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S P E C I A L R E P O R T

FAO/WFP CROP AND FOOD SUPPLY ASSESSMENT MISSION TO MALAWI

8 July 2004

Mission Highlights

- The production of maize, Malawi's most important staple crop, is estimated to have fallen by 14 percent in 2004 compared to last year, and 17 percent compared to the average of the past five years. A late start and early finish to the rains in the south reduced both planted areas and yields, resulting in national maize production of some 1.705 million tonnes and total cereal production of 1.813 million tonnes including milled rice. The high cost of fertilizers and agricultural credit coupled with relatively low maize prices also contributed to reduced production levels.
- National production of cassava and sweet potatoes, on the other hand, is estimated to have increased by about 13 percent to 4.2 million tonnes (or 1.132 million tonnes in cereal equivalent), which may help reduce the cereal deficit to some extent, if substituted for maize.
- Aggregate domestic cereal supply, including roots and tubers in cereal equivalent, for the 2004/05 marketing year (April/March) is estimated at 2.955 million tonnes. National utilization is estimated at 3.363 million tonnes, implying an import requirement of 408 000 tonnes.
- This import requirement is estimated to be covered by food aid of 56 000 tonnes and the remaining 352 000 tonnes of formal and informal commercial imports by the government and the private sector.
- It is estimated that a total of 1.34 million people, or about 11 percent of the population will experience a food deficit between June 2004 and the next harvest in April-May 2005. If maize prices increase above the projected prices of MK17 to MK 27 per kilogram, the size of total deficit and the number of people requiring food assistance will increase significantly. Up to 86 percent of those affected are located in the southern part of the country.

1. OVERVIEW

A late start to the rains in the south, followed by unsatisfactory rainfall distribution, prompted the Government of Malawi to request FAO and WFP to carry out an in-country assessment of the crop situation and food security prospects for the 2004/05 marketing year (April/March). An FAO/WFP Crop and Food Supply Assessment Mission visited Malawi from 25 April to 15 May 2004. Officials from the Ministry of Agriculture, Irrigation and Food Security (MAIFS) accompanied the Mission, while representatives of the Famine Early Warning System (FEWS-NET), SADC, USAID, EU and DFID participated as observers.

The Mission interviewed the staff of MAIFS, the National Statistics Office (NSO), the National Food Reserve Agency (NFRA), the Agricultural Development and Marketing Corporation (ADMARC), the Ministry of Economic Planning and Development (EP&D), UN and other international and bilateral organizations and NGOs. The Mission also collected extensive documentation on recent weather conditions, current crop assessments and forecasts, and reported food shortages prepared by government and non-government agencies, and most importantly, the NSO/MAISF Second-Round Agricultural Production Estimates released at the end of April. This information was cross-checked against information from extension officers, farmers, traders, staff from agricultural trading companies, poultry farmers, and local NGO and donor project staff as well as against remote-sensing data and imagery from early warning systems.

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After initial briefing, the Mission split into two teams to cover as many areas as possible in the limited time available. Between them, they visited all of the country's eight Agricultural Development Divisions (ADDs) and all but two of its 27 districts (RDPs).[1] The local situation was discussed with MAIFS and other government officials at each ADD headquarter and in each district with a view to assessing the continuing validity of forecasts in the Second-Round Agricultural Production Estimates. The teams also travelled extensively in the field in order to observe and evaluate standing crops; discussions were held with farmers concerning their experiences of the summer cropping season, their plans for the winter season, and their perceptions of levels of food security at present and for the coming twelve months. Markets were visited to observe the availability of agricultural produce and prices of staples; maize prices were also discussed with traders. All major border trading posts were visited to evaluate the nature and extent of cross-border trade between Malawi, Mozambique, Zambia and the United Republic of Tanzania. Upon returning to Lilongwe, the Mission briefed the government and donor agencies on preliminary findings.

The Mission found the NSO/MAIFS estimates generally acceptable at ADD and national level, although there were some discrepancies in planted area (e.g. in Salima ADD) and in the yields of some crops between the NSO/MAIFS estimates and the estimates of the RDP/extension staff. This year, field surveys were constrained due to the reduced number of experienced enumerators and their ability to physically measure planted areas on sampled farms.

Planting of major crops was delayed throughout the country this year with rains beginning during the second dekad of December instead of during October/November. The season was characterized by generally inadequate, erratic rainfall, with some areas experiencing two or three dry spells. In many northern and central areas, the February rains were generally adequate, although parts of the west, especially southwest Kasungu, suffered from drier conditions. Rainfall in the south was very poor during December. The situation looked more promising by the end of January, but February brought some prolonged dry spells. In some upland areas the situation improved in late February and early March, but much of the maize in low-lying areas continued to be subject to damaging, dry conditions until tasselling and grain-filling stages. Unusually high rainfall in early April came too late for these crops.

Total maize production for the summer 2003/04 season including the forecast for the winter 2004 season is estimated at 1.705 million tonnes, about 14 percent below last year's harvest and 17 percent below the average of the previous five years. About 93 percent of all maize is produced by smallholders and the remainder on estates. Winter maize production is becoming increasingly important, and according to farmers' planting intentions and yield expectations, should produce about 192 000 tonnes or 11 percent of annual maize output.

Aggregate cereal production for 2003/04 including maize, rice (milled), sorghum, millet and wheat is estimated at 1.813 million tonnes, about 14 percent below last year's average level. Root crops such as cassava, sweet potatoes and Irish potatoes are gaining importance, seen in the estimated 22 percent increase in area planted and about 13 percent increase in total production over the previous year. Total production of cassava and sweet potatoes from the harvestable area (and therefore potentially available for the 2004/05 marketing year) is estimated at 1.132 million tonnes in cereal equivalent. It should be acknowledged, however, that there is a considerable uncertainty about the harvestable area, area that will be actually harvested and even the yields of cassava in Malawi. With the opening stocks of about 10 000 tonnes this gives a total domestic cereal and cereal equivalent supply of 2.955 million tonnes against a total consumption requirement of 3.363 million tonnes. If one commodity can be substituted for another in daily consumption, especially during a cereal-deficit year, then the cereal import requirement for Malawi for 2004/05 can be projected at 408 000 tonnes, about 86 percent in maize. In case the surplus root and tuber crops do not compensate for the maize deficit, then maize import requirements would rise by another 100 000 tonnes. It is therefore important that efforts be made by the government, farmers, donors and NGOs to encourage timely harvesting, processing and drying of cassava for marketing and transportation from cassava-surplus to maize-deficit areas.

Commercial cereal imports estimated at about 352 000 tonnes (with maize at 294 000 tonnes) are expected to cover most of the food deficit over and above the estimated food aid imports. The commercial imports would consist of government imports to achieve the NFRA stated food reserve stock, formal and informal imports by private traders and possible additional government imports for local markets in case private trade

[1] For the purpose of agricultural administration, Malawi is divided into eight Agricultural Development Divisions (ADDs), 27 Rural Development Projects (RDPs) and 154 Extension Planning Areas (EPAs). The ADDs also serve as general administrative divisions, and the boundaries of the RDPs and the politically based Districts have recently been made to coincide with each other.

does not materialize to the satisfactory level, possibly due to ambiguous policies regarding the role of ADMARC and maize consumer price subsidization. In all, 58 000 tonnes of wheat, generally used for bread-making, is expected to be imported commercially by the private sector.

With an expected maize surplus in northern Mozambique (in neighbouring Zambezia province) and in Zambia, informal cross-border trade is likely to be significant this year, possibly with a net inflow in the neighbourhood of 200 000 tonnes into southern and central Malawi. Given that WFP already has 15 000 tonnes of maize in stock the uncovered food gap for the 2004/05 marketing year, therefore, is anticipated to be about 41 000 tonnes of maize, which would need to be met through food aid from the international donor community.

It is estimated that a total of 1.34 million people, or about 11 percent of the nation population will experience a food deficit amounting to about 56 000 tonnes in maize equivalent between June 2004 and the next harvest in April-May 2005. In the worst affected areas in the southern part of the country, about 40 percent of the population will have a shortfall. The household deficit is due to a combined effect of the reduced availability of food from own production and low purchasing power to meet minimum dietary intake.

The greater part of the relief assistance will be required during the lean period between October 2004 to March 2005. However, in districts with the largest deficits, poor households will require food or cash assistance as early as July-September 2004 period. Between July-September 2004 period an estimated 1 720 tonnes will be required, 12 530 tonnes in October–December 2004 peaking to 41 780 tonnes in the January-March 2005 lean period.

Relief requirements are likely to increase if maize prices rise above the projected price range of MK17.00 and MK27.00 per kilogram. The size of the deficit and the number of people unable to meet food needs are likely to increase substantially. Monitoring of prices for early warning is therefore crucial.

2. SOCIO-ECONOMIC CONTEXT

2.1 Macro-economic situation

With its Human Development Index (HDI) rank consistently in the bottom 10 percent and per capita gross domestic product (GDP) stagnant at about US$195 in the past 6 years, Malawi faces great economic challenges to improve the standard of living for its citizens (see Table 1). According to the *Economic Report 2003* by the Ministry of Economic Planning and Development, real GDP growth has fluctuated between -4.1 percent in 2001 and 3.6 percent in 1999, averaging a mere 1.2 percent per annum over the 1998–2003 period. This is far below the population growth rate, which is officially estimated at over 3 percent. The agriculture sector has performed better with a simple annual average growth rate of 4.5 percent, but faces wider weather-induced fluctuations in performance. Lack of growth and macro-economic instability have thus been major problems in recent years.

Table 1. Malawi: Key economic indicators, 1998–2003

	1998	1999	2000	2001	2002	2003[p]
GDP per capita in US$	194	195	187	184	208	195
GDP (in Kwacha, MK) growth rate (%) at 1994 factor cost	2.2	3.6	0.2	-4.1	1.8	3.4
Agricultural GDP growth rate (%) at 1994 factor cost	10.3	10.1	3.8	-6.2	2.3	3.9
Exchange rate MK/US$ (period average)[a]	31.1	44.1	59.5	72.2	76.7	91
Trade Deficit in million US$[b]	47	185	145	106	290	256

p = projected.
a. = As of late April 2004, the exchange rate was 107 MK/US$ with the black market rate being about 6–7 percent higher than the official rate.
b. = Calculated by dividing Malawi Kwacha by the average exchange rate with the US$.
Source: Ministry of Economic Planning and Development, National Statistical Office, Treasury and Reserve Bank of Malawi, Economic Reports and Quarterly Statistical Bulletin; also available at www.nso.malawi.net.

For more than twenty years Malawi has faced two central economic challenges: reducing the level of absolute poverty, and cutting the budget deficit. The strategies for poverty alleviation have included liberalization of domestic markets, relaxation of agricultural marketing arrangements and privatization of para-statal companies. Overall, there has been little noticeable diversification of the production base, agriculture being by far the dominant sector.

