

HOUSEHOLD ECONOMY ASSESSMENTS

**Binga & Nyaminyami (Kariba Rural)
Districts,
Matabeleland North & Mashonaland West Provinces,
Zimbabwe**

April 2003



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- Binga District Administrator's Office
- Kariba District Administrator's Office
- Binga Rural District Council
- Nyaminyami Rural District Council
- Ministry of Health and Child Welfare
- AREX
- Department of Veterinary Services
- CADEC

The assessment could not have taken place without the participation of the Chiefs, Councillors and communities in Binga and Nyaminyami in interviews.

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EXECUTIVE SUMMARY

Binga and Nyaminyami (Kariba Rural) districts in the western Zambezi Valley are two of the least developed districts in Zimbabwe. They suffer the dual disadvantages of (a) limited agricultural potential due to poor agro-ecological conditions and the presence of wildlife and animal diseases, and of (b) being far from markets and therefore receiving poor supplies of food at high prices, while earning low prices for items like livestock which are sold out of the area.

The current assessment examined access to food and income in the last marketing year (April 2002 to March 2003) in the four Food Economy Zones that cover the majority of the districts, and also among households affected by HIV/AIDS. Based on patterns observed last year and in previous years, and based on new primary and secondary data, projections were made as to the likely food security of different socio-economic groups within the two districts over the coming twelve months (April 2003 to March 2004).

Taking all sources of food into account, it was found that most of the population came close to meeting their minimum food requirements over the last 12 months, with the most food insecure meeting approximately 80% of their minimum needs. Acute malnutrition rates were kept below standard "emergency" thresholds, and the provision of substantial amounts of food aid seems to have mitigated the need for excessive amounts of expenditure-switching from other basic needs, and for stress selling of livestock. Food aid provided 20-35% of minimum food needs in Binga and 45-65% in Nyaminyami, while wild foods also contributed on average 10-20% of minimum needs.

Had adequate supplies of maize been available at controlled prices, incomes data indicates that almost all households could have purchased enough grain by themselves to be food secure. Maize supplies from the GMB were very limited, and some households paid over 40 times the controlled price for black market grain, or struggled to pay for inferior substitutes, including floor sweepings from millers. Poisonous wild foods – particularly tubers – were also consumed in desperation in some areas.

Dietary diversity was reduced in all areas as a result of the high cost of foods. Cuts in expenditure on items like healthcare, education and agricultural inputs were reported, but were more common in Binga than in Nyaminyami. Baseline levels of spending on those items, however, were very low. Stress selling of small animals was more common than for cattle. While there were some declines in herd sizes, particularly from December onwards, the provision of food aid was reported to have reduced the need for unusual de-stocking. The real value of livestock (measured in terms of the kgs of maize that could be bought with the proceeds from the sale of 1 cow) continued to decline during the year from the normal/baseline level of 1,000kg of maize to 400kg in April 2002 to 160kg in December 2002.

Many other income-earning opportunities were constrained by the poor agricultural situation, particularly crop sales and on-farm labouring. Gifts and remittances remained uncommon. Some activities such as vegetables sales and off-farm casual labouring remained important and yielded reasonable incomes. Most income sources were more available in the dry season, and only the better off were able to maintain income flows later in the year through livestock sales.

Households affected by HIV/AIDS were among the most food insecure, meeting less than 80% of their minimum requirements. They had low levels of agricultural production, and were particularly constrained in their access to most income-earning opportunities due to the death or illness of breadwinners. The provision of loans from the Binga District AIDS Committee was important for a small number of such families however. Their incomes were inadequate to pay for their specific dietary needs and for healthcare, although the latter was often provided on credit.

The provision of food aid (general rations and supplementary feeding) had important and wide-ranging impacts on children in addition to nutritional benefits. School enrolment and attendance was maintained, children were required to spend less time searching for wild foods or queuing to buy food, and they spent less time working for food and money. This has helped to reverse the prevailing situation whereby children's rights to adequate food, leisure and education were becoming the privileges of the better off only.

For the coming twelve months, prospects are only marginally improved in both districts, although there was a substantial increase in crop production in Nyaminyami due to a combination of better rains and a large input distribution. Grain production increased by 27% in Binga this year, and by over 75% in Nyaminyami. This translates into average grain production per capita of 22kg and 109kg respectively. Cotton production has declined in Binga and remained almost unchanged in Nyaminyami, so no changes in that source of income are expected. Livestock holdings in both districts are already very low, and further de-stocking would not be encouraged. An increase in agricultural labouring opportunities is expected in Nyaminyami, but otherwise all other sources of income are expected to remain broadly unchanged.

Assuming food availability and prices remain similar to last year, that a maximum of 80% of income is spent on grain, and to prevent stress selling of livestock, the cumulative numbers of people in need of food aid from April 2003 to March 2004 will be as follows:

	From April	From July	From September	From October	From January
Binga	22,551	80,507	96,464	96,464	118,824
Nyaminyami	6,514	6,514	15,718	23,279	30,970
Total	29,065	87,021	112,182	119,743	149,794

Additional recommendations include:

- The Government should take further measures to ensure that adequate supplies of grain reach the market and – if they are via the GMB – that they are sold at gazetted prices
- Alternative forms of providing food to those with the means to pay for it be considered, such as monetization of food aid, food-for-livestock and (where administratively feasible) food-for-work
- Appropriate agricultural inputs will need to be provided to many poorer farmers, particularly in Binga, to assist recovery. This should be combined with additional medium- to long-term interventions to support agricultural extension and the dissemination of techniques that will optimise production
- Supplementary support to HIV-affected households is necessary, including dietary supplements and home-based care programmes. Cash loans for income-generating activities would assist this group to become more self-sufficient. Targeting is likely to be difficult, however, particularly given the limited voluntary counselling and testing services in the district

BACKGROUND¹

Binga and Kariba districts are located in the western Zambezi Valley. To the west they are bound by Lake Kariba, with Zambia on the other side of the lake. The districts border Hurungwe district to the north, Gokwe North and South to the east, Lupane to the south-east and Hwange to the south. In terms of Human Development, Kariba is ranked the least developed of all districts in Zimbabwe, while Binga is ranked 3rd least developed².

The majority of the population of the area are Tonga, and were resettled further up the sides of the Zambezi Valley when the productive floodplains upon which they traditionally farmed were flooded in 1957 with the construction of the Kariba Dam. Minority Shona and Ndebele populations are found in the north of Kariba and the south of Binga respectively. The districts suffer from two major constraints to development. First, most of the land is ranked as Natural Region IV and V, with low rainfall, meaning that it is more suited to extensive farming and livestock rearing, and agricultural production is typically quite low. Only the Kanyati area in Kariba and the Lusulu area in Binga are classified as NR III. Significant portions of the area are designated as national parks and forest areas (e.g. Matusadona in Kariba, and Chizarira in Binga). While this provides potential for tourism, the wild animals are responsible for crop damage in neighbouring communal areas. In much of Kariba district, the presence of tsetse fly around the national park has resulted in cattle ownership being banned in many wards, and relatively low numbers of cattle are found even where they are permitted.

Second, the area is physically remote and far from major markets. The only tarred road leads from Binga down to Dete, where it connects with the Bulawayo – Victoria Falls road. Hwange, Gokwe and Karoi are the nearest major towns, with Bulawayo and Kariba town being somewhat further away. (Access from Kariba town to Nyaminyami by road is very poor, with access by the lake being almost as fast.) The distance to major markets, especially in the current context of limited fuel supplies and high transport costs, results in limited supplies of commodities reaching the area on the one hand, and the value of sellable goods (particularly livestock) falling to very low levels relative to other districts on the other hand.

Livelihoods in the area previously revolved around a combination of food crop production (maize, sorghum and pearl millet), increasing cotton production, casual labouring, remittances from men formally employed in towns such as Hwange and Bulawayo, and some employment and potential for crafts sales resulting from tourism, safaris and hunting. The latter two activities have declined to minimal levels over the last 5 years, however.

A number of NGOs operate in the district. Save the Children (UK) has been present for over 20 years, carrying out long-term projects in education, reproductive health and child protection and care, with emergency food aid and water projects being added since late 2001. Christian Care operates in Kariba district as WFP's implementing partner for food aid. CADEC provide supplementary feeding in Binga, while the Ministry of Health have established a supplementary feeding programme in

¹ More detailed background information can be found in the 2001 Binga and Kariba District HEA reports

² UNDP/ Poverty Reduction Forum: Zimbabwe Human Development Report, 2000

Nyaminyami. A number of other NGOs operate smaller projects in a variety of sectors, including KMTC, Dabare Trust and Heifer Project International.

Objectives of the Research

The current research had 5 objectives:

- (a) To assess the need for food aid and/ or other emergency food security interventions over the 12 months from April 2003 to March 2004
- (b) To understand how people have lived and coped with the crisis so far, and their general capacity to cope and/ or recover
- (c) To gain a better understanding the linkages between livelihoods and other issues such as HIV/AIDS
- (d) To understand the impact that past food aid interventions have had on livelihoods, and
- (e) To identify possible medium- and long-term food security and livelihoods interventions

Methodology

Save the Children uses the Household Economy Approach (HEA) as a means of assessing the food and livelihood security of communities. The approach focuses on households' ability to access food and other basic services by investigating the sum of ways in which they get food and cash income, and their expenditure patterns. The approach has two main parts: (a) A quantitative description of the economy of a defined population, including all the main factors determining current household income and expenditure under changed conditions, and how these vary between households. (b) A system to analyse the relationship between a shock – for example, crop failure or a rise in the price of a staple food – and the ability of households to maintain their food and non-food consumption. HEA models the most likely chain of events linking a shock and the outcome. Information is collected using a combination of secondary data and primary research, using participatory research techniques.

This assessment focused mainly on updating information already gathered in more detailed HEAs over the last 2 years, and from the ZimVAC assessments of August and December 2002. A smaller than usual sample of wards was therefore covered, 4 out of 21 in Binga and 4 out of 13 in Nyaminyami, as the information was intended to complement and build upon the findings of the ZimVAC April assessment which was carried out at the same time. The wards assessed and the Livelihood Zones in which they are located are as follows:

<u>Ward</u>	<u>District</u>	<u>Livelihood Zone</u>
Lubimbi	Binga	Lusulu, Northern Lupane, Southern Gokwe Communal
Lubu	Binga	Kariangwe-Jambezi
Tinde	Binga	Poor Resource Kariba Valley
Sinansengwe	Binga	Poor Resource Kariba Valley
Nebiri	Nyaminyami	Siabuwa-Nebiri-Msampakaruma Low Cotton-Producing Communal
Kasvisva	Nyaminyami	Siabuwa-Nebiri-Msampakaruma Low Cotton-Producing Communal
Kanyati A	Nyaminyami	Greater Northern Gokwe High Cotton-Producing Communal
Kanyati B	Nyaminyami	Greater Northern Gokwe High Cotton-Producing Communal

The current assessment was carried out from the 7th to the 18th of April 2003. Members of the Binga and Nyaminyami District Drought Relief Committees participated in the assessment, which was led by trained HEA practitioners from Save the Children.

The teams comprised representatives from:

- Binga District Administrator's Office
- Binga Rural District Council
- Nyaminyami Rural District Council
- Ministry of Health and Child Welfare
- AREX
- Save the Children (UK)

In each of the 8 wards visited, preliminary focus group discussions were held with community leaders during which an overview of the situation was provided, and a wealth-ranking exercise was carried out to identify the different socio-economic groups in the area. Separate semi-structured focus group interviews were then carried out with representatives from each wealth group, during which a detailed description of access to food and income over the last year was provided with the aid of rapid rural appraisal techniques such as seasonal calendars, ranking and proportional piling. Further information was gathered on expenditure patterns, coping strategies and the likely changes to the situation over the coming twelve months. The reliability of information was ensured through cross-checking within interviews (e.g. to ensure that income matched expenditure), between interviews, and between primary and secondary data sources (e.g. to ensure that reported food intake approximately tallied with malnutrition rates, that harvests matched AREX data and that reported food aid receipts matched reported deliveries by NGOs).

The complications caused by the hyper-inflationary environment prevailing in Zimbabwe and the wide variety of often unusual means employed to access food from various sources resulted in standard interviews taking significantly longer than normal. As a result, less detail than normal was collected on expenditure patterns. The rate of inflation (currently 228% for the country, but over 800% for some commodities on the parallel market) complicated analysis both by making recall of prices and incomes over a long period difficult for interviewees, but also by making the real value of incomes very much time-specific. To illustrate, Z\$10,000 earned in April 2002 could have purchased about 200kg of maize, but the same amount earned in December would have purchased about 50kg. Detailed information was gathered on the timing of income-earning activities, and to make nominal income earnings comparable, all values were converted into a "maize equivalent income", i.e. the number of kgs of maize that could have been purchased at black market prices at the time the income was earned.

OVERVIEW OF THE DISTRICT-LEVEL SITUATION FROM APRIL 2002 TO MARCH 2003

Last year – April 2002 to March 2003 – was one of the worst years in recent memory for food security in the Zambezi Valley, with most communities stating that it was worse than the 1992 drought. Broadly speaking, the problems were twofold: First the significant drought that affected the whole country in the 2001/02 agricultural season resulted in very low harvests both of food crops and of cash crops for most of the population. Second, the national shortage of maize affected the remote Binga and Nyaminyami districts particularly badly, and increasingly as the year progressed, with maize becoming very difficult to find in shops and markets, and the price for the little available increasing by as much as 800% over April 2002 levels. The provision of food aid was vital in mitigating the worst effects of food insecurity.

