

SPECIAL REPORT
FAO/WFP CROP AND FOOD SUPPLY ASSESSMENT
MISSION TO ETHIOPIA

12 January 2004

Mission Highlights

- Well-distributed seasonal rains that began on time and continued until late September/October in the main production areas in Ethiopia resulted in increased grain production in the 2003 *meher* season.
- Seed support programmes helped ensure access to seeds in most regions.
- In addition, increased use of improved seed and fertilizer contributed to the marked improvement in yields over last year.
- National cereal and pulse production in the *meher* season is forecast at 13.05 million tonnes, about 46 percent above 2002/03 and 11 percent above the five-year average.
- Grain import requirements for 2004 are estimated at 210 000 tonnes. Ethiopia has been importing up to 174 000 tonnes annually through formal commercial channels in the last few years, and commercial imports for 2004 are anticipated to be on the order of 50 000 tonnes.
- Despite the good crop, about 7.2 million people will require assistance to meet minimum food requirements in 2004, compared with 13.2 million in 2003. Relief food requirements are estimated at about 980 000 tonnes in 2004, compared with 1.8 million tonnes in 2003. Confirmed food aid commitments are estimated at 160 000 tonnes.
- The needs of the food insecure population in 2004 are expected progressively to be addressed by activities in the framework of the “New Coalition for Food Security”.
- Local purchases for food aid programmes are recommended to support domestic grain markets.

1. OVERVIEW

An FAO/WFP Crop and Food Supply Assessment Mission visited Ethiopia from 5 November to 6 December 2003 to estimate the *meher* season cereal and pulse production, forecast the 2004 *belg* season production, assess the overall food supply situation and estimate grain import requirements, including food aid needs, for the 2004 marketing year. Accompanied by experts from the Federal Ministry of Agriculture and split into six teams, the Mission visited all regions. Parallel to the crop assessment teams but spread over a longer period, over 20 teams led by the government's Disaster Prevention and Preparedness Commission (DPPC) and comprising WFP, other United Nations agencies, bilateral donor agencies and NGOs visited marginal localities and vulnerable zones and districts (*woredas*) to determine their current and prospective food security situation.

The assessment teams obtained planted area and yield data for all major food crops from *woreda*-, zone- and regional-level agricultural bureaus, which were cross-checked against information from farmers, traders, NGO and donor project staff and remote-sensed data from early warning systems. Crop inspections, spot-check crop cutting, market surveys, livestock condition observations, and transect recordings of crops and their conditions were conducted en route. Initial yield forecasts were thus finely adjusted to take into account broader, more up-to-date information.



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The overall agricultural performance in Ethiopia in 2003 was much better than last year, primarily as the result of favourable weather conditions that began with a good *belg* season throughout the country and culminated in rains that continued until October in many places. There were also greater incentives to invest following higher prices since November 2002. More specifically, after a good *belg* harvest of some 500 000 tonnes of cereal and pulses, an early start to the *meher* season allowed timely land-preparation routines, promoted the sowing of heavier-yielding, late maturing maize and sorghum crops in favour of short-cycle crops, encouraged early sowing of the short cycle cereals and pulses and encouraged farmers to invest in inputs that resulted in increases in improved seed and fertilizer use by about 600 percent and 17 percent, respectively.

In 46 of the 59 zones and special *woredas* visited by the Mission this year, evenly distributed rainfall during the season eliminated any necessity for replanting, positively affected vegetative growth, encouraged the use of top-dressing and supported seed-set and grain-fill. As these positive effects were noted to be almost universal, the major cereal producing zones in the central plateau have returned to high levels of production. Unfortunately, the demand for fertilizers, as evidenced by the emergence of a parallel market with prices at double the official rates, rapidly depleted supply in the major surplus producing areas, limiting the advantages gained. Other staple and cash crops such as enset, sweet potatoes, coffee, cotton and chat are noted to have performed as expected.

Cereal and pulse production this season was comparatively pest and disease free. Minor outbreaks of armyworm early in the season were effectively controlled by local agricultural bureaus and regular rainfall. Non-migratory pest infestations, although present throughout the country, were mostly mild with the exception of sorghum chafer in the east and red teff worm in the north-central zones. Birds and weeds were also noted as pests and these required major labour inputs this year so that heavy losses could be avoided.

Much better rainfall in the central highlands and in the northeastern pastoral areas resulted in increased availability of forage and water, which improved the condition of the livestock condition and decreased mortality rates of young stock, making early, unseasonable migration of herds and flocks unnecessary. Pastoral areas in Somali did not share similar benefits and are still undergoing water and forage shortages with associated difficulties.

Following the poor harvest in 2002/03, grain prices rose sharply and have remained high compared to the same period last year owing to a reduced supply on the market. However, with prospects of a good crop this year, prices are expected to decline when the full harvest reaches the market. Such severe price volatility is hurting producers as well as consumers, and the need for effective price stabilization cannot be overemphasized. In this regard, the Mission recommends local purchase as the main tool for securing cereals and pulses for food aid programmes in the coming year.

Overall, the Mission estimates total pulse and cereal production at about 13.3 million tonnes, comprising 13.05 million tonnes from the *meher* harvest and a predicted 300 000 tonnes from the *belg* harvest in 2004. At this level, cereal and pulse production is about 46 percent above last year's Ministry of Agriculture (MOA) post-harvest estimates and 11 percent above the average for the past five years. As a result, cereal imports in 2004 are estimated at about 210 000 tonnes, with commercial imports forecast at 50 000 tonnes and food aid in pipeline and pledges currently amounting to 160 000 tonnes.

For 2004, it has been estimated that 7.2 million people will require assistance to meet their minimum food requirements, while 2.2 million more will require close monitoring (i.e. they do not need immediate food assistance, but have been identified during the assessments as under stress and warranting close monitoring). The population in need of assistance varies from month to month; numbers peak in mid-year. Relief food requirements for 2004 are estimated at 980 000 tonnes, mainly for general ration distribution but also including food for supplementary rations and food for emergency school feeding. Part of the requirements could be met with cash provided directly to beneficiaries as "cash-for-relief" or "cash-for-work".

Inadequate household food security, poor access to health facilities, inadequate water supplies, lack of knowledge of nutrition and health, poor maternal and child care, prevalence of infectious disease, and malaria and HIV/AIDs are all contributing to relatively high levels of malnutrition and mortality among children in Ethiopia. Under-five mortality is estimated to be 166/1000 live births, and recent analysis has indicated that 58 percent of all under-five deaths in Ethiopia stem directly from malnutrition.

There are around five million people in Ethiopia who are chronically food insecure, and even in a good year they rely partially on food aid to meet their minimum food needs. The government, in conjunction with the international community, is developing a programme for meeting and ultimately alleviating the recurring needs of the food-insecure population.

2. **SOCIO-ECONOMIC CONTEXT**

2.1 **Macroeconomic situation**¹

The Ethiopian economy is highly dependent on agriculture, which contributes to about 45 percent of GDP, followed by 43 percent from the service sector and 12 percent from the industrial sector.

The external sector posted favourable development in 2002/03: the overall balance of payment recorded a surplus of US\$242.2 million compared with a deficit of US\$70.5 million in 2000/01. However, compared to last year, the surplus in the overall balance declined by US\$113.2 million because of lower disbursements and higher amortization and turn around in short-term capital from an inflow of US\$7.8 million in 2001/02 to an outflow of US\$60.9 million in 2002/03.

Furthermore, the current account deficit narrowed significantly to US\$178 million in 2002/03 *vis-à-vis* US\$361 million in 2001/02, which partially offset the widening deficit in the balance of trade. The trade deficit has increased from US\$1 243 million in 2001/02 to US\$1 374 million in 2000/03. The increase in the trade deficit is due mainly to a significant surge in import payments which offset the slight improvement in exports.

The level of international reserves as of June 2003 indicates that the country's capacity to import goods and services has improved to reach 4.5 months next year, compared to 2 and 3.5 months of import in fiscal years 2000/01 and 2001/02, respectively.

The external debt at the end of June 2003 stood at over US\$6.794 billion or 106.8 percent of GDP compared to US\$6.3 billion or 102.4 percent of GDP last year. This ratio is by far greater than the ratio of 64.3 percent for sub-Saharan countries in 2002. However, with the debt relief obtained under the HIPC Initiative, Ethiopia's external debt servicing as a percent of exports of goods and services has continued to decline from 21.1 percent in FY 2000/01 to 14.7 percent in FY 2001/02 and further to 13.7 percent in 2002/03. The exchange rate over the past three years has remained relatively stable, varying between US\$1=Birr 8.33 in FY2000/01 to US\$1=Birr 8.54 in FY 2001/02 and US\$1=Birr 8.58 in FY 2002/03.

Table 1. Ethiopia: key economic indicators, 2000–2003

	2000/01	2001/02	2002/03
Annual growth rate in real GDP (%)	7.7	1.2	-3.8
Total merchandise exports (US\$) ^a	462.7	452.0	483.0
Total merchandise imports (US\$) ^a	1 556.8	1 696.0	1 856.0
Total trade deficit (US\$) ^a	1 094.1	1 243.0	1 374.0
Overall balance of payments (US\$) ^a	-70.5	355.4	242.2
Int. Res. (months of imp. of next year)	2.0	3.5	4.5
Ext. debt servicing (% exports of G&S)	21.1	14.7	13.7
Average exchange rate (US\$/Birr)	8.33	8.54	8.58

a. US\$ are in millions.

Source: National Bank of Ethiopia.

Table note: Data cover year ending June 30.

Ethiopia's major agricultural export commodities are coffee, pulses, oilseeds and chat (Table 2). Other exports include sugar and molasses, leather and leather products, live animals, canned meat and frozen foods, fruits and vegetables, gold, etc. Notwithstanding the 2002 drought and the continued fall in the international prices of major export commodities, export revenues increased by 6.7 percent to US\$482.7 million in 2002/03 compared with earnings of US\$452.3 million in 2001/02.

¹ The content of this section is based on variety of sources, including the National Bank of Ethiopia *Annual and Quarterly Reports*, the Economist Intelligence Unit and UNDP Development Partnership in Ethiopia Reports.

Table 2. Ethiopia: major commodity exports (2000–2003)

Commodity	2000/01	2001/02	2002/03
Coffee US\$ (millions)	182.0	163.2	165.3
Volume ('000 tonnes)	95.6	110.3	126.1
Price (US\$/kg)	1.90	1.48	1.31
Pulses US\$ (millions)	8.7	32.9	20.0
Volume ('000 tonnes)	25.2	109.2	66.2
Price (US\$/kg)	0.30	0.30	0.30
Oilseeds US\$ (millions)	32.4	32.6	46.1
Volume ('000 tonnes)	52.4	76.6	83
Price (US\$/kg)	0.60	0.43	0.56
Chat US\$ (millions)	61.2	49.0	58.0
Volume ('000 tonnes)	11.9	9.4	11
Price (US\$/kg)	5.1	5.23	5.23
Other exports US\$ (millions)	178.4	174.6	193.3
Total exports US\$ (millions)	462.7	452.3	482.7

Source: Customs Authority, National Bank of Ethiopia, Coffee and Tea Authority.

Note: Data cover year ending June 30.

Coffee export earnings increased by 1.3 percent and stood at US\$165.3 million in 2002/03 compared to the previous year, mainly from a 14.3 percent increase in the volume of coffee exported: exports registered a record high of 126 000 tonnes while the price of coffee declined by 11.5 percent. Export earnings from pulses, on the other hand, declined by about 39 percent in 2002/03 compared to the previous year. This was mainly because of sluggish world demand compared to last year's rise in demand associated with floods that hit Australia, the main producer and supplier of pulses to Pakistan and India.

Earnings from oilseeds improved substantially from rises both in the quantity exported and in the international price. On the other hand, although the international price of chat stagnated, the 17 percent increase in the export volume has contributed to an improvement in total receipts.

Total imports increased by 8.9 percent from US\$1 696 million in 2001/02 to US\$1 856 million in 2002/03. The major import commodities in 2002/03 were semi-finished goods (US\$274.6 million), petroleum products (US\$287.7 million), machinery and transport equipment (US\$549.5 million) and consumer goods (US\$654.3 million).

Though Official Development Assistance (ODA) for Ethiopia steadily increased in magnitude from US\$0.6 billion in 1997 to about US\$1.9 billion in 2003, the country still has the lowest aid per capita (on average US\$12.8 for the period 1997–2001) when compared to other countries in sub-Saharan Africa and least developed countries (LDCs) with averages of US\$22.6 and \$21.3, respectively.

2.2 Population

The population of Ethiopia for mid-year 2004 is estimated at 71.066 million comprising 59.867 million rural (84 percent) and 11.199 million urban (16 percent), respectively. These estimates are based on the 1994 population and housing census of Ethiopia conducted by the Central Statistical Authority under the auspices of the Office of the Population and Housing Census Commission in 1994 which were released in June 1998. The overall annual population growth rate is estimated at 2.8 percent.

Table 3. Ethiopia: Total population size by region and by sex in 2004 ('000)

Region	Male	Female	Total
Urban	5 568	5 631	11 199
Rural	30 050	29 817	59 867
Total	35 618	35 448	71 066

Source: 1994 Population and Housing Census of Ethiopia: Results at country level, Volume I, Statistical Report, Addis Ababa, June 1998.

2.3 Agricultural sector

Agriculture in Ethiopia is the main economic activity, contributing about 45 percent of GDP with some 84 percent of the population earning a living directly or indirectly from agricultural activities.

The sector is nearly totally dependent on rainfall, with only 2 percent of the total arable land being irrigated. In addition, low fertilizer use, susceptibility to pest and disease outbreaks and extensive highland soil erosion have meant high variability in year-to-year agricultural production, which is predominantly in the hands of peasant holdings. Indeed, the significant improvements in agricultural production in 2000 and 2001 were reversed in 2002 with very poor agricultural performances, primarily caused by unfavourable weather conditions and low producer incentives to invest after two years of depressed grain prices. Such high variability in agricultural production increases food risks. Consequently, food insecurity in the country has become a growing problem because the number of people in need of food aid has been increasing continuously for the past decade.

The relatively low performance of agriculture in Ethiopia is not the result of just technical constraints: price policies and the institutional environment also play a significant role. Indeed, the volatility of prices for agricultural products could seriously constrain production and adversely affect farm income, particularly when prices collapse in periods of bumper harvest.

On the institutional side, the prevailing land tenure system in Ethiopia and the constraints concerning transferability of land rights, coupled with high population growth in the rural areas, will continue to induce disincentives for land investment leading to poor agricultural performance.

2.3.1 Agricultural input credit

The Commercial Bank of Ethiopia (CBE) is the largest source of agricultural credit in the country. During the current cropping year (2003/04), CBE approved a total of 780 million Birr of agricultural input loans based on credit requests submitted by the regional governments of Oromia, Amhara, SNNP, Tigray, Addis Ababa and Harari. Table 4 presents the total agricultural input credit approved, disbursed and overdue for the past five years.

Table 4. Total agricultural input credit approved, disbursed and overdue (1999–2004)

Year	Amount approved (Birr '000)	Amount disbursed (Birr '000)	Amount disbursed (percent)	Amount overdue (Birr '000)	Amount overdue (percent)
1999/00	677 805	484 829	72	32 694	7
2000/01	593 963	484 698	82	39 437	8
2001/02	641 924	459 050	72	74 489	16
2002/03	545 783	453 999	83	57 100	13
2003/04 ^a	780 690	306 656	39	Not yet due	na
Total	3 240 165	2 189 232	68	203 720	9

Source: The Commercial Bank of Ethiopia, 2003.

a. Amount disbursed as of October 31, 2003.