In December 2000, the International Monetary Fund approved a three-year poverty reduction and growth facility that formalized the objective of poverty reduction and emphasized fiscal policy reform and promotion of private-sector development and investment. In his 2002/03 budget statement to Parliament, the Malawi Minister for Finance said that poverty in Malawi had reached unacceptable levels. He pointed out that the 1998 Integrated Household Survey revealed that 65.3 percent of Malawians – 6.3 million people – were poor, and that 28.7 percent of these were extremely poor. He considered the key causes of poverty to include limited access to land, low education, poor health status, limited off-farm employment and a lack of access to credit.

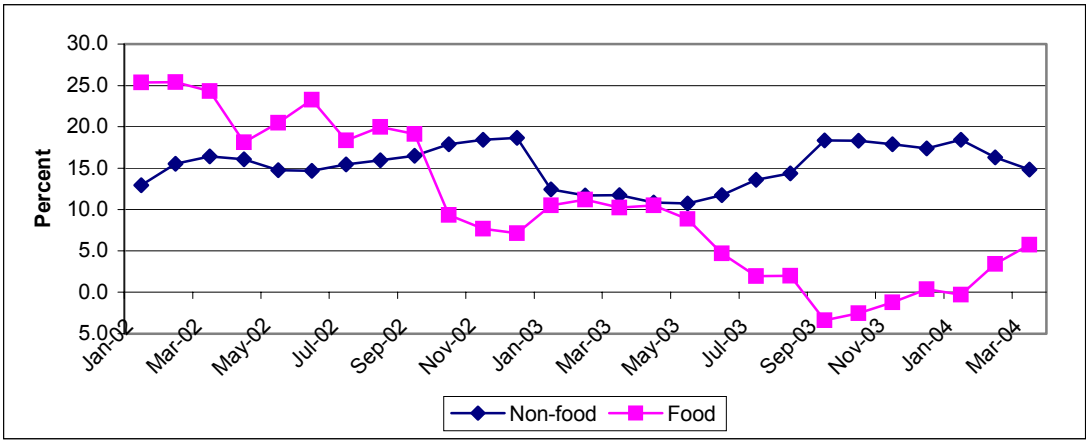
Consumer price inflation has come down from nearly 45 percent in 1999 to the current level of around 10 percent (Figure 1). Maize prices skyrocketed in 2002 from drought-reduced food production and low food imports. Prices later came down when substantial maize imports were unloaded by the government at subsidized prices through ADMARC distribution.

The depreciating value of the national currency (see Table 1) has naturally acted to raise the cost of imports, including agricultural inputs and grains.

According to the Reserve Bank of Malawi, the country's total foreign exchange reserves at the end of 2003 stood at US$133 million, down from US$161 million a year before (this latter figure is equivalent to less than three months of imports). The debt service to exports ratio has risen to about 24 percent in 2003, up from 18 percent in 1998. This severely limits the government's ability to import food and other essential commodities during this marketing year. An improved tobacco harvest in 2004 is expected to boost the country's exports somewhat.

The HIV/AIDS pandemic continues to be a major social and economic problem for the country. About 15 percent of the adult population is estimated to be infected, but only 3 percent of the population has been tested for AIDS. The agriculture sector and the food security of the HIV/AIDS-affected population have been negatively impacted.

Figure 1. Malawi: Urban Inflation rates, food versus non-food items (percent change, year on year for each month), January 2002–March 2004.



Source: NSO's Consumer Price Index (Urban) data. Non-food inflation rate calculated from the NSO data.

2.2 Performance of the agricultural sector

About 85 percent of the population in Malawi is dependent on agriculture. This dependence is evidently increasing, as the share of agriculture in national GDP has grown steadily from 25 percent in 1994 to nearly 40 percent in 2003. Agriculture also contributes more than 90 percent of the country's foreign exchange earnings. Tobacco, tea and sugar – three of the country's major agricultural products – contributed an average of about 82 percent to Malawi's total annual export earnings in the eight years prior to 2001. Recently, however, declining international prices have lowered their contribution to about 75 percent in 2003.

The agricultural sector is composed of two sub sectors: small-scale farmers and larger estates. The two sub sectors have been historically distinguished on the basis of legal and institutional rules regulating land tenure, type of crops and marketing arrangements. The smallholder sub sector is based on a customary land-tenure system and is primarily subsistence, providing the bulk of food production. The main food crop is maize, supplemented by rice, sorghum, pulses, cassava and sweet potatoes. Since the mid-1990s, smallholders have been allowed to produce/export industrial crops, and this has generated great response in production, particularly of tobacco. The great challenge arising from this development is to maintain the quality of tobacco produced. Other cash crops include cotton, groundnuts and pulses. The estate sub sector comprises about 14 700 estates occupying some 850 000 ha of leased land. The main crops are tobacco, tea and sugar cane. Approximately 80 percent of the labour force is engaged in the smallholder sub sector and 11 percent on estates.

Agricultural production grew at an annual rate of 2.1 percent from 1980 to 1993, down from a high of 4.4 percent per annum between 1970 and 1980. This was mainly because Agricultural Development and Marketing Corporation (ADMARC) purchases were drastically reduced in 1986/87, with maize purchases decreasing from 271 000 tonnes in 1985 to 59 500 tonnes in 1987, as result of excessive stocks and government budgetary constraints. Furthermore, guaranteed producer prices were held down to reduce expenditure; maize prices remained constant for three years up to 1997. This led to a steep fall in marketed maize and a resurgence of food shortages after many years of surpluses.

Throughout the 1990s, agricultural production was characterized by marked swings, mainly from drought. Following a drop in maize production in 1996/97, there was a significant recovery in 1998/99 and 1999/00, attributed to an increased use of modern agricultural inputs such as improved seed and fertilizer, especially under the Targeted Input Package (TIP) or the Starter Pack scheme. An increase in cropped area also contributed to increased production. During the poor 2000/01 season, the distribution of inputs was drastically reduced because of very limited donor involvement and reduced credit availability following extensive defaults by farmers in 1999/00 partly caused by very low maize prices. These were followed by disastrous drought years of 2000/01 and 2001/02 and significant recovery in 2002/03.

The high interest rates currently prevailing in Malawi, with bank rates at 40 percent or more, have adversely affected agricultural producers and increased the cost of borrowing to finance agricultural production. Malawi has thus been prevented from realizing full potential for agricultural production.

The role of ADMARC was changed by legislation in December 2003. It will now be expected to operate as a commercial company buying and selling grain in the open market. However, from the discussions with ADMARC's senior management it was clear that no financial resources to begin the planned purchases of about 100 000 tonnes of maize locally have yet materialized. Moreover ADMARC's so called "social function" within the national food security strategy is often mentioned but kept very ambiguous. Discussions with important private traders suggest that they are not likely to invest in trading/marketing of grain, especially maize, until there is a clear decision on the government policy regarding ADMARC and subsidization of maize in the domestic market. This ambiguity could lead to serious shortages of grain in the markets and food access later in the year.

2.3 Population

The size of Malawi's population remains a debatable issue, with implications for the assessment of national food security. The 1998 Malawi Population and Housing Census estimated the national population at 9 933 868 and the 1989–1998 inter-census annual growth rate at 1.98 percent. This growth rate was considered abnormally low as a result of the return of the Mozambican refugees out of Malawi during late 1990s. In spite of the acknowledgment of the negative impact of HIV/AIDS on the population growth, the NSO has prepared official population projections up to 2023 with annual growth rates in excess of 3 percent (details are available at the official web site – www.nso.malawi.net). These rates are more in line with the 1977–1987 inter-census period growth rate. Accordingly, the official population estimate for mid-2004 is 11 937 934. All parties – the national Vulnerability Assessment Committee, FEWS-NET and the FAO/WFP Mission – have agreed to use this official figure for the sake of consistency.

3. FOOD CROP PRODUCTION IN 2003/04

Because of time constraints, the CFSAM is always obliged to rely heavily, for its assessment, on preliminary estimates of crop production already carried out by government and other bodies. This year, the assessment in Malawi was complicated by the transfer of responsibility for national crop estimation from the Ministry of Agriculture, Irrigation and Food Security (MAIFS) to the National Statistics Office (NSO). The MAIFS, which originally took over the task from the NSO in the early 1980s, carried out crop estimates annually until 2003. In 2003, however, some members of the donor community questioned the reliability of the MAIFS estimates and recommended that the mandate for estimation be handed back to the NSO. The matter was put to Cabinet and the transfer was approved. Despite funding, specifically for crop estimation, of about MK52 million (mostly from the Emergency Drought-Relief Programme (EDRP)), and the recruitment and training of some 360 extra staff for the task, the NSO's initial first-round estimate was rejected by the National Crop Estimate Committee (consisting of the MAIFS, the Ministry of Economic Planning and Development, the Ministry of Finance and the Reserve Bank of Malawi). On the recommendation of the Committee, the MAIFS then assisted the NSO in revising the estimate, particularly in relation to crop yields, and a modified first-round estimate was published and accepted in March 2004. Further collaboration between the MAIFS and the NSO resulted in the release of initial and final second-round estimates at the end of April and the beginning of May respectively. There are still doubts concerning the reliability of some of these estimates, especially in relation to crop areas, and some ADD staff have expressed reservations about the published second-round figures. In this report, where deemed necessary, second-round figures have been modified in the light of field observations, interviews with farmers, and discussions with MAIFS staff both at headquarters and in the field at ADD and RDP levels.

3.1 Main factors affecting production in 2003/04

Rainfall

The rainy season in Malawi normally starts in the south, with scattered showers beginning in late October or early November, and then progresses northwards over the following month. The pattern is shown in Figure A1[2]. This year the situation was somewhat reversed, with good planting rains falling in much of the north and centre of the country during December. The rains in many northern and central areas then eased in early January but returned satisfactorily by the end of the month. February rains were generally adequate, though parts of the west, especially southwest Kasungu suffered from drier conditions. Although the rains tailed off normally in many parts of the north and centre in late March and early April, other parts received unusually high rainfall at the end of the season, which benefited rice and root crops especially. It should be emphasized, however, that the summer season of 2003/04 in the north and the centre was characterized by greater variation in the geographical distribution of rainfall than usual, with areas quite close to each other experiencing significantly different patterns and total amounts. This patchiness was reflected in crop performance.

In contrast to the north and the centre, rainfall in the south was generally very poor during December. In years when there is a false start to the rains followed by a dry spell, many farmers are obliged to re-plant; this year, however, the early rains in parts of the south were so consistently poor that few farmers planted before January. The situation began to look more promising by the end of January, but February brought some prolonged dry spells. In some upland areas the situation improved in late February and early March but much of the maize in lower-lying areas continued to be subject to damaging, dry conditions up to the time of tassel ling and grain-filling. Unusually high rainfall in early April came too late for those crops that had already suffered setbacks. As in the north, much of the south also experienced patchy geographical rainfall distribution. For instance, it was reported that 500 hectares of maize were lost to flooding in Phalombe RDP (Blantyre ADD), while nearby areas within the same RDP were damaged by dry conditions.