Food stocks from last year's harvest were enough to last the majority of the population only for 1-2 months. From that time onwards, most people were dependent either on purchases or on food aid. During the dry season, from May to September, the price and availability of maize remained reasonably good (relative to the rest of the year), with some black market supplies coming from more productive neighbouring districts, and some supplies also from the GMB. This was also a time of the year when seasonal sources of income (from crop sales, vegetable sales, agricultural-labouring and off-farm casual labouring) were available. Food aid provision, particularly in Nyaminyami began to increase, while supplementary feeding in Binga by CADEC resumed after a suspension in May and June. The nutritional status of the population (3.9% global acute malnutrition in Binga in April, and 5.2% GAM in Nyaminyami in July³) remained well below emergency levels.

By the end of the dry season, the situation in both districts – but particularly in Binga - appears to have become more difficult. High provision of food aid in Nyaminyami enabled most households to meet their minimum energy requirements. In Binga, supplies of black market grain became increasingly scarce from October onwards, and dried up almost entirely from December/ January. Save the Children's food aid programme was suspended from late September until early November, while the GMB managed to increase their supplies to some extent over the same period. There was heavy reliance on seasonal wild foods at this time, especially by the poor who had few options for earning income during that season. The better off households managed to sell some livestock in order to buy food. In December, the nutritional status of the population of Binga had deteriorated only marginally however (to 4.2% GAM⁴), suggesting that people had managed to survive on their own resources.

In January and February, the situation in Binga deteriorated further, while Nyaminyami continued to receive adequate supplies of food aid. Save the Children was unable to meet their food aid targets as the numbers of estimated people in need rose to 100% of the population. At the same time, GMB deliveries to the district declined. People again resorted to wild foods and to desperate substitutes for maize, such as husks and floor sweepings from milling companies. Local indications suggest that malnutrition prevalence rose in the early months of 2003 in Binga, while remaining stable in Nyaminyami. By late February and March, the situation was

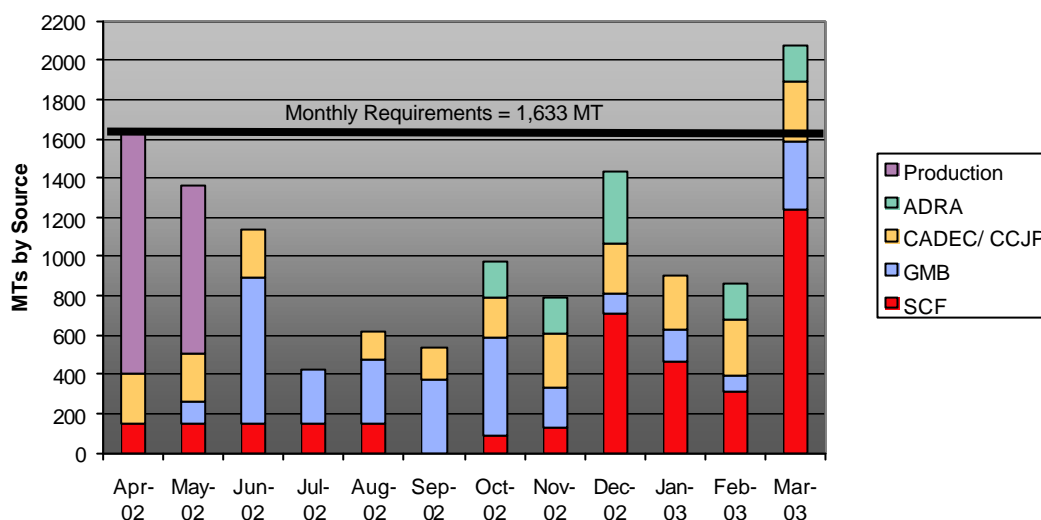
³ Save the Children UK, 2002: Binga Nutrition Survey #2; Nyaminyami Nutrition Survey #2

⁴ Save the Children UK, 2003: Binga Nutrition Survey #3

relieved somewhat as food aid flows reached a peak, and people also began consuming green maize and vegetables from their fields.

The table below indicates the total district-level availability of grain from the harvest, GMB and the three agencies providing food aid (SC-UK, CADEC/ CCJP and ADRA) in Binga over the last 12 months⁵. Note that this graph does not capture parallel market supplies of grain, which were said to have been most important over from June until October (when they are likely to have filled a substantial part of the apparent gap in those months), but then dwindled particularly after December.

Food Availability by Source, Binga District 2002-03



Similar information was not available for Nyaminyami.

SEASONAL CALENDAR FOR BINGA & NYAMINYAMI

Activity	HH Member involved	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar
Rains									←	←	←	←	←
Land Prep.	All				←	←	←	←					
Planting	All							←	←				
Weeding	All								←	←	←	←	
Scaring birds	B, G, (W)									←	←	←	←
Harvesting grain	All	←	←	←	←	←	←	←	←	←	←	←	←
Harvesting cotton	M, W						←						
Agric. Labour	M, W		←	←	←	←	←	←	←	←	←	←	
Construction	M		←	←	←	←	←	←	←	←	←	←	
Sale of Veg	W			←	←	←	←	←	←	←	←	←	
Consume/ sell tamarind	W, G				←	←	←	←	←	←	←	←	
Fishing	M					←	←	←	←	←	←	←	←
Crafts	M, W	←											←
Peak Livestock Sales	M					←	←	←	←	←	←	←	
"Hungry period"								←	←	←	←	←	←

⁵ Sources: AREX, Binga; District Administrator's Office, Binga; SC-UK, ADRA and CADEC.

HOUSEHOLD ECONOMIES IN 2002-03

LUSULU FOOD ECONOMY ZONE

(Binga District: Sinamagonde, Kabuba, Lubimbi Wards)

The Lusulu area of Binga is the most productive part of the district, both for food crops and for cotton, being the only area classified as Natural Region III. In terms of livelihoods the area is considered to have the same patterns as neighbouring northern Lupane district and much of Gokwe South.

Wealth Breakdown

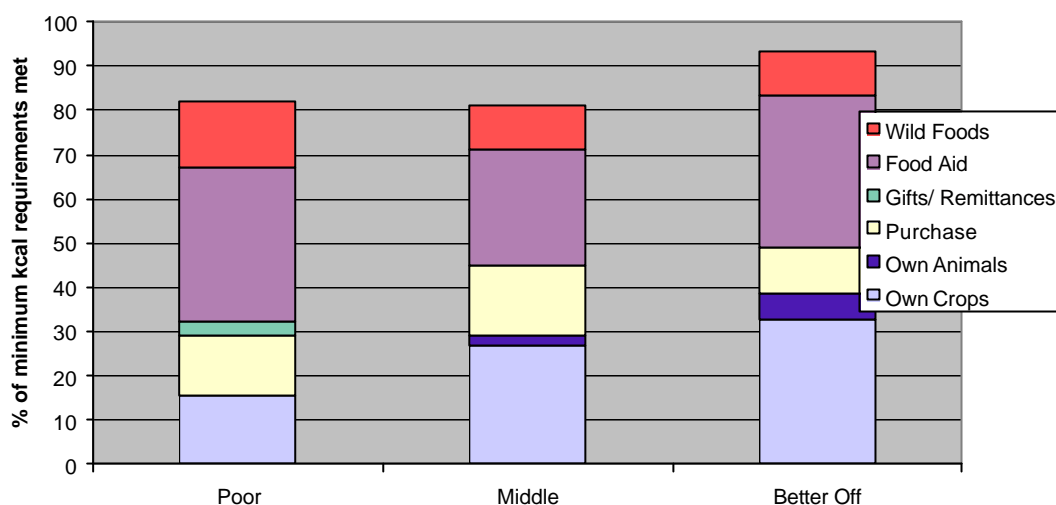
Although this zone has not previously been assessed separately, it was found that the characteristics of each wealth group in this zone were more similar to those of equivalent groups than would have been expected, given that the Lusulu area is traditionally considered the best off part of Binga. Livestock holdings in particular seem lower than expected, but this appears to be because of relatively high levels of sales over the last year. The proportion of the populations in the middle and better off groups, however, are higher than in other zones in the Zambezi Valley. It should be noted that the “Social Welfare” cases were not listed as a separate group, however they could be estimated to constitute approximately 20% of the total population, and would be found within the poor group below.

Characteristic		Poor (Bachete)	Middle (Balakatikati)	Better-off (Bajani)
% Of total population		50- 55%	30-35%	15-20%
Typical Household Size		9-10	7-8	7-8
Livestock Holding	Cattle	0	2-4	7-10
	Goats	1-2	2-4	7-10
	Sheep	0	0	2-3
	Donkeys	0	2-3	4-5
Land under cultivation		0.5 –1 acre	1.5-3 acres	4-5acres
Productive assets			Ox-Plough	Ox-Plough, Scotch Cart
Main Food Crops		Maize, Millet, Sorghum	Maize, Millet, Sorghum, Sweet Potatoes, Groundnuts	Maize, Millet, Sorghum, Sweet Potatoes, Groundnuts
Main Cash Crops			Cotton	Cotton
Children 's Education		Primary	Secondary	Secondary
Main Economic Activities		Casual labour Agricultural labour Vegetable Sales	Livestock sales Crop Sales Vegetable Sales	Livestock sales Off-farm Labour

Sources of Food

All wealth groups last year fell short of their minimum food needs, with the poor and the middle getting 80-85% of their requirements and the better off getting up to 95% of their requirements, as indicated in the graph and table below. There was a clear seasonal pattern to this access, with the main problems being felt from December until late February.

Sources of Food, 2002-03, Lusulu



% of Minimum Food Needs Met by Source, April 2002-March 2003, Lusulu

Source of Food	Poor	Middle	Better Off
Own Crops	15-20%	25-30%	30-35%
Own Animals	0%	0-5%	5-10%
Purchase	10-15%	15-20%	10-15%
Gifts/ Remittances	0-5%	0%	0%
Food Aid	30-35%	25-30%	30-35%
Wild Foods	15-20%	10-15%	10-15%
Total	80-85%	80-85%	90-95%

Production

As would be expected from this area, crop production last year was higher than elsewhere in the district, though it was still very low relative to a normal year. The poor harvested enough grain (mainly maize, with smaller amounts of sorghum and millet) last year to last for 2 months, the middle harvested enough for 3-4 months, while the better off harvested enough for 5 months. Production of other food crops such as groundnuts and sweet potatoes was particularly poor last year.

Animal Products

The level of consumption of animal products was not significantly different last year compared to normal years, accounting for less than 5% of energy needs. Milk contributed the most, while both the middle and the better off slaughtered a small number of goats for meat. Slaughtering of cattle for food was not undertaken in this area.

Purchases

The pattern of food purchases last year illustrates some very concerning trends regarding food availability and dietary diversity. In sharp contrast to a normal year, the contribution of purchased food – particularly staples - to the requirements of each wealth group was quite similar. All families were able to purchase only 50-100kg of maize from the GMB, with only two deliveries to the area occurring in the entire year. This small amount reflects limited availability only, as all groups had the money to purchase much more at controlled prices. For the middle and better off in particular,

they were able to purchase some additional grain and maize meal from the black market until the supplies even there began to dwindle between October and December.

A disturbingly large amount of money was spent in desperation by all households on maize husks and floor-sweepings from local millers. While the nutritional value of these items is not clear, it is undoubtedly significantly less than that of grain, yet people paid up to Z\$2,500 for a sack with approximately 20kg of husks. If GMB maize had been available, the same amount of money would have bought 250kg of grain. Not only did this situation likely contribute to increased malnutrition in the district towards the end of the year, but in spending money on such inferior foodstuffs, expenditure was switched from other necessities such as school fees and healthcare.

Another noticeable trend, again related to the high expenditure on maize substitutes, was the lack of diversity in the diets even of the better off. Over the last 3 years, SC has observed a continuously greater proportion of the population reducing their diet to maize or maize substitutes with vegetables and wild foods. Items like sugar, oil (except as food aid), meat, kapenta and even salt, which in earlier years would have been a regular part of purchases, have now largely disappeared from diets.

Wild Foods

Wild foods played quite an important role in people's diets last year in this area, though less than in some other parts of the district. The estimated contribution of wild foods was around 10-15% of minimum energy requirements for all groups, though the contribution in terms of micronutrients was probably more significant than in terms of energy. In addition to "normal" wild food consumption, this year there was a high amount of consumption of "famine food" types of wild foods. One particular root – "kabombwe" (*boscia angustifolia*) – was eaten mainly from December onwards. The preparation of a drink/ soup from the crushed root requires at least 4 hours' boiling. It has sedative qualities and families reported having a dedicated person to wake other family members up after half an hour to ensure that they have not died.