The amount of agricultural credit that has been approved by CBE for the cropping year 2003/04 is about 43 percent higher than in 2002/03 and the highest for the last five cropping years. The credit repayment default rate has almost doubled since 1999/2000 to 13 percent for the cropping year 2002/03. The higher default rates are largely attributed to depressed grain prices for the 2001/02 cropping year and the poor grain production in 2002/03, which meant that farmers were not able to pay back their earlier debts. Nevertheless, it is expected that the default rate will decline in the coming year in the context of expected good crop production levels. Furthermore, the regional governments in their capacity as guarantors of agricultural input loans are implementing measures to reschedule part of the past-due loans.

Starting March 2002, CBE has also taken steps to increase the attractiveness of these loans by reducing the effective interest rate from 10.5 percent to 7.5 percent. Now CBE will receive 5.25 percent interest instead of 7.5 percent on the disbursed amounts, and the regional governments will continue to receive 2.25 percent of the interest for loan disbursement, recovery and administrative charges.

3. FOOD PRODUCTION IN 2003

3.1 General

In Ethiopia, of the 11.4 million ha presently farmed to all crops, only some 190 000 ha are irrigated. Consequently, production varies considerably from year to year depending on the quality and quantity of the annual rains. The crops grown are diverse and reflect the complicated mosaic of agro-ecologies derived from soil types ranging from vertisol to sand and cropping altitudes ranging from more than 3 000 m to less than

600 m above sea level. The main cereal staples include wheat, barley, teff (*Eragrostis abyssinica*), finger millet, maize and sorghum grown in varying proportions according to soils, altitude and the prevailing climatic and market conditions of the year. Other carbohydrate sources include the stem of enset or false-banana (*Enset ventricosum*), cassava, potatoes and sweet potatoes, all of which are found in either the middle altitude or in the highland areas of the south-central regions of the country. Cash crops include oilseeds, spices, coffee, chat and eucalyptus, the latter crops being found as hedgerows, in woodlots on the farms and in forests in the middle altitude and highland areas as well.

Common grasslands provide extensive pasture and browse for livestock in most regions, but are particularly important to livestock producers in the eastern regions of Afar and Somali, the southern zones of Bale, Borena and South Omo, and in the western lowlands that reach from Gambella to Tigray. National livestock production, mainly from these pastoral areas, is augmented by settled agro-pastoralist peasant farmers throughout the Central Plateau and the escarpments of the Rift Valley, who produce sheep, goats and – less frequently – dairy cow products for sale and home use. Livestock are further integrated into the farms through the universal use of animal traction for ploughing, secondary cultivation, threshing and the transportation of goods and commodities.

3.2 Rainfall 2003

Rain in Ethiopia falls in two distinct seasons: the *belg*, a minor season that usually begins in January–February and ends in April–May and the *meher* or *kiremt*, the main rainy season, which starts in June–July and ends in September–October. In about ten zones, *belg* rains are regularly sufficient enough to support a *belg* harvest which may, in a good year, account for 5 percent of national cereal production. Elsewhere, *belg* rains offer the opportunity for land preparation and improve pasture and browse after the dry season. The melding of *belg* and *meher* rains in the southwest zones often generates one long season without clear-cut breaks, which although good for perennial crops and the long-maturing stover cereal varieties, is less than ideal for the early maturing grains.

This year, the *belg* rains were generally good; pocket areas such as South Tigray had poor rainfall but were the exception. The Mission notes that SPOT-4 Vegetation Indices in March and April show a better performance in the *belg* crop growing zones than in the past four years, which is reflected in the *belg* harvest returns given in Section 3.2 below. In non-*belg* crop growing areas, which comprise more of the overall agricultural area, there was more vegetative growth early in the year than in the three previous years, indicative of the better rainfall distribution pattern. In late May and early June, a poorer pattern of vegetative growth was noted in several administrative zones in west Oromiya and Benshangul, reflecting dry spells between *belg* and a late-starting *meher*, but these differences were no longer evident in July and August.

The six Mission teams dispatched throughout the country to determine agriculture production and conditions collected qualitative and quantitative *meher* season rainfall data from all the zones and *woredas* visited. The combined returns confirm that in 57 of the 59 zones and special *woredas* identified as Mission entry points, rains were considered to be much better than last year, the two exceptions being Jijiga and Shinile in Somali Region, where the visiting team noted that last years' rains were considered to have been more favourable in both quantity and distribution. In 46 Mission entry points, the 2003 *meher* rains were considered to have been "normal," that is to say, they conformed to the expected pattern, they began on time, they were evenly distributed during the season and they either finished on time or later than expected. Only in 13 zones/special *woredas* were less-than-satisfactory reports filed. These reports included late starts, breaks of 10 to 20 days during the main season and early finishes. Such sites are located mostly in the south, in a cluster of traditionally *belg*-producing areas around Gedeo and Amaro; and in the east/northeast, conforming to the traditional pattern of rainfall security, which improves in a northeast to southwest direction.

Despite the variable nature of the rainfall inherent in the semi-arid areas of Ethiopia, which means that in any zone and in any year there are always communities that will experience a less-than-satisfactory season, the 2003 *meher* rains may be characterized as having been reasonably well distributed. The timely start encouraged the sowing of long-cycle crops, supported germination and vegetative development of all cereals and pulses and, in most areas, the main season continued to provide adequate moisture at flowering and grain fill. The continuation of the rains into October–November encouraged late, opportunistic planting of short-cycle crops and supported their development, adding a further positive aspect to the season. Heavy rains in December that fell after the Mission departed have (at the time of reporting) had mixed effects. In western Oromiya, southern Amhara and SNNPR there were adverse effects on teff, wheat and barley that had not yet been harvested at the time; however, late-planted crops benefited. In Tigray, harvesting campaigns conducted as a precaution against possible storm-related losses, meant that all vulnerable crops

were secured before the rains began. Elsewhere in the north, the harvests of short-cycle crops were either completed or well-advanced at the time of the Mission, or – as is the case of very late planted barley and pulses throughout Awi zone – can only benefit from the precipitation.

Regarding the effect of rainfall on pasture and browse, the good *belg* rain and timely start to the *meher* season improved the availability of an early bite compared to last year in most areas. The well-distributed rains and their prolongation have increased forage production and improved water supply in all areas except the southeast where, until recently, the November–December rain is reported to be erratic and poorly distributed geographically. Consequently, no incidents of untypical or unseasonable migration were noted by the Mission teams between regions or zones, and only in Somali was such movement being anticipated for the near future if the rains did not improve. The mid-December heavy rains in the south, southeast and northeast of the country can therefore be said to have been highly beneficial for herders and grazers.

3.3 Area planted

Mission estimates for areas planted are derived from several sources. These include data collected by Bureau of Agriculture (BOA) Development Agents (DA) based at Peasants' Association (PA) level throughout the country, and data collected by the Mission teams from farming companies, investors and any state farms that are still in operation. Historically, the data from the first source are passed from DA to District (*woreda*) level, where they are collated, reviewed and presented forward to the agricultural offices at zone level for further aggregation and review. Prior to 2002, the CFSAM entry point were the Zonal Agricultural Bureaus, which offered the opportunity for a complete national coverage through a practical number (50–60) of contact points that had both data and a critical mass of informed specialists who were aware of the prevailing agricultural conditions in their zones through visits to the *woreda* offices, PAs and farms. Under the policy of administrative decentralization in Amhara, Oromiya and SNNPR, the Zonal Agricultural Bureaus have been reduced to agricultural desks, staffed by single officers with few resources and even fewer opportunities to travel within their domains. In Tigray, the Zonal Agricultural Bureaus have been dissolved, and direct links from *woreda* to region have been established. Consequently, this year, as was the case last year, CFSAM team entry points varied from place to place. In order to maintain the time series and to cross-check the validity of information received, Mission teams constructed zone sets of data where necessary either using information from the *woredas* themselves or from sets of *woreda* returns collected at regional level.

Further, it should be noted that this year the *Woreda* Agricultural Bureaus and the Zonal Agricultural Desks in Amhara Region were given recommendations by the Regional Agricultural Bureau to use forecasts issued by the Central Statistics Authority as a basis for their *meher* crop estimates. This parallel data set is based on markedly different area estimates resulting from the recent 2001/02 Agricultural Sample Census, which are not considered by the other major producing regions to describe either their agricultural areas or the proportional distribution of crops grown. In all but two Amhara zones, namely South Gondar and North Shewa, the agricultural staff have opted to retain their previous time series; however the inclusion of new area data from the two above-mentioned zones reduces the Amhara area planted to cereals and pulses by 7 percent or 215 000 ha. The implications connected to using CSA area data as an alternative parameter in grain balance calculations are therefore very great, as is shown in Table 5, which compares cereal and pulse area estimates for the main producing regions. Given the practical nature of land redistribution that took place between 1975 and 1995 particularly in Tigray and Amhara, it is difficult to understand why BOA farm area estimates, which are based on aggregated PA data, should be wildly inaccurate. Consequently, the Mission recommends that sample PAs in each zone in all four regions, be accurately measured and the results compared with the two estimates to determine the closest fit. In the meantime, it seems that the Mission should continue to use the same source to maintain an effective comparator from year to year.

Table 5. CSA forecasts 2003 vs. BOA area estimates 2003 x100 percent

Region	t. cereals	teff	wheat	barley	ham./waz. ²	maize	sorghum	f. millet	t. pulses
National	72%	76%	64%	78%	0%	70%	75%	70%	67%
Amhara	77%	81%	80%	81%	0%	72%	83%	71%	78%
Tigray	67%	84%	96%	85%	0%	64%	62%	51%	75%
Oromiya	72%	71%	58%	76%	0%	83%	74%	85%	54%
SNNPR	53%	66%	52%	55%	0%	43%	71%	53%	67%

Based on BOA data, with the two exceptions noted above, the Mission estimates that the National area planted to cereals and pulses during the 2003 *meher* season is 11.1 million ha, which is similar to last years'

² hamfes/wazerat: A mixture of wheat and barley sown together as a risk-avoiding tactic. The crop does not appear in CSA data sets.

post harvest estimate of 11.0 million ha. Similarly derived estimates for this year's *belg* season suggest that this year's *meher* planting follows a more widely planted *belg* crop than in 2002 at an estimated 624 000 ha in 16 zones. Maintaining the *meher* season area, therefore, reflects more planting generally this year through a reduction in the extensive fallowing noted last year in SNNPR (where *meher* cereal area this year reached, for the first time in eight years, the levels achieved in 1996) as well as the opening of new lands by both investors and settlers.

Closer examination of major cereal areas at national level reveals that maize area in 2003 increased by 11 percent or 200 000 ha, thus significantly reversing the decline of 245 000 ha noted last year. However, the national area planted to maize has not yet reached the levels achieved in 2001.

National sorghum area increased by 16 percent or 240 000 ha, more than compensating for last year's 146 000 ha decrease in area, whereas teff and the total pulse crop showed national area reductions of 6–7 percent, such combinations confirming the anticipated, early-rain induced movement to early-planted, long-cycle crops from late-planted, short-maturing grain crops in the middle altitude and lowland areas where maize/pulse and maize/teff options exist.

At the same time, the barley and wheat returns indicate at national level a 2 percent increase and a 1 percent fall in area respectively, suggesting less flexibility in core growing areas. Although significant downward shifts are apparent in Amhara (barley and wheat both down 14 percent, with concomitant increases in maize and sorghum areas) and Oromiya (barley down 6 percent), the returns from the former region are confounded by the adoption of CSA data in two zones, North Shoa and South Gondar, which exhibited 30 percent and 40 percent falls in both crops, respectively.

A return to greater maize areas in SNNPR (an increase of 80 000 ha or 18 percent) has been analysed by the Mission as associated with better financial returns from maize production last year. In SNNPR maize is the second staple; where maize is grown, most farm families eat *enset*. Therefore, despite fairly similar farm sizes to the peasant farms in Oromiya, the remarkably high level of carbohydrate production from well-established *enset* gardens at around a minimum of 130 tonnes fresh weight to the hectare, releases the maize crop for sale. Maize also has the advantage of an early, green-cob market that provides a lucrative income when early rains are favourable, as was the case this year. As an effective cash crop, financial returns from maize influence planting decisions more strongly than where maize is needed mostly for subsistence. Teff provides a readily available substitute for maize, being agro-ecologically interchangeable and having a firmer recent price history, but it requires more tedious hand labour to harvest and thresh.

Countrywide, given the return to expected levels in areas of cultivation for a generally favourable rainy season, there appear not to have been any widespread constraints on ploughing capability. However, in the wetter areas, where the small size of the farms precludes the effective use of the normal tractors but where timeliness of cultivation, sowing and weeding is of paramount importance for the production of a satisfactory series of crops to achieve food security, the general lack of alternative power sources (oxen), suggests the need to consider the introduction of the diesel engine, two-wheeled hand-tractor for cooperative use in such areas, to improve the efficiency of land use.

Following last year's poor harvest, the combined forces of government, NGOs, FAO and bi/multilateral agencies mounted a countrywide initiative to ensure that seed supply would not be a constraint during this year's *meher* planting. Interventions including the provision of improved seeds, local seeds and the provision of cash for local purchase of seeds were noted; judging by area of cereals and pulses harvested, the initiative appears to have been successful. Given that some 650 000 tonnes of seed grains are estimated to be needed each year, most seed sown comes from farmer-saved stocks carried over from year to year. However, returns from the National Agricultural Input Suppliers' Association show that this year improved seed sales increased approximately seven-fold to 21 000 tonnes.

3.4 Factors affecting yields

National average cereal and pulse yields this year were estimated to be 46 percent higher than last year. Calculated from Mission adjusted BOA data at 1.18 t/ha and 0.80 t/ha respectively, they include a range of regional averages from 0.4 t/ha to 3.0 t/ha according to crop and location. Such averages compare favourably with averages estimated over the past five years and are far better than last year, reflecting the

improved performance of all crops in almost all localities except Jijiga and a cluster of five special *woredas* in SNNPR (Durashe, Amaro, Yem, Burji and Konso) that are predominantly *belg* producers.³

Presently, under the prevailing BOA system, yields are assessed by *woreda* specialists at pre-harvest and post-harvest stages for all field crops. Such data are then transferred to the zone or regional desks for review, analysis and onward passage. Because of the timing of the exercise, the Mission teams usually receive only the earlier yield assessments, which are then adjusted by Mission teams with the assistance of the key informants to take into account field observations, measurements and any changing conditions regarding the weather and late pest and disease problems. Such assessments are subject to rigorous review when the Mission teams return to base. At this stage, assessed performance is compared with seed types, extent and timing of fertilizer use, the season's pest and disease profile, the performance of similar crops in neighbouring localities, time-series data and any other assessments available for the zone.

This year, 97 percent of the seeds used were local seeds carried over from the previous harvest. In the surplus areas, such seeds are mostly open-pollinated releases from government seed agencies that have stabilized over the past two decades, acquiring a local identity reflecting their provenance. In the more marginal areas, in addition to these seeds, local land races are also in evidence and are exchanged/sold between farm families as needed. This year, seed assistance programmes enhanced local redistribution and increased the availability of improved seed for general use. Although the programmes were not without problems, the Mission noted incidents of late delivery and of alleged mistakes in supply, the overall goal to establish seed security in a poor supply year was achieved.

Given the favourable rainfall, no widespread replanting was necessary, and the continuation of the rainfall meant that where replanting did occur, the rains supported the growth and development of the replacement crop as well as the main crops in most areas, reinforcing the role of rainfall as the single most important determinant regarding crop performance in Ethiopia.

