

MOZAMBIQUE

Comite de Analise de Vulnerabilidade

November-December 2002
Emergency Vulnerability Report



Final report

Tuesday, 28 January 2003
6:09 PM

I. Summary

- Initial Government forecasts, estimated a 10% increase in cereal production, an 8% increase of pulses and 4% of cassava production in the 2002/03 agricultural season compared to the last season.
- However, poor rains recorded in the South and Centre of Mozambique from mid November 2002 could reduce these planned production figures
- The maize prices in real terms (corrected for inflation with the Consumer Price Index) at retail level in the cities of Beira, Manica, Tete and Nampula were during the months of October and November lower than those of the same months of the two previous years. The maize prices in Maputo were slightly higher than the previous two years.
- The rice prices in real terms at retail level in the cities of Maputo, Tete and Nampula were during the month of November lower than the same month of the two previous years. The rice prices in Beira and Manica were at the same level as the previous two years.
- The supply of cereals is considered to be normal for the time of the year in view of the end of the marketing year and the arrival of the new harvest. The commercial imports of wheat and rice are roughly at the foreseen levels. Total cumulative rice imports are projected to reach levels above 205.000 tons, slightly lower than foreseen and wheat imports are expected to reach levels above 300.000 tons, slightly higher than foreseen at the end of the marketing season. Maize exports, mainly informal transborder trade, were considerable, roughly estimated at levels above 200.000 tons from the Northern and Central part of the country whereas the Southern part of the country imports are at 240.000 tons and are expected to increase. Commercial imports are reported to be adequate to meet the demand up to the end of the marketing year, according to the Ministry of Industry and Trade.
- According with the results the number of people in need has increased in about 11%. The revised VAC estimate indicates a total of 654,865 people will require assistance until the next harvest. Over a third of the affected population is in Maputo, Gaza and Inhambane.
- Households are suffering from the cumulative effects of HIV and drought. HIV prevalence is estimated to be 13% nationally with the 16.8% in the central region for the 15 – 49 year age group.
- The mean dependency ration is 1.55 with the highest of 1.78 in Tete province
- Overall acute malnutrition (wasting) in children 6-59 months is 6.4%, being highest in Gaza (11.2%) and Maputo (8%). Chronic malnutrition (stunting) was found to be 37.9% overall, ranging from 31.9% (Gaza) to 42% (Tete).

- Only 37.2% of the households interviewed have access to safe water and 7.4% report having to spend more time to get water.
- Most children aged 6-23 months are still being breastfed (77.3%). However, more than half of the children in this age group receive only 2 complementary meals per day.
- Morbidity indicators are a reflection of poor hygiene conditions, malaria endemicity and high HIV prevalence.

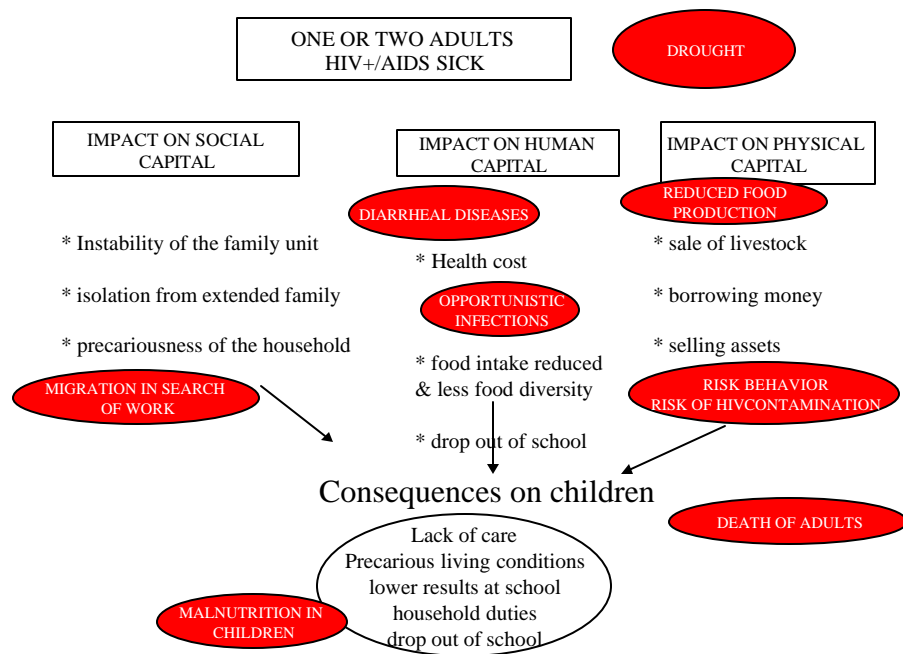
II. Analytical framework of two superposed stresses: drought and HIV

Traditionally, agrarian societies have effective preventive and reactive strategies to minimise the impact of livelihood failures, as a result of drought for example. The efficiency of these coping and survival mechanisms depends on a variety of household characteristics, including levels of knowledge and experience, availability of household labour, health status of the household members, and level of accumulated wealth. The strength of the social network is also an important factor.

The HIV epidemic jeopardises further the households' resilience to the impact of the drought, by affecting the economically active and socially reproductive members of the household. In particular, the quantity and quality of labour within the household is reduced, whilst at the same time the demands to assist the sick family members increases. Because of the labour shortage at the household level, cultivated areas may be reduced, and the household may shift from high labour to low labour crops (from cereal to root crops; from irrigated agriculture to rain-fed agriculture). This results in a lower productivity and nutritional value of the food crops.

Given the predominantly heterosexual transmission of HIV, more than one adult in the family is often infected. As income reduces and is diverted to health care needs, there is less money available for food purchases. This pressure is amplified by the critical nutritional needs of the HIV/AIDS patient. Households may resort to various negative coping strategies to secure their survival, through the mobilisation of the younger members of the family. Hunger may force women and young girls to trade sex for food, and essential goods, contributing in a vicious circle to the spreading of the virus.

In Mozambique people are directly threatened to their lives and food security by droughts, floods and other hazards that can kill directly or wipe out their livelihoods. During several years in the beginning of the 1990ies the country and some of its neighbours were hit by a very serious drought. Floods have occasionally destroyed crops, roads, houses and killed people and animals. The worst floods recorded occurred in early 2000, in the south of the country and the effects of that disaster will be felt for a long time and following that another flood strike the center of the country in 2001. These still represents consecutive shocks to the precarious food security in the country, where more then 70% of the population still live bellow the poverty line.



The effects of the drought are modified by the presence of the HIV epidemic.

Table 1: Impact of the drought on rural household:

Symptoms	Traditional drought	HIV affected society
Mortality	Among very young & very old	Increased mortality in the 15-49 years age group
Fertility	Reduced	
Dependency ratio	Reduced not at the beginning	High
Gender specificity	Men die before women	Women may die before men
Causes of deaths	Increase the usual causes of deaths in the affected age categories	Also Increase of chronic diseases as cause of death (TB)
Micro-economic	Redistribution of productive tasks among adults Only when pronounced destitution children mobilised	Earlier use of survival mechanisms & mobilisation of children (drop out of school)
Dietary changes	Reduction of the number of meals	Reduction of number of meals. Purchase of cheaper foods
Changes in nutritional status	Malnutrition appears among young children and elderly first	Malnutrition among children, malnutrition in adults influenced by underlined diseases

Some of the indications of increasing vulnerability that we might expect to find include:

- At household level: change in dependency ratio; higher involvement of children in household chores and in income generation activities, increased school drop out; change of diet composition; reduction of number of meals; smaller area of land cultivated and decreased time to care for younger children. The deterioration of the nutritional status is late in the chain of stress and usually appears when coping mechanisms have failed and/or in case of disease.

- At community level: increased number of households with at least one chronically sick adult; increased proportions of households headed by children or elderly; increasing number of children going in search of work; as well as a slowly increasing number of orphans.

III. Methodology

Multi sectoral assessment

The multi sectoral assessment is a cluster survey conducted in November 2002 by the INGC and the Ministries of Health, Education, Public Works and Housing, Women Affairs and Coordination of Social Action, and the National Statistics Institute, with the collaboration of provincial representatives and the support of UNICEF in selected areas of the six provinces of Mozambique affected by the drought, namely: Maputo, Gaza, Inhambane, Sofala, Manica and Tete. The province included in the assessment had HIV/AIDS prevalence above 10% and above 15% of their population were affected by severe food deficit. Within the selected areas of each province, thirty clusters were chosen at random through systematic sampling, with probability proportional to the size of the population, using the figures of the 1997 census. In each cluster, the enumerators were instructed to select households following a specified methodology, and to apply the questionnaire specifically developed for this survey. The survey of a cluster was to be considered complete once the number of 45 households or 30 children under 5 years old (U5Y) was reached, whichever happened first. All 30 selected clusters in each province were surveyed, with the exception of cluster 28 in Manica Province which was left out due to problems of accessibility. Thus a total of 179 clusters were surveyed, resulting in 5,532 completed questionnaires.

Weight for height was used to assess acute malnutrition and according to the acute malnutrition rate the severity of the nutritional situation in the surveyed population was classified as follows:

Percentage of acute malnutrition severe and moderate (W/H<= -2 standard deviations of the median)	Level of malnutrition
<5%	Acceptable
5-9%	Poor
10-14%	Serious
>=15%	Critical

Table 2: Implementation areas

Province	Districts covered by the study	
	Name	% of total province pop.
Maputo	Magude, Marracuene, Matutuine	9.7%
Gaza	Chigubo, Mabalane, Chicalacuala, Massangena, Massingir	8.1%
Inhambane	Govuro, Inhassoro, Mabote, Funhalouro and Panda	13.7%
Sofala	Maringue, Muanza, Chibabava and Machanga	12.5%
Manica	Guro, Machaze, Macossa and Tombara	13.9%
Tete	Cabora Bassa, Changara, Chiuta, Magoé, Moatize, Mutarara	21.5%
Total		13.4%

Food Security assessment

The Food Security assessment was carried in the most vulnerable districts in the central and southern regions of Mozambique from late November to the beginning of December 2002. A rapid appraisal was used as the methodology to collect data and for analysis. Formal interviews with key informants namely government officials from agriculture, commerce, disasters, health, including households were also conducted. Purposive observation at field and traditional burns at household level were part of the assessment and were taken in consideration. Professionals from the Ministry of Agriculture and Rural Development, National Institute for the Disaster Management, WFP, USAID-FEWS NET, and FAO composed the main working team.

IV. National Level Food Security

A. Have the harvest outcomes for the 2001/02 agricultural season changed from previous estimates?

For the main season crops, the final crop figures were similar to previous estimates. However winter crop production has revealed some deviation from the expected. Normal to above normal production in the most productive provinces has been reported in the northern and part of central regions of the country, and poor to very poor winter crop production in the semi-arid provinces in the south and parts of central regions of the country.

For the Main season crop production levels

The official government final crop production issued by the Ministry of Agriculture and Rural Development through the National Directorate of Agriculture/Department of Early Warning (MADER-DINA/DAP) in July 2002 is very close to the crop estimates issued in April 2002 for the 7 main crops. The only difference is in the production of millet as seen above.

Crop	Production Forecast in April 2002 (MT)	Final Production in July 2002 (MT)	% Difference
Maize	1,235,657	1,235,657	0
Sorghum	314,136	314,136	0
Millet	55,761	49,500	-11
Rice	167,925	167,925	0
Beans	177,355	177,355	0
Groundnuts	109,786	109,786	0
Cassava	5,924,551	5,924,551	0

Table 3 compares the national crop forecast and the final production at national level in the 2001/02 agricultural season. A total of 3,840,000 hectares (ha) of land were cultivated with seven main crops from which 3,756,000 ha were harvested. The difference is mainly due to adverse climatic conditions such as the late start to the rainy season in the northern part of the country and drought in the southern and parts of central regions of Mozambique, as well as pests and disease.

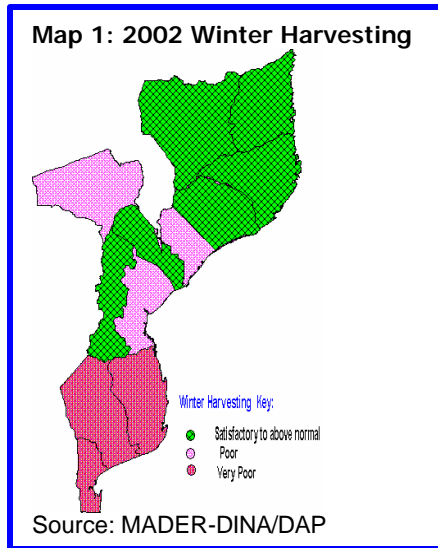
The final production of 1,767,000 tons of cereals was harvested in 2001/02 cropping season of which 70% was maize. The final production of legumes (beans and groundnuts) was 287,141 tons, and cassava, 5,924,551 tons.