Food Aid

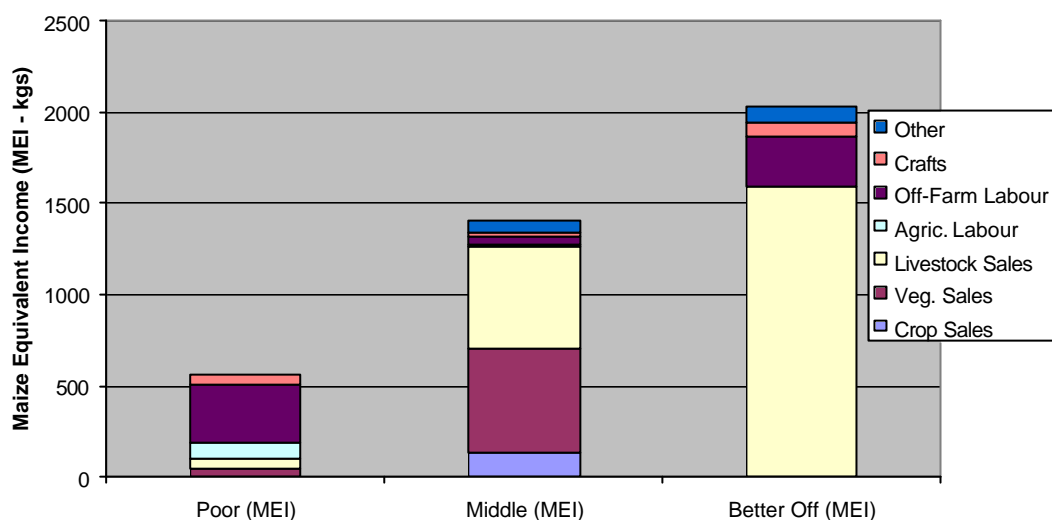
Food aid provided a very substantial contribution to diets for all wealth groups over the last year. The poor and better got up to 35% of their needs from food aid, while for the middle the contribution was smaller, at just over 25% of needs. Supplementary feeding, mainly for under-5s, primary school students, pregnant and lactating women and – later in the year – secondary school students, provided typically around 7% of needs, with the balance coming from general rations programmes from ADRA and Save the Children UK. SC UK's programme was supposed to target only "social welfare" cases, while ADRA's programme targeted the rest of the population. There appeared to be some targeting problems with SC's programme, for example with elderly people within better-off households being targeted when the intention was to target only those with no other means of support. The beans and oil provided by both agencies were a rare source of protein and fat in diets.

Local gifts of food, mainly in the form of sharing between neighbours, provided a small portion of the needs for the poor group.

Sources of Income

Because of the rampant inflation in the country, the value of any given amount of money varies according to when it was earned. In listing the relative importance of various sources of income last year, SC converted the Z\$ value into a “maize equivalent income” (MEI) by dividing the amount of money by the cost of black market maize at the time the money was earned. Hence a dollar earned in April 2002 was effectively worth Z\$8 in March 2003. The table below shows the percentage of total MEI earned from each source, the total MEI in kgs of maize, and the total nominal income in Z\$.

Sources of Income (MEI) 2002-03, Lusulu



<u>Source of Income</u>	<u>Poor</u>	<u>Middle</u>	<u>Better Off</u>
Crop Sales	0%	9%	0%
Veg. Sales	9%	41%	0%
Livestock Sales	8%	40%	82%
Agric. Labour	16%	1%	0%
Off-Farm Labour	59%	3%	14%
Crafts	8%	2%	4%
Remittances/ Gifts	0%	3%	0%
Wild Food Sales	0%	2%	0%
Grass Sales	0%	0%	3%
Public Works	0%	0%	1%
Total (Z\$)	\$47,000	\$99,000	\$295,000
Total (MEI)	554kg	1,409kg	2,033kg

It is necessary to emphasise that the above “maize equivalent income” values reflect the parallel market price of grain. Had grain been available from the GMB or shops at controlled prices, then with the above incomes all wealth groups could quite easily have met their minimum food requirements (though the poor in particular would still have struggled to afford other basic necessities).

Crop Sales

Only the middle reported selling any crops last year, and the little cotton they sold was reported to have yielded low returns due to the high transport costs incurred given the long distance to the nearest Cottco depot in Gokwe.

Vegetable Sales

Vegetables sales were an important source of income for both the poor and middle, although the overall value to this zone may have been overstated given the proximity of the ward sampled to good water sources and to reasonably good marketing channels. Gardens provided a steady stream of income to those groups over the dry season.

Livestock Sales

Livestock sales were most important to the middle and better off, who sold 1 and 3-4 cattle respectively. The poor and middle also sold 1-2 goats over the course of the year. The availability of livestock played a crucial role in the relative food security of different groups not only due to the relatively high value of cattle, but also because they could be sold at any time of the year whereas most other sources of income are very seasonal. The only available options for earning income during the rainy season are livestock sales and agricultural labouring during the weeding period, and in a bad agricultural year the latter becomes less available.

Nonetheless, although the middle and better off had some cattle to sell, the prices they received for those animals were extremely low, particularly around December/January. Whereas immediately prior to the current food shortages, in mid-2001, the cash from the sale of one cow would have bought around 800kg of maize, the value had dropped by April 2002 to 400kg, and hit a low of 120kg towards the end of 2002. In this part of the district, the fall in the price of goats was less severe, with one goat being worth close to one bucket (20kg) of maize, compared to the “normal” price of three buckets (60kg).

Agricultural Labour

Agricultural labour was quite an important source of income for the poor group, providing 16% of their total income. Given the poor harvests last year in this area, there was less work during the harvesting period than normal. Most of the income was earned later in the year from land clearing and preparation (October to November) and from weeding (December to January). However, given the high demand for this work and its limited availability, the payment rate plummeted this year. A typical rate of payment for weeding an acre of land was Z\$1,000, and it took approximately 4 days for a husband and wife and sometimes some children to complete that work. With a 20kg bucket of maize costing around Z\$4,000 at that time, that equates to a daily payment rate of just over 1kg of maize. This compares to 20kg in a very good year, and closer to 10kg in an average year. Labour – one of the few resources available to most poor households – therefore became one of the most undervalued commodities over the last year.

Off-Farm Casual Labour

With the limited availability of many other sources of income, the relative importance of off-farm labouring (which includes activities such as building huts, thatching and fencing) appeared to increase this year. The poor earned close to 60% of their total income from this activity, which in effect provided them with the income to feed

themselves from the time their own harvest was exhausted until the end of the dry season.

A variety of other ways of earning income were undertaken by each wealth group, including crafts, remittances, sale of wild foods and government Public Works programmes. However the contribution of these sources to total income was very limited.

Expenditure Patterns

It was not possible given time constraints to gather detailed quantitative information on expenditure patterns – other than for spending on food - during this survey. However, qualitative information was provided, which could be cross-checked both with incomes data and with previous years' patterns.

For all groups, the most noticeable trend was the extremely high proportion of income that was spent on foodstuffs, and particularly maize or maize substitutes. In previous years, this level of spending was only seen among the poor group and to a lesser extent among the middle, however this year the trend extended to the better off. 63% and 69% of income was spent on staples (including substitutes for maize such as rice, bread and maize husks) by the poor and middle groups respectively. The better off spent 38% of their total income on staples (including rice), compared to less than 10% in the previous year. As has been indicated previously, this high level of spending on maize substitutes contributed to decreasing dietary diversity.

Soap formerly would have been considered an essential commodity in expenditure baskets. But the rapid increase in the price of soap and the need to spend more money on staples has resulted in soap almost disappearing from the poor's shopping lists.

Among the middle, the inability of incomes to cover all needs resulted in additional cutbacks in expenditure on agricultural inputs (seeds and spare parts for ploughs), clothes, and education. For education, the reduced spending has taken the form of non-payment of school fees, however children have generally not been withdrawn from school, or stopped by school authorities from attending. Families in the poor group reported not being able to send their children to secondary school after completing Grade 7, however, due to lack of money for fees.

The non-payment of fees was cited by two school headmasters as contributing to declining quality of education, as they cannot afford to provide adequate stationery and supplies for the children. School feeding by CADEC was reported to have been an important factor in keeping children in school. Seasonal decreases in attendance were reported, especially among boys who are required for herding and scaring birds from fields when crops are maturing, but this is quite a regular pattern.

For healthcare, most groups reported cutting back on health spending because of the high costs and/ or limited availability of transport to the clinics. Information provided by clinic staff, however, would indicate that there are also problems with the quality of service provided, with supplies of essential drugs and vaccines being limited, a shortage of qualified staff, and lack of money to pay for outreach services.

POOR RESOURCE KARIBA VALLEY & KARIANGWE-JAMBEZI

*(Binga District: Pashu, Tinde, Saba Lubanda, Sianzundu, Siachilaba, Sikalenge, Simatelele, Manjolo, Dobola, Chinonge, Kariangwe, Lubu, Muchesu, Nsenga, Sinansengwe, Sinampande & Chunga wards.
Nyaminyami District: Mola A & B, Negande A & B wards.)*

These two zones comprise the vast majority of Binga district, and the south-western part of Nyaminyami district, and are classified as Natural Regions IV and V. Both zones also spread south into parts of neighbouring Hwange district. Although Kariangwe-Jambezi is typically marginally better off than PRKV (both in terms of slightly higher agricultural production and livestock holdings), the livelihood patterns are very similar and the situation in both zones was similar last year, and hence they have been merged for this analysis.

Wealth Breakdown

The wealth breakdown in the three wards visited was based on some of the same criteria used for the previous years. Livestock ownership was the most commonly used criterion for putting people into wealth groups. Land under cultivation was used as it also determined the crop yields and duration of consumption of own harvest. The table below shows the characteristics of the three wealth groups:

Characteristic		Poor (Bafwaba)	Middle (Akatiakati/balimbubo mbubo)	Better-off (Bavubi/balinotede)
% Of total population		50- 60%	30-40%	2-10%
Livestock Holding	Cattle	0-3	3-5	> 5
	Goats	<5	5-10	> 10
	Chickens	<5	>5	>15
Land under cultivation		0.5 –2 acres	3-4 acres	4-5acres
Productive assets		Hand hoe only	Plough, wheel barrow	Ploughs, scotch cart, wheel barrow
Main Food Crops		Millet, Sorghum, maize, melons, pumpkins	Millet, Sorghum, maize, melons, pumpkins	Millet, Sorghum, maize, melons, pumpkins
Children 's Education		Primary No uniform	Secondary 'O' Level May have uniform (no shoes)	Secondary 'A' Level Complete Uniform (smart)
Economic Activities		Casual labour Agricultural labour Beer brewing Gardening	Casual labour Agricultural labour Gardening Livestock sales	Livestock sales

As can be seen from the table above, some characteristics that were cited in previous years, such as the ability to employ others, were said to have not been appropriate, as even the better off did not have surplus grain to pay for labour.

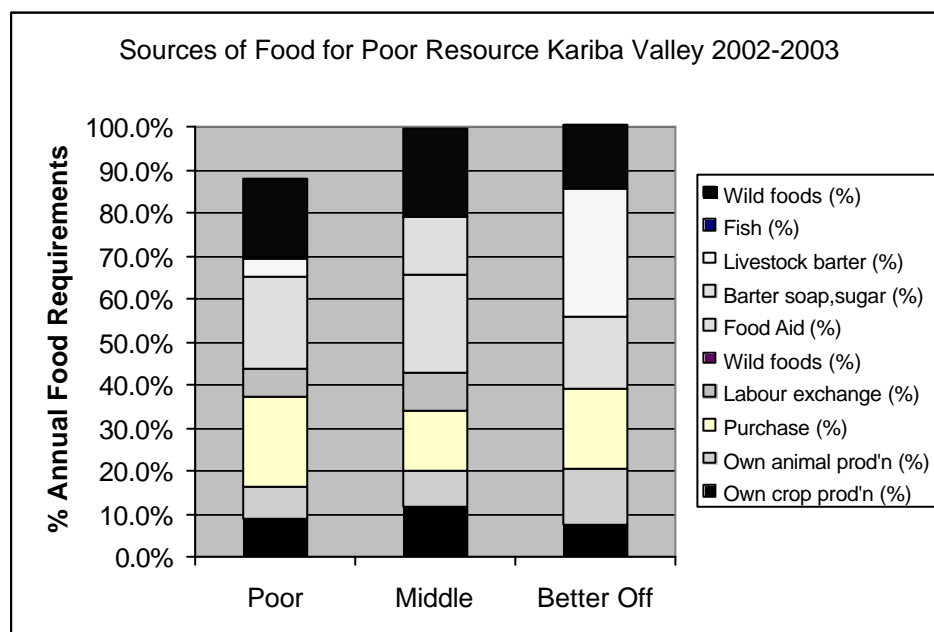
Sources of Food

During the period April 2002 - March 2003 the three wealth groups used a number of ways to bring food into their households in the face of a poor agricultural season and a

difficult economic period in the country. The poor and middle wealth groups managed to meet nearly 80-95% and 95-100% of their annual food requirements respectively, while the better off met up to 105%. The table and chart below show the contribution made by each source of food towards the annual food requirement across the three wealth groups.

% of Minimum Food Needs Met by Source, April 2002-March 2003, Poor Resource Kariba Valley

	Poor	Middle	Better Off
Own crop prod'n (%)	5-10%	10-15%	5-10%
Own animal prod'n (%)	5-10%	5-10%	10-15%
Purchase (%)	20-25%	10-15%	15-20%
Labour exchange (%)	5-10%	5-10%	0.0%
Wild foods (%)	15-20%	15%	15%
Food Aid (%)	20-25%	20-25%	15-20%
Barter soap, sugar (%)	0%	10-15%	0%
Livestock barter (%)	0-10%	<1%	25-30%
Fish (%)	<1%	0%	0%
TOTAL (%)	80-95%	95-100%	95-105%



Own Crop Production

The 2001-2002 season was poor compared to normal year crop production yields. Around 10% of total food requirements came from people's own crop production, with only marginal variations between wealth groups. This compares to around 25%, 55% and 80% for the poor, middle and better off respectively in a normal year. Irregular rains affected crop production such that maize, millet and sorghum yields were very minimal, with maize in some areas being a write off, and most people only managed to eat green maize from the fields. Those who harvested something had enough to last them for only 1-2 months.