Area planted

The area under summer maize in 2003/04 was marginally smaller than that of the previous year, mainly as a result of the poor rainfall in parts of the south such as Shire Valley and Machinga. Although the area under local varieties and hybrids has shrunk with respect to last year, the area under composites has shown an increase of approximately 20 percent. Low rainfall and poor soil-moisture conditions in much of the south and

[2] Figures A1 and A2, and Tables A1 to A5 are shown in Appendix at the end of this document.

in parts of the centre and north are expected to have a negative effect on the area under winter production in the *dambos*, although prospects have improved somewhat for those areas that received late rains at the end of April. However, Shire Valley, where winter production on residual moisture from receding floods is especially important, is likely to see a significant reduction in cropped area. A further constraint to winter cropping – though one which may be less dramatic than might have been expected prior to the recent MAIFS/DFID study (see below under 'Agricultural Inputs') – is the discontinuation of the winter Targeted Input Programme (TIP). Perhaps surprisingly, many farmers in the centre and the north plan to expand their area of winter production this year, implying that there was under-utilized wetland cropping capacity last year. Compared with last year, the reduction in total maize area for both winter and summer is expected to be only as little as 2 percent.

The area under rice decreased by almost 10 percent compared with last year. The important producing ADDs of Machinga and Salima, and to a lesser extent Blantyre, have registered significant reductions largely because of the late arrival of the rains.

The area under cassava has increased significantly this year, but the extent of this increase – and especially the increase in area to be harvested by March 2005 – is unclear because planting can take place at different times during the year, and both bitter and sweet varieties are grown in Malawi. Sweet varieties are usually harvested within twelve months of planting, whereas bitter varieties may remain in the ground for two years or more. In its second-round estimate, the NSO put the increase in area at about 40 percent compared with last year. Not only were large amounts of planting material distributed in 2003 in most ADDs by FAO and several other organizations, but there has also been spontaneous expansion in the area planted in those parts of the country where it is not a staple: there is an increasing awareness that the crop can be used as a cash crop (as sun-dried chips) when food is not scarce, or as a survival crop in a lean year. However, most of those consulted in both the MAIFS and the field considered the estimate of a 40-percent increase in area to be excessive. Some wondered whether sufficient account had been taken of the area harvested during 2003. The mission eventually concluded that a 20-percent expansion of area of cassava harvestable by March 2005 was reasonably realistic, bringing the total to 134 000 hectares.

The area of harvestable sweet potato, which, because of its shorter maturation period is easier to estimate than cassava, has also increased considerably this year, again largely as a result of various local distribution programmes. Irish potato, which is a valuable cash crop for highland producers, has registered an increase in area of about 10 percent.

Crop yields

Average maize yields, at 1.1 t/ha, are lower by about 15 percent this year compared with last year, mostly as a result of the poorer rainfall in the south of the country. Yields of cassava, a drought-tolerant crop, are similar to last year's at just under 16 t/ha (fresh weight). Irish potato, being a crop of the cooler higher altitudes less affected by moisture stress, also gave similar yields to last year at about 13 t/ha. Sweet potato yields have fallen from 13 to just over 10 t/ha, mostly as a result of moisture stress at the time of root bulking. Groundnut yields, at just under 800 kg/ha, are slightly lower than last year.

Agricultural inputs

In November 2003, the Targeted Input Programme (TIP), financed by the EU and DFID, distributed packs of maize seed and fertilizer to about 1.7 million farmers for use in the summer cropping season. Each pack contained 2 kg of seed, 5 kg of basal fertilizer and 5 kg of top-dressing. In recent years there was also a winter TIP that included bean seed as well and was intended for wetland production during the period May–October. This year it has been decided to discontinue the winter TIP, following a study commissioned by the MAIFS and DFID which concluded that the returns from the investment in the programme were significantly less than those from the summer TIP. The study, conducted in the second half of 2003, found that more than one quarter of the winter TIP packs did not reach their target farmers, and of those that did, a large proportion were (often quite rationally) held over by recipient farmers for main-season production.

Although fertilizers were commercially available this year in most producing areas, their cost combined with the low price of maize has acted as a strong disincentive to their use on food crops. With the removal of subsidies in recent years, fertilizer prices in Malawi now reflect world market prices, whereas the market for maize, which is continually distorted by government interventions through ADMARC and by food aid, provides farmers with no incentive to produce a marketable surplus. The average monthly price of a 50-kg bag of urea during the 2003/04 cropping season at Mzimba (Mzuzu ADD) and Muloza (Blantyre ADD) across the range of MK1 420 to MK2 200 indicating an increase of over 50 percent within 4 months from June to

October, 2003[3]. Table A1 shows national fertilizer consumption over the past six years. Most fertilizer in Malawi is used on cash and commercial crops.

The distribution of subsidized treadle pumps, for which farmers make a single payment of MK7 000 per pump or pay MK9 000 over a three-year period, continued this year in most ADDs. However, the rate of installation and use is often considerably lower than that of distribution, for various reasons. Purchasers do not always receive adequate instruction in pump operation and field layout, water sources are frequently inadequate, and the fact that the price is subsidized reduces the imperative to maximize the use of the purchase.

Weeds, pests and diseases

Inadequate weeding of the maize crop is common in many parts of Malawi. This is often said to be the unavoidable result of labour constraints, but the perception of maize as a crop of low commercial value must also play a part in the decision to minimize labour inputs. This year the dry spell in many parts of the country in February prompted some growers not to carry out a second weeding in the belief that weed growth would not be serious.

Crop pests and diseases were generally at a low level throughout the summer season. Some minor and localized outbreaks of armyworm were reported in December, but all were satisfactorily controlled. Producers of soybean have reported the incidence of soybean looper. Mosaic persists in much of the cassava crop despite the distribution of substantial amounts of virus-free planting material during 2003. Other perennial diseases which were reported at low levels this year include bacterial wilt and anthracnose on potatoes in Dedza, late blight on tomatoes, and grey leaf spot and streak on maize.

Agricultural credit

The use of formal agricultural credit for food-crop production is extremely low in Malawi, for several reasons. Interest rates at the Malawi Rural Finance Company run at a prohibitive 50 percent per annum, but even if a small producer were prepared to contemplate such high rates it would be difficult for him to get loan approval. The artificially low price of maize also dissuades farmers from seeking expensive credit for its production. There is, however, a significant amount of informal lending within communities, with repayment usually in kind. In the area of livestock, there are some schemes promoting the ownership of small ruminants; most operate as revolving funds, providing, for instance, in-kid goats to households who later return the dams to the fund for future use by others and keep the progeny to build up their own stock.

3.2 Food crop production estimate

Food crop production estimates for Malawi's eight ADDs and for the country as a whole are presented in Tables 2, 3 and A2–A4. Tables 2 and A2 show maize production, Table A3 total cereal production, Table 3 the production of roots and tubers and Table A4 total food crop production. This year's total maize production estimate in the context of production over the previous 20 years; production is estimated to be lower than last year but above that of 2001/02. Although this year's production will be above the 20-year average it will be below the average of the past five years. It should be noted, however, that the past five years include the two excellent harvests of 1998/99 and 1999/2000. Malawi's national food crop production for 2003/04 is estimated as follows:

- Cereals: 1.836 million tonnes (rice in paddy terms), of which 1.705 million tonnes or 93 percent maize, 4 percent rice, 2 percent sorghum, 1 percent millet and less than 0.1 percent wheat.
- Roots and tubers: 4.165 million tonnes, of which 52 percent cassava, 38 percent sweet potato and 10 percent Irish potato.
- Legumes: 460 000 tonnes, of which 38 percent groundnuts and 62 percent pulses.

[3] *Source*: IFDC (International Fertilizer Development Centre), Malawi Agricultural Input Markets Development Project.

Table 2. Malawi: Maize production, 2003/04

ADD	Unit	Total maize	Summer maize		Winter maize
			Smallholder	Estate	Smallholder
Karonga	Area '000 ha	42	38	0.1	4.1
	Yield t/ha	1.1	1.0	2.0	1.3
	Production '000 t	44	39	0.2	5.2
Mzuzu	Area '000 ha	143	133	2.9	6.5
	Yield t/ha	0.9	0.9	1.4	1.3
	Production '000 t	133	120	4.1	8.5
Kasungu	Area '000 ha	291	222	46	23
	Yield t/ha	1.4	1.2	2.0	2.3
	Production '000 t	411	267	91	53
Salima	Area '000 ha	79	70	1.3	7.5
	Yield t/ha	1.4	1.4	1.9	1.6
	Production '000 t	110	95	2.5	12
Lilongwe	Area '000 ha	337	307	2.2	28
	Yield t/ha	1.2	1.1	1.9	1.9
	Production '000 t	396	338	4.2	54
Machinga	Area '000 ha	290	273	5.4	12
	Yield t/ha	1.0	1.0	1.6	1.8
	Production '000 t	300	270	8.5	22
Blantyre	Area '000 ha	258	250	0.7	6.8
	Yield t/ha	1.0	0.9	4.0	1.8
	Production '000 t	247	232	2.8	13
Shire Valley	Area '000 ha	93	75	0.0	18
	Yield t/ha	0.7	0.5	-	1.4
	Production '000 t	64	39	0.0	25
Malawi	Area '000 ha	1 533	1 368	59	106
	Yield t/ha	1.1	1.0	1.9	1.8
	Production '000 t	1 705	1 399	113	192

Source: NSO/MAIFS second-round crop estimates (with modifications by CFSAM where deemed necessary)
Note: Calculations based on unrounded data.

Table 3. Malawi: Root and tuber production, 2003/04

ADD	Unit	Total roots and tubers	Cassava	Sweet potato	Irish potato
Karonga	Area '000 ha	18	15	3.6	0.02
	Yield t/ha	16	17	12	8.5
	Production '000 t	291	246	45	0.2
Mzuzu	Area '000 ha	53	37	15	1.5
	Yield t/ha	19	22	14	10
	Production '000 t	1 027	805	207	15
Kasungu	Area '000 ha	48	10	33	4.2
	Yield t/ha	11	17	8.0	15
	Production '000 t	503	176	263	63
Salima	Area '000 ha	23	19	4.1	0.01
	Yield t/ha	16	17	11	9.1
	Production '000 t	363	319	44	0.1
Lilongwe	Area '000 ha	47	8.8	19	19
	Yield t/ha	12	13	13	11
	Production '000 t	578	117	245	216
Machinga	Area '000 ha	42	20	23	0.2
	Yield t/ha	11	12	11	10
	Production '000 t	487	236	249	1.7
Blantyre	Area '000 ha	78	24	46	8.2
	Yield t/ha	11	10	10	16
	Production '000 t	868	253	482	134
Shire Valley	Area '000 ha	4.3	0.7	3.6	0.0
	Yield t/ha	11	13	11	-
	Production '000 t	48	9.4	39	0.0
Malawi	Area '000 ha	315	134	147	33
	Yield t/ha	13	16	11	13
	Production '000 t	4 165	2 161	1 573	431

Source: NSO/MAIFS second-round crop estimates (with modifications by CFSAM where deemed necessary).
Note: Calculations based on unrounded data.