At the national level, the production of cereals and pulses in 2002 was 5% and 9% higher than last year: Maize had an increase of 8% from previous year. While cassava production at a national level, was down by only 1% compared to 2001, there were more substantial differences at a provincial level. For instance the most dramatic was in Nampula, where the streak virus and the late start of

rainy season, resulted in a 13% decrease. Also in Gaza and Maputo, cassava production was down by 10% and 4%, respectively as a result of poor rainfall.

The winter cropping season accounts for 10-15% of the total annual food production, and therefore it contributes positively to the ability to access food from August/September to November for some areas. In addition, winter crops are an important source of cash income, particularly for households living near urban areas.

Crops such as sweet potatoes, onions, tomatoes, pumpkins, watermelons, cabbage, lettuce and maize are commonly planted in the lowlands close to the rivers and lakes during the winter season (July to August/September). For the current year, the final winter crop harvest had mixed results throughout the country.



In the northern region (Nampula, Niassa and Cabo Delgado Provinces) and parts of Central Regions (Manica, and parts of Tete and Zambézia Provinces) the 2002 winter harvest was normal to above normal. Conversely, a poor to very poor winter harvest was observed in the large semi-arid areas in the south (Maputo, Gaza and Inhambane Provinces) and parts of the central regions (majority of Tete, and Sofala Provinces) of the country. The poor and very poor crop production in these regions is mainly due to the lack of residual moisture and the prolonged dry spell.

The areas that produced below normal yields from the winter production are also the areas that had below normal crop production from the main harvest. These areas are currently the focus for the emergency response

B. What are the levels of food imports as compared with estimated requirements?

The Ministry of Industry and Trade compiled the Annual Food Balance 2002/03, as published in the Monthly Agricultural Marketing Bulletin 43 and 44 of March and April 2002. This annual food balance is updated on a monthly basis in the monthly food balances also published in the same Bulletin.

The food balance foresees for the marketing year 2002/03, the domestic cereal availability in terms of national production and carry-over stocks of maize, rice (milled), wheat, sorghum and millet at 1,811,000 metric tons. Consumption, in terms of human consumption, feed, seed and post harvest losses are being estimated at 2.257.000 metric tonnes resulting in a 446,000 metric tonnes cereal deficit (prior to import-export) for the 2002/03 marketing year. The forecasted cereal imports were 675.000 metric tonnes, consisting of 555.000 metric tonnes of commercial imports of mainly wheat and milled rice and 53.000 metric tonnes of monetized food aid and 40.000 metric tonnes of maize as emergency food aid. The forecasted cereal exports of maize were foreseen at 130.000 metric tonnes. The food balance foresees closing stocks of 99.000 metric tons, slightly lower than the previous year.

Table 4. Annual Cereals and Cassava Balance Sheet for the 2002/03 Marketing Year (April 2002 to March 03) Source Annual Food Balance, MIC/DNC, Monthly Agricultural Marketing Bulletin 43 and 44. Expressed in '000 metric tonnes (with minor round off differences).

	Maize	Rice (milled)	Wheat	Total Cereals*	Cassava (fresh)
Total availability:					
Opening stocks	17	27	40	109	345
Domestic Production	1.236	107	-	1.702	5.036
Domestic Consumption	1.275	321	282	2.257	5.029
Domestic Cereal Defecit/Surplus	- 22	-187	-242	-446	351
Import projection for 2002/03:					
Commercial/informal	127	205	250	582	-
Food Aid for Emergency	40	-	-	40	-
Monetized food aid	-	15	38	52	-
Exports	130	-	-	130	30
Total (closing stock)	15	33	46	99	321

* Including soghum and millet

Imports progress and plans

The November edition of the Agricultural Marketing Bulletin of the Ministry of Industry and Trade foresees the overall food situation to be relatively stable until the end of the marketing season (March 2003) in terms of availability of maize, rice and wheat.

The supply of cereals is considered to be normal for the time of the year in view of the end of the marketing year and the arrival of the new harvest. The commercial imports of wheat and rice are roughly at the foreseen levels. Total cumulative rice imports are projected to reach levels above 205.000 tons, slightly lower than foreseen and wheat imports are expected to reach levels above 300.000 tons, slightly higher than foreseen at the end of the marketing season. Maize exports, mainly informal transborder trade, were considerable, roughly estimated at levels above 200.000 tons from the Northern and Central part of the country whereas the Southern part of the country imports are at 240.000 tons and are expected to increase.

C. Are the levels of national food imports going to be adequate through March 2003?

MIC/DNC foresees the level of national cereal imports will be adequate to meet the requirement at national level until the end of 2002/03 marketing year. Overall, markets are functioning normally in most parts of country, and there are no other drastic or unexpected changes in predicted stock levels.

References

Ministry of Industry and Trade, National Directorate of Trade, Monthly Agricultural Marketing Bulletins, Number 43 till 51, March to November 2002. Available upon request by e mail to ffilipe@mic.gov.mz or faodsa@tropical.co.mz or faodnci@tropical.co.mz

D. What are the price trends of main staples at national level from November 2001 until November 2002?

The evolution of retail maize prices (Metical/Kg) from November 2001 to November 2002 is seen on the Graph 1 for selected markets in the country.

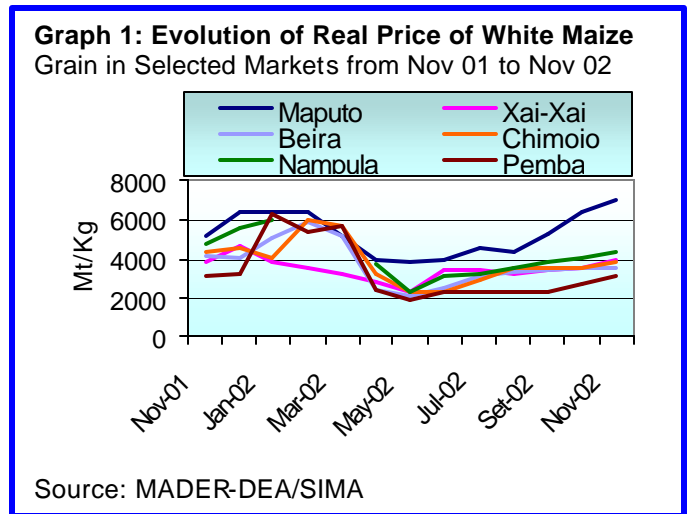
Since April 2002 maize prices were low mainly because of the harvest and remained relatively low to June 2002. From July prices have been increasing steadily but at lower rates than those observed last year.

In the north of the country, the retail maize price in Pemba is similar to last whereas in Nampula it decreased 9%, in November 2002 compared to November 2001 (Map 2).

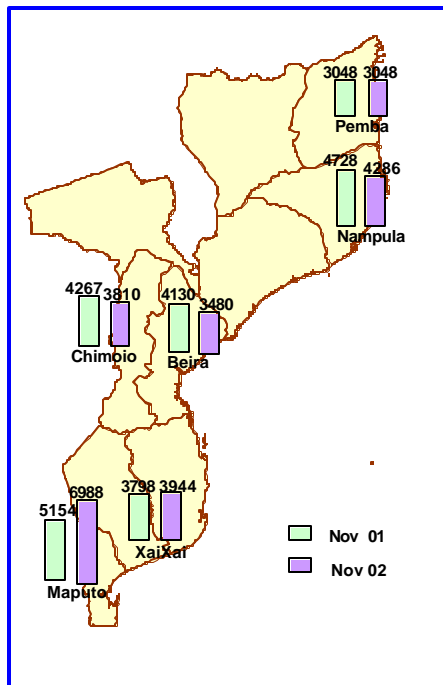
In the central region, the retail price of maize decreased by 16% in Beira and 11% in Chimoio, in November 2002 compared to the same period last year. (Map 2)

In the southern region, a different trend was observed as indicated in the Map 2. The retail maize price has increased by 36% in Maputo, and 4% in Xai-Xai from the same time last year.

It should be noted that the cereal production in south of the country was 34% lower in 2001/02 cropping season compared to the previous that could be contributing to the higher prices.



Map 2. Retail Maize Price (MT/Kg) Changes in Selected Markets in the Country during November 2001 and November 2002



Source: Information System for Agricultural Market Department of Agricultural Economy (SIMA/DEA)

The rate and extent of the price rises will be key determinants of food security in the coming months; therefore prices should be closely monitored nationwide. The implications of further prices increases are; First, the high prices of staple food, including maize, may be having severe impact on the poor and lower middle households, particularly those households living in urban areas. Second, high retail prices is stimulating farmers to expand their cultivated lands in 2002/03 cropping season, particularly in the northern and central region of Mozambique. Third, a short-term negative impact may be increasing in rural households in the northern and central regions of Mozambique may be purchasing more food including maize in a period of time the year (January to March) when their own stocks are exhausted and price are very high.

V. Sub national level

MAPUTO PROVINCE

- a) Food availability: Southern areas of Mozambique were the most affected by last seasons dry spell. So far the prospects for this season are unknown but are not looking favourable due to unfavourable rain in mid to late November. In Maputo province Magude and Moamba districts are the most affected districts. Through the recommendations of Maputo technical committee the assessment team visited Magude and Moamba district. In general at the household level food reserves are already finished. This is due to the low harvest last season. In contrast informal and formal markets are well stocked with food.
- b) Price variations in the majority of years, prices of staple food tend to increase slightly during this period, however this year the price has increased significantly.
- c) Household level access to cereals
- i. Purchasing power: The purchasing power at household level is very much linked to the coping strategies and to income sources. The reduction of employment opportunities in South Africa is a contributing factor, which has affected the purchasing power. While the Maragra and Xinavane sugar cane factors have reopened, the benefit of employment is restricted to those in the immediate vicinity.
The assessment team noted there are currently a lot of people who are looking for work during this time.
- ii. While most households own cashew trees, the team were informed that the *powdery mildew* disease is decreasing production and therefore income. Likewise the Foot and Mouth disease and Swine Fever is reducing income from livestock in the area.
- iii. Maputo province has an HIV prevalence rate of 14.9%¹. In November 2002, the average dependency ratio was 1.41. In the surveyed population, child headed households represented 0.2%, elderly headed 13.7%, and 1.7% of the households had chronically sick adults at home. In the studied areas, 21.5% of the children had diarrhoea in the past 2 weeks and 39.4% fever. Acute malnutrition among children under five had reached 8.0%, which indicates a poor nutritional situation. A safe water source was accessible to 34.0% of households and 5.0% of the households consumed less water this year than last year
- d) Coping strategies: Households have used a variety of ways for surviving in order to reduce the effects of drought. The first way that was supported and sponsored by the government was the creation of associations in order to use the low land for sweet potatoes production and horticulture. In addition the sale of chickens, brewing traditional beverages, sale of firewood and charcoal, casual labour, remittances coming from South Africa or internally (urban centre), gifts, and decreasing the numbers of meals from two to one a day. Hunting and fishing are also practiced in some areas.

The most critical areas Magude (Mapulanguene, Mahele and Motaze); Moamba (Pessene).

GAZA PROVINCE

a) The interior and north of the province face the most severe problems that could last up to the beginning of the next year. The littoral and the lowlands of Limpopo are coping better as the availability of food is better, market facilities are functioning and this area generally has a greater number of income sources. While the rains have started they have been insufficient. Most farmers have started to plant by the beginning of November, even when rains were below normal. Crops are in good conditions, particularly maize depending on the distribution of rains. Lack of seeds could be limitant to new sowings.

At the household level food stocks are nil in most parts of the province. The poorest families in the arid and semi arid areas will face a food deficit up to March 2003.

b) The price variation within the province reflects the lack of products in the market and the reduced production in most of the province. In the rural areas this has resulted in an increase in the price of maize of about 100% compared to this time last year.

c) HH access to cereals

- i. The most important source of cash income for poor households has been remittances from mining employees in South Africa. However this source has been reduced drastically over the last two years due to political and economic changes. Other sources of income include oxen hire and livestock sales for the better off households, brewing sales, and local agricultural labour. Livestock herd sizes have been increasing due to programmes initiated by the Government and supported by different donors. At the moment people are still reluctant to sell any until they have reached a sustainable herd size, i.e. a set of core tiling oxen, two or three female cows, new calves every year and a bull for breeding.
- ii. The areas cultivated per family seem to be constant compared with previous years (approximately 1,5 a 3 ha/ family) depending on the availability of drought power and active manpower in the family. Households commonly use income from casual labour and migration to the mines in South Africa and to urban centres to cope with the months leading up to the harvest. Although income from mines and urban areas is a significant source of income for families and province as a whole, it has negative impacts as well. These include the family being separated and the male often establishing a second family in the mining area, which results in increased vulnerability of the initial family.
- iii. Gaza province has the highest HIV prevalence in the country (19.4%)¹. In November 2002, 5.1% of the households had one chronically sick adult. Child headed families represented 2.1% of the studied households and elderly headed 15.8%.² The mean dependency ratio was 1.53. In the high-risk areas covered by the study acute malnutrition has reached 11.2% of the children 6-59 months. This indicates a critical nutritional situation in the high-risk areas of Gaza province. Almost 3 in 10 children suffered from diarrhoea in the past 2 weeks and 4 in 10 children of fever. Malaria would be the most frequent cause of fever and in Mozambique

¹ Estimated HIV prevalence data are based on the 2001 data from the sentinel sites

² In the previous multisectoral survey conducted in June-July 2002, elderly headed households represented 5% in Massangena district (out of a total of 598 households) and 4% in Mabalane district (out of a total of 504 households).

malaria is the first cause of mortality and morbidity. Among the studied households 36.3% had access to safe water, 16.7% had reduced their water consumption and 7.8% were taking more time to get water this year than last year at the same time.