Early consumption of melons and small pumpkins in early 2003 was very high, as these did very well during the period under review. Porridge was made from melons and this was a major meal for some households in January and February, when food aid rations were provided only to a limited extent. By March, increased food aid distributions and the availability of early-harvested grains reduced reliance on this source.

Animal Products

Livestock consumption last year increased due to the shortage of grain. In desperation, some households in the poor group in some areas slaughtered their livestock for consumption. Some households lost practically all their livestock holding in this way, and also to livestock exchange. The contribution from consumption of milk from the cows was about 2% for the middle and better-off groups.

Barter

The exchange of livestock for grain has been a coping strategy utilised by an increasing number of households in Binga during bad agricultural years. Small livestock such as chickens and goats were used in the past two bad years (2000-2001 and 2001-2002) in exchange of grain but there was a noticeable increase in the use of large livestock (cattle) for the 2002-2003 season, caused by the dwindling number of smaller livestock. The peak of the selling season occurred towards the latter half of the marketing year (from October onwards), as grain became increasingly expensive and hard to find.

Within the poor group, differences in the extent of selling between households were quite large. It appeared that some households who had higher livestock holdings last year had sold off so many as to fall from the middle group into the poor category this year. Some of the households in the middle wealth group sold cattle and then used the money to buy commodities that were scarce on the market (sugar, salt and soap) and exchanged them for grain instead of directly exchanging livestock for grain, as this provided better terms of trade. Livestock exchange was the most important source of food for the better off group households as it contributed to nearly 30% of their annual food requirements. They exchanged large livestock since they had bigger livestock holdings than the other two groups.

It should be stressed, however, that with the small livestock holdings in this area, this way of getting food is not sustainable for most households. The time and resources needed to re-build small herds will be measured in years rather than months.

Labour Exchange

Labour exchange during normal years is limited to the poor group and they work for the better off wealth groups. However with the poor harvests experienced last year, labour exchange did not contribute as much for the poor group as it normally does. The middle and better off households did not have surplus grain to pay for labour. There was also competition for such work as some of the middle wealth group households were also looking for such opportunities. In areas near Lusulu, Gokwe and other agriculturally productive areas, the people migrated in search of employment opportunities. However for areas such as Sinansengwe ward the contribution of labour exchange towards annual food requirements was very insignificant as the distance to good agricultural areas was a limiting factor.

Purchase

Purchasing was still a significant source of food, with the bulk of the food purchased being grain. Grain from the Grain Marketing Board was relatively cheap in comparison to the black market price, but the supply was very erratic as the maximum that households got was three supplies throughout the year. Even black market supplies became limited towards the end of the year. Other commodities such as sugar, bread, cooking oil and margarine were viewed as luxury products as the price of grain escalated on the market due to unavailability. The trend of decreasing dietary diversity that has been observed in previous years continued.

Wild Foods

Although it was not possible to precisely calculate the contribution made by wild foods towards the annual food requirements for the different wealth groups, it was apparent that wild food consumption had increased from last season. A variety of tubers were included in the list of wild foods consumed, whereas fruit and greens dominate during normal years. Poisonous tubers such as *gompe*, *mwanja* and *masabayo* were the main meals for some households during the most difficult months (July – November and January).

Food Aid

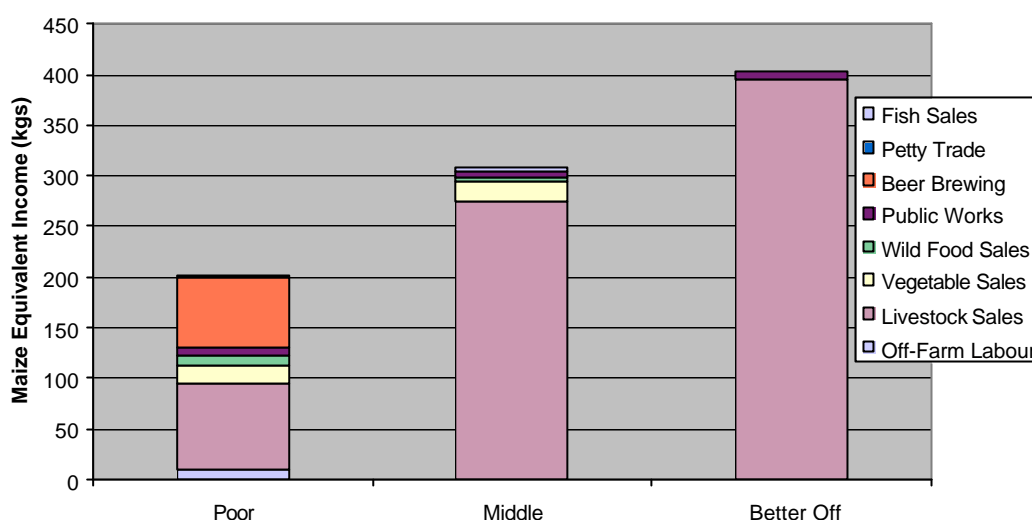
Save the Children (UK) and Catholic Development Commission (CADEC) were providing general food aid and supplementary feeding to schoolchildren and under-5s respectively. The contribution made by these two programmes was very significant as 17-23% of annual food requirements came from Food Aid. The impact of food aid on most households was very important as it limited the number of livestock that had to be used to source grain. Supplementary feeding for school children was important as it managed to keep most children in school in the midst of a seriously food insecure period. The contribution made by food aid was even higher in those parts of the Poor Resource Kariba Valley in Nyaminyami District, because greater quantities of food were distributed by Save the Children (UK) and the World Food Programme through its partner Christian Care.

Sources of Income

The table and graph below indicate the maize equivalent income (MEI, i.e. the kgs of maize that could have been bought at black market prices with the cash earned) earned from different sources between April 2002 and March 2003.

Sources of Income	Poor (MEI)	Middle (MEI)	Better Off (MEI)
Off-Farm Labour	10 (4.9%)	0	0
Livestock Sales	85 (42%)	275 (89.3%)	395 (98.1%)
Vegetable Sales	17.5 (8.6%)	20 (6.5%)	0
Wild Food Sales	10 (4.9%)	2.5 (0.8%)	0
Public Works	7.5 (3.7%)	7.5 (2.4%)	7.5 (1.9%)
Beer Brewing	70 (34.6%)	0	0
Petty Trade	2.5 (1.2%)	0	0
Fish Sales	0	3 (1%)	0
Total MEI	202.5 kg	308 kg	402.5 kg
Total Z\$ Income	Z\$30,899	Z\$59,883	Z\$80,880

Sources of Income (Maize Equivalent), Poor Resource Kariba Valley, 2002-03



Although the total income earned by households in the respective wealth groups doubled from the previous year, the purchasing of the income was reduced by inflation, which rose officially to 228% by the end of March 2003.

Casual labour

Casual labour used to be the main source of income for the poor group during agricultural peak seasons (i.e. around harvesting time (May-July) and the weeding period (December-January)). For the period under review workers preferred to be paid in kind for the different activities they carried out given the difficulties in finding maize to purchase, but on the other hand the employers preferred to pay cash instead of grain for the same reasons. Only the poor group received a significant amount of income from agricultural labour, but even they only received 5-10% of their total income from this source.

Livestock sales

Besides being directly exchanged for grain, livestock was also important as a source of income. As can be seen from the chart above, the income for the better off and middle groups was largely from livestock sales (98% and 86%) respectively since they sold large livestock (cattle). By so doing the other sources of income for the better off households lost significance. Poor households were limited to sales of small livestock such as chickens and goats.

Other Sources of Income

Since the poor had few livestock to sell, they maintained some of the ways they normally earned income such as sale of wild foods, sale of garden produce and petty trade. Some households from the poor group used the grain they bought from the Grain Marketing Board (GMB) to brew beer for sale, as the subsidised price of grain made it more profitable to engage in brewing than if the maize had been purchased on the black market. Beer brewing used to be an activity for the middle and better off who normally have surplus grain.

Expenditure

<u>Expenditure Category</u>	<u>Poor</u>	<u>Middle</u>	<u>Better Off</u>
Food (staple-cereals)	40-45%	30-35%	5-10%
Food-Other (non-staple)	25-30%	20-25%	45-50%
Education	5%	15-20%	10-15%
Healthcare	0%	0%	<1%
Goods for barter	0%	10-15%	0
Household Items (soap, vaseline, etc.)	15-20%	10-15%	25-30%
Beer	5-10%	0%	0%
Transport	0%	2-3%	2-3%
Total Expenditure (Z\$)	Z\$30,899	Z\$59,883	Z\$80,880

The expenditure pattern for the poor wealth group has been becoming less diverse over the last two years. The bulk of income (65-75%) was spent last year on buying food. There has also been an increase on staple food expenditure by better-off households, rising from 0% in a normal year, to 6% in 2001/02, and up to 45% in 2002/03. This was due to poor crop yields and the high price for grain on the market.

The other commodities that the poor group afforded were salt, some soap and beer. When probed to explain on the expenditure on beer it was interesting to note that beer was treated more like food than a luxury drink as the household heads drank beer so that the other household members could share the little food that was available. Hunger pangs were also reported to have been less severe when one was drunk.

It was also interesting to note that even the poor group were able to keep children in school. This was attributed to the two food aid programmes provided by SC(UK) and CADEC. Children were not taken out of school to go and work for food.

SIABUWA-NEBIRI-MSAMBAKARUMA LOW COTTON PRODUCING COMMUNAL
(Binga: Nabusenga ward; Nyaminyami: Nebiri, Kasvisva, Msambakaruma A & B wards)

This food economy zone, located around the boundary between Binga and Nyaminyami and extending north, is somewhat better off than the Poor Resource Kariba Valley, but less well off than Kanyati and Lusulu. The soils in the area are more conducive for cotton production, and food crops also tend to perform better.

Wealth Breakdown

Three wealth groups were identified in this zone, and their characteristics remained largely unchanged from last year.

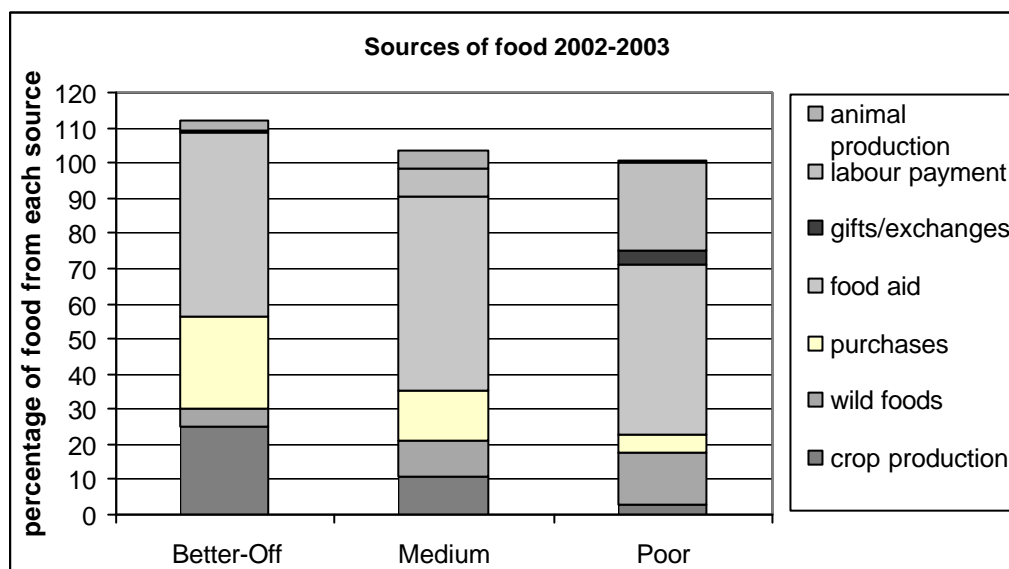
<u>Characteristics</u>	<u>Poor</u>	<u>Medium</u>	<u>Better Off</u>
% of population	50-55%	30%	15-20%
HH size	8 to 10	5 to 6	6 to 8
Number wives	1 to 4	1 to 2	1
Land owned	12 acres	12 acres	12 acres
Land cultivated of which cotton	2 acres 0	5 - 9 acres 3 -4 acres	12 acres 6 - 7 acres
Productive assets	no farm equipment	some farm equipment	plough, scotch cart, harrow, cultivator
Livestock owned			
<i>Cattle</i>	0	0 to 4	5 to 10
<i>Goats</i>	0 to 5	5 to 10	10 to 15
<i>Donkeys</i>	0 to 2	2 to 4	4 to 8
<i>Chicken</i>	1 to 5	6 to 12	15 to 25
Main food crops	Maize, sorghum, millet, groundnuts	Maize, pumpkin, vegetables, groundnuts, sorghum	Maize, pumpkin, vegetables, groundnuts sorghum
Main cash crops	Vegetables	Cotton, groundnuts vegetables	Cotton, groundnuts
Economic activities	agricultural labour off-farm labour, public works, crafts	cash crop sales, processing, (Gnuts), vegetable sales, agric. labour, off-farm labour crafts	cash crop sales livestock sales processing (Gnuts) vegetable sales safari operators
Remarks	access to farm equipment through labour exchanges	access to farm equipment and labour through exchanges	own farm equipment
Children primary	some	all	all
Children secondary	Few	some	all

Sources of food

Households in the Siabuwa-Nebiri-Msambakaruma zone were found to have met 90-115% of their food requirements in 2002-2003, as indicated below.