Reversing the trend noted by the Mission in the past three reports, fertilizer use as indicated by cash and credit sales increased by around 17 percent to 271 000 tonnes, similar to the level supplied in 2001. At the same time, demand for both DAP and urea increased through the season as the favourable rains and available seeds encouraged farmers to expand and/or invest. Unfortunately, demand appears to have outstripped supply, generating conditions for the emergence of a black market in fertilizer. Consequently, the Mission notes that despite official prices of fertilizers being held at levels similar to last year at around 260 to 300 birr per quintal according to delivery costs, fertilizers were sold at prices up to 550 birr per quintal in zones in SNNPR and Amhara. Notwithstanding the foregoing statement, fertilizer distribution to the regions was very similar to the distribution during the *meher* season in 2000/01. Tigray received the lowest share at 5 percent (4 percent in 2000/01); Amhara 29 percent (29 percent); Oromiya 44 percent (50 percent); SNNPR 8 percent (11 percent) and the remainder – 13 percent (8 percent in 2000/01) – was sold to farmers in the remaining regions and to various commercial enterprises.

Of the 21 000 tonnes of improved seed sold, it was noted that 6 000 tonnes were maize and 14 000 tonnes wheat. It is anticipated that 12 percent of the maize seed and 8 percent of the wheat seed sown this year was thus improved, with a concomitant effect on cereal yield. Noting the increase in fertilizer use, this connects to a possible 720 000 tonne increase in the overall maize harvest and a possible 200 000 tonne increase in wheat (based conservatively on 3 t/ha increments from 240 000 ha and 2 t/ha increments from 100 000 ha, respectively).

Regarding pests and diseases, the only migratory pest noted was armyworm. The caterpillars made brief appearances in ten zones early in the season, but were controlled by a combination of cultural practices, limited knapsack spraying and rain. It is noted that *Quelea quelea* birds were identified as pests in Borena and Guraghe, but they were reported to the Mission as minor, easily controlled incidents.

Non-migratory pests of significance this year include sorghum chafers in East Tigray, the eastern zones of Amhara and the Oromiya zones bordering Afar Region; red teff worm, stalk borers, termites, bollworms and birds. Controlling these latter by scaring them off places a heavy and hitherto underestimated demand on household labour, particularly in sorghum growing areas, if heavy losses are to be avoided.

³ An independent crop assessment funded by USAID suggests a decline of 30–50 percent in crop yields in East Wollega, West and East Shewa, findings from which the assessors have apparently forecast a poor national harvest. Both the Mission and CSA estimates note a substantial improvement in yields in all three zones.

Storage pests, especially weevils, are noted as a cause for concern through the country but they are particularly important in the wetter southwestern zones, where stored maize losses are noted to be as high as 40 percent in good rainfall years. This year an increased interest in the use of storage chemicals was reported; however, no sales figures were available to confirm their improved availability. The adverse effects of crop diseases were mild, with no noted significant incidents of rust on barley or wheat. The presence of sorghum smut was identified by Mission teams in the fields of South Wollo and South Tigray, but was seen to be of very little concern to the farmers whose fields were infested. No seed treatment is carried out, so the widespread sorghum-producing areas are vulnerable to this problem.

Weed competition was fierce this year, as the well-distributed rains enhanced plant growth generally. The Mission teams noted an increase in frequency of hand-weeding of most crops in all regions, and more reports of *shillshallo* or animal-powered thinning of maize and sorghum crops, followed by inter-row cultivation, were evident this year. There was also an apparent increase in the use of herbicides. The Mission notes the use of 2.4 D by farmers as diverse as investors in West Tigray (where labour rates reached an all time high of 30 birr per day), wheat farmers in Arsi and Bale, teff farmers in Jimma and mixed cereal farmers in East Gojjam, the common elements linking their choice being the vigorous growth of weeds and a shortage of labour.

The positive factors noted above and the well-distributed rainfall explain the overall improvement in crop performance manifested by the universal increase in yields compared to last year for all cereal and pulses. These are considered by the Mission to be due to (a) the direct effects of well-distributed rainfall on crop growth and development, (b) the indirect effects of the *belg* rains offering the opportunity for timely pre-season cultivation, (c) early starts to the *meher* season in the main surplus producing areas that encouraged farmers to invest in inputs, (d) a seven-fold increase in the sale of improved seeds and (e) better financial returns to cereal growers last year.

3.5 Other crops

Crops contributing to household food security vary from north to south and from east to west. In the north, oilseeds, particularly *nug* and sesame, are important for both peasant farmers and commercial producers. In 2003 national sesame area increased by 12 percent to 189 965 ha, of which 81 000 ha were noted to be commercial plantings in West Tigray. *Nug* area in 2003 was estimated at 386 000 ha, suggesting an increase of 10 percent mostly as the result of increased planting in Oromiya Region.

Given the diverse nature and generally favourable conditions for plant growth of the southern half of the country, a greater range of other crops contribute to household economy. In SNNPR and Oromiya, crops other than cereals and pulses occupy 12 percent and 32 percent, respectively, of the planted area compared to 3 percent and 7 percent in Amhara and Tigray. The importance of *enset* among these other crops, which provides the main carbohydrate staple for some 8 million people and makes a substantial contribution to the diet of an additional 4 million people, is clear. Data from southern zones indicate an estimated *enset* area of 117 000 ha this year, which is some 6 percent larger than last year, suggesting either increased planting or reduced use of trees in the *enset* orchards. *Enset* condition is noted to be good, with yields at normal levels. Annual roots and tubers, mostly in the same agro-ecological zones as *enset*, are also performing well, with sweet potato yields of 15 t–30 t/ha recorded during a separate study by Mission team members at the end of the *belg* season this year.

Coffee production in 2003 is expected to remain below average and similar to last year, according to the Coffee and Tea Authority specialists interviewed by Mission teams, at 205 000 tonnes. Growing conditions during the year were good in all zones except for the cluster of special *woredas* around Gedeo, where prolonged dry spells affected the performance. Coffee berry disease remains a serious problem except where trees have been replaced by resistant varieties through government-supported nursery programmes.

Production of the other industrial field crops such as tea, sugar cane and cotton and of chat, a mild narcotic cash crop grown throughout the southern half of the country in small backyard plots, is reported better in 2003 than in the previous year from more favourable conditions.

3.6 Livestock

Ethiopia has the largest livestock inventories in Africa: more than 35 million cattle and 40 million small ruminants, 1 million camels and 8 million equines. Livestock ownership currently supports and sustains the livelihoods of an estimated 80 percent of the rural poor. In the extensive, most drought-prone arid and semi-

arid grazing areas in the eastern, western and southern lowlands, cattle, sheep, goats, and camels are managed in migratory pastoral production systems. In the highlands, where 75 percent of the livestock population is found, cattle provide draught power for the mixed farming system.

Last year's drought reportedly reduced livestock inventories in some parts of the country, notably Afar, by nearly 50 percent. The industry is recovering, and more availability of pasture has provided enhanced livestock body condition in most areas of the country. The Mission teams consider cattle body condition scores to be well above last year's scores for stock on the central plateau and in the western lowlands. Some remaining interventions continue from last year, particularly supplementary feeding activities and vaccination by NGOs in Afar and elsewhere. No unusual disease outbreaks have been noted except concerns about internal/external parasites and reports of endemic infectious diseases such as pasteurellosis, anthrax, blackleg, CBPP, and CCPP. Trypanosomiasis is also cited as a concern in the western and southern lowlands, but the condition has not been reflected in the observed body condition scores this year. In several zones, farmer and BOA sources indicated shortages of vaccines and other veterinary pharmaceuticals at local levels, where decentralization has made it more difficult to obtain ready supplies of prophylactic and curative medicines.

Mission teams have reported only limited early migration of pastoralists in areas where water shortages and poor pastures have induced premature livestock movements: southern Borena, Haraghe, and pocket areas in Afar and Somali. While normal rainfall has been reported in most zones, pasture growth and browse in Jijiga and Shinile remain fragile and will be heavily dependent on rainfall during the coming months. In eastern parts of the Somali region, sporadic rains, water shortages and poor pastures have been inducing premature livestock movements. Extensive movement of livestock from Somalia into eastern Somali is leading to a high concentration of animals in the Warder Zone, generating reports of water sales from birkas at prices similar to those observed during the drought of 1991/92. In addition, poor pasture conditions, water shortages and military interventions are restricting cross-border trade, and the increase in unseasonable presentations at markets has caused livestock prices to fall.

Elsewhere, livestock prices are firming. In Afar, where prices plummeted last year as pastoralists liquidated drought-afflicted stock, prices are up nearly 25 percent. Better availability of feed and forage has been noted with lower prices for straw and stover. Hay, which was unobtainable at this time last year, is being sold in markets.

While conditions affecting the livestock sector in Ethiopia have improved this year, the vulnerability of the livestock sector, in particular of the pastoralists, is being reinforced by pervasive structural issues within the sector to limit access to markets and livestock services. The ban on livestock imports from Ethiopia by many of the Gulf countries since 2000 has had an adverse effect on the livelihoods of pastoralists from the Afar and Somali regions, while lack of market linkages to local abattoirs limits the market integration of local livestock economies.

Exact information is scarce regarding the use of feed grains. On the one hand, the modern poultry industry producing eggs and broilers is served by private feed mills generating some 80 000 tonnes of poultry feed per annum to accommodate an estimated 1.5 million layers and 1 600 tonnes of broilers. About 70 percent of the rations are estimated to be composed of home-grown cereals. Feed grain use in the traditional backyard poultry industry, on the other hand, is far less easily assessed. Given that the backyard chicken population has recently been estimated by MOA at 56 million birds (8 birds per household and 7 million households) and assuming that every other household feeds one *menelik/wollo* (0.7 kg) of home-produced cereals to the birds once a week, then the feed use is in the order of 127 000 tonnes per year. However, Mission observations suggest that both the grain ration and frequency of feeding are generally higher than what has been assumed above. In addition, cereal-based feeds are also being given in limited quantities to working equines, draught oxen at ploughing time, stock being fattened for the elite markets and to 156 000 grade and pure-bred dairy cows. Again, information on rations and frequency of feeding, outside the small modern sector, is scanty. It is understood that the bulk of the supplementary rations comes from household waste and cereal by-products, bran, mill sweepings, brewers' grains, and oilseed cakes; however, at household level, home-grown cereals are also fed directly to livestock as cut sheaves and as grain. A further 120 000 tonnes per annum have been assessed by the Mission to cover such eventualities in 2004 when grains will be more freely available.

3.7 Cereal and pulse production forecast

The CFSAM team visits coincided with all stages of the harvest from crop cutting to threshing in accordance with the crop and the geographical location. The timely start of the season, improved growing conditions and consequent performance of most long- and short-cycle cereals have resulted in noticeably better grain quality in 2003 than last year. The wide range of harvesting activities under way at the time of the Mission visits made it possible for a ready assessment of actual production per unit area to be observed by the teams. Where crops were still standing, samples were taken, threshed using local techniques and weighed to cross-check agricultural bureaus yield estimates and farmers' production predictions. In places where harvesting had been completed, the quantities of stored grains or cobs were matched against the areas from which they had been harvested; where threshing or combining of fields had been accomplished, information was obtained directly from the harvesting contractors regarding the median yields in their areas of operation. By these methods additional information was obtained so as to adjust the estimates and predictions and to counter-balance glaring inconsistencies or supply figures for missing data. Regional totals of area and production prepared by the Mission are given by crop in Table 6. The data indicate a 2003 *meher* cereal harvest of 11.83 million tonnes from 9.65 million ha, 46 percent higher than last year's post-harvest estimates. Pulses are showing a return of 1.2 million tonnes from 1.4 million ha, about 60 percent better than last year and 20 percent above the five-year average.

Time series data for the past five years are provided in Table 7 for comparison. They show that this year's production is 10.7 percent above the running five-year national average from an average area and are similar to the production estimates of 2000/01 *meher* season from a slightly smaller cropped area.

Table 6. Ethiopia: area ('000 ha), production ('000 tonnes) and yield (tonnes/ha) of cereals and pulses for the 2003/04 meher season

Region		Teff	Wheat	Barley	Maize	Sorghum	Finger millet	Other	Total cereals	Total pulses	Cereals and pulses
Tigray	Area	167.6	76.0	90.3	74.6	197.0	106.6	49.2	761.3	53.5	814.8
	Yield	0.57	0.85	0.88	1.29	11.9	0.79	0.86	0.91	0.52	0.89
	Production	95.1	64.9	80.0	96.5	235.2	84.4	42.2	698.3	27.9	726.2
Afar	Area	1.8			7.6	3.2			12.7		12.7
	Yield	0.50			1.18	0.84			1.00		1.00
	Production	0.9			9.0	2.7			12.7		12.7
Amhara	Area	970.0	424.0	410.0	366.0	538.0	234.0	52.0	2 993.0	582.0	3 575.0
	Yield	0.82	1.40	1.09	2.18	1.44	1.18	1.33	1.25	1.08	1.22
	Production	795.0	592.0	447.0	797.0	772.0	277.0	69.0	3 750.0	628.0	4 377.0
Oromiya	Area	1 123.0	983.0	576.0	947.0	687.0	87.0	5.0	4 409.0	578.0	4 987.0
	Yield	0.76	1.85	1.32	1.51	1.09	0.68	0.60	1.29	0.71	1.22
	Production	857.0	1 814.0	760.0	1 432.0	748.0	59.0	3.0	5 673.0	409.0	6 082.0
Somali	Area		6.8	5.6	36.5	48.3			97.2		97.2
	Yield		0.43	0.50	0.25	0.35			0.33		0.33
	Production		2.9	2.8	9.1	16.9			31.7		31.7
Beneshangul Gumuz	Area	24.0	2.6	1.3	36.5	57.3	19.0	1.0	141.0	14.5	155.5
	Yield	0.53	0.92	0.90	1.64	1.23	0.94	1.10	1.17	0.66	1.12
	Production	12.7	2.4	1.3	59.7	70.5	17.8	1.1	165.3	9.6	174.9
SNNPR	Area	233.1	199.0	115.7	509.0	129.1	7.3	0.4	1 194.0	192.0	1 386.0
	Yield	0.65	1.33	0.98	1.54	1.02	1.10	0.75	1.22	0.74	1.15
	Production	150.5	265.6	113.3	782.6	131.9	8.0	0.3	1 452.0	142.4	1 595.0
Gambella	Area				10.9	4.0	0.5		15.4	1.0	16.4
	Yield				1.21	1.0	0.80		1.13	1.23	1.13
	Production				13.2	4.0	0.4		17.4	1.2	18.6
Harari	Area		0.6		2.0	7.2			9.8		9.8
	Yield		0.50		1.0	0.67			0.72		0.72
	Production		0.3		2.0	4.8			7.1		7.1
Addis Ababa	Area	4.2	4.3	0.2					8.7	1.7	10.4
	Yield	1.40	2.47	1.25					1.92	1.27	1.8
	Production	5.9	10.6	0.3					16.7	2.2	18.8
Dire Dawa	Area				0.5	10.9			11.4		11.4
	Yield				0.32	0.3			0.30		0.3
	Production				0.2	3.2			3.4		3.4
TOTAL	Area	2 524	1 696	1 199	1 990	1 682	454	108	9 653	1 423	11 076
	Yield	0.76	1.62	1.17	1.61	1.18	0.98	1.07	0.82	0.86	1.18
	Production	1 917	2 753	1 405	3 201	1 989	447	116	11 828	1 220	13 047

Note: These totals have been calculated using unrounded data.