D. Consumption of wild fruits, such as macuacua, and madocomela, occur normally during the year, and increase during the dry periods. The sale of domestic animals such as chickens, ducks and goats is another coping strategy. To face food shortages people have started consuming wild food particularly in Massagena, Chigubo and Chicualacuala. Where available, people successfully crop the lowlands where the residual moisture allows the production of vegetables. The reduction of meals (from three to one) is the most common strategy.

The most critical areas in the province are: Chicualacuala: whole district; Mabalane (in Cumbomune, Munhane, Nhatimanba, Tsokate); Chigubo: (Nhanale; Massangena: Mabonzo, Mbocoda); Chibuto: (Alto Changana); Manjacaze: (Chizavane, Macuacua, Chalala); Massingir: (Panga/ Chitar, Mavodzo); Guija: (Nalazi)

INHAMBANE PROVINCE

A. The province is in a moderate condition compared with August as most of the areas in the south have had a second season. The north and interior of the province are the most problematic areas. Since September in these areas the situation has been critical, particularly in Funhalouro, Mabote and Govuro. The planting season has been slightly delayed because of the insufficient rain. Seeds were provided in time through fairs in about 10 districts/ 131 localities and benefited 7,050 families. The stocks at household level are scarce to nonexistent in some places, which means that the lean season will be extended up to March the time of the first harvest, this is aggravated by the low production levels of the previous crop season.

B. Prices

The prices of the basic commodities in the rural areas have increased considerably, compared to the previous season. This has resulted in the purchasing power of the poor rural households being very low, particularly in the interior of the province.

C. HH access to cereals

- i. In order to obtain food and cash income, poorer households have increased the time spent on activities such as hunting, artesian, fishing, and brewing alcoholic beverages (often from wild fruits), depending on the area where they live. The other practice observed was the consumption of wild fruits in some areas. Selling fruits and cashew is also significant.
- ii. Elderly people, orphans and destitute are the groups most affected by the crisis, since even under normal circumstances they only cultivate small fields, from which the production does not satisfy their basic family needs throughout the year. The mean area cropped per family is maintained at 1.5-to 2 ha/family.
- iii. Inhambane province has an HIV prevalence of 7.9%². The average dependency ratio is 1.36. The proportion of child headed households is 1.7 % and elderly headed 13.8%². In the

² Estimated HIV prevalence data are based on the 2001 data from the sentinel sites.

² In the previous multisectoral survey conducted in June-July 2002, elderly headed households represented 4 % and child headed households 3% in Funhalouro district (total households 462) and in Mabote district elderly households represented 2% and child headed 5% (total of households 390).

studied areas, 1.5% of the households had a chronically sick adult at home. 26.5% of children under five had diarrhoea in the past two weeks and 46.4% fever. The acute malnutrition prevalence in children 6-59 months was 4.6% in November 2002 in high-risk areas of this province, which corresponds to an acceptable nutrition level. In the same period and in the same population, less than 4 in 10 households had access to safe water, 6.2% took more time to collect water and 13.7% consumed less water this year than last year

D. The province has alternative sources of food and income including fruit production, fishing, arts crafts and hunting that help provide mechanisms to cope with the stress.

The most food insecure areas are: Mabote and Funhalouro: the whole district and part of Vilankulo: Muapa, Belane; Govuro: Luito, Jofane; Inhassoro: Nhapele, Comotela; Morrumbene: Gotite, Sitila; Panda: Muahela, Urrene; Inharrime: Napadiane

TETE PROVINCE

A. The northern part of Tete Province has good climatic conditions and rich soils, which favoured the 2001/02 cropping season. In contrast, the southern part of Tete is mainly semi-arid, with an erratic rainfall pattern and less fertile soils. Districts of Changara, Cahora Bassa, Magoé, South of Zumbo, South of Chiuta, Moatize, and Mutarra lying on the semi-arid region of Tete Province, had poor production in the 2002 season compared to last year. The Mission noted that there was no second crop in these districts of the southern Tete. The food security situation varies within the Province. In the north the food security situation is considered to be satisfactory. Farmers have enjoyed a second crop harvest and above normal market opportunities as they sold maize to deficit neighbouring districts and countries.

However, high levels of food insecurity were reported in the remote districts of Changara, Magoé, Cahora Bassa, South of Zumbo, South of Chiuta and Moatize. The main reasons being, the bad main harvest of May and total lack of second crop season due to total lack of rains. This situation is aggravated by other factors such as: an increasing mortality rate in animals due mainly to lack of pasture and water, and a sharp decline in the terms of trade between animals and maize since the beginning of the current marketing year. The influx of vulnerable populations from Zimbabwe to Magoé and neighboring districts in Manica increases the dispute over limited resources within the affected districts.

In addition there has not been any improvement in the structural determinants of vulnerability, including the lack of social infrastructure, bad health and sanitary conditions, spread of diseases, and difficulty of physical access, as indicated in previous reports.

The most drought-affected areas are Changara, Magoé, Cahora Bassa, south of Zumbo, south of Moatize, and south of Chiuta Districts there are a significant number of households that do not have any grain or food reserve from their own production or purchase.

B. The accessibility to food in the north of the Province is considered to be normal for this period of the year. Cross border trade with Malawi, Zambia, and Zimbabwe is underway, but the quantity of maize being sold has been decreasing slightly since November. The main staples are still available in the main markets at the provincial and district level.

In the semi-arid districts mentioned above the main issue is the access to food, which is reported to be worsening. Markets are not diversified and terms of trade are declining due to the high prices of cereals and that livestock are in poor condition.

Markets in the very remote districts currently have few food items. Also, the populations in these districts have low purchasing power according to reports from the local-informal traders; resulting in poorer households unable to access food through the market. In the vulnerable districts of Changara, Magoe, Cahora Bassa, Moatize, Chiuta and Mutarara, households that have received food assistance can eat 2 meals a day whereas households with no food aid are only eating 1 meal a day, preferentially in the evening. Households with no food aid assistance are currently intensifying the consumption of wild tubers, fruits, honey, and fishing.

- C. i. The cross border trade with Malawi, Zambia and Zimbabwe is underway. White maize is being sold at more competitive prices in the neighbouring countries. SIMA forecasts that between December 2002 to March 2003 the cross border trade will have a negative impact on the poor households in urban areas by diminishing their purchasing power. Conversely, this retail price increases may stimulate an expansion of the area cultivated in rural areas of Tete Province if rains and seed availability will allow new sowings.
- ii. The main sources of income of the rural population are the selling of livestock, charcoal and firewood. Due to the erosion of the purchasing power within the remote areas, household members walk longer distances in order to sell their products in the main markets. The team found that there is an unfavourable exchange of one medium cow with 100 Kg of maize mainly due to severe depletion of maize availability in the market in the remote zones. It was about three times more for the same cow last year.
- iii. In Tete province, 16.7%¹ of the adults (15-49 y) were estimated to be HIV+ in 2001. The November assessment found that the average household dependency ratio in high-risk areas was 1.78, whilst households with a chronically sick adult represented 1%. Of the surveyed households, 0.4% were child headed and 5.9% were elderly headed.

The assessment also found that 35.3% of the children had diarrhoea and 45.9% fever in the preceding 2 weeks. Acute malnutrition prevalence was 6.7% among children under five years old, indicating a poor nutritional situation. Safe water was accessible to 34.6% of the households and 12.9% reported to consume less water this year than last year.

D. The main coping mechanisms are livestock sale (e.g. goat and cow) or livestock exchange with maize, hunting, fishing, migration to look for work in neighbouring highly productive districts, ganho-ganho (casual labour), honey, wild fruits and tubers. It was reported unfair exchange of one middle cow with 60 Kg of maize or 1 goat with 20kg of maize in some remote districts in the province. Currently there is intensification for the use of the natural resources in the districts near to Zimbabwe border because of the migration of highly vulnerable population from Zimbabwe crossing the border to Mozambique.

Thus, the level of food insecurity increased in remote districts of Changara, Magoe, Cahora Bassa, Moatize, Chiuta and Mutarara.

¹ Estimated HIV prevalence data are based on 2001 data from sentinel sites.

MANICA PROVINCE

The semi-arid interior of Manica Province (namely, northern part of Guro, Central and southern of Tambara and northern of Macossa as well as northern of Machaze Districts) is the most affected zone, with no food reserves at the household level. Other districts however are self-reliant in terms of crop production. Overall, Manica province had good crop production figures in 2002 compared to previous year.

A. Availability

Generally, food availability at the provincial level is considered to be good owing to a 7% increase in cereal and pulses production and 2% increase in cassava production in 2002 compared to 2001. But there are districts in semi-arid interior of Manica facing a chronic food shortage, mainly due to the poor cropping production in 2002 and the difficult access to markets (bad road condition, remote areas and poor purchasing power for the poor households). All households visited in the districts of Guro, and Machaze, had no food reserves in their storage bins. In these districts, households with food aid are eating two meals a day whereas those with no food aid only eat one meal a day in the evenings.

The planting of this season's crop has progressed according to the distribution of rain. In general the province had good rains in the second decade of November that favoured good germination and initial vegetative growth of the crops, particularly maize. Currently maize plants are 20 to 30 cm tall, however, the lack of rains since the last week of November is a cause of concern. According to the households and agricultural officers, if rains do not fall by the end of the first decade of December, crop failure may occur. Several households reported the lack of seeds, an issue that could undermine new sowings.

B. Cross border trade with Malawi, and Zambia is underway. The quantity of maize crossing the borders from Mozambique to these neighbouring countries has decreased since November. The main food items are available in the main markets at provincial and district level. Indeed, Chimoio market has been playing an important role as maize supplier to other markets such as Caia (Sofala Province), Massinga and Guvuro (Inhambane Province). The retail price of maize was 10 % lower in November 2002 compared to the November 2001.

Sima forecasts a price increase in the coming months due to high cereal demand within and outside the country.

- C. i. Overall accessibility of the main staple food in the province remains good. Nonetheless, the absence of a market, or limited purchasing power, or both are limiting food access in the remote districts such as Machaze, Macossa, Tambara and Guro. Price increases in the next three months will be another limitation to purchase cereals in these districts.
- ii. The main source of income is livestock sales, charcoal and firewood. Due to the erosion of the purchasing power in the remote communities, family members are currently walking longer distances in order to sell their products in the main markets. The team found that there is an exchange of 1 middle goat with 60 Kg of maize mainly due to severe decrease of maize availability in the market in the remote zones.
- iii. In Manica province 18.8%¹ of the adults (15-49 y) were estimated to be HIV infected in 2001. The November assessment found that only 0.2% of the surveyed households had a chronically sick adult, 0.3% were headed by a child and 3.7% by an elderly person. In the studied areas,

¹Estimated prevalence data are based on 2001 data from sentinel sites

34.6% of the children had diarrhoea in the past two weeks and 42.8% fever. Among children 6 to 59 months old, 6.7% suffered of acute malnutrition, which corresponds to a poor nutritional situation.

D. Coping Strategies

The main coping mechanisms are livestock sales (e.g. goat and cow) or livestock exchange with maize, hunting, fishing, intensification of casual labour (Ganho-ganho) within the community in the vulnerable districts or out of the community outside of vulnerable districts, honey sales, wild fruits and tubers consumption.

Agricultural officials in coordination with local NGOs are carrying out the multiplication of cassava and sweet potatoes –drought tolerant crops– for further distribution to most vulnerable farmers in semi-arid zones. WFP is working closely with administrations at district level to design the Food For Work assistance to be implemented in the coming months.

Within the province, food insecurity varies amongst households within the districts as well from one district to another one. For instances, the district of Guro had highly food insecure people living in Mandie, Chivure, Rolongue, and Bamba Zones. In the district of Machaze, the team found that families are highly food insecure in Massanga, Nzini, Zambassoca, Ulima, Mbassane, Chibococo, Chipange, Gizanhe and Uza zones.