% of Minimum Food Needs Met by Source, April 2002-March 2003, Siabuwa-Nebiri-Msambakaruma

Sources of food	Poor	Medium	Better-Off
own production	0-5%	15-20%	25-30%
wild foods	15%	10%	5%
Purchases	2-5%	10-15%	25-30%
food aid	45-50%	50-55%	50-55%
gifts/exchanges	2-5%	0%	0-2%
labour payment	25-30%	5-10%	0%
% food needs met in 2002-2003	90-105%	100-105%	110-115%



Own production

Production levels overall in this zone last year were low. The majority of poor households harvested 0-50 kg of maize in 2002, providing only up to 5% of their minimum requirements, compared to up to 40% in a normal year. The middle group managed to cover 11% of their food needs with their own crop, which is about a fifth of the proportion of food needs covered in a normal year. The better off managed to harvest enough to meet just over 20% of their needs. However as is discussed below, the combination of own crop and food aid allowed better off households to benefit from the sale of surplus grain, while also meeting some of the local demand at black market prices (increasing from Z\$125 to 275/ kg from August to November).

Animal Products

The middle and better off were able to access approximately 5% of their food needs through the consumption of milk from their limited cattle stocks, and from meat from small livestock such as goats and chickens. The contribution of animal products to the poor's food intake was negligible, involving the consumption on average of one goat per year and a small number of chickens.

Wild Foods

Wild foods have continued to compensate substantially for the lack of maize on the market. The consumption level is equal to or above last year's level. For the poor, wild tubers such as *manyeme* (available from July to September) and *ngarare* (year-

round) provide the most important substitute for maize. All wealth groups mentioned consuming baobab fruits (April-September) and tamarind (August to October), while the middle and poor group use wild okra (November to April) and *nieve* (November-December) as a basis for relish.

Bush meat given to communities by CAMPFIRE or private safari operators was scarce (a rare occurrence only in the winter months), which may have encouraged some amount of poaching at household level. People were reluctant to provide information but suggested that poaching increases when bush-meat provided legally to the communities is scarce.

Agricultural Labour

Poor households observed that while payments in food were preferred in the absence of maize in the markets, they were not guaranteed, and households usually obtained a combination of cash and food for their labour. Cash payments were said to be more frequent locally than in Gokwe. Food payments accounted for over 20% of total food requirements for the poor (similar to last year), while for the middle the contribution was 5-10% (lower than last year).

Purchases

The combination of limited incomes, high prices and low harvests meant that for most people food purchases were dominated by staple foods. As was the case last year, diets were far from diverse, especially in the poor category, where access to protein foods provided by milk, meat, and eggs was further constrained by their small livestock holdings. Their ability to purchase sugar, oil, meat and pulses was very limited. The poor bought salt on a regular basis, and up to 100 Kg of maize (of which about 25% from the GMB only). The middle and rich could afford sugar and vegetable oil regularly, small quantities of bush meat, rice and pulses on occasion, and up to 140 and 300 kg of maize for the middle and better off respectively, with around 2/3 from the GMB.

The better off and middle households appeared to have accessed GMB maize more regularly than the poor households. The reasons for this are unclear. For poor households availability of GMB maize was clearly problematic, since they were constrained to buy 75% of last year's maize purchases at the black market price. Instead of paying Z\$3,000 for 30kg of maize meal at black market price in May 2002, they could have accessed over 250kg from the GMB for the same sum of money.

Food Aid

Nyaminyami as a whole was very well supplied with food aid by both Save the Children (who targeted social welfare cases) and Christian Care (who provided general rations to the rest of the population as the WFP implementing partner). Food aid contributed 45 to 55% of all food requirements for all the households in the zone, and the commodities were received in 11 out of 12 months. As was referred to earlier, however, the high level of food aid even to the better off families contributed to a situation where that group sold a significant amount of grain, indicating that that group was over-supplied with food aid.

In the context of the limited dietary diversity referred to above, the proteins and lipids provided by food aid were crucial to ensure balanced diets as well as enabling households to meet their energy needs throughout the year.

Households in the poor and middle categories said they borrowed maize from neighbours on a near-monthly basis, generally when the food aid supplies ran out about three weeks after distributions. Save the Children and Christian Care distributions being on different dates enabled a cycle of borrowing and reimbursing to take place, since the food aid would run out at different times of the month for SC and CC beneficiaries. Borrowed food would then be reimbursed following each distribution.

Sources of Income

The table below indicates the relative shares of total income, measured in terms of the kgs of maize that could have been purchased at black market prices, from various sources. The nominal (Z\$) value of total income is also indicated.

<u>Income Source</u>	<u>Poor</u>	<u>Middle</u>	<u>Better-off</u>
Crop sales	0%	0%	34%
Vegetable sales	3%	1%	1%
Cash crop sales	0%	10%	53%
Livestock sales	1%	13%	9%
Local agric labour	57%	64%	0%
Non-local agric labour	33%	6%	0%
Off-farm labour	0%	6%	0%
Public works	5%	0%	2%
Total (Z\$)	\$ 58,600	\$ 128,022	\$ 199,500
Total (MEI – kgs)	301	907	1,453

Food Crop sales

The contribution of food crop sales to total income in a normal year is quite important to the better off and to a lesser extent the middle group. Last year, in spite of the poor harvest, the contribution of food crops actually increased for the better off, though not uniformly within the zone, since it remained close to zero for those households in Nebiri. It is not clear whether the grain sold was actually from own production or food aid, but the high provision of food aid and the high demand and prices on the black market made this a lucrative activity.

Vegetable sales were undertaken by households from all wealth groups, but remained a marginal source of income, as in the normal years.

Cash crop sales

Cash crop sales – mainly cotton - dropped below 2001-02 levels for all wealth-groups, and dropped to zero for the poor households who were limited in purchasing inputs, and were busy labouring for immediate income in other people's fields. For the other groups, the main problems were the poor harvest, and the lower returns than normal on cotton, including due to high transport costs.

Livestock

Livestock sales in the past year took place at a normal off-take level of around 25%. The poor were able to avoid selling their goats, relying on the sale of a few chickens only. The better off and middle groups sold cattle and goats from October to January,

coinciding with the critical period when food supplies had long run out for all groups, and food aid was interrupted for a month. Overall, livestock holdings were not significantly depleted over the past year.

Agricultural Labour

Both the poor and middle groups relied heavily on agricultural labour, which provided 65-70% of their cash income, in addition to the direct food income referred to earlier. Middle group households relied more heavily on agricultural labour this year than last year, reflecting the tendency of this group to use that activity as a coping strategy in bad years.

Off-farm casual labouring (such as brick-making, construction, fencing, etc.) was significant only for the poor group, providing 25-30% of their income. Other activities such as petty trade, brewing, crafts, remittances and the government's Public Works programme provided minimal amounts of income.

Expenditure

The variety of goods and services upon which income was spent remained low again this year amongst all wealth groups, with the expenditure basket comprising only basic commodities such as soap (all groups), school fees and other education costs (all groups, but higher for the middle and better off who sent children to secondary school) and agricultural inputs (better off, middle). Full details of expenditure were not collected in this assessment, but all households maintained that spending in non-food items was minimal.

KANYATI FOOD ECONOMY ZONE

(Nyaminyami District: Kanyati A & B wards)

Wealth Breakdown - Kanyati

The Kanyati area - once the breadbasket of the district - has suffered shocks of continued drought years and decline in livestock holdings due to *trypanosomiasis*. Over the assessment period, livestock conditions were reported to have stabilised (albeit at low levels). *reports of reduced incidence of trypanosomiasis, improved pasture and availability of vaccines and medicines translating to reduced reports of tick-borne diseases.*

The wealth breakdown for Kanyati maintained the general profile observed in the 2001-2 season, save for a slight decline in cattle holdings.

The table below illustrates the characteristics of the identified wealth groups:

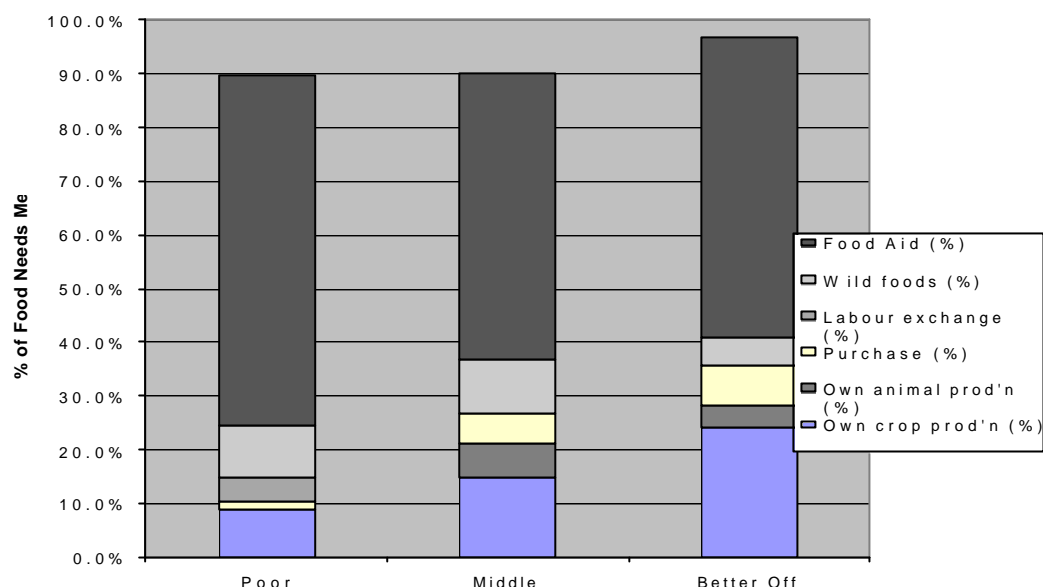
Characteristics	Poor (Vanoshaya)	Middle (Varinani/ Varipakati nepakati)	Better-off (Vanowana)
% of total population	60- 80%	10-20%	5-10%
Average Household Size	8-9	8-9	6-8
Livestock Holdings	Cattle	0	2-4
	Goats	0-2	2-6
	Chickens	0-5	3-5
Land Owned	12 acres	12 acres	12 acres
Land under cultivation	2-3 acres	4 acres	4-6acres
Productive Assets	No farming implements except Hand-hoes	Some farming equipment	Plough, cultivator, harrow, wheel-barrow, scotch cart
Main Food Crops	Maize Millet Groundnuts Beans Sweet potatoes	Maize Millet Groundnuts Beans Sweet potatoes	Maize Millet Groundnuts Beans Sweet potatoes
Main Cash Crops	Vegetables	Vegetables Some cotton	Cotton Tobacco Maize
Economic Activities	On and off-farm labour Public Works Gardening	On and off-farm labour Public Works Gardening	Cash Crop Sales Intensive On-farm labour
Children's Education	Most assisted by BEAM	A few can afford to send children to Secondary School	Some up to Tertiary Education

Although agricultural and casual labour were mentioned as criteria for wealth status, the fact that opportunities were scarce over the 2002/03 season resulted in it being debated. Normally, the better off hire the other wealth groups to labour on their fields or perform menial tasks for them, but this was less common this year.

Sources of Food

Households in Kanyati were found to have realised 89% to 95% of their average energy requirements in 2002/03. While the better off managed to meet their requirements in full, the poor and middle groups both had deficits of about 10%, differing only in relative contributions by different sources.

Sources of Food, 2002-3, Kanyati



% of Minimum Food Needs Met by Source, April 2002-March 2003, Kanyati

	<u>Poor</u>	<u>Middle</u>	<u>Better Off</u>
Own crop production	5-10%	10-15%	20-25%
Own Livestock	0%	5-10%	5%
Purchase	1-5%	5-10%	7-12%
Labour exchange	0-5%	0%	0%
Wild foods	10%	10%	5%
Food Aid (%)	60-65%	50-55%	55-60%
% Food Needs met in 2002-3	75-95%	80-100%	90-110%

Own Crop Production

Erratic rainfall and the prolonged dry spell observed during and succeeding the planting period, 2001-2, compromised yields in Kanyati. The significance of the harvest's contribution to calorific intake was directly proportional to relative areas cultivated. The better-off, who have more draught power and farming implements obtained almost a quarter (24.2%) of their food needs from own crop production as compared to 14.9% and 9% contributions for the Middle and Poor groups respectively. In real terms, the harvest translated to between two and four months of consumption. This shows a 50% decline from the 2001-2 season and 75% decrease from baseline contributions. In a normal year, both the middle and better off would expect to produce a surplus of food crops.

Although the types of crops planted last year were diverse, maize made the most significant contribution with small quantities of millet, groundnuts, pumpkins and melons also being harvested. Sweet potatoes and beans, though planted, did not do well.

Own Livestock

The Middle wealth group slaughtered livestock, to obtain 5.4% of their food needs. This contribution was higher than that of the Better off (2.1%) due to necessity. The poor on the other hand have minimum livestock holdings due to consumption and death in previous years, hence the absence of own animal products in their food sources. Mostly cattle and a few goats were slaughtered during this period. The reasons mentioned were the extent of food insecurity, resulting in the need to

slaughter bigger livestock, as well as the fact that cattle deaths are prevalent in the area.

Cows' milk had a low contribution in Kanyati due to low livestock holdings. The better off and middle groups obtained approximately 2% and 1% of their needs respectively from drinking and utilising milk unlike the poor who had no cattle.