Table 7. Ethiopia: cereals and pulse production: comparison of the 1999/00 to the 2003/04 meher season

Region	Meher season	Cereals		Pulses		Cereals and Pulses	
		Area	Production	Area	Production	Area	Production
		('000 ha)	('000 tonnes)	('000 ha)	('000 tonnes)	('000 ha)	('000 tonnes)
Tigray	1999/00	830.0	606.8	49.1	25.6	879.1	632.4
	2000/01	827.4	667.9	50.5	25.2	877.9	693.1
	2001/02	722.6	637.2	47.3	24.6	769.9	661.8
	2002/03	691.6	427.3	41.8	14.2	733.4	441.5
	2003/04	761.3	698.3	53.5	27.9	814.8	726.2
Afar	1999/00	10.6	8.4	1.3	0.6	11.9	9.0
	2000/01	11.1	8.8	1.3	0.6	12.4	9.4
	2001/02	10.5	8.3	1.3	0.6	11.8	8.9
	2002/03	8.5	4.6	1.0	0.1	9.5	4.7
	2003/04	12.7	12.7	0.0	0.0	12.7	12.7
Amhara	1999/00	3 247.8	3 603.7	668.9	476.2	3 916.7	4 079.9
	2000/01	3 301.9	3 792.0	655.5	427.9	3 957.4	4 219.9
	2001/02	3 306.6	3 545.5	655.6	424.4	3 962.2	3 970.0
	2002/03	3 212.3	2 760.2	683.1	360.5	3 895.4	3 120.8
	2003/04	2 993.0	3 750.0	582.0	628.0	3 575.0	4 377.0
Oromia	1999/00	3 931.8	4 990.3	655.5	401.0	4 587.2	5 391.4
	2000/01	4 308.9	5 667.9	582.7	413.3	4 891.6	6 081.2
	2001/02	4 418.6	5 325.6	607.7	416.2	5 026.2	5 741.8
	2002/03	4 274.9	3 803.7	609.6	286.7	4 884.5	4 090.4
	2003/04	4 409.0	5 673.0	578.0	409.0	4 987.0	6 082.0
Somali	1999/00	75.7	45.1	1.2	0.6	76.9	45.6
	2000/01	73.4	41.1	2.7	1.0	76.1	42.1
	2001/02	97.3	36.6	0.0	0.0	97.3	36.6
	2002/03	98.9	47.9	0.0	0.0	98.9	47.9
	2003/04	97.2	31.7	0.0	0.0	97.2	31.7
Benshangul Gumuz	1999/00	104.2	131.0	9.9	6.8	114.1	137.8
	2000/01	145.0	113.6	15.0	10.0	160.0	123.6
	2001/02	137.2	117.5	10.9	7.0	148.1	124.4
	2002/03	135.0	110.8	8.1	5.0	143.2	115.8
	2003/04	141.0	165.3	14.5	9.6	155.5	174.9
SNNP	1999/00	934.5	1 082.2	171.4	116.0	1 105.9	1 198.2
	2000/01	1 104.1	1 449.8	193.5	137.9	1 297.6	1 587.7
	2001/02	1 104.4	1 246.3	176.6	129.3	1 281.0	1 375.7
	2002/03	1 041.1	973.3	169.6	97.7	1 210.7	1 071.0
	2003/04	1 194.0	1 452.0	192.0	142.0	1 386.0	1 595.0
Gambella	1999/00	15.9	17.6	0.8	0.7	16.7	18.3
	2000/01	15.4	17.1	1.0	0.9	16.4	18.0
	2001/02	18.1	21.0	1.1	1.5	19.2	22.6
	2002/03	14.5	12.3	1.0	1.3	15.4	13.6
	2003/04	15.4	17.4	1.0	1.2	16.4	18.6
Harari	1999/00	10.5	21.9	0.0	0.0	10.5	21.9
	2000/01	9.2	5.0	0.0	0.0	9.2	5.0
	2001/02	10.2	6.6	0.1	0.0	10.3	6.6
	2002/03	8.9	4.3	0.1	0.0	9.0	4.3
	2003/04	9.8	7.1	0.0	0.0	9.8	7.1
Addis Ababa	1999/00	7.4	9.7	1.8	1.7	9.2	11.5
	2000/01	7.8	11.6	2.5	1.8	10.3	13.4
	2001/02	8.1	9.1	1.8	1.1	9.9	10.3
	2002/03	8.3	11.2	1.5	1.1	9.8	12.2
	2003/04	8.7	16.7	1.7	2.2	10.4	18.8
Dire Dawa	1999/00	10.4	6.6	0.0	0.0	10.4	6.6
	2000/01	9.7	5.8	0.0	0.0	9.7	5.8
	2001/02	11.3	5.8	0.0	0.0	11.3	5.8
	2002/03	8.4	1.0	0.0	0.0	8.4	1.0
	2003/04	11.4	3.4	0.0	0.0	11.4	3.4
TOTAL	1999/00	9 178.8	10 523.3	1 559.9	1 029.2	10 738.7	11 552.6
	2000/01	9 813.9	11 780.6	1 504.7	1 018.6	11 318.6	12 799.2
	2001/02	9 844.8	10 959.5	1 502.3	1 004.9	11 347.1	11 964.4
	2002/03	9 502.4	8 156.5	1 515.8	766.7	11 018.2	8 923.2
	2003/04	9 653.5	11 827.6	1 422.7	1 219.9	11 076.2	13 047.5

Note: These totals have been calculated using unrounded data.

3.8 Belg 2002, 2003 and 2004

Previous CFSAM visits have had access to MOA reports of the *belg* crop; no such report was available to the Mission this year. To clarify the situation, Mission teams visiting *belg* production areas collected as much information as possible from those offices with functioning agricultural information units, and they then collated the data to obtain a 2003 *belg* crop estimate. These data are given in Table 8, which compares them by region with the final *belg* post-harvest data for 2002 collected at the same time.

Table 8. Ethiopia: *belg* cereals and pulses production in 2002 and 2003

Region	2002		2003	
	Area (ha)	Production (tonnes)	Area (ha)	Production (tonnes)
SNNP	117 235	46 469	130 398	81 607
Amhara	77 322	17 969	201 002	137 079
Oromiya	245 042	151 878	270 411	250 160
Tigray	na	na	22 290	20 626
TOTAL	439 599	216 316	624 101	489 472

Missing data prevent a completely valid comparison; however, production from *belg* areas in Amhara and Tigray are noted to have been much better this year than in 2002. This year's estimates confirm SPOT-4 Vegetation Indices that indicate better performance in the major *belg* zones. Unfortunately, the Mission is not in a position to audit or adjust the *belg* data, and they are thus presented in the reports "as is". Any post-harvest changes made to the original data sets are therefore accepted in good faith. The final post-harvest estimates for 2002 collected by the Mission are 48 percent lower than the returns released at this time last year, suggesting that this year's estimates may also be too high. A similar trend was reported last year; however, the reduction was only 15 percent. Consequently, the Mission feels compelled to make a cautious forecast for the *belg* harvest in 2004, at 300 000 tonnes for cereals and pulses. These data are included in the grain balance as contributing to domestic food supply in marketing year 2004.

It should also be noted that maize yields used in this year's estimates of the *meher* harvest include maize "eaten green"; excluding it would be misleading with regard to production achieved. Carrying forward the total maize production to marketing year 2004 is justified in the same way as the inclusion of the 2004 *belg* harvest is justified. Both green maize and *belg* harvests will be domestically available in 2004.

4. CROP PRODUCTION SITUATION BY REGION

4.1 Oromiya

Oromiya, comprising 14 administrative zones, is the largest region in the country extending in a T-shaped landmass from near the Sudanese border in the west, across central Ethiopia near the eastern border with Somalia and southwards to the border with Kenya. It includes the most productive highland plateaus as well as drought-prone valley bottoms and lowland plains. In six of the southern zones a bimodal rainfall pattern is readily identifiable, usually providing a prolonged growing season and a wide range of cropping options. In the densely populated high rainfall zones, the small size of peasant land holdings require production of two or three crops annually from the same land, if household needs are to be met. This places the farm families in a vulnerable position. The loss of a crop in a series cannot be compensated by increasing the area of the next crop in the sequence.

This year, in general, a good *belg* was followed by a timely onset to the *meher* except in the south, east and western extremities of the region, where breaks between *belg* and *meher* were evident, due to an early finish to the former or a late start to the latter. Once the main season rains began they were, however, well-distributed and continued at least until late September, except in Borena, positively affecting levels of crop performance and boosting regional production.

Timely rains combined with better prices during the year, encouraged investment in inputs. Consequently, regional combined fertilizer (DAP and urea) use increased by 6 percent to 120 000 tonnes, 7 000 tonnes more than last year and 44 percent of the national *meher* season fertilizer use. However, the quantity available failed to match the demand, which increased as the favourable conditions continued through the season, offering opportunities to take advantage of top dressing with urea and to extend planting of short-cycle grains into August and September. At the same time, 2 800 tonnes of improved maize seed and 7 500 tonnes of improved wheat seed were sold in the region to augment the production potential of the locally

available, farmer-multiplied varieties that form the basic seed stock of the region. Notwithstanding, the increase in the use of improved seeds, which conforms to the national pattern, seed availability *per se* was not an issue. With no major need to replant this year, sufficient farmer-saved seed was available on-farm and in local markets to meet the demands of farmers with no seed stocks following poor harvests last year, and where required, support to purchase was available.

Normal seed rates and cultivation practices were observed resulting in a planted area 2 percent (100 000 ha) greater than last year. Evidence of a shift to long- from short-cycle crops is readily apparent, for within the around 5.0 million ha area sown to cereals and pulses, maize, sorghum and finger millet areas increased by 156 000 ha and teff, barley and pulse areas decreased by 114 000 ha. Commercial planting of wheat by peasant farmers in Arsi increased by 10 percent and in Bale by 15 percent sustained wheat area, reflecting farmer confidence in the season. Arsi, Bale, West Shewa and East Shewa are zones in the productive central plateau that are characterized by high agricultural investment and mechanization. They regularly produce above 50 percent of the regional and above 25 percent of the national *meher* harvests. This year the performance of the four zones is estimated to have more than matched expectations.

No significant outbreaks of pests or diseases were noted. Regarding migratory pests, minor infestations of *Quelea quelea* bird and armyworm were quickly and efficiently controlled by BOA spraying teams, cultural practices and, in the case of armyworm, the rain. The regular non-migratory insect pests including sorghum chafer, stalk borer, shoot fly, bollworm, grasshoppers, termites and aphids were all noted with variable levels of infestation. Vertebrate pests including non-migratory birds, wart hogs and monkeys required the usual attention of the farmers wishing to protect their fields, particularly just prior to harvest.

Harvesting this year was conducted rapidly and is estimated to have resulted in 6.08 million tonnes of cereals and pulses, which is 47 percent greater than last year. This comprises 1.43 million tonnes of maize, 49 percent more than last year but 12 percent below the region's best maize crop in 2001; a sorghum crop of 0.748 million tonnes, which is 73 percent better than last year and 20 percent higher than 2001. Teff at 0.86 million tonnes, barley at 0.76 million tonnes and pulses at 0.41 million tonnes, are estimated to be 29 percent, 21 and 43 percent better last year and very similar to the regional harvests obtained in 2001. Wheat at 1.81 million tonnes is, however, higher than in any of the past four years.

Consequently, grain prices in Oromiya are expected to fall and local purchasing for distribution out of the region is recommended.

4.2 Amhara

Amhara Region, located in the north, northwest of the country includes the nation's highest mountain ranges, lowland riverine valleys and plains as well as agriculturally productive plateaux with well-established mixed farming systems. Comprising 10 administrative zones, the region usually produces around 33 percent of the national *meher* grain production. Following the national pattern of rainfall distribution and notwithstanding the within-zone vagaries of altitude, the western half of the region usually produces surplus grains from a substantial *meher* crop. The eastern half of the region has a less reliable *meher*, but contains zones where the *belg* crop may offer a substantial contribution to local annual production, depending on the year. This year, the *belg* rains in the eastern production zones were good and sizeable *belg* harvests were obtained in both South and North Wollo. In most cases the start to the *meher* season was both timely and followed by well-distributed rains that continued throughout the season until late September. Exceptions to this favourable pattern were noted by Mission teams in north Weghamra where the rains, although better than last year, were generally poor, and in Awi where a delayed start has been followed by good rains until December.

In the productive zones of West and East Gojam, early starts to the *meher* and good mid-season rainfall encouraged planting of maize, sorghum and finger millet with area to long-cycle crops increasing by around 15 percent at the expense of barley and pulses. In the traditionally less favoured zones of North and South Wollo, rainfall although low, was well-distributed and conducive to sorghum production. Water logging from excessive rains was not an issue and a flush of rains in the thirteenth month (Ethiopian calendar) and in the first week of September was beneficial particularly for the late-planted long-cycle crops. Such advantages were also noted by Mission teams in the southern *woredas* of Weghamra, and the eastern *woredas* of South Gondar.

Input utilization in the region this year follows the established national pattern with fertilizer use increasing by 30 percent to 78 615 tonnes, though in some areas, supply was late. The Mission notes that this increase

was not apparent in all zones; fertilizer use in North and South Wollo and Gondar fell, apparently due to lack of availability rather than lack of demand or access to credit. In all zones, administrators and farmers reported that the previous policy exercised by the Amhara Savings and Credit Institute, requiring all input loans to be taken through groups/peasant associations and precluding future loans to all members of groups with less than an 85 percent repayment rate, had been amended. This year, it was not level repayment that prevented farmers from timely fertilizer purchase, it was empty stores and no late deliveries. Increased use was, therefore, only registered by Mission teams in Awi, N. Shewa and North/South Gojam, where increased use ranged from 11 to 31 percent and black market prices reached 550 birr per quintal, twice the official recommended rates.

At the regional level, quantitative estimates of shifts in area between years are confounded by the adoption of CSA data in S. Gondar and N. Shewa, which is also reflected in an apparent 8 percent decline in cereal and pulse planting (209 000 ha). No reports of cultivating difficulties reached the Mission and no significant fallow areas were noted in what remains a very intensively farmed region. New areas are noted to have been brought into production through the activities of settlers in Sanja *woreda* (400 households) and investors in Metema (29 000 ha).

Regarding seed availability, support programmes for the farmers with few resources to buy seeds improved access to locally available seed stocks. Improved seed use increased six-fold to more than 3 000 tonnes to accommodate 15 percent of the maize area and 3 percent of the wheat area. Seeding rates are noted to be normal although significant intercropping of teff and oilseeds was noted in North Gondar, South Gondar, and Weghemra zones.

Pest and disease outbreaks were noted to be minimal with no migratory pests reported. Non-migratory pests of significance this year included sorghum chafers in the eastern zones and red teff worm in Gondar and Gojam. Wollo bush crickets, stalk borers, aphids, termites and grasshoppers were all registered as present through out the region but no infestations elicited large scale campaigns. Integrated pest management programmes mounted by SCFUK are under way in North Wollo and Weghamra but have yet to be quantified.

Much better crop production is evident throughout the region, apart from North Wollo zone. This generalization includes very productive areas in East and West Gojam and good production in *woredas* in most other zones including North and South Wollo, North, Weghamra, Oromiya and North Shewa and South Gondar. Even in the latter two zones where the area estimates have been substantially reduced, estimated production of cereals and pulses is 13 percent and 19 percent greater than last year. This results in a cereal harvest that is estimated at 3.75 million tonnes, 36 percent better than 2002 and 6 percent more than the estimated production of the 2001 *meher* season. Pulses show an even better improvement at an estimated 0.63 million tonnes, 74 and 48 percent, respectively greater than the two previous years. Of the cereal production, teff, sorghum and maize are each expected to contribute around 0.78 million tonnes, the latter two crops regaining a level of parity after last year's switch to short cycle grains. Wheat at 0.60 million tonnes, barley at 0.45 million tonnes and finger millet at 0.28 million tonnes make up most of the remaining cereals.