SOFALA PROVINCE

A. This province was severely affected by the 2001 floods, and is currently affected by the 2002 drought. Districts laying on Semi-Arid Interior Zone namely the districts of Machanga, Chibabava, and Buzi were the most affected by the drought. The team visited the district of Chibabava, Machanga, Chemba, Maringue and Muanza with the aim to monitor eventual changes as from the previous report in September.

The Mission noted that except for the district of Muanza, where there is a slight improvement due to an increase of fishing activities, the other districts still show the same levels of food insecurity, as of August/ September assessment. However, localities receiving food assistance are improving and generally better off than those without food assistance.

Food availability at the provincial level is in general considered to be satisfactory owing the increase of 9% cereal and 6% pulses and 3% of cassava production in 2002 compared to 2001. The team found that food items are available in the main markets at provincial and district level. However the remote districts of Chemba, Machanga, Chibabava, eastern part of Muanza, Southern part of Buzi and significant parts of Maringue, are facing severe food shortage at the household level, and at the markets. In these semi-arid districts, households with food aid eat two meals a day, whereas those with no food aid are currently eating one meal a day, and complementing the food needs with the consumption of fresh mangoes, cashew pear and wild tuber.

The food security situation in general terms is considered to be satisfactory in the province. However, there are localized spots of high food insecurity mainly due to the poor 2002 cropping season and the poor access to markets. The team identified that a significant number of families need urgent assistance in Chibabava, Machanga, Buzi, Maringue, Chemba and Muanza Districts mainly due to lack of food reserves and very low purchasing power in order to access to food through the market.

The planting activities have progressed according to the rains received. In general the province had good rains in the second decade of November that favoured good germination and initial vegetative growth of the crops, particularly maize. Currently maize plants are 10 to 15 cm tall, however, the lack of rains since the last decade of November is a cause of concern.

Water scarcity is another cause of concern in the semi-arid zone of Sofala Province. Households currently need to walk longer distances (20-30Km) to fetch drinking water.

B. The retail price of maize is following a predictable pattern for the commercial year 2002/03. Owing the good 2002 cropping production, prices of November 2002 are still 15% lower than that observed in November 2001.

The team found that in remote areas the price per kg of maize varies from 4,500 to 5,000 Mt (November 2002.)

- C.
- i. Overall access to the main staple foods in the province remains good. In the highly food insecure districts of Chibabava and Machanga, households with food aid have daily access to food while households with no food assistance are currently struggling to meet their basic daily food needs
 - ii. Poorer families resort to cash sales of charcoal, wooden poles, brewing and firewood. Middle and rich families earn cash incomes through livestock sales, fishing, ganho-ganho and migration.
 - iii. Sofala province has a HIV prevalence of 18.7%¹. In the surveyed areas the average household dependency ratio was 1.42, and 0.3% of the households had a chronically sick adult at home. Child headed households represented 0.3% and elderly headed 8.3%. In the study population, 32.5% of the children had diarrhoea and 48.2% had fever. Acute malnutrition rate was 4.0% and chronic malnutrition 34.8%. Safe water was accessible to 34.8% of the households and 8.4% reported to consume less water this year than last year

D. Coping Strategies

The main coping mechanisms are livestock sales (e.g. goat and cow), fishing, casual labour (ganho-ganho) within the community, migration, and consumption of wild fruits and tubers.

Agricultural officials in coordination with local NGOs are carrying out the multiplication of cassava and sweet potatoes, drought tolerant crops for further distribution to the most vulnerable farmers in semi-arid zones. These activities were however undermined by the poor rainfall in the last decade of November and first decade of December.

ZAMBÉZIA PROVINCE

A. Zambeze province is divided into 4 different food economy zones, the upper Zambézia, Central upper Zambézia, Zambeze Valley and Coastal Zambézia. Upper Zambézia and Central Zambézia had good yields in the last season, and informal traders sold maize in country and outside the Country from these two zones.

¹ HIV prevalence estimates based on 2001 data from the sentinel sites

The assessment team visited the following districts: Inhassunge, Mopeia, Morrumbala and Maganja da Costa, information on others districts was obtained from provincial technicians. Of the districts visited Inhassunge is the most vulnerable district, followed by Morrumbala and Mopeia districts, and lastly Maganja da Costa district. In spite of the team not travelling to Chinde district, this district leads the list of most vulnerable districts. The most affected districts by the current drought are those situated in Zambeze Valley and in the Coast. Floods last year and drought this year, linked to structural problems such as poor roads and market networks and isolation from the rest of the province, as well as poor resettlement schemes are contributing to the worsening food security situation.

B. In the majority of years, prices of staple food tend to increase at this time, however this year the price has increased significantly.

C. Household level access to cereals

- i. Purchasing power: In general the purchasing power has declined in the majority of the affected districts: This is partly due to the decrease of coconut production due to coconut lethal yellowing disease that has been affecting the province. The problem has consequently decreased the income of households. In addition, Madal enterprise has dismissed a large number of their employees and who are contributing to the decrease of income and consequently purchase power. The households normally sell their production during the harvest time when the prices are lower and they need to buy food in the period of scarcity when the prices are higher. Labour availability is not a constraint in the community and for the majority of households.
- ii. Assets (e.g. livestock): Bicycles, radios, coconut trees and livestock are assets which rural communities have. Poor families do not normally have bicycles, radios and livestock. Zambézia province has the second highest percentage of bicycles owned per household, at around 48.8% of population (QUIBB, 2002). Coconut trees are assets that are owned by the majority of households in Zambézia province, however the yellow lethal disease of the coconut tree is depleting this asset.
- iii. Social issues: access to land is the critical problem faced by poor households in Zambézia. The problem is worse for resettled people displaced during the 2001 floods, which are looking for arable land. Commercial farmers own most of land. Premature weddings and consecutive pregnancies constitute other problems that worsen the nutritional status of young mothers.

The multi sectoral survey did not include Zambesia province. Zambezia province has an estimated HIV prevalence of 15.4%. In 2001 acute malnutrition affected 3.7% of the children under 5 years old, and stunting 61.6%. In this province 3 in 10 children died before their fifth birthday. Safe water is accessible to only 17% of the population. In 2001, measles vaccination coverage was 42.8%

D. Coping strategies: Normally, these sources are intensified during a crisis period. Different ways of surviving are used by households in order to reduce the effects of drought. The first way, which was sponsored and supported by government, was intensification of sweet potatoes and cassava production, as source of food and income through the sale of surplus production. Sale of charcoal, firewood, poles for constructions, livestock (mainly chickens), casual labour, intensification of fishing by creation of fishing associations and reduction of number of meals, from three to two in the majority of cases.

The whole district of Chinde, the AP of Gonhane in Inhanssunge; Morrumbala (megaza and Chire); Mopeia (Campo) and Maganja da Costa (Nante) are the most critical areas in the province.

NIASSA, CABO DELGADO, AND NAMPULA PROVINCES

None of the team members have visited these provinces, but according with the provincial government the general information is that:

This area of the north of the country has considerable agronomic potential and already produces a wide range of crops and could easily produce an even wider range. The mixing of seeds and the use of different quality seeds in neighbouring areas has both seen to reduce the anticipated crop yields. Post harvest crop losses, particularly from rodents and weevils, are common, although low cost approaches exist in Mozambique to reduce such losses. The current input distribution system are weakly established in the area, and are likely difficult to improve in the immediate future, except perhaps in closer proximity to Nampula city. This is partly a result of the high costs of supplying the area, the under developed nature of the private traders system and a mixture of ignorance of some producers and the reticence of the others.

The brown streak virus has affected the cassava in the coastal districts of Nampula. The combination of this problem with the last drought season has originated a food deficit for the next few months.

Being cassava the larger income crop in normal years, rice, banana and pulses are also consumed and sold. For the poor casual labour both locally and in neighbouring zones is also an important income as well as fishing in the coastal areas.

Generally the poor have fewer active adult members then the better off groups. All of the groups own chickens and some own ducks. Sheep and donkey ownership is quite limited and is more common in the rich groups.

Nampula province is one of the most important areas for agricultural production in Mozambique. The western districts have good rainfall patterns and good soils for crop production and contribute significantly to the overall surplus of the country. Last year the production output of this province was up and accounted for an important share in the overall national surplus.

However a number of districts in the western/ coastal part of the province suffered from brown steak disease affecting the output of cassava, the main staple food crop. The CFSAM in May and the VAC report of September indicate that losses in the affected districts were up to 80% of the total expected output. Most affected districts include Moma, Momba, Nacala-a-Velha, Nacala Porto, Ilha de Moçambique, Nacarua, and Mongicual.

With the widespread food deficit there is an increasingly high level of vulnerability to food insecurity by the sectors of the populations living with sick family members, as well as those headed by women or with high ration of dependents. These families will not be able to achieve the minimum food security standards if no external assistance is deployed urgently.

VI. Additional Vulnerability at household level and Nutritional Situation

A. Demographic

Table 5 below presents several demographic indicators that help assess the vulnerability of the households within the target population. The mean dependency ratio is 1.54, with a range from 1.36 in Inhambane to 1.78 in Tete.

Taking into account the chronically sick adults to calculate the “effective” dependency ratio, the ratio increases only very slightly. The proportion of child headed households (less than 18 years old) is below one per cent except in Gaza and Inhambane where it is of 2.1% and 1.7% respectively. Elderly headed households are lowest in Manica and Tete (3.7% and 5.9% respectively), but above ten per cent in Maputo, Gaza and Inhambane. Female-headed households are generally around 30% but much higher in Inhambane (45.2%). The presence of chronically sick adults can be seen as reflecting the presence of AIDS cases in the population. The proportion of households with at least one chronically sick adult varies from 0.2% in Manica to 5.1% in Gaza.

Populations affected by HIV have a high proportion of vulnerable households as defined by the gender and age of the head of the family. Using a definition of a vulnerable household as one headed by a child, an elderly person or having a chronically sick adult at home, then Gaza has the highest proportion of vulnerable households (23.0%) followed by Inhambane (17.0%), Maputo (15.6%), Sofala (8.9%), Tete (7.3%) and Manica (4.2%).

Table 5: Dependency ratio, head of household status and orphans by province

DEMOGRAPHICS							
Households	n	Depen- dency ratio	Effective depen- dency ratio	Child headed house- holds	Elderly headed house- holds	Female headed house- holds	With chronic- ally ill adult(s)
Overall	5498	1.54	1.55	0.7%	9.0%	33.8%	1.2%
Maputo	1000	1.41	1.42	0.2%	13.7%	30.8%	1.7%
Gaza	674	1.53	1.55	2.1%	15.8%	31.6%	5.1%
Inhambane	1137	1.36	1.37	1.7%	13.8%	45.2%	1.5%
Sofala	1016	1.42	1.42	0.3%	8.3%	38.6%	0.3%
Manica	653	1.61	1.62	0.3%	3.7%	29.7%	0.2%
Tete	1018	1.78	1.78	0.4%	5.9%	27.9%	1.0%

Table 6. Proportion of maternal orphans by age group and by province

Province	Maternal orphans	
	<15 years	<5 years
Overall	2.8%	1.6%
Maputo	3.4%	2.0%
Gaza	2.6%	1.8%
Inhambane	3.0%	2.2%
Sofala	2.4%	0.9%
Manica	1.8%	0.7%
Tete	3.4%	1.9%

Among all children (less than 18 years of age) 2.8% are maternal orphans below 15 years of age and 1.6% are an orphan below five years. Orphans in Mozambique are defined as maternal orphans under 15 years old. While maternal death is critical to the survival of the young child, the older orphan may be as vulnerable if the father died. The proportion of under 15 year old maternal orphans underestimate the number of orphan children in Mozambique.

The results from the assessment show some examples of increased vulnerability of elderly and child headed households, but are by no means conclusive. Nevertheless, the very existence of a reasonably significant number of such households suggests that HIV/AIDS is beginning to have an increased impact on families and communities. While some families in this position will continue to thrive, they are undoubtedly under increased pressure, and may receive less support as an increasing number of families are affected. Lack of rain, food deficit, and the resulting depletion of household resources will affect these families first and hardest.

B. Nutrition

Table 7 below gives the estimates for wasting (acute malnutrition) in children 6 to 59 months old. The mean is 6.4%, with Gaza showing the highest levels (11.2%). Although maternal orphans appear in some cases to have levels of wasting quite different from the rest of the population, interpretation needs to be cautious due to the small sample size.