3.3 Other crops

The area under soybean is marginally smaller this year than last, but yields are generally satisfactory, especially in Kasungu, and farm-gate prices were rising at the beginning of May. There is good scope for expansion in soybean production in Malawi, with the growth of the poultry and soy-based food-processing industries. Production this year is expected to be similar to that of last year, about 40 000 tonnes.

Cotton is showing a substantial increase this year with an estimated production of about 55 000 tonnes of seed cotton, compared with last year's 40 000 tonnes. The increase is mainly the result of an expansion in area of more than 50 percent. Growers have been encouraged by the Cotton Development Association and support from commercial companies in the form of input packages including improved seed and phytosanitary materials. The relatively dry conditions in the main cotton-growing areas have depressed yields, but not dramatically. Production in Shire Valley, the country's main producer, is expected to be more than 24 000 tonnes, up 38 percent from last year's 17 600 tonnes.

Tobacco production has benefited this year from the removal of the Intermediate Buyer scheme. The grower can now sell directly to the tobacco company rather than through a licensed middleman, thus maximizing his profit. As a result, national production has increased. Yields in the drought-affected areas were rather lower than last year, but yield and quality in parts of the north, particularly Mzuzu ADD, were better than last year.

3.4 Livestock and pasture

Despite various programmes to encourage smallholder ownership of livestock, numbers in most parts of the country appear to be declining. The threat of theft and the risk of damage to the owner's and others' crops are often cited as reasons for not keeping livestock. There has been an outbreak of foot-and-mouth disease in Chitipa, apparently as a result of cattle movement from Zambia. So far, it appears to have been contained. In Phalombe swine fever was reported, but the disease is said to have been restricted to the RDP. East Coast Fever (ECF) is not uncommon and has been troublesome in Dedza. Government-supported dipping of cattle for the control of ECF used to be carried out regularly but was discontinued in 1994. There is a growing market for commercially produced poultry in Malawi, with current domestic output at more than 10 000 birds per day. At present hatching eggs are imported by the industry from Zimbabwe but this supply is diminishing and Malawian producers expect to have their own hatchery soon to produce their own. Smallholder poultry is subject to losses from Newcastle disease.

4. SITUATION BY AGRICULTURAL DEVELOPMENT DIVISION (ADD)

Karonga

Last year, the north and central parts of Karonga ADD experienced dry conditions. This year, in contrast, they received their first planting rains from early to mid-December, and rainfall distribution was generally satisfactory for the rest of the season. The south, though, which is the main maize-producing part of the ADD, received less favourable rainfall this year. Dry spells led to a drop in both area and yield of maize compared with last year. However, this was compensated in part by increased production of rice in the north and centre resulting from a slight expansion of area and an increase in paddy yield from 1.6 to 1.8 t/ha. Rice yields were helped by the relatively late continuation of the rains, and milled rice prices at the beginning of May 2004 were lower than they had been at the same time in 2003. Despite the ADD's reduced production of maize this year and the continuing ban on maize exports from the country, there has been a significant flow of maize out of Karonga into the United Republic of Tanzania following ADMARC's pricing of a 50-kg bag at MK500. Largely in response to last year's generally drier conditions in the north and centre of the ADD, there has been considerable expansion in the area under cassava.

Mzuzu

Although Mzuzu ADD's cumulative rainfall was lower this year than last, this year's distribution was generally better. This was reflected in better maize yields and an overall increase in maize production despite a slight reduction in area. Both rice and groundnut yields have also shown an increase on last year, although some rice growers were confronted with a dry spell at the time of transplanting. Mzuzu ADD is the country's largest producer of cassava, and bitter varieties form the principal staple in Nkhata Bay RDP. This year the area under cassava increased. Mzuzu is also an important tobacco producer; this year, with better rainfall distribution, yield and quality are reported to be higher than last year.

Kasungu

Much of Kasungu ADD, especially the southwest around Mchinji, was dry from the end of February to mid-March which depressed crop yields. Summer smallholder maize covered a slightly larger area than last year, but yields were lower. This year, the ADD's total winter cropping area is expected to contract slightly in response to the lower cumulative rainfall, although local variation will be considerable and some parts will show increases. There has been significant growth in the area under cassava this year with the MAIFS delivering some 35 tonnes of planting material to each of the RDPs. The area under sweet potato has also shown a dramatic increase, but production was limited by relatively low yields. Kasungu is one of the most important groundnut-producing ADDs; this year, production increased in line with increased area. It is also the country's main tobacco producer, and although yields this year were satisfactory, leaf quality suffered in several areas as a result of periodic moisture stress. Given the wide range of prices offered to producers – from MK50 for high quality down to MK15 for low quality – this could have a serious impact on the food security of affected households.

Salima

Salima's Nkhotakota RDP is one of the country's most important cassava-producing areas, second only to Nkhata Bay in Mzuzu ADD. Cassava is the principal staple in Nkhotakota, and varieties grown are almost exclusively bitter. Although the NSO/MSAIF second-round figures show a slight reduction in the area under cassava this year compared to last, this is generally disputed by ADD agricultural staff who consider that the area has actually increased during 2003/04. Maize production is similar to that of last year, but rice showed a reduction in area in response to drier conditions.

Lilongwe

The arrival of the rains and planting time were normal in most of Lilongwe ADD, but some areas experienced dry conditions in January. Slight reductions in planted area and yield of maize have led to a drop of about 11 percent in production compared to last year. With the relatively late continuation of the rains into April, winter production in many parts of the ADD is expected to be similar to that of last year. Lilongwe is the country's main Irish potato-producing ADD, with most production coming from the Dedza Hills area. This year saw slight reductions in both area and yield of the crop, with production of 216 000 tonnes compared with last year's 251 000 tonnes.

Machinga

The rains arrived relatively late in most of Machinga and distribution was often erratic thereafter. Reductions in both area and yield resulted in a fall in maize production of 22 percent compared to last year. Because of the poor rainfall and low residual soil moisture, the area under winter cropping is expected to significantly decrease this year. Machinga is Malawi's main rice-producing ADD. This year, poor rainfall has led to a reduction of almost 20 percent in the area under rice and a drop in yield from 1.6 to 1.0 t/ha. The result is that production has been almost halved from 33 000 to 17 000 tonnes.

Blantyre

Because of its generally higher altitude than Machinga and Shire Valley, much of Blantyre ADD was less affected by the poor rainfall associated this year with the south of Malawi. This has allowed the area under potatoes to expand from 4 360 ha last year to more than 8 000 hectares this year. However, maize yields were significantly lower than last year's at 1.0 t/ha, and production has fallen by 20 percent.

Shire Valley

The late arrival, irregular distribution and early cessation of the rains led to poor food crop production in Shire Valley this year. Maize area and yield were both down significantly on last year with the result that production was cut by almost half. The ADD usually relies heavily on winter crop production, but all the indications this year are that the area will be substantially reduced because flood waters on the Shire River have been low and there is a shortage of residual soil moisture elsewhere. Shire Valley is Malawi's principal cotton-growing ADD, and this year the area under cotton has increased in response to support by commercial companies who provided improved seed and crop-protection chemicals. Cotton yields are similar to those of last year at just under 1 tonne of seed cotton per hectare, but production, at more than 24 000 tonnes, will be up by 38 percent.

5. FOOD SUPPLY SITUATION

5.1 Market conditions

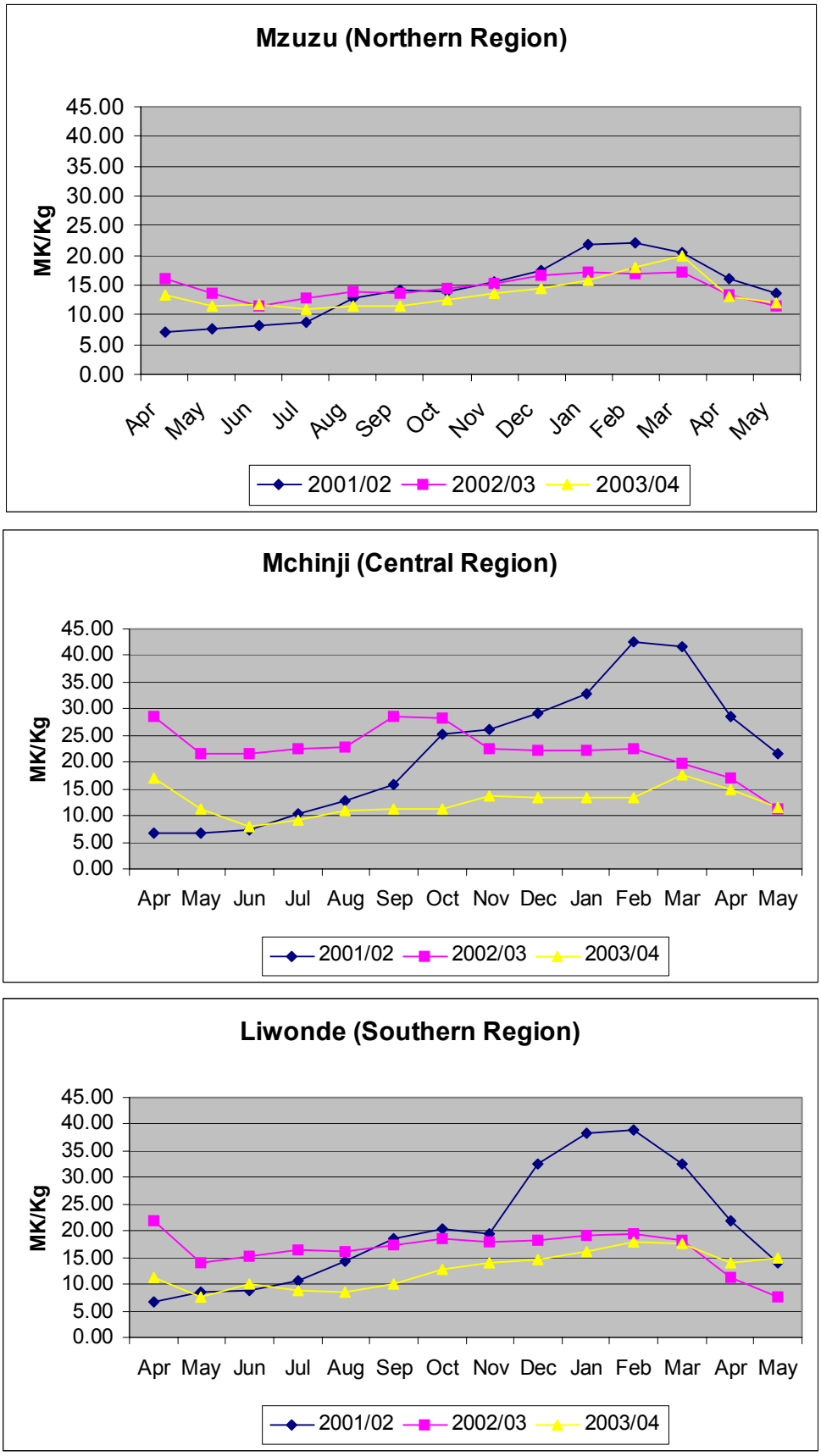
Malawi has a relatively free market for maize and other staple foods, with prices freely determined, but during periods of scarcity the government has tended to maintain some control on consumer prices through ADMARC's retail sales of the government-owned strategic grain reserve. Maize is traded formally and informally through the porous borders with Mozambique, Zambia and the United Republic of Tanzania depending on relative prices in these countries.