Purchase

The purchase of food from markets continues to decline in significance as a means of meeting requirements. Compared to between 25% and 35% of requirements being met through purchasing food in 2001-2, the current contribution has declined to between 2% and 8%. The high provision of food aid, combined with the limited availability and high price of maize on the parallel market is mainly responsible for this situation. Communities' buying power has been greatly compromised, more so in the Kanyati area, where livestock deaths and pre-emptive consumption has deprived them of a key source of income. Purchase continues to be limited to the staple, maize grain. This prioritisation, though necessary, limits dietary diversity.

Labour Exchange

Only the poor obtained food by these means in the past year (4.2%). Due to the widespread livelihood insecurity, labour opportunities are by and large unavailable. As a result, time is spent looking for piece jobs and compromises are made on payment rates resulting in the more desperate being willing to make the effort and compromises. Over the past year, labour in exchange for grain was at a payment rate of one bucket for a week's worth of labour, with two family members working. This translates, at Z\$275/kg on the black market, to a payment rate of 2kg of maize per person per day.

Wild Foods

Wild foods continue to assist in bridging the food deficit. These however are the normal fruits, vegetables and tubers utilised by communities as relish, snacks or means of diversifying their diets, and not famine foods. Their contribution, although difficult to quantify with confidence is estimated to be 10% for the poor and medium groups and 5% for the better off.

Food Aid

Since all households in the district benefit from either the Christian Care or the SC (UK) food aid programmes, 50 to 65% of energy requirements were contributed by this source. The highest contribution was observed in the Poor group (65%). This was due to the fact that this group includes SC (UK) beneficiaries, whose entire households are registered. CC on the other hand registered a maximum of five beneficiaries per household. This explains the fact that the better off, who have smaller households, benefited marginally more than the middle group (55.9% compared to 53.4%).

Income and Expenditure

Due to time constraints and the Kanyati community's apparent expectations and fears regarding the provision of food aid and their status as the most productive part of the district, it proved very difficult to obtain credible information on actual income and

expenditure over the last year. However, qualitative information was discussed on the differences between the year under analysis and the 2001-2 season, and this can be compared with information from assessments carried out over the last 2 years in the area.

It was generally observed that the amount of relief /assistance provided to communities by various institutions cushioned households from economic shocks, reducing the need to source more income. In addition to food aid, the poor and middle groups received BEAM (Basic Education Assistance Module) assistance in the form of payment of school fees.

One objective (though indirect) of the food aid programmes is to enable vulnerable households to utilise the resources they would have otherwise used to purchase food to secure other basic necessities to ensure livelihood security. As such, at face value, the observation of reduced income-earning activities may be misconstrued to be symptomatic of dependence. On the contrary, due to the demand-supply dynamics of casual labour and general unavailability of normal income sources, pressure on the limited time and resources was reduced.

Sources of Income

Although the general trend between wealth groups was maintained, there was a decline in the significance of cash crop sales. In fact, the sale of cash crops, mostly cotton, was virtually eliminated from the poor group's profile following the poor harvest last year. No sales of food crops were made.

No change was noted in the significance of agricultural labour, which remained largely unavailable since the better off had reduced earnings themselves. The better off who have draught power and farming implements at their disposal embarked on more capital-intensive agriculture. Off farm casual labour was mentioned as the most significant source of income for the poor and middle groups.

The other major source of income for the middle and better off is normally livestock sales. However the combination of reduced cattle holdings due to disease (trypanosomiasis) and the reduced need to sell livestock because of the provision of food aid would explain why this source was not reported to have been significant last year.

Expenditure

The poor and middle groups made a number of cutbacks in spending. Specifically, spending on basics such as salt, soap, fuel, sugar, transport and non-staple foods were reduced to the bare minimum, and no spending was observed on clothing. An increase in spending on grinding costs was observed, particularly amongst Christian Care general ration recipient households, who receive maize grain. This increase was exacerbated by increases in the landing cost of fuel, on which all grinding mills in the area are dependent.

CASE STUDIES OF HIV/AIDS-AFFECTED HOUSEHOLDS IN THE POOR RESOURCE KARIBA VALLEY, 2002-2003

Binga District and HIV/AIDS

According to the Binga District AIDS Committee (DAC), only 94 cases of people are known to be living with HIV in Binga District. These are from 3 wards that already have Support Groups. In the other 18 wards, the committee only has a figure of people who are terminally ill but have not been tested for HIV infection. These are roughly about 206 people.

The numbers above are likely to seriously underestimate the prevalence of HIV/AIDS in the district. UNAIDS estimates that adult (aged 15-49) HIV prevalence at 33.7% nationally, while the 1999 Demographic and Health Survey indicates that exactly 40% of the population are aged between 15 and 49. With a total district population according to the 2002 census of 118,000, therefore, we would expect the number of adults living with HIV/AIDS to be just over 15,900.

Voluntary Counselling and Testing (VCT) services are available only in Binga town, and the issue of transport availability and costs, combined with more usual issues of stigma, may explain the very low reported rates of HIV/AIDS. Home-based care programmes have not yet been established in the district, although plans are said to be in place for establishing such programmes before the end of this year.

The Current Study

HIV/AIDS affects households in a number of ways, ranging from the effects of chronic illness, to the death of a household member, to the effects of families taking in orphans. This study focuses on households that lost their male breadwinners and were currently being headed by women who also tested HIV positive. Most of the women's husbands died 2-4 years ago, and the majority of their children are still of primary-school age. These women were already sick from the virus, which was the main reason they were tested for HIV. 21 households participated in this study, all from the Poor Resource Kariba Valley food economy zone. Their husbands had passed away between 2 and 5 years previously, and most had children of primary school age. The ways that were used by these households to source food and income were largely determined by the health of the household heads, the ages of the children and their relationship with the extended family.

Purpose of Study

- To find out how households affected by HIV/AIDS managed to survive during the period from April 2002 to March 2003, and to compare this with findings for households not affected by HIV/AIDS in the same area.

Methodology

The Household Economy Approach (HEA) was used. Sampling was purposive as only the available and willing households were interviewed. Focus Group Discussions, organised with the assistance of the Binga DAC and SC's Reproductive Health Programme and individual household interviews were carried out in order to cross check information.

Study limitations

Since it was only the known cases that participated it is difficult to generalise the results to the wider population.

MAIN FINDINGS

Wealth Profile

The wealth profile of the households in this category is quite similar to that of the “poor” group in the Poor Resource Kariba Valley, but is at the lower end of the range for that group. These households own 0 cattle, 0-2 goats and 0 chickens. However, it was noted that most had sold 1-4 cattle in the last two years, suggesting that some of the households may previously have been wealthier but have been gradually de-stocking. It was noticeable that over the years since the deaths of their husbands, the wealth profile of the households has gradually converged around the current poor level. The interviewees were unable to estimate the acreage of land they cultivated, but their harvests last year would again suggest that they fall within the lower end of the range of 0.5 – 2 acres that was found for other poor households in this zone.

Sources of Food

HIV/AIDS affected households have different dietary needs to the rest of the population⁶. Specifically, they require:

- (a) 10-15% more energy per day (i.e. thus their minimum requirements are set at 2,415kcal per day, rather than 2,100kcal for the rest of the population)
- (b) 50-100% more protein
- (c) higher consumption of micronutrients such as Vitamin A, B6 and B12, iron and zinc, which helps build the immune system and fight infections.

While the households surveyed here managed to consume only slightly less food than the poor wealth group in the same area, their higher requirements means that this amounts to less than 80% of their annual food requirements last year, inclusive of the contribution made by wild food consumption. HIV/AIDS affected households struggled to source food during the period 2002-2003 since the household heads (all female) were sick most of the time. Female-headed households are generally more disadvantaged in the community if the household head is affected by HIV/AIDS. Ill health determined the type of activities such households could afford to engage in, frequency and labour that was available to do such type of work. The chart and table below indicate the contribution made by each source of food towards the household’s annual food requirements.

⁶ FANTA Project, 2001: p15

*% of Minimum Food Needs Met by Source, April 2002-March 2003,
HIV/AIDS-Affected Households*

	% of Requirements met from Source
Own crop prod'n (%)	5.1%
Own animal prod'n (%)	1.7%
Purchase (%)	18.5%
Labour exchange (%)	1.4%
Wild foods (%)	15.6%
Food Aid (%)	20.0%
All barter	13.0%
Livestock barter (%)	3.5%
Total	78.8% (of 2,415 kcal)

The overall pattern is very similar to the “poor” wealth group in the Poor Resource Kariba Valley, but the main differences are lower contributions from own production and from casual labour.

Own Crop Production

The previous season’s harvests (2001-2002) were below the normal for all households in Binga due to the poor agricultural season. However the crop yields for HIV/AIDS affected households were even below those of the poor wealth group. The contribution from own crop production was 5.9% while it was 8.7% for the poor wealth group. Own crop production was seriously affected by the ill health of the household heads since they were sick during the planting season and also did not have draught power. According to the participants, they had to cut down the number of days they could work in their own fields from 5 to 2 days per week. They did this in order to allow their bodies resting time, as they reported of getting tired easily. By so doing they have also reduced the size of land they used to cultivate by almost half. The children also could not go to the fields when their mothers were sick therefore cutting down on available labour. By the end of the day the effort put on own crop production was very low and this translated into poor yields, with seriously affected households not farming at all during the previous season.

Food Aid

Across all the wealth groups food aid played a very significant role in contributing towards annual household food requirements, more so for the households affected by HIV/AIDS. Besides SC (UK) and CADEC, the District AIDS Committee also gave food supplies to households with people living with HIV. Although the supply was a once off initiative, it provided dietary diversity as it included items such as rice, skimmed milk, oats, peanut butter, flour and orange juice. Interviewees indicated that while the general ration they receive from SC (UK) is helpful, a ration which included some other lighter foods such as flour, milk and sugar would be more appropriate for times when they are sick and lack appetite. In some areas the distance to distribution points was also cited as a problem for the chronically ill.

Barter

Like other households in the district, HIV/AIDS-affected households engaged in exchanging products such as craftwork, fibre and fish for grain. However this activity was hampered by the household head’s ill health, as they could not travel when they were sick and neither could their children, as they needed to nurse their mothers. They

also reported of stiff competition from people who were bartering with most needed products such as sugar and soap, which they could not afford to buy. They were also hampered by lack of money for transport, as they could not afford to walk the long distances that other people walked. Their food income from this source therefore was similar to that of the poor, but well below that of the middle group.

Wild Foods

As indicated earlier, wild food consumption was very high across all groups. That was also the case for HIV/AIDS affected households. Wild foods, including the types of tubers used only as “famine foods”, were consumed when other types of food were scarce.

Purchase

Twenty-one percent of their total annual food requirements came from purchasing food. This was similar to what other wealth groups did. The bulk of the purchased food was maize grain. The GMB supplied maize grain three times in the area, with each household getting 50 kg per delivery. This helped since the price was well below that charged on the black market.

Other sources

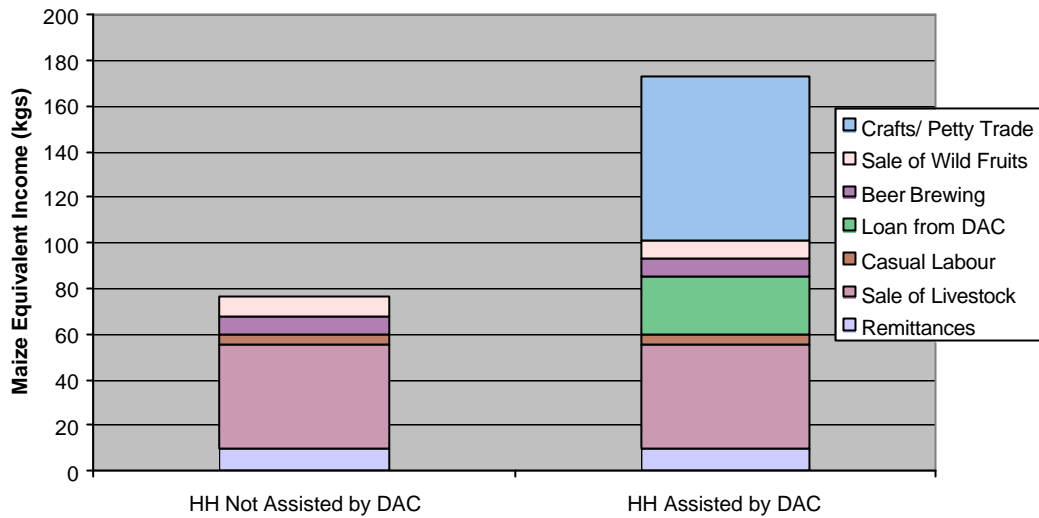
Small contributions towards annual food needs came from exchanging livestock for grain since they had a few. Gardening was limited to only a few who had water nearby.

Sources of Income

HIV/AIDS-affected households fell into two distinct groups according to income. The first group, which was better off, was the group that had been assisted with a grant by DAC. The other group was of households that received no assistance from DAC and had no other form of capital for income earning activities. However sources of income available for the HIV/AIDS affected households were also largely determined by their health. The table and chart below present the sources of income that such households used in the season 2002-2003. The total income, measured as maize equivalent income, from all activities for the households that received assistance was about 15% less than that earned by the poor wealth group in the Poor Resource Kariba Valley. Those households not assisted by the DAC earned 65% less, however.