Table 7: Prevalence of low weight-for-height (wasting) in children 6-59m

Children 6-59m	n	Whz \bar{x} - 2SD or oedema	Whz \bar{x} - 3SD or oedema
Overall	4887	6.4%	2.4%
Male	2377	6.7%	2.6%
Female	2455	6.2%	2.1%
Maputo	772	8.0%	4.8%
Gaza	861	11.2%	5.8%
Inhambane	659	4.6%	2.2%
Sofala	858	4.0%	0.7%
Manica	804	6.7%	2.3%
Tete	933	6.7%	1.6%
Age group 06-23m	1793	9.4%	2.8%
Age group 24-59m	2920	4.4%	2.1%
Child is maternal orphan	81	9.3%	3.5%
Child in female headed HH	1372	6.8%	2.6%
Child in elderly ¹ headed HH	422	6.4%	2.9%
Child in child ² headed HH	40	3.0%	3.0%
Child in HH with ill adult(s)	65	3.6%	3.6%
Child without diarrhoea	3385	4.7%	1.9%
Child with diarrhoea (last 2w)	1473	10.1%	3.2%

¹ Elderly headed HH = Age of head of HH is 60y or more and at least one child less than 18y

² Child headed HH = Age of head of HH household is less than 18y

Table 8: Prevalence of low height-for-age (stunting) in children 6-59m

Children 6-59m	n	Haz ξ - 2SD	Haz ξ - 3SD
Overall	4657	37.9%	15.0%
Male	2285	39.4%	15.9%
Female	2328	36.4%	14.2%
Maputo	725	32.7%	14.5%
Gaza	830	31.9%	11.5%
Inhambane	611	37.0%	16.5%
Sofala	803	34.8%	14.2%
Manica	774	41.7%	18.9%
Tete	914	42.0%	13.8%
Age group 06-23m	1788	34.5%	13.3%
Age group 24-59m	2869	40.0%	16.1%
Child is maternal orphan	77	46.2%	19.3%
Child in female headed HH	1312	41.4%	16.9%
Child in elderly headed HH	397	32.3%	12.9%
Child in child headed HH	40	40.6%	19.7%
Child in HH with ill adult(s)	61	43.4%	11.5%

Table 9. Nutritional data in drought affected provinces - 2002

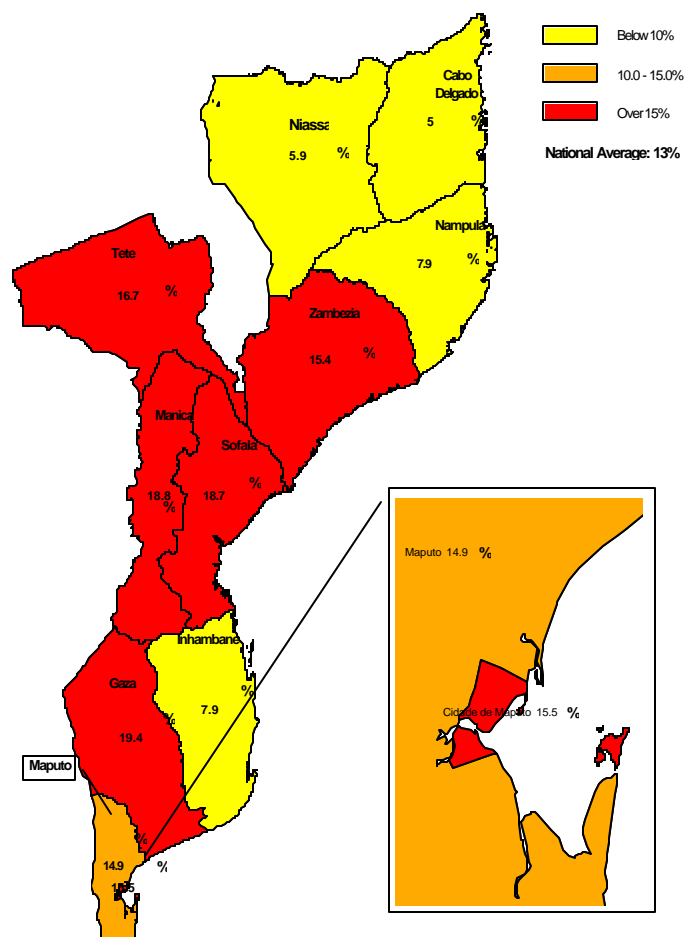
Province	Indicator				
	% 12-59 months children with MUAC \leq 12 cm (2)	% under five years old with W/H \leq - 2SD		% under five years old with H/A \leq - 2SD	
		QUIBB (1)	Nov '02 (3)	QUIBB (1)	Nov '02 (3)
Zambezia		3.7		61.6	
Tete	3.3 (Changara)* 5.7 (Magoé)	6.1	6.7	44.5	42.0
Manica	5.6(Macossa) 4.0(Tambara)	4.5	6.7	40.1	41.7
Sofala	1.1(Chibabava) 1.7(Machanga)	3.8	4.0	44.6	34.8
Inhambane	18.1(Funhalouro) 1.8 (Mabote)	4.4	4.6	31.2	37.0
Gaza	2.2 (Massangena) 2.7(Mabalane)	3.9	11.2	35.4	31.9
Maputo Prov.		3.3	8.0	26.2	32.7

* Refers to district name

- (1) *INE (2001) Questionario de Indicadores Basicos de Bem-Estar. Relatorio Final. QUIBB. Maputo 2001*
- (2) *Ministerio da Saude, Ministerio da Mulher e Coordenacao da Accao Social, Ministerio das Obras Publicas, Instituto Nacional de Gestao das Calamidades e as suas Direccoes Provincias. Inquerito Multi-sectoral Gaza, Inhambane, Sofala Manica e Tete- Jun- Jul 2002 (-Relatorio final) Com o apoio da Unicef*
Inquerito multi sectoral Nov-Dec.2002. The June July rapid assessment was conducted in districts considered as high risk according to the MADER/FAO/WFP
- (3) Multi-sectoral study conducted in November-December 2002. Malnutrition data in that study refer to the 6-59 months age group.

When comparing to the QUIBB 2001 values for the whole province, the prevalence of acute malnutrition in the studied areas is much higher than the provincial averages. The highlights that the

HIV Prevalence among Adults (15-49)
Per Cent (2001)



nutritional situation in the areas studied is marked by a recent and acute deterioration of the nutritional status as reflected by the increasing level of acute malnutrition in all drought affected areas of the six provinces.

The relationship between diarrhoea and malnutrition is well known. Poor sanitation and access to safe water are the basic cause of most of the diarrhoea in children in Mozambique. In the multi sectoral survey of July 2002, the rate of malnutrition in children with diarrhoea was 16% compared to 5.7% in the groups of children without diarrhoea. In the November assessment, children with diarrhoea again showed a much higher proportion (10.1%) of wasting than children without diarrhoea (4.7%).

C. HIV

The HIV epidemic is a growing threat and contributor to the vulnerability of the Mozambican people.

In Mozambique 13% of people 15-49 years were estimated to be infected by HIV in 2001. HIV prevalence in the Central and Southern regions is more than twice the prevalence in the north region. These regions have also been the worst hit by the natural disasters in the past 3 years.

Table 10. HIV profile in Mozambique

Indicator	National	North region	Centre region	South region
HV prevalence (15-49 y) 2001	13.0	6.8	16.8	14.4
Estimated number of persons living with HIV/AIDS 2002	1,355,693	261,986	694,829	398,878
Gender : female (57%)	767,410	144,119	389,096	234,195
Male	588,282	117,867	305,733	164,682
Adults (15-49 y)	483,792	98,847	249,894	135,051
Women (15-49 y)	668,577	127,388	337,626	203,563
Children (0-14 y)	86,280	13,534	51,218	21,528
New infections per day	600	140	230	150
Maternal Orphans due to HIV, 2002 (estimate)	298,099	21,605	218,115	58,379
HIV infected new born 2001	52,000			
Estimated Death of AIDS patients in 2002	81,170	8,496	51,550	21,124

Source: INE et al. *Impacto demografico HIV/SIDA em Mocambique (actualizacao 2000)*

The HIV epidemic, by affecting the primary carers and earners of the Mozambican families, has an impact on all the sectors of the Mozambican society and development components. In the case of Mozambique, the HIV epidemic is relatively recent and few HIV infected persons are AIDS patients.

D. Morbidity

Table 11 below shows the prevalence of diarrhoeal diseases, fever, and conjunctivitis and skin diseases among children 0-59 months. The prevalence of diarrhoeal diseases in the two weeks preceding the survey is 31.2%, with a variation between 21.5% (Maputo) and 35.3% (Tete). Differences between sexes appear minimal. Although maternal orphans show a lower prevalence than the rest of the population, this difference is not likely to be significant due to the small number of orphans involved in the calculation of these estimates. The provinces with the highest change in access to water are also the provinces with the highest prevalence of diarrhoea

The prevalence of fever within the two weeks preceding the survey is of 45.1% with surprisingly little variation between the provinces. Neither sex nor orphan status appears to be significantly associated with the prevalence of fever. The existence of fever was simply determined by the opinion of the caretaker. Malaria would probably be the most frequent cause of (real) fever, but also acute respiratory infections and diarrhoeal diseases. However, the cause of the fever as such was not investigated in this survey.

Conjunctivitis varies markedly between the provinces, with Maputo and Inhambane showing prevalence rates of below 10%, and Manica and Tete levels above 25%. There does not appear to be much variation between sexes. The difference between orphans and the rest of the population, although relatively large, may not be statistically significant.

The overall prevalence of skin diseases is 9.2%, with the Manica Province showing the highest figure of 17.8%. Orphans show a higher prevalence than the rest of the population, but this should be interpreted with caution due to the small sample size.

Table 11: Prevalence of diarrhoeal diseases, fever, conjunctivitis and skin diseases in children 0-59m

Children 6-59m	Diarrhoea		Fever		Conjunctivitis		Skin diseases	
	n	Prevalence	n	Prevalence	n	Prevalence	n	Prevalence
Overall	5440	31.2%	5435	45.1%	5276	16.9%	5243	9.2%
Male	2660	31.6%	2662	45.0%	2580	17.3%	2567	10.3%
Female	2706	30.7%	2701	45.3%	2632	16.6%	2612	8.0%
Maputo	873	21.5%	871	39.4%	849	5.0%	848	13.6%
Gaza	969	28.7%	967	43.9%	955	11.6%	950	12.7%
Inhambane	817	26.5%	818	46.4%	728	8.5%	724	5.3%
Sofala	885	32.5%	887	48.2%	874	12.8%	869	6.4%
Manica	905	34.6%	902	42.8%	892	26.1%	878	17.8%
Tete	991	35.3%	990	45.9%	978	25.1%	974	5.9%
Age group 6-23m	1975	42.6%	1973	53.3%	1942	19.4%	1928	8.7%
Age group 24-59m	3246	24.1%	3246	40.0%	3143	15.3%	3126	9.3%
Child is maternal orphan	90	26.9%	89	36.1%	86	41.0%	88	18.2%

Micronutrients

Table 12 below shows that 41.4% of the children 6-59m in the target population have received at least one dose of vitamin A during the six months preceding the survey, with variations between 27.0% (Sofala) and 55.8% (Maputo). In cases where children did not have a health card, it was considered that they would not have received Vitamin A supplementation. There are no significant differences between sexes, and the difference between orphans and the rest of the population is probably not significant either due to the small number.

Table 12: Vitamin A supplementation in the last six months for children 6-59m

Children 6-59m	n (with info.)	Children with health card	Percentage of children having received vit. A	
			Children with health card	All children
Overall	5350	72.8%	62.2%	41.4%
Male	2309		63.7%	41.2%
Female	2342		60.5%	41.6%
Maputo	833	89.2%	65.1%	55.8%
Gaza	976	85.1%	58.0%	47.2%
Inhambane	783	79.7%	49.3%	37.7%
Sofala	881	59.3%	60.9%	27.0%
Manica	906	49.7%	72.8%	33.3%
Tete	971	80.6%	65.4%	50.7%
Child is maternal orphan	79		82.9%	35.4%

For the province of Tete only, the availability of iodised salt at home was tested during the survey. The test was done in nearly 95% of the household surveyed with the following results: 1) positive: 40.6%; 2) negative: 53.3 %; and 3) doubtful: 6.1%.

Immunisation

Measles vaccination rates were investigated based on the information recorded on the child's immunisation card. 84.0% of children aged 12-23 months were found with an immunisation card, ranging from 82.9% (Sofala) to 94.3% (Maputo and Gaza). Based on information from the health card, 71.5% children in this age group were found to have received their measles vaccination, with a range from 51.5% in Manica to 85.7% in Maputo. Variations according to orphan status are small.