4.3 Southern Nations Nationalities and Peoples' Region (SNNPR)

Presently formed from 15 zones and 6 special *woredas*, the SNNP Region is the most culturally diverse in Ethiopia. The cultural diversity is matched by a wide range of ecologies encompassing everything from rainforests to deserts. Bi-modal rainfall patterns exist throughout the region offering opportunities to crop 2 or 3 times per year on the same piece of land. Very small land holdings, however, create a structural vulnerability to dry spells at crucial times in the production cycles, as increased planting later in the year cannot easily compensate for lost opportunities. Fortunately, the majority of the rural population eat *enset*. This perennial carbohydrate source, also known as false banana, is very resistant to rainfall fluctuations and provides a carbohydrate based food safety net for most farm families in the highland and middle altitude communities. The ubiquitous presence of perennial cash crops including coffee, chat and eucalyptus confirm the overall natural resources wealth of SNNPR in all but the lowland localities, where pastoralism is the main agricultural enterprise.

This year, *belg* rains were reasonable and a good *belg* harvest was achieved. However, although the bulk of the region, as elsewhere, benefited from a timely and well-distributed *meher* rainfall, in the cluster of special *woredas* south of Arbaminch, the *meher* rains failed. Fortunately, in almost every other locality the rainfall pattern persisted as the season progressed. Consequently, the Mission notes a marked increase in maize

and sorghum areas of some 120 000 ha as land fallowed last year has been brought back into production. At the same time wheat, teff and barley areas have been sustained and the area sown to pulses also increased boosting the field crops area by some 190 000 ha. These figures again (see Oromiya and Amhara) point to a renewed confidence in agriculture in the cereal surplus areas. Certainly, in this onset eating middle altitude zones of the region, cereals are of secondary importance for food security, therefore, economic forces have a greater role to play in planning cereal area than in marginal areas.

The substantial increase in field crop area implies that neither means of cultivation nor seeds were in short supply. As elsewhere, although local seeds provided 94 percent of the planting material, 3 500 tonnes of improved seeds were distributed of which a possible 10 percent are alleged to have had a less than satisfactory performance. However, overall seed support programmes are noted to have been successfully accomplished.

At the regional level, fertilizer use increased by 64 percent to 23 000 tonnes, which although significant in itself is still less than 20 kg per cereal ha. Indeed, only in the northern zones was there any clear indication of an increase in use and here black market prices again rose to 550 birr per quintal.

Pests and diseases are noted to be minimal. Regarding migratory pests outbreaks of armyworm reported in Gamo Gofa, Wolaita, Gurage and Sheka were effectively controlled. Nonetheless non-migratory vertebrate pests from the forests require an inordinate amount of farm labour to avoid substantial losses. Storage pests are also noted to have been a cause for concern this year, given the better harvest in prospect and the wetter conditions.

Consequently, the Mission anticipates a regional cereal and pulse harvest 1.59 million tonnes, comprising 783 000 tonnes of maize, 132 000 tonnes of sorghum, 151 000 tonnes of teff, 266 000 tonnes of wheat, 113 000 tonnes of barley and 142 000 tonnes of pulses. This is 49 percent higher than last year and 16 percent higher than the 2001 estimates, because of 14 percent increases in area planted over the previous year and a far better crop performance in the main *meher* grain producing areas.

4.4 Tigray

Tigray, the northernmost region of Ethiopia bordering Sudan and Eritrea, has a cultivated area of about 800 000 ha farmed by some 775 000 households and 300 investors located in the western lowlands. Usually classified as a food-deficit area due to its semi-arid climate and high population density, the region has embarked on major environmental rehabilitation programmes over the past ten years. Presently, it is in the process of linking food security issues to watershed management with the objective of improving employment and income generation opportunities in the central and eastern zones. The food deficit status of the region masks the fact that in most years there is surplus crop production from well-organized, runoff based, peasant farming systems in the South Zone and from the mechanized commercial enterprises mentioned above in the western lowlands.

This year, the *belg* rains were generally good, supporting reasonable crop production in occasional *belg* producing areas in South Tigray and facilitating early land preparation in the eastern and most of central zone. However, the western and parts of central zone received poor *belg* rains, which impaired preparation for long-cycle crops. A prompt start to the *meher* season encouraged the planting of long-cycle crops, stimulated fertilizer use and pre-empted early concern for crop and livestock dependent communities in the vulnerable areas.

Well-distributed rain during July and August in the south middle-highland and highland zones and in the higher altitudes of the eastern, central and western zones, sustained *meher* season production possibilities. Unfortunately, in the eastern zone, the rains finished early with adverse effects on yields of late sown crops. Similarly, spate dependent farmers in the Mehoni lowlands abutting the eastern escarpment, received fewer floods than necessary to support the anticipated sorghum crop, consequently such areas were sown to rainfed teff. Neighbouring communities in Alamata benefited extensively from heavy rains in the middle of the season, where the Mission notes very good sorghum production continuing a long line of highly productive sorghum plains beginning in Chefa, Kemisse in Amhara and traversing South and North Wollo.

Although *meher* season rains in the west were late, their onset was followed by good distribution and a timely or late finish, supporting the later sown long cycle cereals as well as teff crops.

Backyard maize production was also noted by the Mission to have performed well throughout the central and northwestern *woredas* reflecting choice of location for planting to catch available runoff; selection of better water retaining soils and higher organic content of the soils near to the homesteads.

Regional fertilizer use increased by 55 percent to some 13 900 tonnes. This occurred despite last year's policy shift that removed fertilizer 'quotas' from the extension agenda leaving it to the farmers to decide to opt for low input approaches in the face of climatic uncertainty. Clearly many farmers are aware of the value of fertilizer applications in a well-distributed rainfall season. As elsewhere, seed supply this year was almost entirely from farmer-saved stocks, local markets or seed banks. The latter have been established by NGOs over the past few years and had an important role to play in supplying local seeds this year, due to seed shortages at household level and high prices of seed at sowing time. Additional funds to support local seed redistribution, made available by the Regional Government, FAO and bilateral agencies were effectively utilized by the BOA, REST and other NGOs. Consequently, the regional area planted to cereals and pulses increased by 12 percent.

No significant outbreaks of pests and diseases were noted. Armyworm appearances in north-central and western *woredas* were contained and no other migratory pests were noted. However, with the later planting of some sorghum this year, the expanded commercial enterprises in the western zone will remain vulnerable to sorghum midge and *Quelea quelea* attack for the next month or so. Non-migratory pests continue to reduce the performance of field crops, this year the most significant appear to have been birds, weeds and the sesame bug. The first two being particularly demanding on farm labour and the latter requiring post-harvest spraying of the sesame stocks.

Overall, the Mission estimates that cereal and pulse production will be around 0.73 million tonnes, with a teff harvest of about 95 000 tonnes, wheat at 65 000 tonnes, barley and hamfes (mixed barley and wheat) at 120 000 tonnes, maize at 97 000 tonnes, sorghum at 235 000 tonnes, and finger millet at 84 000 tonnes. This is 63 percent above last year's poor cereal harvest and 5 percent above the harvest in 2000, from a cereal area 26 percent smaller, following revisions of land holding sizes in central and eastern Tigray in 2001.

4.5 Afar

A resumption of near normal rainfall in Afar, an arid and semi-arid region located in the northeastern part of Ethiopia, is improving water availabilities for humans, livestock and crops in most areas. Populated by mainly pastoralists whose cattle, sheep, goats and camels are a major source of livelihood, the harsh and dry climate makes it one of the more drought-prone areas of the country. Limited rainfall restricts crop production except in areas in northern zones and river bed areas where minor spate irrigation facilitates production of cereals, pulses and some cotton.

Despite a late start and early finish to the *meher* rains, precipitation in the region is considered to be better than in the last 3–4 years in both amount and distribution. Water availability is improved in most regions except a few pockets in Zone 1 and 3, specifically Dubti and Gewane. River levels are higher and there are no reported water shortage problems in the region. Heavily dependent on irrigation water supplies, approximately 12 700 ha was planted, a six-fold increase from the previous year's low level. Early finishing of the rains in August, however, combined with limited use of improved seeds and fertilizer, may constrain overall cereals and pulse production to around 1 t/ha resulting in a harvest of some 13 000 tonnes.

Supported by Awash River irrigation schemes, cotton yields in the south will be influenced by late starts in the rains and water scarcity by September. Only 30 percent of normal cotton planting occurred in the optimal planting window.

The agro-ecology of Afar is characterized by low erratic rainfall and high temperatures, this year's rainfall has been generally favourable for pasture and browse growth, highly critical for the many pastoralists dominating the region. In particular, regenerated pasture growth in mountains and hillsides has significantly benefited goats and camels. The relative drought tolerance of goats and camels compared to cattle and sheep is prompting a recovery in their body condition. and their performance, that will not be fully appreciated until next year. However, the cumulative effect of drought and heavy grazing has constrained the full recovery of main rangelands, thus disadvantaging cattle grazing. The higher susceptibility to drought conditions led to higher mortality of cattle during the previous year, thus reducing animal inventories and compromising calving and milk production. While adequate pasture and grazing availability is currently limiting early migration of pastoralists, pasture conditions remain fragile and heavily dependent on late season rains,

particularly in areas in Zone 3 where conflict areas restrict access to pastures, consequently, the December rains that fell after the Mission visit are likely to have had a positive effect in every respect. Continued concerns are voiced about the pervasive invasion of prosopis species (mesquite) and the resulting erosion of indigenous rangeland browse.

In the context of better animal conditions, prices for goats and sheep have strengthened over last year's drought-reduced prices. Cattle prices have recovered partially due to slower recovery in body weight and condition.

4.6 Somali

Somali Region, predominantly a pastoralist, agro-pastoral area, is located in the semi-arid southeastern corner of Ethiopia. With a predominantly nomadic population of nearly 3.5 million, only 15 percent live in urban centres and an estimated 90 percent of the population derive their livelihood from pastoralism and animal related activities. Rainfed cereal production is generally concentrated in villages and towns along the Wabi Shabelle river complex and by settled farmers in the highlands and middle altitude areas in Jijiga and Shinile Zones. Permanent irrigation schemes along the river complex facilitate the production of a variety of annual crops.

This region is the only one of two areas in Ethiopia reporting rainfall conditions worse than last year. Below average and erratic rainfall was reported during Mission visits to Jijiga. A normal start to rains in June was compromised by numerous breaks, leading to early pastoralist migrations. Late rains characterize Shinile Zone where missed rains in April were compounded by late main rains. Difficulties in accessing many of the zones resulted in regional crop production being estimated only for Jijiga Zone, where rain breaks and some late season flooding reduced yields and decreased cereal output to below the 48 000 tonnes produced last year to an estimated 32 000 tonnes.

The late onset of the 2003 *deyr* season rains (October–December) in most of Somali Region has exacerbated existing water and pasture shortages, particularly in Warder, Fik and Korahe zones, some parts of which had also experienced failure of *gu* season (March–May) rains. There were acute water shortages in many of the eastern districts in November 2003 as the *deyr* rains had been very poor. In Warder, limited boreholes and water shortages made water tanking necessary. There was unusual livestock movement in search of pasture into some parts of Warder zone from northeast Somalia and from severely affected zones within Somali Region to neighbouring zones; livestock condition was reported to be deteriorating. With calving time coinciding with water shortages, lower productivity and higher animal mortality is anticipated. Milk production has decreased as a result in the affected areas. Livestock prices have been dropping as water shortages and higher mortality result in increased market presentations. Late rainfall in December improved water supply in eastern zones but the improvement in pasture is not expected to last. In western zones, *deyr* rains have been better and conditions have improved in December. Any deterioration of the terms of trade for the livestock sector in this region will put pressure on a pastoralist population already disadvantaged by the ongoing loss of export markets for live animals due to the ban by Saudi Arabia.

4.7 Harari

Harari is a small region surrounding the city of Harar with some 12 000 ha of agricultural land. Apart from chat, the main products are usually sorghum and maize. This year the *meher* rains were early but the promising start was followed by a fragmented season that finished early. Nevertheless, the season was far better than last year. The early start prompted the planting of long-cycle cereals in the first week of May. Local seeds were available in sufficient quantity to meet the seed requirement for 9 800 ha, 70 percent of which was sorghum and 25 percent was maize. Given a pest and disease free season, cereal production is estimated to be 7 100 tonnes, 66 percent more than last year.

4.8 Dire-Dawa

Sorghum, maize and vegetables are the main crops grown around the city of Dire-Dawa. This year the rains began on time, were unevenly distributed, erratic and ended early but were still much better than last year. Consequently, planting began on time using local seeds at the normal sowing rates. Area planted to cereals and pulses was considerably greater than last year at 11 400 ha and given a migratory pest free year, overall cereal production is expected to reach some 3 400 tonnes compared to 1 000 tonnes in 2002.

Livestock condition noted by Mission teams was poor, migration to East Hararghe was reported as lowland pasture resources were said to be low and water scarce. Late rain in December may have helped to improve the situation.

4.9 Addis Ababa

The area planted to cereals and pulses this year in Addis Ababa administration area is similar to last year at 10 400 ha. Good rainfall during both *belg* and *meher* seasons supported crop growth and development and encouraged the use of inputs. Following a year when husbandry practices were normal and with no significant pests and diseases, Addis Ababa is again registering a significant increase in cereal and pulse production this year at about 19 000 tonnes of which 56 percent is wheat, about 30 percent teff. This suggests a 54 percent increase in crop performance over last year, reflecting the national condition as assessed independently by CSA and the Mission.

4.10 Gambella

Gambella Region, located in southwest Ethiopia bordering Sudan, is a lowland area with regular rainfall and seasonal floods from permanent rivers that bisect the region providing the opportunity for at least two crop production cycles per year, one from rain and one from residual moisture.

The region, which has experienced much movement of refugees from Sudan in the past decade is inhabited by cattle pastoralists (Nuer), shifting cultivators (Anuak) and settlers from the central highlands. Currently internecine conflict and random acts of violence are disrupting farming patterns and the other diverse livelihood systems fishing, hunting–gathering and cross-border trade seen to be as important as agriculture to the household food economies are also negatively affected from time to time.

This year the *meher* rains were late but were plentiful and well-distributed once they had begun. Floods returned to the expected levels following last year's limited river flows. Unfortunately, the Mission team's field visits were curtailed by one of the acts of violence noted above. Information from BOA sources indicates a better harvest of cereals and pulses than last year from 6 percent larger planted area being estimated at 18 600 tonnes. This comprises 71 percent maize and 21 percent sorghum.

4.11 Benshangul Gumuz

Benshangul Gumuz region, bordering the eastern clay plains of Sudan is a lightly populated, low-lying region with uni-modal rainfall supporting both crop and pastoralist livestock production. This year the rains were universally favourable, a timely start was followed by well-distributed rainfall that finished late in all five zones. Consequently, normal farming practices were observed although the Mission was made aware of increasing concerns about the debilitating affect of malaria on farm households. Apparent increases in infection rate in many *woredas* are undermining agricultural activities. Illness among adults weakens the labour force, illness among children reduces the labour force as farmers become preoccupied in searching for cures and caring for their children. The foregoing notwithstanding, with availability of credit not a limiting factor and with rains encouraging the early planting of long-cycle cereals, area sown to cereals and pulses increased by 9 percent, with the greater increases occurring in Mawo Komo *woreda*. Fertilizer use increased by 7 percent. No major field pests or disease problems completed the favourable profile of growing conditions that have resulted in a 50 percent increase in regional cereal and pulse production estimated to be 175 000 tonnes from about 156 000 ha. Of this some, predominantly haricot beans, 40 percent is sorghum, 34 percent is maize, 17 percent is finger millet and teff.

5. FOOD SUPPLY SITUATION

5.1 Agricultural markets and prices

Grain markets in Ethiopia function through a limited number of small traders who buy surpluses from small farmers and sell in the nearby markets at relatively small margins. These markets function in relative isolation and grain movements from surplus to deficit areas are constrained by high transport costs due to poor road infrastructure, weak market information systems and limited competition in the transportation sector. Consequently, whenever the harvest is good, supply exceeds demand and grain prices fall sharply. For example, grain prices remained depressed for almost two years until mid-2002 following higher than average harvests in two consecutive years and no effective price stabilization measures at the national level.