Source of Income	HH Not Assisted by DAC	HH Assisted by DAC
Remittances	13%	6%
Sale of Livestock	59%	26%
Casual Labour	7%	3%
Loan from DAC	0%	14%
Beer Brewing	11%	5%
Sale of Wild Fruits	11%	5%
Crafts/ Petty Trade	0%	42%
Total Z\$	\$9,601	\$30,046
Total MEI	76kg	173kg

Sources of Income (MEI), HIV/AIDS-Affected Households, 2002-03



As can be seen from the above chart, crafts and petty trading, funded through loans, were the backbone of the sources of income used by households assisted by the DAC. This situation was seen in Manjolo ward where a support group was given a grant in July 2002 of \$50,000 for 11 members to start income earning activities. This money was shared and every member got about \$4545. The money was the basis for most of the economic activities that the households engaged in. Most of the beneficiaries used the money to support their crafts (basketry). According to the participants, “basketry has taken the place of our husbands” since it is now their main source of income. The craft is done all year round and is not physically demanding as one can make the baskets while seated and leisurely. They sell baskets on a monthly basis, and by so doing having constant flow of income. However production drops during the times when they are not feeling well. Others have even gone to the extent of teaching the skill to their children such that production continues even when they are ill.

However, there was another distinct group of HIV affected households especially in Chinonge village, which did not get any financial support and had no constant source of income. These were the worst affected group as their sources of income had been seriously depleted by ill health and absolute poverty.

One such household earned less than \$5000 over the year as the mother had been in hospital for 3 months on TB treatment. Such households were pathetic as the children were doing all the work, with no adult around to help them. Neighbours and relatives mostly provided assistance in the form of checking on the children when the mother was sick but financial support was very minimal. Financial support only came when the household head was very sick, for example if an ambulance had to be called. Such money was sometimes treated as a loan and therefore had to be paid back.

Expenditure

The expenditure pattern for HIV-affected households was not very different from the poor group in the same zone, as the bulk of the income was spent on staple food and other types of food. For those who had received DAC assistance and had higher incomes, 57% of their income was spent on staples, with another 24% being spent on non-staple foods, which included bread, rice (in small quantities), sugar, fish and vegetables. For those without DAC assistance, their lower incomes meant both that a greater proportion of income (up to 75%) was spent on staple foods, and also that the only other foods they could afford to purchase were much smaller and less frequent amounts of bread, sugar and fish. The food basket purchased is clearly inadequate for the specific nutritional needs of people living with HIV/AIDS.

Another important household item, especially for those living with HIV/AIDS is soap. However, the quantities purchasable both by those who received assistance from DAC and those without such assistance was negligible – 0-4% of total income over the year, equating to just over Z\$1,200, which is currently less than the price of 1 bar.

Children in the household were generally sent to primary school, but mothers were unable to afford the costs for secondary school. For those on lower incomes, children were still usually being sent to primary school, but were defaulting on the payment of fees.

Health costs featured in the expenditure basket, accounting for about 5%, which although higher than for other groups remains low in absolute terms. The cost of health reflected here is the actual amount they afforded to pay, but most of the participants reported that they had credits at the hospital. Most were no longer going to the hospital because they were afraid they would not be accepted since they had not paid up for last visits. According to one participant, she had been admitted into hospital for about five times since April 2002, staying for about four days to a week. On all the visits she only managed to pay for consultation (\$120) and the rest was credited against her name. Those on TB treatment were on government-funded free treatment.

COPING STRATEGIES, NUTRITION, LIVELIHOODS & THE ROLE OF FOOD AID

From a strict food security point of view the population “coped” for the last 12 months in Nyaminyami, and at least until December in Binga, in the sense that minimum food requirements were generally met and levels of malnutrition remained relatively low. Save the Children carried out nutrition surveys in Binga in April and December 2002, and in Nyaminyami in July 2002, while both districts were covered by the national nutrition survey in February 2003, though the results of the latter had not been released at the time of writing.

In Nyaminyami in particular, it is undoubtedly the case that food aid has played a major role in keeping acute malnutrition low (around 4-5% global acute malnutrition). The sheer volume of food aid from both SC and Christian Care meant that most of the population got more than 50% of their minimum needs from this source. Although evidence of grain sales among the better off in Nebiri/ Msambakaruma would suggest an over-supply to some of the population, the declining dietary diversity and limited spending on non-food items among the rest of the population suggests that in the absence of that aid it is unlikely that those groups would have met their needs.

In Binga, the aid provided by SC, CADEC and ADRA also played a vital, if smaller, role. The pattern of access to food and income, and of malnutrition rates over the year would suggest that while people still managed to access food during the period of Save the Children’s suspension in October/ November, by January and February when SC had resumed operations but was unable to meet its targets, alternative affordable food sources had largely dried up and a rise in malnutrition is reported to have resulted. By March, however, food aid distributions did reach the entire population, and with the availability of early-harvested crops, the malnutrition rate should have begun to decline again.

Although acute malnutrition generally remained low, there are still reasons to be concerned about other impacts of last year’s problems on food and livelihood security, which have both short and longer-term implications.

Most of the coping strategies employed last year took the form of changes in spending and consumption. Incomes were very much squeezed by the high prices of maize and of alternatives such as maize husks and floor sweepings from millers. Dietary diversity declined substantially as a result, with most people’s food baskets – including even those of the better off – being limited to maize or maize substitutes with vegetables or wild foods. Protein and fats came almost entirely from food aid, as items like groundnuts, beans, meat and kapenta were either unaffordable or unavailable. When adequate supplies of food aid or cheap food from the market were not available, most households reported reducing the number of meals consumed per day from 3 to 1.

Spending on healthcare, education and agricultural inputs also declined for most groups. For education the impact was less serious than might otherwise have been the case, as school feeding and general rations encouraged children to remain in school. In addition, school authorities – at least at primary level – were generally willing to allow children to remain in school even if parents defaulted on fees.

There was also a large decline in spending on household items such as soap. This will undermine efforts at hygiene promotion and will increase the risk of related diseases.

Income-related coping strategies were generally limited. For most people, nominal incomes rose compared to last year, but the rise in incomes was not adequate either to keep pace with inflation or to match the increased need to purchase maize. It is interesting to note that for many types of local employment and self-employment such as vegetable sales and off-farm casual labour, people were able to increase the selling price of their goods and services at a rate close to that of the rise in the price of maize.

Those who were best able to raise their incomes and who therefore had to cut back less on expenditure than other groups were the better off who had cattle to sell. However, both Binga and Kariba have relatively low livestock holdings, and particularly after this year it will be very difficult for households to either sell more or to begin to replenish their holdings. Livestock also have the added value of being sellable at any time of the year. This ability to spread the flow of income across the year is a major advantage for the better off. However, the real value of the animals tends to decline later in the year as maize becomes harder to find and more people want to sell their livestock.

Although detailed information on this was not gathered during this assessment, recent research by Save the Children⁷ in the same area indicates that food insecurity can both encourage high-risk behaviour that can increase the spread of HIV, and also act as a hindrance to the translation of knowledge and attitudes into positive behaviour change. For example, given the limited income-earning opportunities in the area, the temptation for women and girls to engage in commercial sex work or to get involved in relationships with older men on a less obviously commercial basis, but nonetheless with the provision of gifts or favours, becomes high. The latter phenomenon is a particular risk among secondary school aged girls, especially those “bush boarders” who live away from home with limited means of support and are therefore more vulnerable to exploitation. In the case of commercial sex work, it was found that the price charged for unprotected sex was three times higher than that for sex with a condom, thus further increasing the economic incentive for high-risk behaviour.

Food aid had and will continue to have an important role to play not only in maintaining nutritional status, but in facilitating the avoidance of some of the coping strategies referred to above that are damaging to livelihoods. In addition, at the right time of the year, the provision of food aid can actually help to reduce dependency by giving people the strength and the time to work more on their own fields, rather than working elsewhere to get enough food to survive.

THE IMPACT ON CHILDREN

Just prior to the main HEA survey, SC staff held interviews in Binga with four groups of children, two mixed and two single sex, aged from 8 to 14 years of age. The purpose of the interviews was to shed further light on how children’s roles in accessing food and income may have changed during the current food crisis, and what impact food aid may have had.

⁷ Cite the CSW Livelihoods paper, and Sydney’s Operational Research

Household chores are mainly the responsibility of girls in the household. Much of their time is taken up with sweeping around the house, fetching water and firewood, washing dishes and cooking. In addition to these chores, the table below indicates the main productive activities undertaken by children of different ages and genders.

Activity	Gender	Age range
Weeding	Both	10 years+
Planting	Both	10 years+
Going to the Grinding mill	Both	8 years+
Collection of wild foods	Both	5 years +
Selling wild fruits	Both	9 years
Herding cattle	Boys	10 – 16 years
Leading oxen during ploughing	Boys	8 years +
Buying maize	Both	10 years+
Work in other people's fields	Both	
Herding cattle for others	Boys	10-16 years
Fishing	Both	9 years+
Hunting	Boys	11 years+
Brick moulding (collect water)	Both	13 years+
River bank gardening	Girls	13 years+
Harvest Fibre from bush	Boys	12 years+
Basket making	Girls	15 years+
Building huts for others	Boys	16 years+
Work as housemaids for teachers	Girls	15 years+

Apart from the direct impact of food aid in terms of increasing the amount and variety of food eaten and the frequency of meals, the children highlighted a number of ways in which their lives had been impacted by food aid:

- They spend less time going to the bush to search for wild foods
- They spend less time walking to markets and towns in search of grain to buy
- They do not have to spend as much time herding animals for other people to raise money for food (though boys still do this activity for their own families)
- Because of the above, they and their parents are able to spend more time working on their own fields
- They are less likely to skip school for the above reasons and also because they go to school on full stomachs and receive food at the school
- The children spend more time doing schoolwork and playing
- The money they have now is less likely to be spent on grain, and more likely to be spent on other items such as soap, salt and clothes

In short, it would appear that food aid has assisted in reversing the prevailing situation whereby children's rights to adequate food, leisure and education were becoming privileges of the better off only.

PROBLEM SPECIFICATION – THE SITUATION FOR APRIL 2003 – MARCH 2004

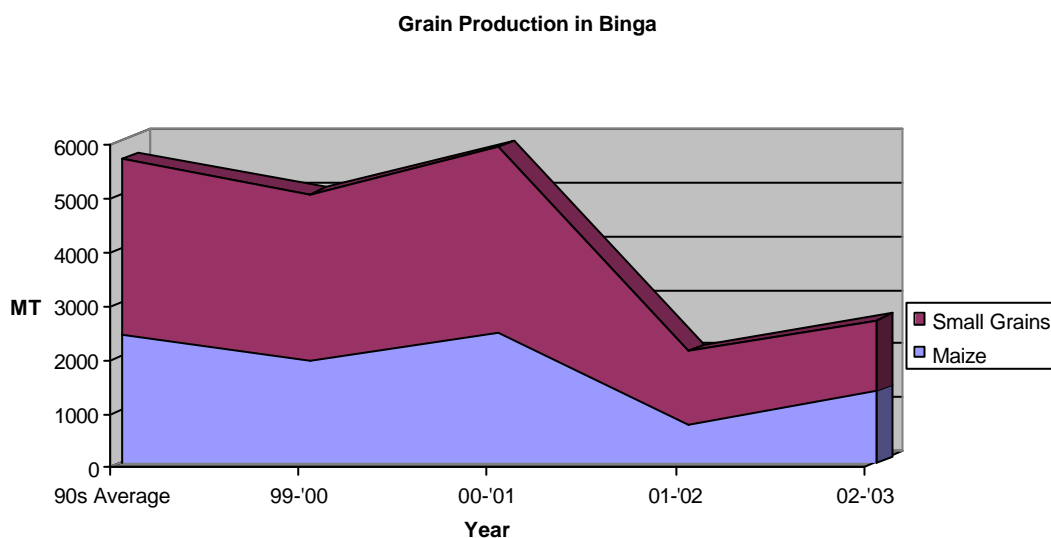
Due to differences in rainfall patterns and in the provision of seed over the last season, the problem specification for the coming 12 months is presented separately for Binga and Nyaminyami districts, with further differences by food economy zone highlighted.

Binga

Food Crop Production

Rainfall in the October 2002 - March 2003 agricultural season was once again very poor in Binga, making this the third year in succession of erratic rainfall, and challenging the very notion of “normal” patterns. Overall, the season was dry, with the district receiving only 60-80% of normal rainfall levels in total. Much of November, December and January were particularly dry. Rains improved in February and March, and this helped to revive late-planted crops.

Figures provided by AREX indicate that total production of maize, millet and sorghum increased by 27% from last year to 2,648 MT. Surprisingly, though perhaps because of the dominance of maize among seed distributed by NGOs and the GMB, the biggest increase came from maize, while production of small grains remained almost unchanged. However, total production is still less than half of the 1990s average of 5,652 MT. It is also substantially lower than total production in Nyaminyami district, in spite of Binga having almost 4 times the population of Nyaminyami. There was a substantial increase (66%) in the hectareage planted to all grains in Binga, but yields per hectare were lower than last year.



Average grain production this year is equivalent to 22kg per person, or enough to last roughly 6 weeks. Within the district, the highest levels of production were in the Lusulu area and in Chinonge ward. The contribution of own production, therefore, will be similar to last year in terms of distribution between wards and wealth groups, but there will be slightly more grain available than last year.

The increase in agricultural production can be expected to have a marginal positive effect on the availability of agricultural labour opportunities and payment rates.

Cash Crop Production

In recent years, cotton had been rapidly growing in importance. However this year production of cotton has actually fallen by 20% compared to last year's already low level. A total output of 1,303MT of cotton is expected by AREX. This is the lowest level of production so far this decade of cotton, but is still double the average output of the 1990s. The contribution of cash crops in Binga to households' income, therefore, will be even lower than last year.