Table 13a: Immunisation rates among children 12-23m

Children 12-23m	n	Children with health card	Percentage vaccinated for measles	
			Children with health card	All children
Overall	1295	84.0%	86.5%	71.5%
Male	642	82.5%	87.8%	70.7%
Female	636	85.3%	85.1%	72.5%
Maputo	176	94.3%	92.5%	85.7%
Gaza	255	94.3%	85.3%	82.7%
Inhambane	195	91.6%	87.3%	76.9%
Sofala	227	82.9%	69.3%	55.6%
Manica	200	59.5%	89.6%	51.5%
Tete	242	87.0%	93.5%	81.3%
Child is maternal orphan	18	73.7%	91.3%	67.3%

69.1% of children aged 24-59 months were found with an immunisation card, ranging from 44.5% (Manica) to 88.0% (Maputo). Based on information from the health card, 62.0% children in this age group were found to have received their measles vaccination, with a range from 40.4% in Manica to 79.2% in Maputo.

Table 13b: Immunisation rates among children 24-59m

Children 24-59m	n	With health card	Percentage vaccinated for measles	
			Children with health card	All children
Overall	3216	69.1%	92.2%	62.0%
Maputo	511	88.0%	93.6%	79.2%
Gaza	594	80.5%	88.4%	70.0%
Inhambane	420	79.6%	94.3%	70.0%
Sofala	516	52.1%	88.6%	45.6%
Manica	581	44.5%	91.6%	40.4%
Tete	594	77.4%	94.4%	71.2%

D- Care practices

Practices regarding breastfeeding and complementary food for children 6 to 23 months old were investigated. Results are presented in the table below.

Table 14: Care practices for children 6-23m per age group

Children 6-23 months	n	Age group			
		6-23m	6-11m	12-17m	18-23m
Breastfed	1899	89.4%	94.8%	91.0%	80.6%
Given complimentary food by the age of 6 months	1899	87.7%			
Fed 0 or 1 x per day	1750	24.5%	32.8%	23.7%	16.0%
Fed 2 x per day	1750	43.4%	44.8%	46.3%	37.7%
Fed 3 x or more per day	1750	32.1%	32.1%	30.0%	46.4%

Most (89.4%) children aged 6-23 months are still being breastfed, the proportion being higher for the 6-11 month age group (94.8%) as would be expected. 87.7% of children in this age group also began receiving complementary food by the time they reached 6 months of age. Over 40% of the children in this age group are reportedly fed twice a day. The number of children who are fed three times a day increases steadily from the lower to the higher age group. However, there are still 24.5% of children between 6-23 months who are only fed once a day. A small proportion of children over one year is reported to be fed “zero” meals a day, but the reasons for this have not been recorded. These findings are alarming, meaning that more than half of the children under 2 years of age have their physical and psychological development compromised by insufficient food intake.

E- Safe water access

Table 15: Access to safe water and changes in access to water

Households		n	% of HH ¹ with safe ² water access	n	% of HH ¹ consuming less water this year
Overall		5405	37.2%	5328	12.5%
Maputo		970	34.0%	945	5.0%
Gaza		666	36.3%	663	16.7%
Inhambane		1108	35.8%	1084	13.7%
Sofala		1006	34.8%	994	8.4%
Manica		645	48.8%	649	18.1%
Tete		1010	34.6%	993	12.9%
Changed water source (since last year)	Overall	623	43.4%	610	23.3%
	Because source dried up	192	22.1%	194	20.8%
Female headed HH		1852	36.2%	1827	13.5%
Elderly headed HH		578	39.4%	572	13.0%
Child headed HH		39	36.4%	38	17.3%
HH with ill adult(s)		86	37.2%	84	13.2%

¹ HH = household

² Safe water = from a network, a well with a pump or a protected well (otherwise unsafe)

Nationwide, it can be seen that only 37.2% of households have access to a safe water source i.e. a network, a well with a pump or a protected well. Access is highest in Manica (48.8%) and lowest in Maputo (34.0%). A significant proportion of the households (7.4% overall) have declared that they are taking more time to fetch water this year than last year (at the same period), especially in Manica. Changes in households source of water since last year are also significant, especially in Gaza and Inhambane. Except for Maputo and Sofala, 10% or more of the households have informed that they consume less water this year than last year, more so in Manica and Gaza. Although it is difficult to interpret this without knowledge of simultaneous changes in the size of the households, it is likely that most of these reflect deterioration in water access by these households. Child headed and elderly-headed households show estimates similar to others.

In all the provinces in the study area, the high-risk areas had lower coverage of safe water compared to the 2001 average for the overall province coverage (data from the QUIBB 2001), with the highest difference observed in Gaza.

Table 16: Safe water access (% of households with access to safe water) in high-risk areas of drought affected provinces compared to provincial average

Province	Households surveyed	Access to safe water in high risk areas Nov 2002	Access to safe water – province wide: 2001
Maputo	970	34.0%	51%
Gaza	666	36.3%	72%
Inhambane	1108	35.8%	34%
Sofala	1006	34.8%	47%
Manica	645	48.8%	48%
Tete	1010	34.6%	40%
Total	5405	37.2%	37%

F- Education

Tables 17 and 18 show details of enrolment and dropout rates as well as reasons for non-enrolment and dropouts. The mean enrolment rate is 67.3%, being 69.0% for boys and 65.6% for girls. Maputo province has the highest rate at 84.6% and Sofala the lowest at 58.6%. The status of the head of the household does not appear to have a marked influence on this indicator. Of the respondents, just over 20% state financial reasons for non-enrolment, more particularly in Sofala. However, it is noteworthy that more than 55% of the reasons stated for non-enrolment are “other reasons” with no other information provided.

The dropout rate for the two-month period prior to the survey is 4.3% overall and somewhat higher for boys than for girls. It is highest in Maputo province (9.9%). Because the number of dropouts in each province is relatively small, the proportions shown in the table for the several stated reasons for dropouts also need to be interpreted with caution. This small number could be explained by the fact that at the time of the survey, the school year was close to ending. There was a high proportion of non-response and “other reasons”, which once again suggests that our knowledge of causes of dropout is insufficient. However, among the few answers that were obtained, financial reasons and need to look for food were foremost.

According to the QUIBB data (2001) orphan children are less likely to enrol to school than non-orphan children.

Table 17: Net Enrolment rate according to orphan status in 6-10 years old children– 2001 - QUIBB

Province	Net enrolment rate 2001 Non orphan	Net enrolment rate 2001 - orphans		
		Total	Boys	Girls
Zambezia	52.3	32	43	26
Tete	49.6	28	33	19
Manica	53.2	56	50	67
Sofala	49.7	41	41	41
Inhambane	66.9	54	53	54
Gaza	73.5	49	47	51
Maputo prov	81.5	58	58	57
Maputo city	87.6	59	68	52

Table 18: Enrolment and dropout rates by province, sex and head of household status

Children 06-12 (18) years		n	Enrolment NER	Drop-out (% of enrolled)
Overall	M+F	5315	67.3%	4.3%
	M	2590	69.0%	4.9%
	F	2671	65.6%	3.5%
Maputo	M+F	903	84.6%	9.9%
	M	419	85.8%	9.9%
	F	466	83.3%	9.4%
Gaza	M+F	754	63.5%	2.1%
	M	383	62.5%	2.3%
	F	364	64.2%	1.9%
Inhambane	M+F	1021	71.8%	3.8%
	M	518	73.0%	3.7%
	F	493	70.3%	3.0%
Sofala	M+F	876	58.6%	4.0%
	M	433	63.4%	3.9%
	F	441	53.8%	4.2%
Manica	M+F	720	72.1%	3.4%
	M	330	74.2%	4.0%
	F	385	70.1%	2.1%
Tete	M+F	1041	62.9%	4.3%
	M	507	64.2%	6.0%
	F	522	61.8%	2.7%
Child is maternal orphan	M+F	221	72.2%	1.5%
	M	115	80.7%	2.4%
	F	106	63.5%	0.4%
Child in female headed HH ⁶	M+F	1689	70.9%	3.3%
	M	805	73.3%	3.0%
	F	884	68.8%	3.6%
Child in elderly ⁷ headed HH	M+F	587	70.2%	5.3%
	M	316	68.6%	7.3%
	F	271	72.3%	3.3%
Child in child ⁸ headed HH	M+F	38	51.9%	3.4%
	M	19	46.8%	7.4%
	F	19	57.5%	0.0%
Child in HH with ill adult(s)	M+F	60	64.4%	14.2%
	M	30	50.7%	6.3%
	F	30	77.1%	17.9%

Table 19: Causes for non-enrolment in school by sex, selected groups and head of household status

Children 06-12y		Overall n = 1267	Child is maternal orphan n = 52	Child in HH with ill adult n = 12	Child in female headed HH n = 387	Child in elderly headed HH n = 140	Child in child headed HH n = 16
Work at home	M+F	3.9%	0.0%	3.3%	8.5%	5.2%	3.1%
	M	3.8%	0.0%	2.3%	10.5%	0.0%	0.0%
	F	4.1%	0.0%	4.2%	5.2%	10.6%	18.9%
Need to look for food	M+F	1.5%	5.0%	1.4%	5.7%	8.2%	0.0%
	M	0.8%	0.0%	1.8%	4.2%	16.0%	0.0%
	F	2.2%	8.7%	1.0%	8.2%	0.0%	0.0%
Need to fetch water	M+F	0.8%	0.0%	0.0%	0.0%	0.0%	0.0%
	M	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%
	F	1.3%	0.0%	0.0%	0.0%	0.0%	0.0%
Take care of sick at home	M+F	0.6%	3.2%	0.4%	0.5%	0.0%	0.0%
	M	0.4%	7.5%	0.0%	0.0%	0.0%	0.0%
	F	0.8%	0.0%	0.7%	1.2%	0.0%	0.0%
Has a job	M+F	1.0%	2.6%	0.2%	0.5%	5.2%	0.0%
	M	1.2%	0.0%	0.1%	0.9%	10.1%	0.0%
	F	0.8%	4.4%	0.3%	0.0%	0.0%	0.0%
School too expensive	M+F	20.3%	39.7%	24.7%	25.9%	8.6%	10.4%
	M	21.0%	57.1%	20.6%	28.6%	16.8%	12.5%
	F	19.7%	26.9%	28.0%	21.5%	0.0%	0.0%
Other reasons	M+F	71.8%	49.6%	70.0%	59.0%	72.8%	86.5%
	M	72.6%	35.4%	75.2%	55.8%	57.0%	87.5%
	F	71.1%	60.0%	65.8%	64.0%	89.4%	81.1%

G- Special Protection

The table below is about special protection indicators. It shows that 0.9% of households have stated that at least one of their children (below 18 years of age) has left home in search for work during the last two years. The proportion of boys (0.8%) in this category is several times higher than girls (0.2%). Very low levels of missing children (who left home and whose parents don't know the whereabouts) have been reported in this survey (0.1%). However, the question is raised about how reliable is the statement of the parents in this case, as they may be reluctant to give this kind of information to a visitor.

Early marriage leading to the child leaving its home affected 2.4% of the households of the overall surveyed population. Manica (4.1%), Tete (3.7%) and Gaza (3.4%) show the highest values.

Table 20: Children who left in search of work or who are missing

Households	n	% of HH with children who left in search of work	% of HH where a child left due to marriage	% of HH with missing children
Overall	5415	0.9%	2.4%	0.1%
Male		0.8%	0.5%	0.1%
Female		0.2%	2.1%	0.0%
Maputo	984	1.2%	1.1%	0.1%
Gaza	668	0.9%	3.4%	0.0%
Inhambane	1104	1.2%	1.3%	0.3%
Sofala	1006	0.1%	0.4%	0.1%
Manica	643	0.6%	4.1%	0.1%
Tete	1010	1.3%	3.7%	0.1%
Child is maternal orphan	5415	0.1%	0.2%	0.0%

VII. Targeting

From the results of the assessments, the following recommendations can be made in relation to targeting of certain activities:

1. Child-headed / Elderly-headed Households and Households with a sick adult

Households that fall into these categories must be included in any assistance programmes, in particular:

- free food aid for all members of these households;
- provision of learning materials to promote access to education to children of school age within these households;
- participatory education on good hygiene and care practices, community based malaria prevention and treatment for simple malaria
- training members of PLWA groups as facilitators for providing nutrition counselling to HIV + people
- support for facilitated access to basic social services , including Health care

2. Children under five years

The assessment shows some worrying points in relation to the nutrition and health status of this age group. It is therefore recommended that these children be targeted for:

- supplementary feeding programmes;
- therapeutic feeding for all children under five with severe malnutrition (as measured by weight for height inferior or equal to – 3 SD)
- Vitamin A supplementation;
- Systematic de-worming;
- measles immunisation campaigns in districts prone to outbreaks
- caretakers to participate in participatory education on good hygiene and care practices, community based malaria prevention and treatment for simple malaria as well as the distribution of insecticide-treated nets to vulnerable groups.
- Promote and reinforce education on HIV/AIDS for pregnant women, and counselling through VCT/PMTCT activities.