At the start of the 2003–04 marketing year, on 1 April 2003, the National Food Reserve Agency (NFRA) held 251 000 tonnes of maize and the Agricultural Development and Marketing Corporation (ADMARC) held 9 000 tonnes. The government built these stocks mainly through commercial imports of 235 000 tonnes of maize in the previous year to deal with the food crisis.

The unprecedented level of carryover stocks on 1 April 2003 was the result of low sales of the NFRA maize in the ADMARC markets. The landed price of the maize imported by the NFRA in the 2002/03 marketing year was MK23 per kg (roughly US$290 per tonne) and it was offered for sale to ADMARC at MK14/kg and to the public at MK17/kg, implying a subsidy of around US$80–$100 per tonne, according to variations in the exchange rate. Despite this subsidized price, by the end of March 2003 only 39 000 tonnes of maize had been sold by ADMARC, the main reason being the apparently substantial amounts of informal cross-border maize from Mozambique and the United Republic of Tanzania at lower prices of MK10–12/kg in border areas. Reportedly during 2003/04 marketing year NFRA sold some of its stock to private traders who exported it out of Malawi. ADMARC also lowered its price to MK10/kg and sold most of its maize stocks from January to March 2004. As a result, prices in all three selected markets shown in Figure 2 were lower during 2003/04 than in the previous two years.

Currently, NFRA stocks of mere 7 000 tonnes of maize have reached the lowest level in several years and ADMARC has exhausted all of its stocks. This fact combined with the lower-than-normal prospect for the current harvest has slowed the usual harvest-time price decline in most markets in the country. In some cases prices are beginning to rise, especially in the food-deficit south. Given the higher prices of maize on the Malawi side relative to the Mozambique side (for example, the price at Mulanje border post was observed to be MK9.5/kg, whereas on the Mozambique side it was about MK8/kg), a substantial amount of maize is already coming across the border, stabilizing prices somewhat. The prevailing market prices during March/early May generally ranged from MK10–18/kg in the southern region. Farmers in Malawi lack market power and typically receive about one-half of the retail market price. The absence of major buyers in the market is expected to result in farm-gate prices that are lower than the cost of production. Means to boost farmers' market power through marketing cooperatives/associations and more efficient private trading may need to be explored.

Figure 2. Retail prices of maize in selected markets, April 2003–May 2004



Source: Ministry of Agriculture, Irrigation and Food Security/FEWS-NET and CFSAM. April and May prices were collected by the Mission.

5.2 Food supply/demand in marketing year 2004/05

The 2004/05 marketing year (April–March) projected supply/demand balance for cereals is summarized in Table 4 and is based on the following parameters and assumptions:

- Cereal production in 2004 is estimated at 1.813 million tonnes (rice in milled terms) consisting of 1 700 tonnes of wheat, 63 000 tonnes of sorghum and millet, 43 000 tonnes of rice and 1.705 million tonnes of maize. In addition, a harvest of 692 000 tonnes of cassava and 440 400 tonnes of sweet potatoes, both in cereal equivalent, are estimated for the 2004/05 marketing year, adding up to total production of 2.945 million tonnes of cereals and roots and tubers in cereal equivalent.

- The opening stock of cereals on 1 April 2004 amounts to 10 000 tonnes consisting of small quantities of wheat and rice together with only 7 000 tonnes of maize held by the NFRA as part of its national strategic grain reserve. ADMARC stocks were completely distributed during the past several lean months.

- Aggregate food consumption in marketing year 2004/05 is forecast using the population and apparent per capita consumption parameters as follows:

  a. The officially projected mid-2004 population of 11 937 934 by NSO as discussed in Section 2.3.
  b. As in previous CFSA Missions, an annual per caput consumption of cereals of 163 kg, comprising 150 kg of maize and 13 kg of rice, sorghum, millet and wheat combined.

  In addition, substantial quantities of cassava and sweet potatoes, the major root and tuber crops, are produced and consumed in Malawi. Although not likely to be very accurate, the approximate annual per capita apparent consumption during 2003/04 at the national level was found to be about 100 kg of cassava and 87 kg of sweet potatoes on fresh weight basis, or 32 kg and 24 kg on cereal equivalent basis, respectively. Identical consumption of cassava and sweet potatoes is assumed for the 2004/05 marketing year for the initial calculations. In view of the fact that the production and consumption of cassava has been on the rise in recent years, cross-commodity substitution in consumption is expected to alter the consumption, with surplus commodities substituting for the deficit ones.

- The non-food use of cereals in 2004/05 marketing year is calculated to be 682 500 tonnes. This comprises :

  a. Post-harvest losses of the total production: 15 percent for maize, 10 percent for sorghum, millets, and 2 percent for wheat and milled rice. Losses are set at 30 percent for cassava and sweet potatoes, in line with other countries of the region. This assumption needs to be verified with scientific research, which is beyond the scope of this Mission.
  b. Total seed use is calculated by using area planted (both summer and winter) multiplied by the seed rates recommended by the MAIFS (on per hectare basis – 25 kg for maize, 40 kg for rice or 61.5 kg in paddy terms, an average of 5 kg for sorghum and millets, and 100 kg for wheat).
  c. The non-food maize use also comprises of about 20 000 tonnes as feed primarily for the small but growing chicken industry, plus quantities used for brewing clear beer.

- The NFRA has a stated target of 60 000 tonnes of maize for its strategic grain reserve. This amount is used as a closing stock implying a stock build-up of about 53 000 tonnes during the year. NFRA has already issued tenders for acquiring about 28 000 tonnes of maize made possible by 5 million euro grant from the EU. The government has to find enough budgetary resources to buy the remainder of the maize quantity. Small quantities of wheat and rice stocks (mostly private) are included as closing stocks (these are the same as the opening stocks), implying that the usual operational stock position is being maintained.

- Anticipated commercial imports:

  With the estimated food aid imports of 56 000 tonnes, the total commercial cereal imports are assumed to be about 352 000 tonnes–294000 tonnes of maize and 58 000 tonnes of wheat. For maize this would comprise government imports to achieve the NFRA stock build-up, additional government imports for local markets, and formal and informal imports by the private traders. Wheat primarily used for bakeries would be imported commercially by the private sector.

  With expected surplus production in northern Mozambique (in the neighbouring Zambezia province) and in Zambia, and a food deficit in densely populated southern Malawi, informal cross-border trade is likely to be significant this year. At the moment there are no clear figures to indicate the exact amount of this trade. A recent study by DFID estimated that the size of net imports into Malawi from Mozambique may range from 150 000 tonnes to 250 000 tonnes during a year like 2002 when there was a food deficit in Malawi and a surplus in Mozambique. That study also anticipated net imports of about 70 000 tonnes during 2003, a year of no major national deficit in Malawi. The Mission this year went to all major cross-border trade posts and found that maize was coming into southern Malawi from the east and the west (i.e. from Mozambique). However, there was not much cross-border maize movement from Zambia, and some maize was going out of northern Malawi to the United Republic of Tanzania. At the most important border post, Mulanje on the southwest corner of Malawi, the Mission estimated a flow of maize that could amount to about 40 000 tonnes for the current marketing year. Adding to this all other border posts and the very porous border with Mozambique, a total net inflow of maize of about 200 000 tonnes is possible this year. This will of course depend on a complex set of factors, such as price differentials, government policies and the role of the private sector among other factors.

- The uncovered food gap to be met through international assistance – taking into account 15 000 tonnes already on hand – amounts to about 41 000 tonnes of cereals. The detailed balance sheet is shown in Table 4.

Table 4. Malawi: Cereal balance sheet for the period 1 April 2004–31 March 2005 ('000 tonnes)

	Maize	Rice milled 1/	Sorghum/ Millet	Wheat	Cassava in cereal equiv. 2/	Sweet potatoes in cereal equiv. 3/	Total in cereal equiv.
Domestic availability (1)	**1 712**	**44**	**63**	**4**	**692**	**440**	**2 955**
Opening stocks	7	1		2			10
Production	1 705	43	63	2	692	440	2 945
Total utilization (2)	**2 062**	**44**	**63**	**62**	**692**	**440**	**3 363**
Food use	1 791	36	62	60	382	287	2 617
Feed and industrial uses	20						20
Seed	38	2	19	0			60
Post-harvest losses	256	1	6	0	207	132	603
Closing stocks	60	1		2			63
Cross commodity substitution	-103	4	-24		102	22	0
Import requirements (2 - 1)	**350**	**0**	**0**	**58**	**0**	**0**	**408**
Estimated commercial imports (Government plus private - formal and informal)	294			58			352
Food aid 4/	56						56
Of which food aid on hand	15						15
Uncovered deficit	41	0	0	0	0	0	41

1/ Paddy rice converted to milled rice at a milling rate of 65 percent.
2/ Cassava cereal equivalent of 32 percent. Production based on the area harvestable within the 12 months of this marketing year.
3/ Sweet potato cereal equivalent of 28 percent.
4/ Food aid recommendation based on the VAC/WFP analysis.
Note: Calculations computed from unrounded data.

6. EMERGENCY FOOD REQUIREMENTS

6.1 Food Security Background

The main underlying cause of food insecurity in Malawi is chronic poverty, with two thirds of the population living below the poverty line. More than 86 percent of the poor live in rural areas. The densely populated southern areas have the largest percentage of people below the poverty line. The food security situation is further aggravated by the over reliance on a single crop, maize. The high prevalence of HIV/AIDS has adversely impacted on food security through the loss of productivity and coping mechanisms and has contributed to an increase in chronic malnutrition in recent years.

Recent years have seen an unusual level of instability in basic food supplies in Malawi at household level due to access problems. Adverse climatic conditions in 2000/01 and 2001/02 growing seasons compounded by problems with the management of the strategic grain reserve resulted in one of the worst food security crises the country has experienced since independence. During the 2002/03 marketing year around 30 percent of the population needed emergency assistance to meet their minimum food requirements. During the 2003/4 agricultural season, national food production increased following a normal rainy season. However, problems of access to food continued.

6.2 Vulnerability and coping mechanisms

Sources of livelihoods and livelihoods patterns[4]

Malawi is primarily rural, with the majority of the population relying on agriculture for their livelihoods. Most of the agricultural production, however, is concentrated in the hands of the better-off household. These households cultivate relatively large areas of land, own cattle and have access to credit and therefore are able to increase production. Poorer households have two major sources of food; own production and casual labour in exchange of either food or cash. Hence, crop and market failures can have serious negative effects, especially for households with few assets to rely on. A combination of the two can be potentially catastrophic.