To correct for such market failures, the government of Ethiopia suggested, in November 2003, the need for a price support programme whereby it will buy, through the GTE, grain surpluses at a price to be announced later. However, as of late December 2003, no specific measures of implementing such purchases were announced. Other price stabilization measure used by some of the donor agencies is to purchase part of the grain for food assistance from the local markets instead of importing the entire quantities. In since 2000, an average of almost 170 000 tonnes of grain per year were locally purchased by international agencies and distributed as food aid.

On the other hand, input markets are still characterized by government involvement which makes credit available to farmers and encourages more fertilizer use to improve national food security. However, shortage of foreign currency to import fertilizer, limited suppliers and distribution centres and some monopolistic practices in distribution have all affected, directly or indirectly, fertilizer supply this year.

Imports of fertilizer dropped sharply in 2002/03 compared to previous years on account of the availability of large stocks. Indeed, the level of fertilizer available for use, amounted to 271 322 metric tonnes comprising 225 281 metric tonnes of carryover stocks and 46 041 metric tonnes of new imports. This level is 17 percent above last year's usage but not as high as the 2000 level. Fertilizer prices this year are stable, except in some regions (i.e. Amhara and SNNPR) where prices increased by up to 100 percent due to shortages in supply and almost monopolistic behaviour by retailers.

Grain prices in the 2003 were generally higher compared to the previous year in response to the below average levels of production in 2002. For instance, monthly average price of teff in Addis Ababa in October 2003 was about 12 percent higher than October 2002. Other crops also showed similar price increases at the stated period; wheat 10 percent, barley 29 percent, sorghum by 25 percent and maize 8 percent.

Figures 1, (below) indicates the average monthly wholesale price for teff, wheat, sorghum and maize in Addis Ababa. In 2001, prices of all local markets were depressed compared to the previous year, due an exceptionally good meher harvest in 2000. An above average cereal harvest in 2001 kept prices relatively low, particularly for maize, until the latter half of 2002 when it became apparent that cereal production was going to be substantially lower for both belg and meher crops. These prices continued in an upward trend throughout 2003 and began to drop sharply in September/October 2003 in response to the commencement of the harvest of a good crop year. Cereal prices, particularly for maize, are expected to continue falling in 2004 for several months to come.

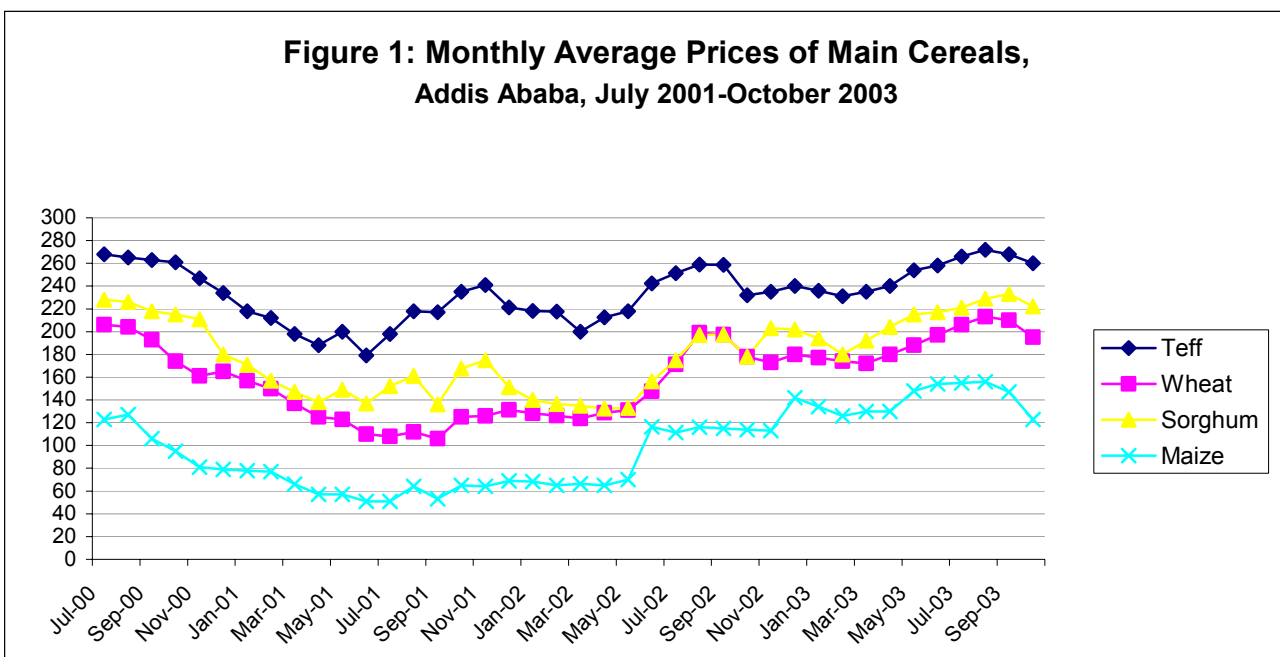
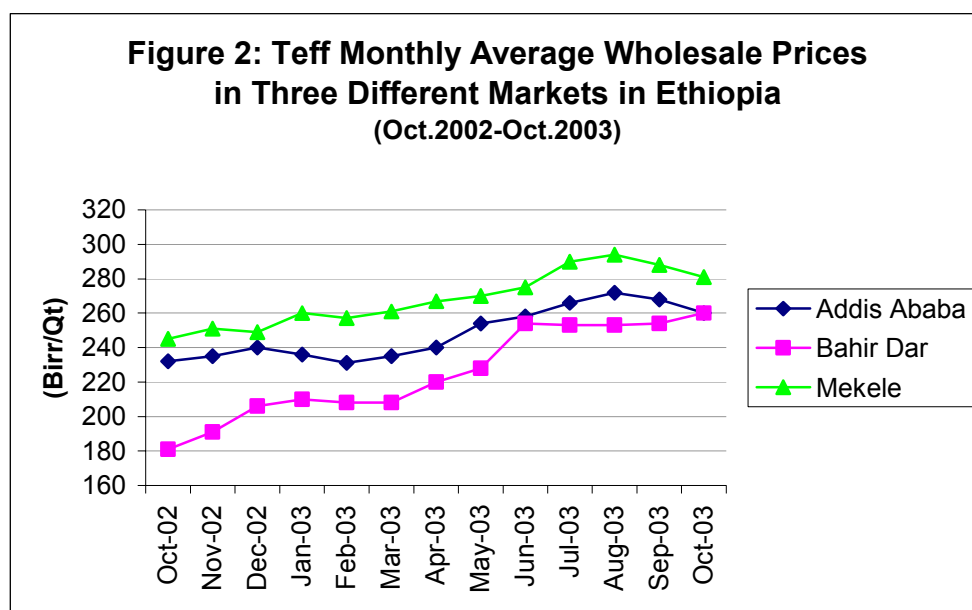


Figure 2 (below) shows the average monthly wholesale price for teff in Addis Ababa, Bahir Dar, a surplus producing zone and in Mekele, a deficit area. Larger grain movements from surplus to deficit areas are constrained by high transport costs due to poor road and marketing infrastructure.



5.2 Grain supply/demand balance

Table 9a (below) shows the trend in cereal production and imports, mainly food aid, in the last several years. Note the inverse relationship between cereal production and cereal prices given in Figure 1. Prices for most cereals were depressed in 2000 and 2001 and increased sharply with prospects of lower production in 2002/03. With the good cereal production in 2003/04, prices have started to dip and are expected to decline even further during the coming several months..

Table 9a. Ethiopia: Total Cereal Production and Imports, 1999/00-2003/04 ('000 tonnes)

Year	1999/00	2000/01	2001/02	2002/03	2003/04
Cereal production	10 523	11 781	10 960	8 157	11 828
Cereal Imports	1 424	985	398	1 561	
Commercial	104	125	174	170	
Food Aid	1 320	860	224	1 506	

The projected supply/demand balance for cereals and pulses for the 2004 (January–December) marketing year is summarized in Table 9b. It is based on grain production estimates of 2003 *meher* crop, a forecast of 2004 *belg* crop; a total of about 13.3 million tonnes, including about 13.0 million tonnes from the main *meher* crop and a provisional forecast of 300 000 tonnes for the 2004 *belg* crop. Further assumptions include:

- Opening stocks for the marketing year 2004 are estimated at 500 000 tonnes. These include an estimated 35 000 tonnes held by the Ethiopian Grain Trade Enterprise (EGTE); approximately 50 000 tonnes with commercial traders; about 10 000 tonnes with small farmers in the surplus producing areas; and 405 000 tonnes with the Emergency Food Security Reserve (EFSR).⁴
- Mid-year 2004 projected population is estimated at 71.066 million.

⁴The EFSR comprises physical stocks of 275 000 tonnes and the remainder are stocks under withdrawal and outstanding loans. The EFSR is a revolving grain fund. Several national and international agencies including DPPC, WFP, EGTE, donors, and NGOs borrow grain from it against a confirmed donor contribution.

- Per capita grain consumption is estimated at 154 kg per year.
- Feed use is estimated at 300 000 tonnes largely for the consumption of traditional poultry industry, draught animals and equines.
- Seed use is estimated at 650 000 tonnes based on the seed rates used in Ethiopia and the intended area to be sown in 2003/04.⁵
- Post harvest losses are estimated at 1 390 000 tonnes based on post harvest loss rates ranging from 3 percent for teff to as high as 17 percent for maize and pulses.⁶ Seed use and post harvest losses account for almost 16 percent of the total *meher* harvest.
- Export of grains, In light of the estimated 60 percent increase in pulse production, is expected to be around 70 000 tonnes, marginally higher than 2002/03 export level.
- The residual closing stock of about 656 000 tonnes reflects the large increase in crop production this year.⁷

Table 9b. Ethiopia: Total grain supply/demand balance, January–December 2004 ('000 tonnes)

Domestic availability	13 800
Opening stocks	500
Production	13 300
<i>Meher</i>	13 000
<i>Belg</i>	300
Total Utilization	14 010
Food use	10 944
Feed	300
Seed use	650
Losses	1 390
Exports	70
Closing stocks	656
Import requirement	210
Commercial imports	50
Food aid pledges and in pipeline	160

The total cereal import requirement in 2004 is therefore estimated at 210 000 tonnes. Commercial cereal import capacity is projected at 50 000 tonnes, consisting largely of durum wheat and wheat flour, rice, semi-milled or wholly milled rice, oats, maize and maize seed.⁸ Confirmed cereal food aid in the pipeline and pledged for food in 2004 currently stands at 160 000 tonnes.

5.3 Emergency Food Aid Requirements

5.3.1 Review of Emergency Food Aid in 2003

Relief food aid requirements and actual distributions in Ethiopia have varied considerably in recent years as outlined in Table 10.

⁵Seed rates used are 25 kg/ha for teff, 135 kg/ha for wheat, 110 kg/ha for barley, 120 kg/ha for hamfes, 25 kg/ha for maize, 12 kg/ha for sorghum, 80 kg/ha for millet, 80 kg/ha for pulses and 80 kg/ha for other crops.

⁶Other used rates are: wheat 8 percent, barley 8 percent, hamfes 8 percent, sorghum 10 percent, finger millet 5 percent and other crops 7 percent.

⁷ These stocks represent less than one month of consumption.

⁸ Commercial grain and grain products imported in year 2001 and 2002 amounted to 125 000 and 174 000 metric tonnes; respectively.

Table 10. Relief food aid estimates and distribution 1995–2003

Year	January estimate (tonnes)	July estimate (tonnes)	Delivered/distributed* (tonnes)	Distributed as percent of estimated needs	Population requiring food assistance (millions)
1995	427 000	492 848	347 379	70	4.0
1996	291 000	262 060	219 000	84	2.7
1997	186 000	329 450	306 000	93	3.4
1998	420 000	602 134	294 932	49	5.3
1999	181 871	460 609	391 558	85	6.6
2000	764 044	1 337 695	999 135	75	10.2
2001	545 394	630 610	540 000	86	6.2
2002	557 204	897 299	580 000	65	6.3
2003	1 461 677	1 802 394	1 599 000	89	13.2
Average	537 132	757 233	586 334	77	6.4

*Includes WFP emergency assistance, bilateral contributions to DPPC and contributions through NGOs. 2003 distribution data is provisional.

The humanitarian crisis of 2003 was especially challenging: 13.2 million people (19 percent of the population) required relief food assistance, which is the largest ever identified in Ethiopia. While immediate causes were related to poor rains in 2002 that caused widespread harvest failures and severe pasture and water shortages, long-term processes also contributed. Population growth is high and family land holdings are shrinking. Off-farm income-earning opportunities are limited. With overwhelming rural poverty, the resilience of households and communities to climatic shocks has been progressively diminished.

The initial estimate (from December 2002) of people in need of relief food assistance was 11.2 million. By March 2003, the situation deteriorated as many of the population under “close monitoring” began to show signs of severe stress, especially in Southern Nations, Nationalities and Peoples Region (SNNPR). Nutritional surveys showing up to 20 percent Global Acute Malnutrition (GAM) reflected the deteriorating conditions. Following the mid-*belg* assessment of Tigray, Amhara, Oromiya and SNNPR, the affected population increased to 12.6 million.

In mid-2003, as humanitarian agencies were responding to the peak relief food requirements, the multi-agency assessment of the *belg* cropping areas and pastoral areas revealed an additional 600 000 people in need of food from August–December and an increase in duration of assistance for 1.8 million people. This brought the total number of people affected to 13.2 million and the food requirement increased to 1.8 million tonnes. Although the overall performance of the 2003 *belg* rains was promising, many *belg* crop producing areas of Tigray, Amhara, Oromiya and SNNPR received untimely and erratic rains and storms, resulting in below-normal crops in some areas. In pastoral areas, especially Afar, Shinile, Warder, and parts of Jijiga, Korahe, Fik and Gode zones of Somali Region, the erratic distribution and insufficient amount of rain led to a continuation of water and pasture shortages.

Despite record food requirements in 2003, collective action and an unprecedented donor and public response prevented widespread famine-related mortality. Together with carryover contributions from 2002, donors contributed almost 1.8 million tonnes of cereals, pulses, oil and blended food in 2003. Of this, 1.6 million tonnes have been distributed in 2003, with a “carryover” of stocks and confirmed contributions in the pipeline totalling 194 000 tonnes (cereals, 123 000 tonnes; blended food, 39 000 tonnes; pulses, 28 000 tonnes; vegetable oil, 4 000 tonnes), which can be set against requirements for 2004.

Table 11. Relief food aid contributions, distributions and balance 2003 (comprises cereals, blended food, pulses and vegetable oil)

	Tonnes
2003 Contributions (including 2002 carryover stocks/pledges)	1 793 000
2003 Estimated Distributions	1 599 000
Carryover stocks and pledges into 2004	194 000

Though there was very impressive donor response for the year as a whole, the initial response was tentative; in the early part of 2003, there was uncertainty about the expected level of resources, especially in light of the record food aid requirements. This led to general rations being distributed at a lower level for the first six months of the year (12.5 kg/person/month instead of the 15 kg/person/month requested in the government-United Nations Appeal). Furthermore, the combination of, in retrospect, overly pessimistic resource expectations⁹ and the time lag to deliver blended food and vegetable oil meant that only half the supplementary food requirements could be met in the early months. An average of 84 percent of monthly requirements were met between January and June. From July, with expectations of full funding, the general ration size was increased to 15 kg/person/month. From August onwards, in view of the severity of food shortages and the improved funding, a “full” ration was introduced, adding pulses and oil to the cereals of the general ration food basket. Despite food needs increasing substantially in the mid-year Appeal Update, an average of 94 percent of monthly requirements were met between July and December. The shortfall was mainly due to the time lag in delivering pulses and oil, which had just been introduced to the general ration.