3. Pregnant / lactating women

Due to the particular vulnerabilities of women in this group, the following targeted actions are advisable:

- Supplementary feeding programmes;
- Participatory education on good hygiene and care practices, malaria prevention and treatment, community based malaria prevention and treatment for simple malaria

4. Table 21 Affected population

The table 21 show the estimated affected population per province, according to production figures, nutritional indicators and HIV prevalence. In annex 4 are the figures estimated by district for each province.

Mozambique				
(P) Province	Estimated Population 2002	CFSAM # Pop Need	Aug/ Sept VAC results	Nov/ Dec VAC Pop Need
Cabo Delgado	1,525,633			
Gaza	1,395,195	129,000	111,128	131,319
Inhambane	1,198,085	93,000	92,945	80,383
Manica	1,207,332	82,000	43,770	54,000
Maputo	2,048,610	38,000	39,186	44,149
Nampula	3,410,140		33,000	82,167
Niassa	916,671			
Sofala	1,516,165	36,000	47,024	57,200
Tete	1,388,205	137,000	125,353	111,497
Zambezia	3,476,483	3,000	95,134	94,150
Total	18,082,519	518,000	587,540	654,865

VI. Future Agricultural Production Prospects

Based upon seed availability and the distribution plan, the high price of staples such as maize, and the National meteorological services forecast, the Ministry of Agriculture and Rural Development through the National Directorate of Agriculture /Department of Early Warning (MADER-DINA/DAP) forecasts a 10% increase in cereal production, an 8% increase of pulses and 4% of cassava production in the 2002/03 agricultural season compared to the last season. However, poor rains recorded in the South and Centre of Mozambique from mid November 2002 could reduce these planned production figures. In addition, another poor season could greatly deteriorate the food security situation of the poor and lower middle households of the semi-arid districts. Any progress towards a recovery from the current food insecurity situation will require a successful 2002/03-crop production.

Climatic conditions

Above normal rainfall during the last decade of Oct and first decade of November, marked a good start to the 2002/03 cropping season in most areas in the south and central regions (with the exception of Tete Province) of Mozambique. However, from the middle of November until the end of the first decade in December very little rain was recorded, which has had a negative impact on crop germination and development. In these regions, if rains do not fall in the next two decades, the moisture stress on crops will increase, particularly maize.

The outlook from INAM predicted normal to above normal rains for south and central regions from October December 2002, but normal to below normal rains from January to March 2003 for these same regions.

Availability and accessibility of agricultural inputs

The seed distribution for the 2002/03 seasons began in September 2001 and was carried on by MADER in coordination with Italian Cooperation. “Free” and “Fair” seed methods were used for targeting 35,000 vulnerable households in Maputo, Gaza, Inhambane, Sofala, Manica, Tete and Zambézia Provinces. The Seed fair system is considered to be the most appropriate approach for seed distribution in the country because it gives the opportunity for each household to select crops and cultivars according to their preferences. This methodology has been tested in Mozambique for the past three years. Free seed distribution is a rapid process for seed distribution since seed kits are composed at provincial or district level by the agricultural official.

Seed fairs were carried out in Gaza and Inhambane Provinces in the last week of September, and free seed distribution was carried out in Gaza, Sofala, Manica, Tete and Zambézia Provinces. It should be pointed out that seed beneficiaries paid a nominal amount of money (between 3,500 Metical to 7,000 Mt) per kit.

Table 22 indicates the quantities of seed for free seed distribution. Free seed distribution went down between 38% for maize and sorghum and 49% for peanuts compared to last year. This was due to better crop harvest in 2002 compared to last

agricultural year. But seed distribution of rice increased by 44% in the current year because MADER is promoting the intensification of rice production in the country.

Seeds distribution in the north of the country is mainly covered by the local seed multiplication programs carried on by MADER, SARNET and local NGOs. The free seed distribution is currently underway in the north where the planting season starts later.

Drought power

In order to mitigate last years drought, MADER developed an Action Plan aimed to reduce the negative effect of drought on crop production, intensification of winter cropping season in the lowlands, and improvement of the start of the 2002/03 main cropping season. The main components of this action plan are: a. seed distribution, b. multiplication of cassava stalks and sweet potatoes cuttings, c. Local production of good quality seeds, d. rehabilitation of small irrigation skims, e. acquisition of pedal water pumps, and f. construction of small dams.

Effect of HIV/AIDS on agricultural labour in the country

So far, there is no clear link between HIV/AIDS and agriculture. In fact, at the national level, the cultivated area under cereals and cassava has increased 26% in the last ten years, according to FAO/GIEWS. This increase is firstly attributed to peace since 1992 in Mozambique, and the successfully removal of the land mines. VAC-Mozambique recommended the need to conduct a

Table: 22 Forecasted seed needs for 2001/02 and 2002/03 agricultural seasons

Crops	Smallholder Sector (Tons)	
	2001/02	2002/03
Maize	1255	784
Sorghum	335	208
Millet	80	82
Rice	496	715
Pulses	565	319
Peanut	973	487

Source: MADER-DINA/DAP

research studies on the effect of HIV/AIDS on agriculture and food security in the central region of Mozambique where HIV/AIDS prevalence is 21%, the highest rate in the country.

VIII. Recommendations and conclusions

1. Food insecurity situation

To face the food insecurity in the north and part the central regions of the country should be considered through more specific and long-term interventions. Appropriate actions through disease free multiplication of cassava seedlings should continue and be reinforced.

2. Prices

Emphasis should be given to the correct crop price information at the beginning of the commercial season, to avoid very low prices at farm level in detriment of small farmers. Special attention should be given to the informal cross border trading when prices are low, maybe through the improvement and stimulation of storage facilities at district and locality level.

3. Supplementary and therapeutic feeding

Given the relatively high rates of wasting found in the affected provinces in children 6-59 months (average 6.4%), the implementation of supplementary feeding programmes is needed, with priority in Gaza, Maputo and Tete provinces. As per the global MoU between WFP and UNICEF, WFP will need to secure sufficient CSB for the implementation of these programmes. In order to maximise the opportunity of accessing so many children under five years old, a further recommendation is to link Vitamin A supplementation and de-worming to the supplementary feeding programmes and to provide participatory training on hygiene and care to the caretakers.

More active referral of severely malnourished children to the existing therapeutic feeding centre network needs to be increased. Again, this can be linked to activities being undertaken through the supplementary feeding programmes, as community level activists can be taught how to monitor and identify cases of severe malnutrition. Additional support will be needed for the therapeutic feeding centres to improve the overall quality of the management of children with severe malnutrition in these Health facilities.

4. Nutrition Monitoring

On-going monitoring of the nutritional status of children in the affected districts must continue. The existing nutrition sentinel site network (currently covering three provinces) should be expanded into the other affected provinces.

5. Care practices

The results of the assessment highlight the extremely urgent need for participatory education on care practices for young children. A package of participatory tools relating to hygiene, frequency and density of feeding, as well as active feeding issues has been developed for use in previous emergency situations and should be implemented in the affected areas. It is suggested that this should also be linked to the supplementary feeding activities, as these will provide an opportunity to reach a wide population.

6. Re-inforcing HIV prevention and care activities in affected districts

Given the high proportion of households with a chronically sick adult in Gaza province, it is recommended that WFP prioritise Gaza for the distribution of a fortified general food ration (which consists of the general food ration with an additional portion of 50g CSB/person/day).

Furthermore, support for home-based care (HBC) should be increased through additional support to PLWA networks, to other NGOs working in the HBC area and to MoH Day Clinics. This support should include training, equipment and drugs especially drugs for opportunistic infections. The planned training for health workers and PLWA networks on the new nutritional guidelines for PLWA, developed by the Ministry of Health (MISAU), should begin immediately.

Peer educators networks around existing Youth Friendly Health services in affected areas will be extended and strengthened in collaboration with MiSAU and MJD. The access to free treatment for STD for pregnant and lactating women and young people will be supported and strengthened in all Health facilities and in VCT centres as will the availability of condoms.

7. Actions for the prevention of cholera and preparedness for outbreak response

Given the extremely high incidence of diarrhoeal diseases found by the assessment, Provincial Health Departments and Provincial Public Works Departments should be supported to prepare for a possible cholera outbreak. This would include refresher courses on case management and emergency water and sanitation interventions, as well as the pre-positioning of ORS, materials and equipment for Cholera Treatment Centres, and supplies for the provision of emergency water supplies and sanitation facilities. Preventive activities, notably participatory hygiene education, should also be undertaken, particularly in Tete, Manica and Gaza Provinces.

8. Measles vaccination

Due to the low levels of children immunised against measles found by the assessment, it is recommended that measles immunisation campaigns are undertaken in the district most vulnerable to measles outbreak (children between 8.5 months and 15 years).

9. Malaria Prevention and Control

'Fever' levels in children under five in the two weeks preceding the assessment were fairly high (overall 45.1%). The most common cause of fever is likely to be malaria and therefore, in order to reduce both morbidity and mortality rates due to malaria infections, it is recommended that participatory malaria education on prevention, diagnosis and treatment is carried out at the community level.

10. Keeping children in school

Whilst the results of the assessment do not show large numbers of children dropping out of school at this time, it is recommended that preventive actions continue. These include the existing school feeding programmes, the provision of teaching and learning materials, and the provision of adequate water and sanitation facilities to primary schools in the most affected areas.

In addition, as highlighted by the assessment results, the existing school attendance monitoring system should be expanded to include focus group discussions with parents and children on the reasons for non-enrolment and drop-out.

11. Post harvest losses:

It was observed that in the surplus producing areas, people sell their production right after harvest in order to avoid post harvest losses. Reduction of the post harvest crop losses through the use of improved on farm storage should be encouraged, particularly in the north region where the productivity is higher and the humidity contributes to huge post harvest losses.

12. Seeds

Local seeds multiplication should be encouraged, as a means of overcoming supply difficulties, taking care to not deter the development of more specialised seed producers.

13. Training

In general there is a need to train all local government staff, for example Administrators, Chief of Postos Administrativos and the members of executive committee, on identification and evaluation of food security situation, also analyse the concepts of vulnerability and food security as a whole (production, income and consumption/expenditures patterns). Better integration of social cultural aspects on interpretation of Food Security and Vulnerability.

14. Agriculture potential

Highlight and support the comparative advantage of each district in order to increase the production of certain activities. For instance for districts with potential for agriculture, rehabilitation of water “reservoir” and “dikes” for irrigation. Increase the distribution of livestock particularly small ruminants in areas appropriated for livestock rearing.

15. Water supply

Increase the number of functioning boreholes to improve the water supply in interior rural areas, through the rehabilitation and installation of new water points, and the development community capacity for pump maintenance and repair.

16. Phytosanity

Pulverization of cashew nut affected by powdery mildew disease and replanting others cashew nut trees. Awareness campaigns aimed at knocking down the coconut trees infected by the lethal yellowing disease should be reinforced and replanting new coconut trees in cleaned areas should be supported. The movement of plants and related materials (cassava e coconut) that could lead to the infection of plants in areas so far not affected by the disease needs to continue under control.

17. Next steps

In February will be issued an updated report.

A Crop and Food Supply Assessment should be requested for April in order to provide a more accurate and comprehensive situation report about the main season.

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Annex 1: List of Participants

Ministries: Agriculture
 Health
 Education
 Public Works and Housing
 Women and Welfare
 Industry and Commerce

In collaboration with Provincial representatives

National Institute of Statistics
National Institute for Disaster Management
UNICEF
WFP
FAO
USAID / Fews-net
SCF-UK

Annexe 2: Background vulnerability in Mozambique

1. Demographic profile

Indicator	Source	Value
Total population	INE	18 million
% population in urban area	Census 1997	69%
% of children under 14 years	Census	60 %
Life expectancy		41
Women headed households	2001	40%
Maternal orphans: % under 15 years		2.5
Under five mortality per 1000 live births		246
Infant mortality /1000 live births		146
Maternal mortality/ 100,000 live births	WHO 1996 (estimate)	1500

2. Socio-econommic profile

More than 70% of Mozambican people live in rural areas and depend on subsistence and rainfed agriculture.

Indicator	Source	Value
% Mozambican households living under poverty line		69.4
Primary Gross Enrolment rate		91%

- 8 in 10 Mozambicans are farmers or fishermen , participating mainly in survival economic. More than half of the Mozambican labour force are women (Mozambican human Development Report 1999 – UNDP)
- Food expenditure represented 80% of the household expenditure (1993)

3. Health, nutrition and WES

The burden of poor health is high especially on children. Environmental conditions are detrimental to the health of the Mozambican people. Insufficient health service network is a main constraint to the improvement of the health situation.