The Malawi Vulnerability Assessment Committee (MVAC) has analysed the livelihoods patterns in Malawi by livelihood zones. These zones are categorised by different commonalities in livelihood opportunities. The main differences between the zones are in terms of the types of food crops grown, the overall level of production, and economic activities being undertaken (see Figure A2). Generally, the per capita production is lower and dependence on purchase/exchange greater in the south than in the centre and the north. In cassava growing livelihood zones, such as Nkhata Bay, the poor achieve a higher degree of self-sufficiency from own production. This is linked to cassava's relatively low requirement for both labour and inputs and maize crop failure and maize price instability do not affect the wealth groups.

The income sources for all zones are sale of crops (tobacco, cotton, cassava and other food crops), casual labour (*ganyu*), and small-scale business (production and sale of firewood, charcoal, mats, baskets, etc.). Sale of livestock is also a source of income for some households, but most households will not have many livestock to part with, and it cannot form a steady income. Remittances do not seem to be a major source of income. The market for *ganyu* is mainly internal within the livelihood zones, although some people temporary migrate to other livelihood zones and across the border to countries like Zambia and Mozambique. The majority of poorer households do not have enough own production to last 12 months even in a good production year, and therefore have to rely on other sources of income to purchase food.

Coping strategies

As noted in previous sections of this report, the harvest during this year is poorer than in the previous year. The major coping mechanisms for poor farmers with a shortfall food are likely to include the following:

Ganyu will continue to be main source of income and food for most poor households. Casual labour is normally at its peak during agricultural activities particularly during land clearing, ridging, and weeding. However, due to erratic rainfall there was a reduction in the demand for labour during agricultural season which resulted in a loss of income for poorer household. Furthermore, with the reduction in maize production

[4] This section draws from: "Malawi Baseline Livelihood Profiles", Malawi Vulnerability Assessment Committee (MVAC), May/June 2003

this year will result in a reduction of the payment rate for casual labour in either food or cash in the affected areas. Ngayu is expected to be scarce due to increased demand for casual labour and households will have to work more hours than normally expected to earn the same amount of cash.

Work in tea estates: In Mulanje and Thyolo, the poor work in tea estates picking tea for MK65.00 per day for about 44 kg. Previously the rate was MK37.50 per day. The peak period normally starts in December and ends in May but this year, due to the delays in the onset of rains, erratic rains, and dry spells, labour was only needed in January, one month late than normally expected.

Sale of cash crops is a regular source of income for many households, including poor households. The erratic weather conditions have also affected cash crops. For cash crops like tobacco, the quality of the produce is as important as the quantity. It is therefore difficult to predict the return farmers will get for these crops. But in general, the opportunities for poor farmers to increase their incomes by selling cash crops are likely to be smaller this year compared to last.

Sale of livestock such as chickens, goats, and cattle is another important source of income, especially when food shortages reach critical stages. But during these periods prices of livestock fall sharply as more households resort to these sales to obtain cash to purchase staple foods. Cattle are mostly owned by the well-off households and are rarely sold.

Many farmers are involved in small-scale businesses, like selling of firewood and charcoal, and selling of simple products like mats and baskets. These are normal activities in any year, and there seems to be little scope for a substantial expansion of these as an intermediate coping mechanism.

Fishing is an important source of both food and income for many along the lakeshore of Lake Malawi and also along the Shire River. There seems to be some room for expansion of this activity, but it relates to a limited number of people in proximity to the lake and river.

There has been an expansion of cassava area in recent years. This switch from maize to the more drought-resistant crop will provide a more secure source of food for some households. However, this only applies to a small proportion of households, and is not a trend widely seen in the most severely affected southern districts.
Since harvesting was taking place during mission's field visits, few severe coping strategies were observed. These might become more prominent when households run out of food, assets are depleted and alternative income sources are more limited. The only severe coping strategy noted, was the picking and eating of water lilies in the southern region along the Shire river. This food type is not very nutritious and not much liked in the region. In addition farmers were saying that due to crocodiles in the river this was dangerous work.

6.3 Health and nutritional status

Nutritional Status

Three nutrition surveys were conducted (August/September 2002, November/December 2002 and April/May 2003.) by various organizations during the emergency period of 2002/03. The national nutrition surveys conducted in April-May 2003 showed global acute malnutrition (GAM) rate ranging from 1.4 to 6.6 percent. These rates are relatively low and within the normal rates of acute malnutrition rate in developing countries[5]. Although there are some slight increases in acute malnutrition rates in a few districts, some districts also showed a decrease. Malawi had a reasonable harvest last year and therefore no large increase in acute malnutrition could be expected.

The major nutrition problem in Malawi is chronic malnutrition. Consistent with other findings, the April/May 2003 nutrition reported high levels of chronic malnutrition. Four out five districts surveyed in 2003 had child chronic malnutrition exceeding 50 percent, about 40 percent of chronically malnourished severely affected.

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[5] **Global Chronic Malnutrition** is the percentage of children under 5 years of age who have a height that is below minus two standard deviations from the median height-for-age of the reference population. It indicates stunting of a child and portrays performance in terms of linear growth. Low height-for-age reflects long-term growth faltering, i.e. the cumulative effects of under-nutrition and infections since birth or even before birth.

Source: April/May 2003 nutrition surveys, Ministry of Health and Population, 2003

* December 2002/January 2003 nutrition survey.

Morbidity

Malaria is the most common cause of sickness for children below 30 months. This is followed by diarrhoea and respiratory tract infections. High levels of morbidity are reported from all survey areas.

HIV/AIDS

The estimated HIV/AIDS prevalence in adults (15 to 49 years) in Malawi in 2003 was 14.4 percent, with a range from 12-17 percent[6]. This level of HIV infection in the adult population has remained constant for the last seven years. This means that there are currently about 760 000 adults infected with HIV, 58 percent of those infected are women. The new 2003 prevalence estimates indicate that HIV infection among adults in urban areas is almost twice as high as in rural areas, and about twice as high in the South as in the North and Central regions.

6.4 Assessment of population in need and of emergency food aid requirements for 2004/05

Assessment Methodology

The emergency foods needs estimates in this report are based on findings of the Malawi Vulnerability Assessment Committee (VAC) and on additional data gathered and on observations made by the CFSAM during the field visits to 26 out of 28 districts in the country. Several members of the Malawi VAC also participated in the CFSAM field visits.

The methodology used by the Malawi VAC is the livelihood-based approach which takes into accounts not only food availability but also access issues. [7] The basic principle is that a failure of food crop production (due to drought for example) does not automatically lead to food shortage and famine. Likewise, food may be available, but many people may still go hungry if they do not have the means to access it (e.g. food prices are high and household incomes low).

There are four steps in a household or food economy analysis. The first two are concerned with dividing the population into groups of households that share similar characteristics in terms of their access to food and income. The third step involves developing a baseline picture of food access, income and expenditure for each wealth group in a “normal” or typical non-crisis year. The fourth and final step (outcome analysis) is to combine information on baseline access with that on hazard and response for a particular year in order to generate projections of future access to food and income so that decisions can be taken about the most appropriate types of intervention (including food aid) to mitigate the effect of the hazard.

The baseline work on the first three steps was undertaken in 2003. Malawi was divided in 17 Livelihood Zones (see Figure A2) and detailed baseline profiles were prepared for 11 of them. The assessment of the food security outlook (outcome analysis) for the 2003/04 marketing year prepared by the VAC in August 2003 was based on the livelihood approach. It concluded that 7 of the 11 livelihood zones with baseline covered would experience a food deficit while 4 zones would not have a deficit under the scenario of sharp increase of maize market prices.

A similar approach has been used this year by the VAC for deriving the estimation of populations in need and of emergency food aid requirements for the 2004/05 marketing year. Preliminary estimates are presented below. More details of these analyses will be available in the Malawi VAC Food Security Assessment Report for 2004/05.

Limitations and constraints of the assessment

The VAC assessment for 2004/05 covered eight food insecure livelihood zones out of the 11 livelihood zones with baseline information. The three zones not covered do not have a deficit based on the second round crop estimates for 2003/04 season. The VAC covered most districts of southern Malawi and those districts in the centre and north, which have suffered major crop shortfalls this year. As such, the assessment

[6] Source: National Estimate of HIV/AIDS in Malawi in 2003. National AIDS Commission, October 2003. Ministry of Health and Population, Malawi.

[7] For a more detailed description of the livelihood-based methodology see “Malawi Food Security Assessment Report” August 2003.

coverage can be considered adequate for initial planning of interventions, as it covers all major areas where populations have suffered food deficits. The Malawi VAC expects to prepare the profiles for the remaining six livelihood zones in July of this year. Additionally the food security situation in areas of concern not covered in the VAC assessment will be reviewed.

The current assessment is based on a number of assumptions. These are listed in the section below. Changes in market prices and other developments are likely to affect these assumptions and therefore monitoring will be necessary throughout the marketing year. Regular updates of the present analysis will be critical for the implementation of humanitarian programmes.

Estimates of population affected and food aid requirements

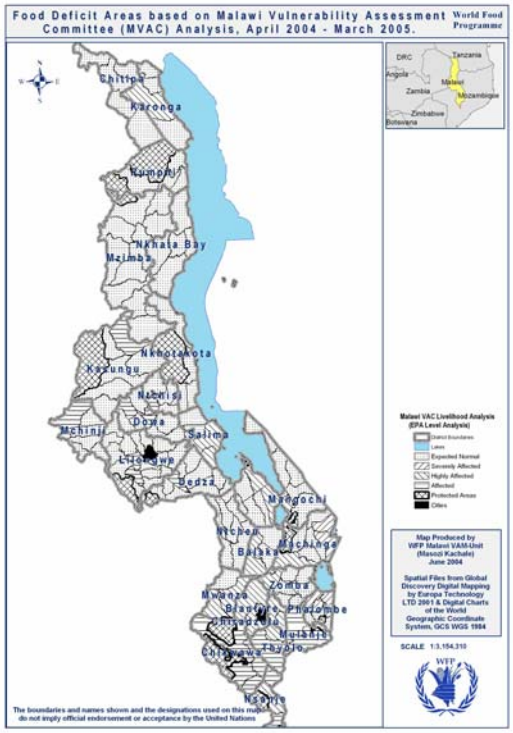
As indicated earlier, the areas worst affected by crop shortfalls this year are concentrated in the densely populated southern portion of the country. The VAC assessment indicates that 90 percent of the food deficits are in southern districts of the country as shown in the table below. In total, 50 Extension Planning Areas (EPA) are affected (see Table 5 and Figure 3).

