
5. Mathys E, Emebet Kebede. The SC(UK) food aid impact monitoring methodology. Save the Children (UK) Ethiopia, November 2000
6. WFP/Care in Kenya. Documents for Coping Strategies Index research.
7. SC (UK) Nutrition Survey household questionnaire

Main sources for community key informant questionnaires

1. CIETinternational Bosnia surveys, 1994-1996
2. SC(UK) Nutrition Survey key informants interviews
3. WFP VAM unit, utilization survey 2000, draft report
4. Mathys E, Emebet Kebede. Monitoring the impact of food aid: The SC(UK) programme in North and South Wollo Ethiopia in 2000. Save the Children (UK) Ethiopia, November 2000
5. Mathys E, Emebet Kebede. The SC(UK) food aid impact monitoring methodology. Save the Children (UK) Ethiopia, November 2000

Main source for food distribution centre institutional review and interview with officials

1. WFP VAM unit, utilization survey 2000, draft report

1Annex 3 Relief food aid programme performance variables

The analysis relates the information about whether the household perceived they had enough food in the last week to the information about whether the household had received food aid in the last month.

Table 1. Food aid programme performance variables

	Received food aid in last month	Did not receive food aid in last month	
Enough food in last week	Sufficient food and aid (*effective coverage and oversupply**)	Sufficient food and no aid	Sufficient food
Not enough food in last week	Insufficient food despite aid (*undersupply*)	Insufficient food and no aid (*missed*)	Insufficient food
	Covered by food aid	Not covered by food aid	Total

*Oversupply is said to be present if the household is categorised as "well-off" (owning plough oxen and having an income of more than 20 Birr in the last month)

Annex 4 Food aid programme performance and vulnerability

Table 1
Food aid coverage, food aid misses and proportion of children wasted, by different aspects of household food access vulnerability in DZ

Vulnerability indicator	Food aid coverage	Food aid misses	% children wasted*
Disabled member(s)	33%	29%	8%
Children under 5 yr	23%	32%	-
Wasted children<5yr	17%	48%	-
No income	25%	38%	13%
Illiterate head	24%	32%	10%
Female head	29%	36%	5%
No males >14 yr	31%	37%	6%
No land	15%	47%	5%
No animals	39%	38%	13%
Vulnerable	34%	37%	10%
Especially vulnerable	39%	40%	9%
All households	*23%*	*31%*	*9%*

*children under 5 years, among households where there were such children
Vulnerable = no males >14 yr or no animals
Especially vulnerable = no males >14 yr and no animals

Table 2
Food aid coverage, food aid misses and proportion of children wasted, by different aspects of household food access vulnerability in Fedis

Vulnerability indicator	Food aid coverage	Food aid misses	% children wasted*
Disabled member(s)	21%	69%	34%
Children under 5 yr	14%	65%	-
Wasted children<5yr	14%	69%	-
No income	38%	50%	28%
Illiterate head	14%	64%	21%
Female head	15%	70%	18%
No males >14 yr	13%	78%	19%
No land	11%	72%	22%
No animals	13%	70%	24%
Vulnerable	14%	70%	24%
Especially vulnerable	8%	86%	21%
All households	*14%*	*64%*	*21%*

Table 3
Food aid coverage, food aid misses and proportion of children wasted, by different aspects of household food access vulnerability in BS

Vulnerability indicator	Food aid coverage	Food aid misses	% children wasted*
Disabled member(s)	16%	22%	14%
Children under 5 yr	23%	14%	-
Wasted children<5yr	26%	23%	-
No income	21%	15%	1%
Illiterate head	21%	18%	3%
Female head	20%	18%	4%
No males >14 yr	21%	20%	4%
No land	8%	17%	6%
No animals	33%	16%	4%
Vulnerable	30%	17%	5%
Especially vulnerable	23%	24%	3%
All households	*21%*	*15%*	*5%*