Indicator	Source	Value
Access to drinking water	2001	37%
Access to sanitation	2001	41%
Measles vaccination coverage	QUIBB 2001	68%
Acute Malnutrition among under five years old	QUIBB 2001	5.5%
Chronic malnutrition among under five years old	QUIBB 2001	44%
Maternal malnutrition	1997	11%

Acute malnutrition is 63% higher in rural than urban areas (6.2 compared to 3.8 %)

Chronic malnutrition was 58% higher in rural than urban areas (49.2% compared to 31.1%)

Annexe 3. Indicators by provinces

The following data are from the multisectoral assessment completed in Nov-Dec 2002 and refer to high risk areas within each province.

1. Gaza Province

1.1 Demographic profile

The following data were gathered from 670 households

Indicator	Value
Female headed households	33.9%
Child headed families	1.8%
Elderly headed households	14.9%
Household with chronic sick adult	7.0%
Dependency ratio	1.43
Effective dependency ratio	1.45
Maternal Orphans: % under 15 years old	2.4%

1.2 Morbidity and mortality profile

Indicator	Studied group		Survey value (%)			2001 Prov. Average
	Age range	Nb	All	M	F	
Infant mortality rate (1997)	0-11 months					118*
Under five mortality rate (1997)	0-59 months					198*
Estimated HIV prevalence (15-49 y) in 2001	15-49 y					19.4**
W/H<-2 SD	6-59 M	843	10.0	10.4	9.5	3.9%*
H/A<-2 SD		814	32.7	32.5	33.3	35.4%*
Prevalence diarrhoea in past 2 wks		989	28.7	30.4	27.1	
Incidence of fever in past 2 wks				43.7	42.4	44.9
Access to safe water source	Household	668	38.8			72%*

*Source: National Statistics Institute, QUIBB2000/2001

** Source: Ministry of Health and HIV Technical Support Group, Report on 2001 HIV Surveillance, Nov 2002

2. Inhambane Province

2.1 Demographic profile

The following data were gathered from 1116 households
Demographic profile (Nov.2002)

Indicator	Value
Female headed households	45.9%
Child headed households	2.2%
Elderly headed households	13.1%
Household with chronic sick adult	2.0%
Dependency ratio	1.27
Effective dependency ratio	1.28
Maternal Orphans: % under 15 years old	2.6%

2.2 Mortality/Morbidity profile

Indicator	Studied group		Survey value (%)			2001 Prov. Average
	Age range	Nb	All	M	F	
Infant mortality rate (1997)						114
Under five mortality rate (1997)						191*
Estimated HIV prevalence (15-49 y) in 2001						7.9**
W/H<-2 SD	6-59 M	704	5.7	5.9	5.4	4.4%*
H/A<-2 SD		636	33.6	33.7	32.5	31.2%*
Access to safe water source	Household	1097	38.3			34%*
Take more time to get water			6.7			
Consume less water			13.8			

*Source: National Statistics Institute, QUIBB2000/2001

** Source: Ministry of Health and HIV Technical Support Group, Report on 2001 HIV Surveillance, Nov 2002

3. Manica Province

3.1 Demographic profile

The following data were gathered from 553 households. They are preliminary data and will be completed in the nearer future.

Indicator	Value
Female headed households	30.9%
Child headed households	0.5%
Household with chronic sick adult	1.4%
Elderly headed households	4.2%
Dependency ratio	1.51
Effective dependency ratio	1.52
Maternal Orphans: % under 15 years old	2.1%

3.2 Mortality and morbidity profile

Indicator	Studied group		Survey value (%)			2001Prov. Average
	Age range	Nb	All	M	F	
Infant mortality rate (1997)						134*
Under five mortality rate (1997)						226*
Estimated HIV prevalence (15-49 y) in 2001						18.8% **
W/H<-2 SD	6-59 M	677	5.9	5.8	6.1	4.5%*
H/A<-2 SD		657	38.4	39.2	38.1	40.1%*
Access to safe water source	Household	549	42.6			48%*
Take more time to get water			9.4			
Consume less water			25.9			

*Source: National Statistics Institute, QUIBB2000/2001

** Source: Ministry of Health and HIV Technical Support Group, Report on 2001 HIV Surveillance, Nov 2002

4. Maputo Province

4.1 Demographic profile

The following data were gathered from 976 households

Indicator	Value
Female headed households	31.8%
Child headed households	0.7%
Elderly headed households	13.8%
Household with chronic sick adult	3.2%
Dependency ratio	1.27
Effective dependency ratio	1.29
Maternal Orphans: % under 15 years old	3.2%

4.2 Morbidity and Mortality profile

Indicator	Studied group		Survey value (%)			2001 Prov. Average
	Age range	Nb	All	M	F	
Infant mortality rate (1997)						85*
Under five mortality rate (1997)						138*
Estimated HIV prevalence (15-49 y) in 2001						14.9**
W/H<-2 SD	6-59 M	767	7.7	5.8	9.4	3.3*
H/A<-2 SD	6-59 M	719	32.1	32.8	31.9	26.2*
Access to safe water source	Household	971	36.5			51%*
Take more time to get water			3.6			
Consume less water			5.2			

(1) Source: data from QUIBBS (collected between Oct and May 2000-2001)

*Source: National Statistics Institute, QUIBB2000/2001

** Source: Ministry of Health and HIV Technical Support Group, Report on 2001 HIV Surveillance, Nov 2002

5. Sofala province

5.1 Demographic profile

The following data were gathered from 762 households

Indicator	Value
Female headed households	35.6%
Child headed households	0.4%
Elderly headed households	12.3%
Household with chronic sick adult	0.9%
Dependency ratio	1.34
Effective dependency ratio	1.35
Maternal Orphans: % under 15 years old	2.6%

Indicator	Studied group		Survey value (%)			2001 Prov. Average
	Age range	Nb	All	M	F	
Infant mortality rate (1997)						149*
Under five mortality rate (1997)						250*
Estimated HIV prevalence (15-49 y) in 2001						18.7% **
W/H<-2 SD	6-59 M	555	4.9	6.7	3.3	3.8*
H/A<-2 SD		520	24.6	24.5	24.1	44.6*
Access to safe water source	Household	760	35.4			47%
Take more time to get water			5.7			
Consume less water			10.0			

Source: data from QUIBBS (collected between October and May 2001)

*Source: National Statistics Institute, QUIBB2000/2001

** Source: Ministry of Health and HIV Technical Support Group, Report on 2001 HIV Surveillance, Nov 2002

6. Tete Province

6.1 Demographic profile

The following data were gathered from 1017 households

Indicator	Value
Female headed households	28.8%
Child headed households	0.5%
Elderly headed households	5.9%
Household with chronic sick adult	1.0%
Dependency ratio	1.69%
Effective dependency ratio	1.70%
Maternal Orphans: % under 15 years old	2.9%

6.2 Morbidity and mortality profile

Indicator	Studied group		Survey value (%)			2001 Prov. Average
	Age range	Nb	All	M	F	
Infant mortality rate (1997)						134*
Under five mortality rate (1997)						226*
Estimated HIV prevalence (15-49 y) in 2001						16.7**
W/H<-2 SD	6-59 M	949	7.2	8.2	6.1	6.1%*
H/A<-2 SD		920	42.4	41.6	43.2	44.5%*
Prevalence diarrheia in past 2 wks		1012	35.1	34.8	35.4	
Access to safe water source	Household	1013	32.8			40%*
Take more time to get water			8.0			
Consume less water			13.2			

*Source: National Statistics Institute, QUIBB2000/2001

** Source: Ministry of Health and HIV Technical Support Group, Report on 2001 HIV Surveillance, Nov 2002

7. Zambezia province

Data from the QUIBB 2001

Indicator	Value
Infant mortality /1000 live births	192
Under five mortality/1000 live births	322
Estimated HIV prevalence (15-49 y) in 2001	15.4%
W/H<= - 2SD in under five years old	3.7%
H/A<= - 2SD in under five years old	61.6%
Health card coverage	57.8%
Measles vaccination coverage	42.8%
Access to safe water	17%
Maternal Orphans: % under 15 years old	2.5

Annex 4: Results of the VAC assessment-People affected

Nov. December 2002 VAC Assessment

MOZAMBIQUE		CFSA		Aug Sept VAC		Nov Dec VAC	
(D) District	(E) Population CFSAM	% Pop Need	# Pop Need	% Pop Need	# Pop Need	% Pop Need	# Pop Need
Ilha Mocambique	49,069	0	0			6	2,944
Memba	207,399	0	0	16	33,000	6	12,444
Mogincual	96,643	0	0			14	13,530
Monapo	252,688	0	0			5	12,634
Mossuril	93,642	0	0			8	7,491
Nacala A Velha	112,657	0	0			15	16,899
Nacaroa	85,394	0	0			19	16,225
Nampula	897,492				33,000		82,167
Cahora Bassa	70,205	30	21,000	22	15,445	21	14,743
Changara	137,701	29	40,000	17	23,409	29	39,933
Chiuta	69,330	7	5,000	16	11,093	16	11,093
Magoé	49,608	40	20,000	23	11,410	40	19,843
Maravia	62,214	0	0		0		0
Moatize	121,234	6	7,000	15	18,185	8	9,699
Mutarara	138,527	25	35,000	30	41,558	8	11,082
Tete	141,983	0	0		0		0
Tsangano	131,219	0	0		0		0
Zumbo	42,528	21	9,000	10	4,253	12	5,103
Tete	964,549		137,000		125,353		111,497
Chinde	140,144		3000	30	42,043	32	44,846
Inhassunge	103,468	0	0	14	14,486	14	14,486
Maganja Da Costa	256,978	0	0	5	12,849	3	7,709
Mopeia	84,514	0	0			11	9,297
Morrumbala	296,870	0	0			6	17,812
Namacurra	192,154	0	0	5	9,608		0
Pebane	161,484	0	0	10	16,148		0
Zambezia	1,235,612		3,000		95,134		94,150
Buzi	146,395	0	0		0	5	7,000
Chemba	45,554	0	0	7	3,189	13	6,000
Chibabava	66,887	15	10,000	15	10,033	15	10,000
Machanga	44,349	45	20,000	35	15,522	45	20,000
Maringue	61,568	0	0	20	12,314	19	11,700
Muanza	13,908	43	6,000	43	5,967	18	2,500
Sofala	341,519		36,000		47,024	17	57,200
Guro	43,895	34	15,000	20	8,779	36.5	16,000
Machaze	80,055	34	27,000	25	20,014	17.5	14,000
Macossa	15,585	83	13,000	20	3,117	64.2	10,000
Tambara	33,886	80	27,000	35	11,860	41.3	14,000
Manica	173,421		82,000		43,770	31.1	54,000
Funhalouro	33,283	33	11,000	33	10,983	40	13,313
Govuro	30,568	43	13,000	43	13,144	43	13,144
Homoine	103,955	3	3,000	10	10,396		

Inharrime	92,563	5	5,000	5	4,813	0	0
Inhassoro	49,727	20	10,000	20	9,945	20	9,945
Mabote	38,416	29	11,000	31	11,909	38	14,598
Massinga	203,639	5	11,000	5	10,182	0	0
Morrumbene	128,764	2	3000				0
Panda	49,293	14	7,000	20	9,859	20	9,859
Vilankulo	130,155	9	12,000	9	11,714	15	19,523
Zavala	157,216	4	7,000	0	0	0	0
Inhambane	1,017,579		93,000		92,945		80,383
Bilene	161,092	7	11000	6	9,666		0
Chibuto	164,672	14	23000	12	19,761	20	32,934
Chicualacuala	38,298	31	12000	34	13,021	40	15,319
Chigubo	14,740	41	6000	41	6,043	41	6,043
Chokwe	226,049	6	13000	6	13,563		0
Guija	64,832	20	13000	10	6,483	22	14,263
Mabalane	28,689	31	9000	34	9,754	34	9,754
Mandlakazi	176,117	8	14000	8	14,089	20	35,223
Massangena	13,859	58	8000	50	6,930	56	7,761
Massingir	25,051	40	10000	31	7,653	40	10,020
Xai-Xai	208,259	2	5000	2	4,165		0
Xai-Xai Cidade	144,773	3	5000				
Gaza	1,266,431		129,000		111,128		131,319
Magude	33,555	15	5,000	20	6,711	40	13,422
Manhiça	137,423	8	11,000	8	10,994	0	0
Marracuene	47,560	17	8,000	17	8,085	15	7,134
Matuine	37,657	16	6,000	16	6,025	25	9,414
Moamba	40,512	12	5,000	12	4,861	35	14,179
Namaacha	41,131	7	3,000	6	2,509		0
Maputo	337,838		38,000		39,186		44,149
TOTAL			518,000		587,540		654,865