Table 5: Drought Affected Livelihood Zones, Districts and EPAs

Affected Livelihood Zones	Affected Areas	
	Districts	**Extension Planning Areas (EPAs)**
SOUTH		
Southern Lakeshore	Salima, part of Mangochi	Chipoka, Mbwadzulu, Nansenga
Shire Highlands	Part of Chiradzulu, Blantyre, Mangochi, Zomba, Thyolo	Thumbwe,Ntonda, Maiwa, part of Chingale, Kunthembwe, Momwezi, Matapwata, Ntulawi
Middle Shire Valley	Part of Mwanza, Blantyre, Balaka, Zomba	Lisungwi, Mwanza, Lirangwe, Phalula, Utale, Bazale, part of Chingale, Chipande
Phalombe Plain/Lake Chilwa	Phalombe, Machinga,	Kasongo, Mpinda,Tamani, Chikweo, Nampeya
Thyolo/Mulanje Tea Estates	Mulanje,Thyolo	Msikawanjala, Mulanje Boma, Khonjeni, Thekerani
Lower Shire Valley	Chikwawa, Nsanje	Nyahilenda, Mpatsa, Magoti, Kalambo, Livunzu, Makanga, Mbewe, Mitole, Zunde, Mikalango, Dolo
NORTH		
Central Karonga	Karonga	Lupembe
CENTRE		
Kasungu/Lilongwe Plain	Lilongwe, Dedza, Dowa, Kasungu	Malingunde, Linthipe, Mpingu, Kapuka, Bowe, Mponela, Mkanda, Kaluluma, Chipuka

Source: Preliminary results from the first VAC assessment for 2004/05

Figure 3.



Note: The population figures indicated are those which fall in the zones with livelihood baseline information and for affected areas which were sampled during the assessment period. The total population figure in the table excludes

A total of 1.34 million people, or about 11 percent of the nation population nationally will experience a food deficit amounting to about 56 000 MT in maize equivalent between June 2004 and the next harvest in April-May 2005 (Table A5). In the affected areas, however, 40 percent of the population will have a shortfall. The deficit reflects the combined effect of the reduced availability of food from own production and limited purchasing power to meet their minimum nutritional requirement. The affected population groups belong to the poor or very poor income group, with 86 percent of those affected located in the southern part of the country.

The current estimate of the food deficit is based on the following assumptions:

- Households will maximize their opportunities to obtain income or food to meet their minimum requirements and will not reduce food intake.
- The VAC uses 2100Kcal as minimum daily calorific requirement.
- Winter crop production in the South will not contribute more than in a normal year towards meeting the deficit in summer crop production.
- Opportunities for labour (*ganyu)* within the country will be exploited to the maximum extent possible, but labour opportunities in neighbouring countries will only increase slightly.
- The emergency needs estimated covers only the amounts needed to meet the effects of the 2004 production shock (transitory food insecurity) and are additional to quantities of food normally provided towards meeting chronic food insecurity through ongoing safety net programmes.
- The coming agricultural season starting from October 2004 will be normal.
- Prices for the commodities purchased or sold by households will be equal to those prevailing in the baseline adjusted by the inflation rate. The retail prices of maize used in the analysis is projected to vary between MK17.00 and MK27.00 per kg, according to livelihood zones during the lean season from October 2004 to April 2005 when most of the affected households will be in the market for food. If maize prices increase above the projected prices, poor households would purchase a lower proportion of food from their available cash resources and, as a consequence, the size of the total deficit, and of emergency food needs, would rise.
- There will be no major disruption in the supply of domestic or imported foods in the market, which would lead to an increase in retail prices for maize above normal seasonal trend adjusted for inflation.

- The coming agricultural season starting from October 2004 will be normal.
- The effect on food security of chronic or disabling diseases such as HIV/AIDS has not been factored in the analysis.

The bulk of emergency food needs will be required in the lean period from October 2004 to March 2005. However, in some districts where the deficits are largest in relation to yearly consumption needs, food or cash assistance will be required by poor households already in the July-September 2004 period (see Table 6 and A5).

The main VAC analysis expresses the deficit in food entitlements for each EPA as a percentage change from the food requirement for each individual income group in the baseline. Because of this, the deficit can be expressed in kilocalorie or in kilograms of maize equivalent, if the assumption is that the deficit will be met by food aid or in terms of cash if the deficit will be met through cash assistance. The total cash requirement to replace the missing food entitlements is estimated at US$10 million.

In view of the expected substantial national food deficit and the low levels of food reserves expected in the 2004/05 marketing season, the bulk of the food required to meet the deficit of vulnerable households, contrary to 2003/04, may have to be imported in 2004/05. Informal trade could play a significant role in mobilizing available supplies in neighbouring countries, especially Mozambique where a substantial surplus maize production is reported to exist, provided that food deficit households have sufficient income from extra *ganyu* opportunities or special income supporting cash for work activities to stimulate the flow of imports.

Table 6: Number of People in Need of Assistance and Cereal Needs by period for 2004/5

Phased Need Periods	Populations Number in Need-Rural	Cereal Needs (Tonnes)
July-September 2004	238 400	1 720
October-December 2004	704 700	12 530
January-March 2005	1 343 600	41 780
Total July 2004- March 2005	**1 343 600**	**56 030**

6.5 Possible strategies for food assistance

Current WFP Activities

Until mid-2003, the majority of WFP's operations in Malawi covered emergency general food distribution aimed at reducing the negative effects on populations' food intake following the poor harvest of 2002. As a result of a more favourable situation after the good 2003 crops, WFP programmes have shifted to long-term food security interventions addressing chronic vulnerability and access problems as part of the national safety net as recommended in the Malawi Poverty Reduction Strategy Paper. Currently, WFP food aid programmes focus on food-for-work/training, nutrition support to malnourished children, and pregnant and lactating mothers, school feeding, support to households supporting chronically ill members or orphans because of HIV AIDS and provision of food rations to refugees.

- Food for Work / Food for Training

The programme's focus is on working with communities to identify and rebuild productive assets that had been depleted over previous years' food crises, remunerating workers on these infrastructure projects with food. So far, about 43 090 households have participated in these activities, reaching out about 237 000 beneficiaries.

- Nutrition Support programme activities

Particularly vulnerable groups (pregnant and lactating mothers, infants) are supported through the nutrition programme, which combine supplementary and therapeutic feeding in National Rehabilitation Units, Health Centres and Hospitals. The programme supports about 30 000 beneficiaries per month with fortified food rations at 250 distribution points throughout the country.

- School Feeding

At the worst point in 2002, about half of the country's children dropped out of school and the Ministry of Education warned that rates could reach 75 percent in 2003 if households faced similar food shortages for a second year. Recognizing the need to maintain school enrolment levels, WFP has trebled the size of its school feeding programme to provide 200 000 children with a meal of fortified porridge every day. The expanded programme in which UNICEF and FAO collaborate closely, has received the full support of donors.

- Support to Refugees:

Malawi hosts an average 10 000 refugees and asylum seekers from the conflicts in the great lakes region and Somalia in camps at Dzaleka (Dowa District) and Luwani (Neno District). A large percentage of the refugees are totally dependent on external assistance for all of their food needs so WFP works with UNHCR and its implementing partner, the Malawi Red Cross Society to provide each refugee with a daily food ration of 2 100kcal.

- Support to the HIV AIDS Infected and Affected:

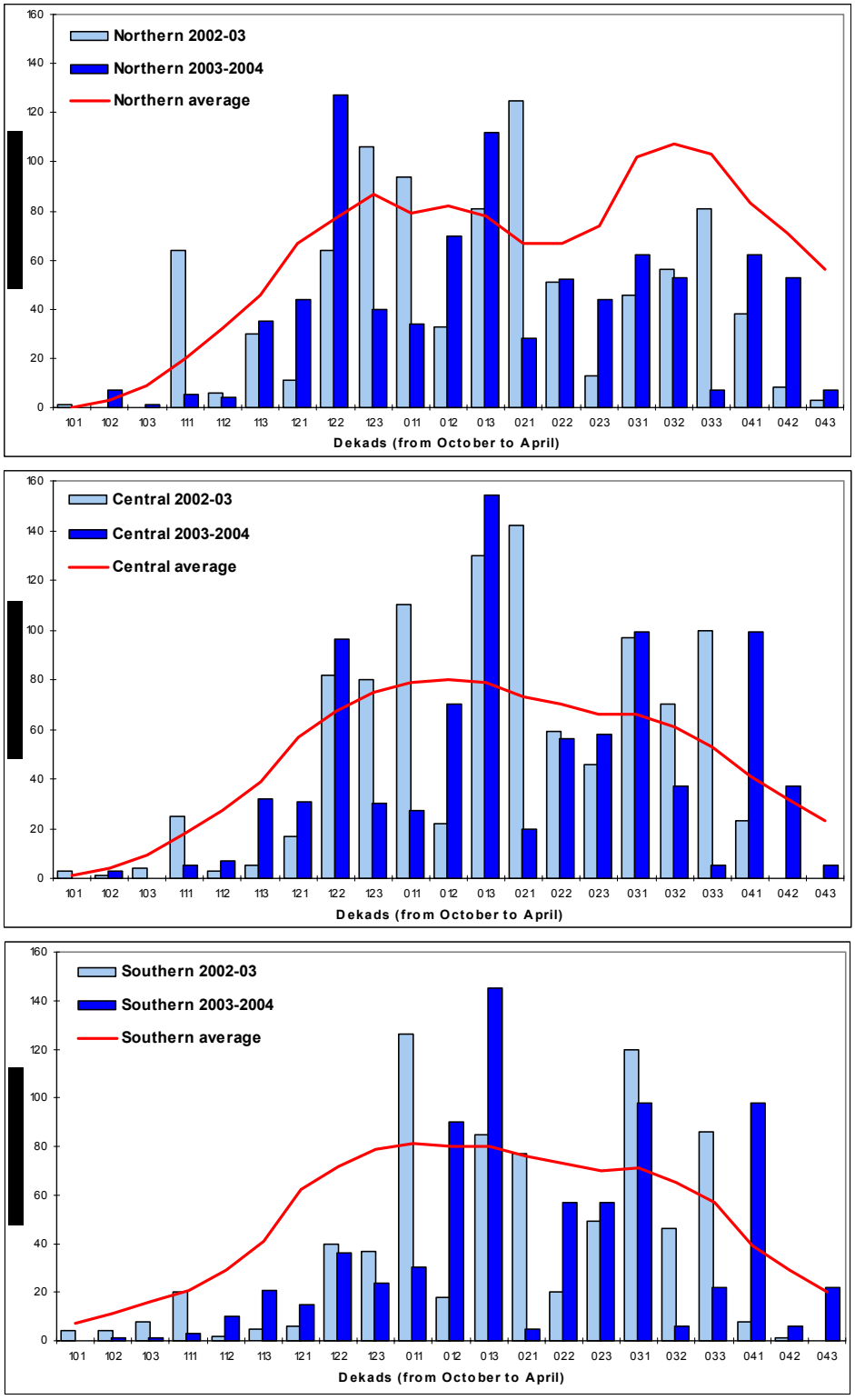
The debilitating impact of HIV/AIDS seriously affects the livelihood security of households who are headed by or caring for people with the disease. With a national HIV/AIDS infection rate of 14.4 percent and an estimated 800 000 AIDS orphans being cared for, many households need support. WFP is working with 14 NGOs to provide 47 500 AIDS affected households, or 258 500 beneficiaries, with a household monthly food ration consisting of maize, plus oil, pulses and CSB.