Reduced rations, underestimated requirements and community level targeting difficulties contributed to an alarming deterioration in nutrition status in some areas in 2003. Therapeutic Feeding Centres (TFCs) were necessary and more than 40 TFCs were opened, of which 26 were located in SNNPR. Approximately 20 000 children were treated at TFCs while a further 60 000 moderately malnourished children, pregnant women and nursing mothers were assisted with either dry or wet targeted feeding through 360 Supplementary Feeding Programmes (SFP).

The delivery of food increased from March 2003 onwards through a combination of in-kind, international, regional and local purchases. Between January and June, 850 000 tonnes of relief food had been delivered; between January and December, 1.8 million tonnes will have been delivered, including repayments to the Emergency Food Security Reserve (EFSR) for 2002 loans. The EFSR was tested severely in 2003. The exceptional donor response was matched by an impressive performance for procurement, shipping and overland transport; this was crucial to repay loans to the EFSR on time and allow further loans to be made. The EFSR stock levels did fall below the normal minimum operational levels during the peak demands for relief distributions in mid-year, but loans were not seriously disrupted and pipeline breaks for cereals were avoided.

5.3.2 Household Food Security Outlook in 2004

There are around five million people in Ethiopia who are chronically food insecure and even in a good year partly rely on food aid to meet their minimum food needs. Their food insecurity has resulted from the process of asset erosion caused by successive shocks, including drought, and is resulting in increasing destitution. It is increasingly difficult for these populations to cope with even slight variations in climate and accessibility to markets, including those for grain, livestock and labour. The Government, in conjunction with the international community, is making progress toward developing a programme for meeting and ultimately alleviating the recurring needs of the food insecure population (see “5.3.9 Implementation”)

A nationwide Multi-Agency Emergency Needs Assessment led by the Government’s Disaster Prevention and Preparedness Commission (DPPC) with the participation of WFP, other United Nations agencies, NGOs and donors was concluded in cropping areas in November. The assessment exercise estimated the population in need of assistance and food aid requirements for 2004. Twenty-one assessment teams were deployed overall, with members drawn from government, donors, NGOs and the United Nations. The assessment was predominantly qualitative and in order to substantiate information from zonal and *woreda* officials, teams used rapid rural assessment techniques (such as interviews with key informant and on the spot inspection of crops, livestock, pests, pasture and market conditions) where situations permitted. Interviews were conducted at *woreda* level with local officials, communities and households. Teams evaluated the main food security indicators: 1) weather conditions; 2) *meher* production and market conditions; 3) other income sources, wage labour opportunities and purchasing power; 4) livestock holding and productivity; 5)

⁹ Between 1995 and 2003, food aid resources available covered an average of 77 percent of requirements.

performance of cash crops such as coffee and chat; 6) movement of people/migration. The observations made in the field by the FAO/WFP CFSAM corroborate the observations done by the Multi-Agency Emergency Needs Assessment. Below are the highlights of the results of these both assessments by region.

Afar: The vast majority of the region's population is dependent on livestock and livestock products for their livelihood. Because of poor performance of livestock, a large part of the population has been reliant on relief food from mid 2002. Markets and access to other income sources in the region are very limited. The food security situation in the region is now relatively stable. Owing to the food aid disbursements on one hand and the receipt of fair precipitation in the *karma* season (main rains, July–September) on the other, the condition of both people and livestock has improved during 2003. The improvements in pasture as well as good harvest prospects in some agro-pastoral *woredas* also indicate a better food security prospect for 2004 than in 2003. Nevertheless, due to the erratic distribution and insufficient amount of rain in some areas, as well as the effects of the severe drought in 2002, full regeneration of pasture and livestock is not yet achieved. The breeding cycle of the livestock has not normalized sufficiently to expect a reliable supply of livestock products for most pastoralists in the region. The production of cow milk, in particular, has not yet begun in many areas. The situation could be serious, especially in some pocket areas where the rainfall was minimal.

Amhara: Overall, favourable rainfall and a good *meher* season have resulted in relatively better crop and livestock production this year with greatly improved food security prospects for 2004. The supply of cereals and livestock to the market is almost normal. However, prices of both cereals and livestock are much higher compared to last year and are slightly higher than the long-term average. Prices are not expected to decline until after the harvest. These higher prices favour producers. The major reason for the rise in livestock prices, particularly for sheep and goats, is increased trade within and outside the region, improved performance of livestock (due to better pasture and water conditions) and increased demand due to restocking by farmers who are replacing stock they lost during the 2002 drought. Thus household income from livestock sales has benefited from the price increases. Income from other sources such as labour has also improved due to increased labour opportunities.

Oromiya: Although the production has improved compared to the previous year, in some zones, mainly lowland areas, crop production is expected to be lower than the long-term average. This is mainly due to late onset of rainy season, insufficient rains, late planting, moisture stress and a shift from long-cycle high yielding crops to less productive short-cycle crops, coupled with the early cessation of rain. Weed infestations were greater as weeding short-cycle crops is more labour intensive. Shortages of inputs and traction power in pocket areas of the lowlands due to trypanosomiasis and lumpy skin disease also had a negative impact on production. These factors are anticipated to lead to food shortages in some *woredas* of the affected zones of East Hararghe, West Hararghe, East Shewa, West Shewa, North Shewa, Bale, Guji, Arsi and East Wellega.

SNNPR: Both cash and food crop prices are reported to be decreasing in many parts of SNNPR. In northern parts (Hadiya, Silte, Gurage and Kambata-Tambaro), the threat of price collapse prevails because farmers are likely sell their grain all at once (in January–February) in order to meet their financial commitments. On the other hand, in southern parts (Gedeo, Konso, Amaro, Burji, Derashe and parts of Gamo Gofa), both food and livestock prices were increasing in the weeks before the harvest. Off-farm income generating and entrepreneurial activity opportunities are constrained alongside declining wage labour. Coffee production and price falls has critically affected the income sources of both the producers and the labourers. Remittances are limited in affected parts of the region, and its importance is declining in areas that partly rely on remittances such as Gurage and Burji. Despite the expected better harvest, food insecurity problems persist in many parts of the region. Chronic food insecurity problems in the region include increasing populations, diminishing landholding size and weakened coping and survival strategies in vulnerable households. Moreover, recovery from the previous year's drought will be difficult for the most affected population.

Tigray: In general, livestock market conditions in the region are normal for the time of year. Prices are either stable or slightly higher than normal whereas supply is normal. The relative improvement in water and pasture conditions, better crop production prospects compared to last year, and the introduction of the household food security package (that provides cash loans to vulnerable households for purchase of animals) have all discouraged distress sales of livestock. For cereals, the situation in many of the *woredas* in the Eastern and Southern Zones is normal (prices in parts of Southern Tigray have recently started to fall due to the impact of fresh harvests). In Central and Western Zones, there are reports of increased prices and declines in supply. These market changes have been attributed to the huge production shortfall last year and delays in harvests from the current production season. Both the demand and supply of wage labour have increased slightly in the Western and Central zones. Good production prospects in the high potential

woredas of Western Zone, including Humera, have encouraged some household members in the two zones to migrate in search of seasonal wage labour. Food security prospects in many areas of the region will continue to be poor in 2004, although considerably better than 2003. The causes of this continuing food insecurity include the impact of the 2002/03 drought on livestock – which have not yet recovered to normal levels – and chronic food insecurity. The latter is due to a complex set of factors, including recurrent droughts, low soil fertility, increasing population pressure, asset depletion etc. The chronically food insecure have food gaps even in good years: when faced with acute shocks they have little or no capacity to cope.

Somali: In this largely pastoral region, one rain failure or a significant delay can easily result in acute food shortages; the population is very dependent on the biannual rainfall cycles. In between these two rains, even in normal circumstances, the populations usually experience stressful water and pasture shortages, which cause livestock migrations and food insecurity. In 2004, food security will depend on the current *deyr* rains and also on the timing and intensity of the *gu* rains in March to May. Ongoing food distributions have contributed to keep food security relatively stable in many parts of the region. In areas badly affected by poor *deyr* rains, there are likely to be greater food aid needs in the coming months. Factors currently affecting food security include the availability of milk, which in some areas is available only where livestock has concentrated for grazing and water; the regularity of food aid distributions; the influx of livestock from other areas; the effects of earlier periods of drought; the *deyr* rains (which were late); the price of grain in neighbouring highland areas; and purchasing power, which depends on the price of livestock sold. The DPPC-led assessment in December will update the numbers of people in need of relief assistance in 2004.

Harari: For the past 2–3 years, the region has faced serious food shortage problems because of repeated droughts, in as neighbouring East and West Hararge zones, and coping capacities have been depleted. In 2003, some 32 percent of the population received food aid. Crop performance particularly in midlands, is much improved, though in the lowlands, rainfall was insufficient and poor crops are expected.

Dire Dawa: Dire Dawa region has also faced serious droughts in the past three years. The situation for 2004 is expected to be better in most parts. The livestock condition and market prices have improved. Most people are expected to cover their needs partially from livestock incomes, harvests and other coping mechanisms. However, people living in the lowlands still face food shortages.

Gambella: Though overall crop production in considered satisfactory, the poorer farmers were unable to reserve seed and had to reduce cultivated areas. Most farmers have no livestock and cannot cope with food shortages by selling their animals. In addition, there are internally displaced persons owing to ethnic tensions in the region.

5.3.3 Nutrition

Inadequate household food security, poor access to health facilities, inadequate water supplies, lack of knowledge of nutrition and health, poor maternal and child care, prevalence of infectious disease, malaria and HIV/AIDs all contribute to relatively high levels of malnutrition and mortality among children in Ethiopia. Under-five mortality is estimated to be 166/1000 live births and recent analysis indicates that 58 percent of all under-five deaths in Ethiopia stem directly from malnutrition.¹⁰ There was a high risk of excessive mortality in 2003 but interventions by the Ethiopian government and international organizations were largely able to avert the worst effects of the crisis.

A national level nutrition survey has not been conducted recently and most surveys have been in the highly food insecure areas.¹¹ The Disaster Prevention and Preparedness Commission's (DPPC) Emergency Nutrition Coordination Unit (ENCU), NGOs and United Nations agencies carried out cluster surveys in the most drought-affected zones, usually where some food interventions were already taking place. Thus the results of the surveys do not represent nutritional status for the entire country. Out of a total of 554 *woredas*, 354 (i.e. 64 percent) received relief food assistance in 2003, of which nutritional surveys were undertaken in 71 *woredas*.

Nutrition survey results indicated a moderate acute malnutrition problem and a serious level of chronic malnutrition. It is estimated that 51 percent of children under five years old in the country show severely chronic malnutrition or stunting (low weight-for-height)¹², while and wasting or acute malnutrition (GAM) ranges from 4–34 percent. These figures exceed the amount expected under “normal” conditions in

¹⁰ Ministry of Health draft National Nutrition Policy Framework (Profiles Analysis 2001).

¹¹ ENCU Summary reports. October 2003.

¹² Ministry of Health Draft National Nutrition Policy Framework, November 2003.

developing countries.¹³ Out of a total of 71 *woredas* with nutrition surveys in 2003, 10 percent show GAM rates of >15 percent, which indicates a “serious” level of malnutrition; 28 percent with GAM rates of 10–14 percent, showing a “alert” situation; and 62 percent with <10 percent to <5 percent of GAM rates, showing an acceptable level, without aggravating factors¹⁴ (see table 12).

Nutrition surveys results show varying rates of GAM within regions. For example: Afar, 10–21 percent; Amhara, 7–16 percent; Oromiya, 5–17 percent; SNNPR, 4–20 percent; Somali, 9–34 percent; and Tigray, 5–14 percent. The most affected zones have been Wolaita in SNNPR (Damot Gale, Offa and Sodo Zuria *woredas*), Fik in Somali (Fik and Hamero *woredas*), Zone 1 in Afar (Aysaita *woreda*) and South Wollo in Amhara (Dessie Zuria *woreda*) which all had a high prevalence of acute malnutrition with rates >15 percent.

On the other hand, results in 2003 in almost all repeated surveys indicate a general trend of improved nutritional status for children under-five compared to the earlier surveys. For example, in Kalu *woreda* (Amhara), the GAM decreased from 16 percent in November 2002 to 8 percent in August 2003. In Sodo Zuria *woreda* (SNNPR), GAM decreased from 20 percent in March to 7 percent in July 2003. Similar significant improvements were observed in other *woredas* of different regions such as in the pastoral and agro-pastoral areas in Shinile zone (Somali): in pastoral areas GAM was 11 percent, significantly lower than the 16 percent reported in December 2002; in the agro-pastoral areas, GAM decreased from 18 percent to 11 percent. Other survey results on Sodo Zuria (Wolaita Zone, SNNPR) indicate a significant improvement: GAM decreased from 20 percent in March to 7 percent in July. The mortality rates also decreased significantly: the crude mortality rate (CMR) fell from 1.09 to 0.24 per 10 000/day in Shinile, and 0.8 to 0.2 per 10 000/day in Wolaita; the under-five mortality rate (U5MR) fell from 3.6 to 0.34 per 10 000/day in Shinile and 1.8 to 0.4 per 10 000/day in Wolaita.

Child mortality rates are significant indicators of the overall health situation. The severely malnourished child has a very high risk of mortality. Surveys show that the crude mortality rate (CMR) and the under-five mortality rate (U5MR) in 2003 in the surveyed areas vary considerably due to rainfall and seasonality. The emergency benchmarks are a CMR > 1 per 10 000 persons/day or an U5MR of > 2 per 10 000 children/day.

Of 71 drought-affected *woredas* surveyed, CMR data were available for 64 *woredas*. The results show that the CMR were between 0.2 to 1.94 deaths per 10 000 persons/day: Some 15 percent (11) were above the threshold corresponding to an alarming situation, and 75 percent were below to the threshold corresponding to a non-alarming situation. For the U5MR, data were available for 62 *woredas*. The U5MR is very varied, with rates from 0.25 to 0.366 deaths per 10 000 per day. Some 17 percent are above the threshold corresponding to an alarming situation, 69 percent are below the threshold corresponding to a non-alarming situation. In Fik zone (Somali) the U5MR was very high at 4.8 per 10 000/day, which is considered an emergency situation “out of control” (April 2003). Some repeated surveys suggest that the mortality levels (CMR and U5MR) have improved in many *woredas* as a result of the 2003 emergency response. However, there are major information gaps in nutrition and mortality data in many zones, particularly in those areas most difficult to access.

¹³ World Health Organization: In developed countries about 2.5 percent of children under-five are expected to be moderately acute malnourished.