Livestock

Data from the 2002 livestock census (which was carried out in October) shows very little change in animal holdings in Binga from the previous year. There was a slight decline in goat holdings, while cattle numbers are actually reported to have increased. However, the census was carried out prior to the peak selling season last year, and the information on livestock sales reported earlier would suggest that the numbers have declined since then. Overall, holdings are quite low, and there are few households who could rely on livestock sales as a major source of income in the coming year. In defining food aid needs in a way that does not assume distress coping strategies, the ZimVAC has settled on a minimum holding of 5 cattle and 3 goats, below which no livestock sales would be assumed. Based on this, only some better off households could be assumed to be able to sell cattle next year, while most middle households could sell some goats. Combining this with the adverse terms of trade for livestock in Binga, the result is that this source of income could only provide 3-4 months' worth of food for the better off, and up to 1 months' worth for the middle.

Other Sources of Food and Income

For all sources of food and income other than those referred to above, in the absence of any strong evidence to assume otherwise, it is assumed that levels will remain similar to last year's. Given the poor production in Binga itself and in most surrounding districts, it is also assumed that the price of maize will follow similar patterns to last year.

Nyaminyami

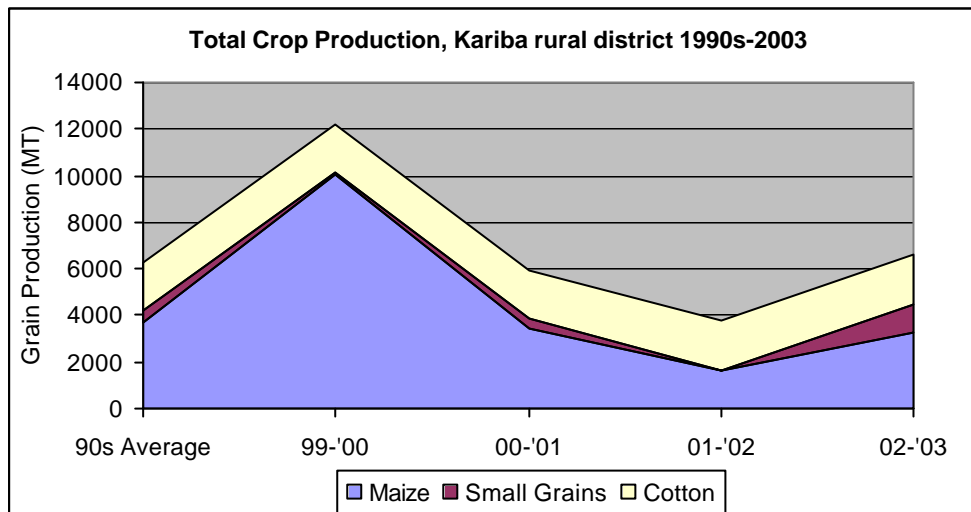
Food Crop Production

Above-average rainfall in the late-season, and the provision of maize seed appear to have improved the production levels in 2002-2003. According to 1st round crop forecasts total agricultural production (maize, small grains and cotton) in 2002-2003 has increased by 74% since last year, and increased by 5% from the 1990's average. The greatest increase was found for small grains – pearl millet in particular – whose total production was 20 times higher than last year's very low level, and double the 90's production average. Maize production has increased by 107% since last year, but remains 10% below the 90's average.

Total grain production for the district has been estimated at 4,455 MT, translating to 109 kg per person, or 52% of energy requirements. As can be expected, differences within the district and between wealth groups are important, with total grain

production per household reaching 792kg in the Poor Resource Kariba Valley, 474kg in Nebiri-Kasvisva, and 851kg in Kanyati. Again, primary data from the HEA suggests lower production levels in those same FEZs with only the better-off households in Kasvisva reporting levels that matched the 1st round forecast figures.

The relative importance of maize, small grains, and cotton, and the increase in production in 2002-2003 are shown in the graph below.



The increase in small grains could be due to the fact that households were able to spend more on small grain seed than usual, since the entire population in Kariba rural district (6,292 households) benefited from 15 kg maize seed and fertiliser from the SC (UK) agricultural recovery programme. The majority of small grains were produced in the traditionally drier Poor Resource Kariba Valley (Mola, Negande) and Nebiri wards. Hence the provision of maize seed enabled households to manage the risk of drought themselves, by investing in drought-resistant seeds. However, the persisting problem of quelea bird attacks continues to curb the reliability of small-grains as risk-management crops. The availability of quality seed has also been a constraint to cultivation this past season.

Cash Crops

Cotton production remained stable relative to last year's crop and the 1990's average. With the price per bale rising to Z\$35,000 as of early April 2003, cotton sales should buy middle and better off households around 115 to 350 kg of maize at parallel market price, for a net income of Z\$35,000 to Z\$105,000. Production levels vary widely between FEZs, with households in Kanyati producing up to 7 bales, around 1 bale per household in Mola-Negande, and 1 to 5 bales per household in Kasvisva-Nebiri.

Livestock

As it is intended to prevent households from engaging in excessive de-stocking of livestock, for our calculation of food aid needs we are assuming that only the better off in Kasvisva-Nebiri-Msambakaruma will have cattle to sell, while the middle will also be able to sell some goats. These would be adequate to provide 1-2 months' worth of food for the middle, and 2-4 months' worth for the better off, depending on the time of year and therefore the price at which they are sold.

Although in the absence of food aid people will in reality sell more livestock, in the rest of the district livestock holdings are too small to consider further sales as an acceptable way for households to access food.

Agricultural labour

Given a 74% increase in agricultural production since the 2001-2002 harvests, income-earning opportunities from agricultural employment can be expected to increase, and SC estimate a likely increase of approximately 15% in Kariba rural district. Income from labouring in neighbouring districts (especially Gokwe North) will also depend on production levels there. However, there are indications that household level production in Gokwe North has not increased significantly this year. Hence, an increase in migrational labour is not expected amongst members of poor and middle wealth groups in the coming year.

Given all of the above considerations, the table below presents the proportion of food needs estimated to be met during the April 2003- March 2004 period.

FEZ		Poor	Middle	Better off
Lusulu	% Food needs covered	60-65%	80-85%	95-100%
	% Deficit	35-40%	15-20%	0-5%
Poor Resource Kariba Valley	% Food needs covered	45-50%	50-55%	85-90%
	% Deficit	50-55%	45-50%	10-15%
Siabuwa-Nebiri- Msamba	% Food needs covered	65-70%	90-95%	75-80%
	% Deficit	30-35%	5-10%	20-25%
Kanyati	% Food needs covered	65-70%	75-80%	85-90%
	% Deficit	30-35%	20-25%	10-15%

These projections are based on the following set of assumptions:

- Wild food consumption will be similar to last year.
- Sources of food/income not factored in the projections are food aid, income from public works, and consumption of “green” food in the month(s) prior to the 2004 harvest.
- All households will manage to purchase at least as much maize from GMB as they did last year, and GMB prices will remain as low (relative to household purchasing power) as it was last year. The balance of grain purchases will be made at black market prices, which will remain similar to last year’s.
- Food aid levels are set such that excessive de-stocking is prevented (only the better off will be selling livestock in Kasvisava-Nebiri and in Lusulu; livestock exchange will decline by 50% in Poor Resource Kariba Valley).
- Terms of trade between livestock and maize (black market) remain similar to those of the past year.

CONCLUSIONS

The majority of households coped quite well with the difficult situation prevailing in Binga and Nyaminyami districts last year. Malnutrition rates were kept below standard “emergency” thresholds, and the provision of substantial amounts of food aid also seems to have mitigated the need for excessive amounts of expenditure switching from other basic needs and for stress selling of livestock. This does not provide grounds for complacency, however. It must be remembered that both districts have started from an extremely poor level, and most of the population remains highly vulnerable to shocks such as drought and increases in grain prices. The resilience of the population after two difficult years is very low. Furthermore, while stopping people from becoming poorer is a success, the aim should be to reduce poverty and strengthen livelihoods. In particular, access to education (especially at secondary level) and to healthcare remain unacceptably low, and holdings of livestock and other assets are insufficient to provide people with a cushion in bad times. All of the above applies particularly to households affected by HIV/AIDS.

For the coming year, the situation appears likely to remain bad in Binga. Crop production is only marginally improved, while other sources of food and income appear unlikely to differ significantly from last year. Although national crop production has increased this year compared to last year, it remains below the poor level of 2 years ago. This does not bode well for grain availability and affordability in remote districts such as Binga and Nyaminyami. In the absence of any significant policy changes at the national level, it can be expected that grain shortages will arise for the 3rd year in succession later in the year, towards December.

The situation in Nyaminyami appears somewhat more promising than in Binga. Better rains and the provision of agricultural inputs last year contributed to a 75% increase in crop harvests. Although in such a poor agro-ecological region an increase of this size still does not equate to self-sufficiency, it will result in a significant decline in the amount of food aid required.

Another year of substantial food aid needs once again raises the issue of how to address the chronic food and livelihood insecurity in the western Zambezi Valley. While there are a number of interventions that would usefully improve and optimise agricultural production, there is also a need for improved infrastructure and access to markets. In the past, the area has benefited from employment opportunities in nearby towns and cities, and from tourism and its spin-offs, while there would also seem to be unexploited opportunities in the area of natural resource management. However, without changes in the national economic climate, opportunities and incentives for significant investment in long-term development seem very limited.

RECOMMENDATIONS

Immediate Recommendations

- Food Aid needs to be provided to the categories and numbers of people indicated below:

Starting Month	Poor Resource - Binga	Poor Resource - Kariba	Siabuwa-Nebiri	Kanyati	Lusulu
April	Social Welfare	Social Welfare	Social Welfare	Social Welfare	Social Welfare
No. months	12	12	12	12	12
July	Poor + Middle				
No. months	9				
September		Poor + Middle			Poor
No. months		7			7
October			Poor	Poor	
No. months			6	6	
January	Better off	Better off	Middle + Better off	Middle + Better off	Middle + Better off
No. months	3	3	3	3	3

Translating this into cumulative beneficiary numbers per district provides the following numbers:

	From April	From July	From September	From October	From January
Binga	22,551	80,507	96,464	96,464	118,824
Nyaminyami	6,514	6,514	15,718	23,279	30,970
Total	29,065	87,021	112,182	119,743	149,794

A 75% ration similar to that provided in previous years is still recommended as adequate (although supplementation for people living with HIV/AIDS is recommended below). At a ration per person per month of 10kg maize meal, 2kg beans and 375ml oil, this equates to a total for both districts of 11,857 MT of maize meal; 2,371 MT beans; and 445 MT oil.

- The supply of adequate amounts of food by the GMB for purchase on the market is vital to ensure that those with the resources to purchase are able to do so. There has been a failure in this regard in both of the last two years, and a loosening of the GMB monopoly would probably assist in increasing supplies. Three possible options are (a) for the GMB to increase maize prices on the assumption that a lower subsidy would enable them to increase the overall level of imports; (b) for the private sector to be allowed to import and sell grain (although the price would be too high for much of the population), or (c) for aid agencies to monetize food aid, if supplies in excess of those required for free rations programmes are available. Such supplies would reduce the need for free food aid distributions, especially among better off groups.
- The above recommendation is required to make adequate food available at affordable prices. If this is not done, then household budgets will continue to be severely constrained, and a variety of direct support interventions may be necessary to enable households to access other basic needs. For example, support to cover education costs, agricultural inputs and soap.

- Interventions such as these will not only enhance the nutritional status of the population. They will have vital secondary effects, for example increasing children's access to education and leisure, increasing the ability of households to afford basic services, and reducing the incentives for people to engage in some high-risk activities that could increase the spread of HIV/AIDS.
- A food-for-livestock programme, whereby those with cattle to sell exchange those animals at a fair price for food aid, would assist with providing those who do not require free handouts to access adequate food supplies, while also limiting the extent of their de-stocking by cushioning that group against sharp falls in livestock prices.
- Seeds and fertiliser distributions would assist much of the population in recovering to previous levels of production. A diverse basket of seed varieties suited to these areas would assist farmers in minimising risk.
- For households with people living with HIV/AIDS, the introduction of home-based care programmes in the district would be very valuable, as apart from the direct value of the care, it would assist in both reducing the monetary cost of care and in freeing up more time for carers to engage in productive activities. It should be noted that such a programme would need to continue beyond the current emergency. Given the lack of dietary diversity that has been witnessed, and the particularly damaging effects that poor nutrition can have in terms of speeding up the transition from HIV to AIDS, supplementary rations of appropriate foods for PLWHA would be worthwhile, and home-based care programmes would be a good vehicle for the targeting and delivery of such a programme.

Medium – Term Recommendations

- Agricultural support programmes need to be put in place to enable farmers to maximise the potential of their land. Support to AREX extension work, to seed multiplication, and to the encouragement of various improved soil and water management techniques would be useful in this regard.
- Although this was not the primary focus of this assessment, it was clear that the quality of provision of public services (healthcare in particular, but also veterinary services, agricultural extension and education) is suffering in the current economic climate. While primary responsibility for these services lies with Government, temporary assistance for these sectors (e.g. through support for staff, transport and basic drugs and outreach services) will need to be considered by NGOs.

Other medium and longer-term recommendations

- AREX have identified some areas in the district that would be suitable for irrigation, and funding for this could assist in enhancing agricultural production in the district.
- To reverse the decline in these districts and to at least restore possibilities for previously important aspects of livelihoods, such as the tourist industry and employment in nearby towns and cities will require a general improvement in the macroeconomic environment and in the attractiveness of these areas as tourist destinations. These issues must be addressed primarily through government policy.

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