Planned activities for 2004-05

WFP aims at continuing in 2004-05 the safety nets support of food insecure populations in Malawi through its ongoing programmes of intervention of institutional feeding and support to vulnerable communities aimed at mitigating chronic food problems. In addition, in view of the anticipated additional problems of access to food by a large part of the vulnerable populations, mostly in the South of the country stemming from the effects of the reduced 2004 food crops, WFP plans to add to its ongoing programmes a relief component to meet the additional requirements. Operational modalities for these additional activities are under review.

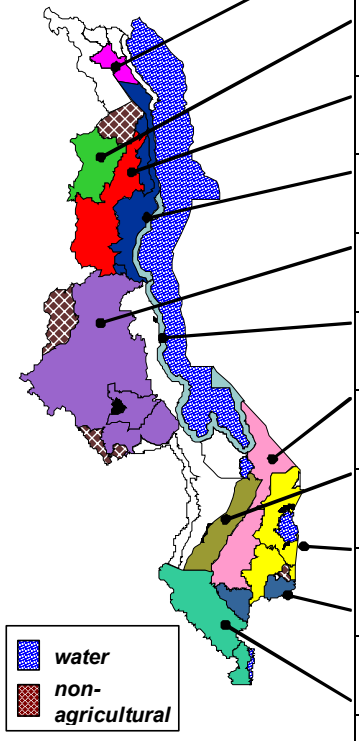
APPENDIX – Supporting Figures and Tables

Figure A1. Malawi: Rainfall by region, 2003/04, 2002/03 and average (mm)



Source: NOAA/FEWS; FAO/SDRN-Agro-meteorology Group (data extracted using Interpolated Estimated Rainfall images from FAO/ARTEMIS. Average rainfall data from 1961–1990).

Figure A2: Malawi Livelihood Zone Map and Description



Livelihood Zone	Description
Central Karonga	Good maize/cassava base for food & cash, even for poor. Much ganyu done by migrant labour. Livestock comparatively important.
Western Rumphi/Mzimba	People highly maize-dependent but do not produce surplus. Tobacco sales crucial for poor as well as others. Drought hazard.
Mzimba Self-Sufficient	High maize yields and cassava assure zonal food security, with tobacco as main cash crop. But poor still depend on ganyu.
Nkhata Bay Cassava Zone	High rainfall but very poor soils mean unique cassava dominance but food deficit. Poor rely heavily on migrating for ganyu.
Kasungu Lilongwe Plain	Surplus maize is second only to tobacco as cash crop. But land pressure makes poor highly ganyu-dependent. Drought hazard.
Southern Lakeshore	Fishing dominates the economy, in ganyu for poor as well as fish sales for others. But cropping is important. (mz, sw pot.)
Shire Highlands	Country's densest population, but largely self-sufficient in grain. For cash, rich sell crops, poor and middle do ganyu and trade.
Middle Shire Valley	Relatively dry area with modest grain crops; winter crops and fishing along Shire River. Poor sell cash crops and look for ganyu.
Phalombe Plain/Lake Chilwa	Weak production zone for the staple maize, with cash from rice/ tobacco/fish. Poor & middle do farm/estate ganyu. Poor road /market network and proneness to dry spells.
Thyolo Mulanje Tea Estates	Very small landholdings mean middle and many rich, as well as the poor, work on tea estates and elsewhere for main living.
Lower Shire Valley	Hot dry lowlands. Maize dominates for cash as well as food. Seasonal employment on sugar estate. Drought and flood hazards.

Source: "Malawi Food Security Assessment Report" August 2003. A detailed livelihood zone description can be found in "MVAC Livelihood Profile Report", (Oct. 2003). The zones indicated in the map are the ones for which baseline information is available and they are 11 zones in total out of the 17 identified zones. The baseline information for the remaining 6 zones will be collected in July/August 2004.

Table A1. Malawi: Fertilizer consumption, 1998/99–2003/04 ('000 tonnes)

	1998/99	1999/2000	2000/01	2001/02	2002/03	2003/04
Urea	42	41	35	37	57	49
CAN	48	47	40	42	41	35
All fertilizers	183	192	167	175	202	209

Source: IFDC (International Fertilizer Development Centre), Malawi Agricultural Input Markets Development Project.

Table A2. Malawi: Comparison of total maize production 2002/03 with 2003/04

ADD	Unit	2002/03	2003/04	percent difference
Karonga	Area '000 ha	43	42	-3
	Yield t/ha	1.1	1.1	-5
	Production '000 t	49	44	-9
Mzuzu	Area '000 ha	150	143	-5
	Yield t/ha	0.9	0.9	9
	Production '000 t	128	133	4
Kasungu	Area '000 ha	288	291	1
	Yield t/ha	1.5	1.4	-7
	Production '000 t	438	411	-6
Salima	Area '000 ha	79	79	0
	Yield t/ha	1.4	1.4	-1
	Production '000 t	111	110	-1
Lilongwe	Area '000 ha	349	337	-3
	Yield t/ha	1.3	1.2	-8
	Production '000 t	443	396	-11
Machinga	Area '000 ha	310	290	-6
	Yield t/ha	1.2	1.0	-17
	Production '000 t	387	300	-22
Blantyre	Area '000 ha	243	258	6
	Yield t/ha	1.3	1.0	-24
	Production '000 t	308	247	-20
Shire Valley	Area '000 ha	107	93	-13
	Yield t/ha	1.1	0.7	-38
	Production '000 t	119	64	-46
Malawi	Area '000 ha	1 569	1 533	-2
	Yield t/ha	1.3	1.1	-12
	Production '000 t	1 983	1 705	-14

Source: NSO/MAIFS second-round crop estimates (with modifications by CFSAM where deemed necessary).
Note: Calculations based on unrounded data.

Table A3. Malawi: Cereal production, 2003/04

ADD	Unit	Total cereals	Maize	Rice (paddy)	Sorghum	Millet	Wheat
Karonga	Area '000 ha	49	42	5.7	0.2	1.0	0.2
	Yield t/ha	1.1	1.1	1.8	0.5	0.8	0.6
	Production '000 t	56	44	10	0.1	0.8	0.1
Mzuzu	Area '000 ha	157	143	5.9	0.0	8.2	0.04
	Yield t/ha	0.9	0.9	1.3	-	0.6	1.3
	Production '000 t	146	133	7.6	0.0	5.3	0.05
Kasungu	Area '000 ha	294	291	1.4	0.1	1.3	0.02
	Yield t/ha	1.4	1.4	1.1	0.7	0.6	1.0
	Production '000 t	413	411	1.6	0.1	0.7	0.02
Salima	Area '000 ha	84	79	5.2	0.1	0.1	0.0
	Yield t/ha	1.4	1.4	1.5	0.6	0.5	-
	Production '000 t	118	110	8.1	0.1	0.0	0.0
Lilongwe	Area '000 ha	356	337	4.3	1.3	13	0.1
	Yield t/ha	1.2	1.2	1.8	0.7	0.6	0.8
	Production '000 t	412	396	7.5	0.9	7.6	0.1
Machinga	Area '000 ha	324	290	17	15	1.8	0.0
	Yield t/ha	1.0	1.0	1.0	0.7	0.5	-
	Production '000 t	329	300	17	10	1.0	0.0
Blantyre	Area '000 ha	299	258	5.8	32	1.1	1.7
	Yield t/ha	0.9	1.0	1.3	0.7	0.4	0.8
	Production '000 t	278	247	7.3	22	0.5	1.4
Shire Valley	Area '000 ha	124	93	5.7	14	11	0.0
	Yield t/ha	0.7	0.7	1.2	0.6	0.5	-
	Production '000 t	85	64	6.6	8.6	5.5	0.0
Malawi	Area '000 ha	1 687	1 533	51	63	37	2.1
	Yield t/ha	1.1	1.1	1.3	0.7	0.6	0.8
	Production '000 t	1 836	1 705	66	42	21	1.7

Source: NSO/MAIFS second-round crop estimates (with modifications by CFSAM where deemed necessary).
Note: Calculations based on unrounded data.

Table A4. Malawi: Area and production of major food-crop groups, 2003/04 and comparison with 2002/03

ADD	Unit	Cereals			Roots and tubers			Legumes		
		02/03	03/04	% difference	02/03	03/04	% difference	02/03	03/04	% difference
Karonga	Area '000 ha	51	49	-4	16	18	17	24	16	-32
	Production '000 t	59	56	-6	227	291	28	13	9	-33
Mzuzu	Area '000 ha	163	157	-4	47	53	14	74	58	-22
	Production '000 t	139	146	5	816	1 027	26	34	36	5
Kasungu	Area '000 ha	290	294	1	31	48	54	136	144	6
	Production '000 t	440	413	-6	510	503	-1	98	98	0
Salima	Area '000 ha	88	84	-4	29	23	-21	18	10	-44
	Production '000 t	126	118	-7	459	363	-21	21	14	-33
Lilongwe	Area '000 ha	368	356	-3	41	47	15	161	162	0
	Production '000 t	462	412	-11	565	578	2	106	100	-6
Machinga	Area '000 ha	352	324	-8	37	42	14	131	93	-29
	Production '000 t	437	329	-25	434	487	12	90	72	-21
Blantyre	Area '000 ha	285	299	5	51	78	54	203	199	-2
	Production '000 t	342	278	-19	607	868	43	129	118	-8
Shire Valley	Area '000 ha	127	124	-2	6	4	-31	35	29	-18
	Production '000 t	139	85	-39	73	48	-34	22	13	-41
Malawi	Area '000 ha	1 724	1 687	-2	258	315	22	782	712	-9
	Production '000 t	2 143	1 836	-14	3 690	4 165	13	514	460	-10

Source: NSO/MAIFS second-round crop estimates (with modifications by CFSAM where deemed necessary).
Note: Calculations based on unrounded data.

Table A5: Affected Rural Population per district for the sampled areas.

District	Total Population	Affected population	Percent Affected Population
Balaka	295 623	64 241	20
Blantyre	349 427	159 070	43
Chikwawa	425 080	172 837	38
Chiradzulu	273 893	59 899	20
Chitipa	152 691	-	-
Dedza	582 289	43 963	7
Dowa	469 924	36 814	7
Karonga	230 026	1 926	1
Kasungu	589 019	38 892	6
Likoma	9 856	-	-
Lilongwe	1 087 917	35 598	3
Machinga	417 594	105 746	24
Mangochi	711 179	58 162	8
Mchinji	395 171	23 944	6
Mulanje	506 598	63 924	12
Mwanza	162 739	23 031	13
Mzimba	574 384	-	-
Nkhata Bay	187 906	-	-
Nkhotakota	275 213	-	-
Nsanje	223 278	90 785	40
Ntcheu	443 474	-	-
Ntchisi	207 997	5 584	5
Phalombe	280 043	60 085	22
Rumphi	146 059	-	-
Salima	308 882	35 545	13
Thyolo	539 610	229 519	42
Zomba	558 132	38 804	8
Total	**10 404 004**	**1 348 370**	

This report has been prepared by Kisan Gunjal, Swithun Goodbody, and Raffaello Marsili under the responsibility of the FAO and WFP Secretariats with information from official and other sources. Since conditions may change rapidly, please contact the undersigned for further information if required.

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