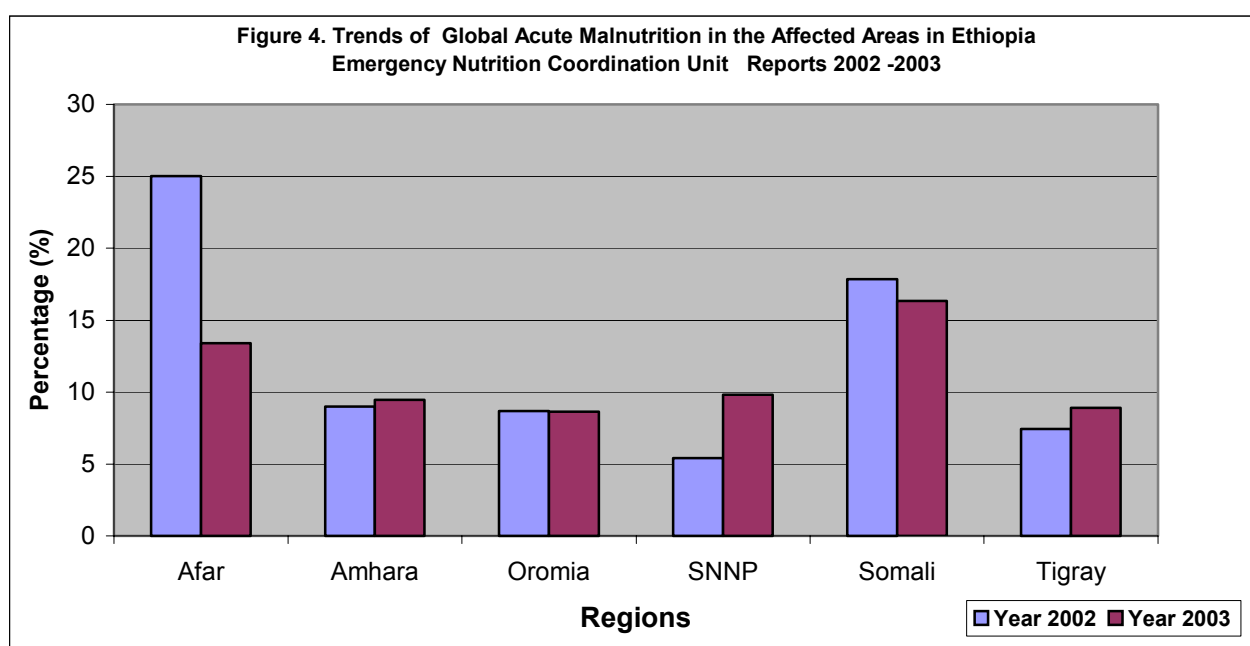
¹⁴ WFP: *Food and Nutrition Handbook*.

Table 12: Summary of prevalence of Global Acute Malnutrition and Mortality Rates from nutrition surveys in 2003 (Source: ENCU)

Global Acute Malnutrition (GAM)	
Malnutrition Rate \geq 15% Serious situation	10%
Malnutrition Rate 10–14% Alert situation	28%
Malnutrition Rate $<$ 10% to $<$ 5% Acceptable situation (without aggravating factors)	62%
Crude Mortality Rate (CMR)	
$>$ 2 per 10,000 per day indicates an “emergency out of control”	0%
1 per 10,000 per day indicates an “alarming situation”	15%
$<$ 1 per 10,000 per day indicates an “non-alarming situation”	75%
Not available	10%
Under Five Mortality Rate (U5MR)	
$>$ 4 per 10,000 per day indicates an emergency out of control	1%
$>$ 2 per 10,000 per day indicates an “alarming situation”	17%
$<$ 2 per 10,000 per day indicates a “non-alarming situation”	69%
Not available	13%

The improvement in the nutrition status and reduction of child mortality rates in the drought affected areas is attributed to the interventions of the Ethiopian government and international organizations, such as the general ration food distributions, supplementary rations, therapeutic feeding, water projects and health activities that have been ongoing in most of the survey areas (2003 ENCU report). However, in the pastoral areas of the Somali region, improved pasture conditions following the *karan* rains increased the availability of milk and the nutrition of families improved with the access to dairy produce. Seasonal variations heavily influence health and nutrition status, with malaria a serious problem in 2003. During the main harvest period at the end of 2003, many therapeutic centres have been closed as the availability of food increased and nutritional status improved.

In terms of differences between 2002 and 2003, while Afar and Somali showed improvement, GAM remained at alert or serious levels in these regions. While Amhara, Oromiya and Tigray were similar, SNNPR showed a marked deterioration in 2003.



With improved availability and access to food due to the good 2003 main harvest, acute malnutrition rates are expected to improve in early 2004. However, longer-term improvement will depend on the 2004 *Belg* harvest in many areas. Continued close monitoring will provide warning of potential or developing problems.

5.3.4 Relief Food Aid Requirements in 2004

In 2004, 7.2 million people are estimated require assistance to meet their minimum food requirements while 2.2 million will require "close monitoring" (i.e. people not considered to need food assistance immediately but are identified during the assessments as under stress and warranting close monitoring). The population in need of assistance varies month by month and peaks in mid-year.

The underlying causes for food shortages are structural factors that have resulted in millions of people needing external assistance over many years. Out of the total 300 *woredas* needing food assistance this year, 135 *woredas* (45 percent) have been under emergency food assistance consecutively for the past 7–10 years and therefore can be considered as chronically food insecure. The situation in pastoral areas of Somali, lowland Bale in Oromiya and South Omo is currently alarming and considered an emerging acute crisis. Although the underlining causes of the food shortage in many areas of the country are structural, in some areas, erratic rainfall has adversely affected long-cycle crops of maize and sorghum, particularly in many lowland areas. Unless emergency assistance is provided to the affected groups, a major humanitarian crisis can be anticipated.

Relief food requirements for 2004 are estimated to be the equivalent of about 980 000 tonnes. The food comprises 761 000 tonnes of cereals, 116 500 tonnes of micronutrient fortified blended food, 76 000 tonnes of pulses, 25 000 tonnes of vegetable oil and 1 500 tonnes of iodized salt. This is mainly for general ration distribution but also includes food for supplementary rations and food for emergency school feeding. Part of the requirements could be met with cash provided directly to beneficiaries as "cash-for-relief" or "cash-for-work".

The estimates are based on the assumption that the 2004 *belg* season and the main rainy season in the pastoral areas will be normal. As such, needs for the second half of the year may be revised, following the June 2004 "Belg and Pastoral Area Assessment".

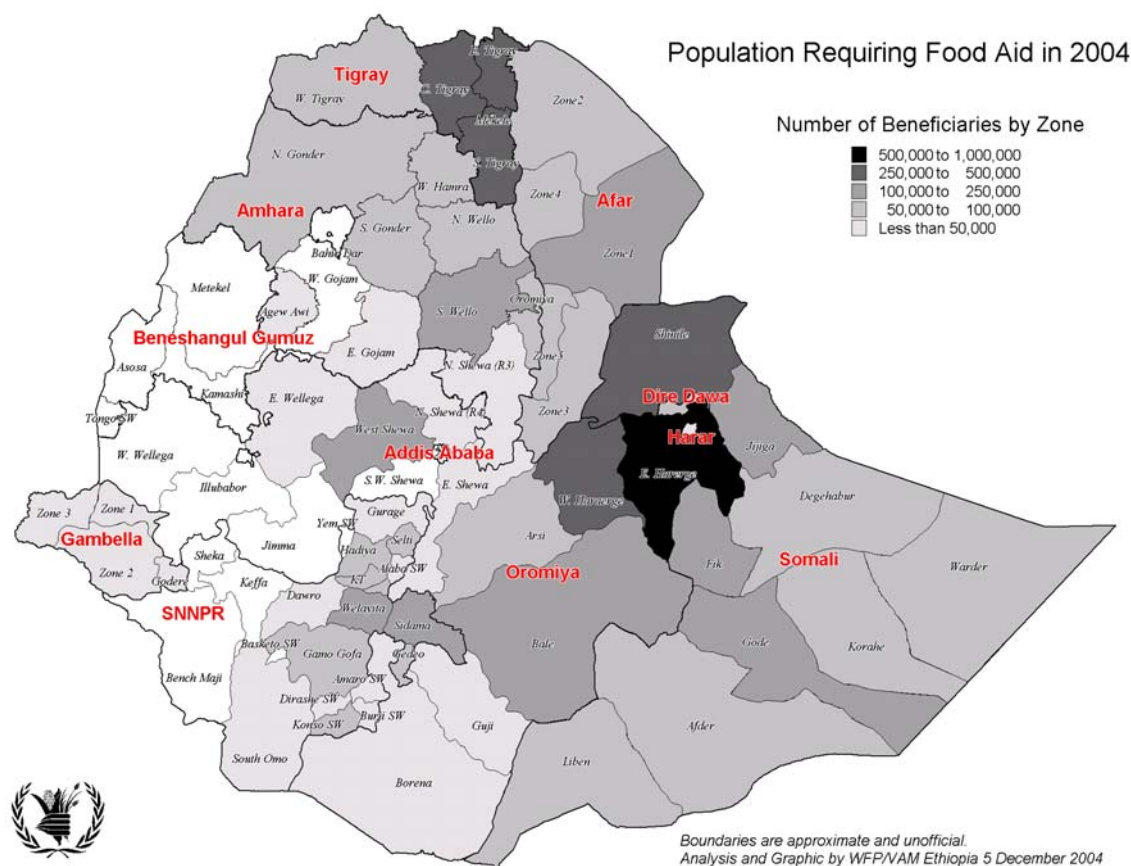
Table 13 below summarizes the number of people expected to require food assistance and close monitoring in each region and the food needs by commodity type.

Table 13: Population needing humanitarian food assistance & food requirements in 2004

Region	Population in need of relief food assistance	Population to be closely monitored	Cereal (tonnes)	Pulses (tonnes)	Oil (tonnes)	Salt (tonnes)	Blended Food (tonnes)	Total (tonnes)
Afar	402 400	72 100	33 560	3 356	1 007		4 658	42 581
Amhara	2 000 000	308 300	177 405	17 741	5 322		8 460	208 927
B-Gumuz	0	0	0	0	0		0	0
Dire Dawa	73 200	0	6 588	659	198		1 976	9 421
Gambella	34 800	9 900	2 354	235	71		0	2 659
Harari	13 500	3 000	1 184	118	36		355	1 692
Oromiya	1 556 700	1 061 000	166 359	16 636	4 991		29 859	217 844
SNNP	873 700	370 800	80 694	8 069	2 421		2 484	93 669
Somali	1 120 100	47 000	144 333	14 433	4 330		43 300	206 396
Tigray	1 107 000	315 502	148 698	14 870	4 461		13 469	181 499
Sub Total	7 181 400	2 187 602	761 173	76 117	22 835	1 300	104 562	965 987
Emergency School Feeding					2 080	240	12 000	14 320
Total			761 173	76 117	24 915	1 540	116 562	980 307

Geographical targeting is based on the multi-agency assessment, which identifies (approximately) the number of people and duration of assistance by *woreda*. Triangulating data on crops, income and nutrition (where available), allows *woredas* to be ranked as "moderately", "severely" or "very severely" food insecure. A *woreda's* food allocation is targeted at community level to the most vulnerable households, which is determined by household assets. Nutritional surveys inform the targeting of supplementary food.

Figure 5. Ethiopia: Rural Populations in Need of Emergency Food Assistance in 2004



5.3.5 Food Basket Considerations

General rations (in kg/person/month) comprise 15 kg cereals, 1.5 kg pulses and 0.45 kg vegetable oil, equivalent to around 2000 kcal/person/day. Iodized salt is to be targeted to beneficiary populations with a high risk of goitre.

Supplementary rations will continue to be targeted to particularly vulnerable groups in severely affected *woredas* (children under-five, pregnant women and nursing mothers, the sick and elderly, who constitute around 35 percent of the affected population). Supplementary rations are provided as micronutrient-fortified blended food of 4.5 kg/person/month (50 g/person/day), providing an additional 570 kcal/person/day.

Recommendations of the DPPC-led multi-agency assessment mission at the end of 2003 indicate an average duration of food assistance of around seven months per beneficiary, though the duration varies between *woredas*.

Micronutrient deficiencies are a significant public health problem in Ethiopia. The major micronutrient deficiencies are iodine, iron and vitamin A deficiencies. The main causes are an inadequate intake of foodstuffs rich in these micronutrients but also impaired absorption or utilization of the micronutrients. A national survey of micronutrient deficiencies is planned by the Ministry of Health for 2004. Humanitarian agencies will continue to distribute micronutrient fortified blended food (with a pre-mix of vitamins and minerals) and vegetable oil fortified with Vitamin A. In addition, iodized salt will be distributed in some areas as part of general rations and MOH and UNICEF have started support to salt producers in the iodization of salt.

5.3.6 Local Purchases

Local purchase of food commodities (mainly cereals and pulses) can enhance the purchasing power of farmers and reinstate the flow of food from surplus to deficit areas, as well as supplying people in need of

food aid. Between 1996 and 2003, an over 1 million tonnes of cereals (wheat, sorghum, maize) were purchased locally for humanitarian operations with an annual average of 128 400 tonnes and peaking at almost 200 000 tonnes in 2000 (Table 14).

Table 14. Local purchases of cereals* in Ethiopia: 1996–2003 (tonnes)

Agency	1996	1997	1998	1999	2000	2001	2002	2003	1996–2003	Average
European Commission	64 282	2 499	-	48 308	15 286	-	58 827	59 487	248 689	31 086
World Food Programme	-	82 880	-	564	22 862	56 164	71 000	45 631	279 101	34 888
Government of Ethiopia	-	-	31 000	-	112 829	40 002	-	37 500	221 331	27 666
EuronAid	36 458	22 628	7 957	24 500	16 879	65 003	21 249	-	194 674	24 334
SCF/UK	-	-	-	11 800	-	-	16 400	2 625	30 825	3 853
GTZ	-	-	12 610	9 700	6 400	-	-	-	28 710	3 589
Farm Africa	-	-	-	-	17 000	-	-	-	17 000	2 125
SOS-Sahel	-	-	-	-	6 700	-	-	-	6 700	838
Total	100 740	108 007	51 567	94 872	197 956	161 169	167 476	145 243	1 027 030	128 379

*In addition to cereals, relief agencies locally purchased around 20 000 tonnes of blended food, 7 000 tonnes of pulses and 400 tonnes of iodized salt (delivered in 2003).

With a good overall harvest in prospect and local surpluses in many areas of the country, there will be significant opportunities for local purchases during 2004. As such, the mission strongly recommends that donors and other organizations do their utmost to meet food aid needs, to the extent possible, through local purchases. If procurement is effected (or announced) in the early months of 2004, this will help to stabilize prices and benefit farmers. WFP and European Commission will undertake the annual Cereal Availability Survey in late 2003–early 2004 to comprehensively estimate the potential to purchase food aid requirements locally. Using this as guidance, relief agencies will aim at optimizing local purchases during 2004. The government has also indicated that it plans to purchase a considerable amount of grain locally. However, the extent to which local purchases are possible will depend a great deal on the donors' willingness to contribute in cash for relief food needs. Blended foods ("famix" or "faffa"-corn soya blends) may be purchased locally and capacity has increased to over 200 tonnes/day. Local purchases are normally subject to local prices being equivalent or less than import parity price. Local purchases must also meet delivery schedules for timely distributions to beneficiaries or to meet repayment obligations to the Emergency Food Security Reserve (EFSR).

5.3.7 Emergency Food Security Reserve (EFSR)

Ethiopia's Emergency Food Security Reserve holds stocks of cereals that can be made available as a loan against a written guarantee from concerned donors for repayment. This expedites distributions for in-kind contributions, international purchases and local purchases. This will remain a key facility to overcome the time lag for delivery of food assistance, for in-kind contributions, international purchases and local purchases alike. The EFSR will undergo a review in 2004, which will include consideration of the inclusion of other commodity types, such as pulses and vegetable oil. Repayments to the Reserve should keep to agreed schedules in order to allow for further loans and keep the Reserve above its minimum operational level of 100 000 tonnes.

5.3.8 Logistics

Port Operations: Djibouti will remain the major port for delivery of relief food into Ethiopia. Djibouti Port has a capacity of 6–8 million tonnes per year. The port also has capacity to handle 3 million tonnes of container traffic. In 2003, Djibouti handled 1.6 million tonnes of food aid, with average relief cargo average discharge rates over 130 000 tonnes per month, peaking in July at over 200 000 tonnes. For bulk vessel operations, the port can readily handle 3 000 tonnes of bulk cargo per day per vessel. With several vessels worked, discharge rates in excess of 6 000 tonnes per day are possible. Construction of a bulk-handling silo is expected to start in 2004. Vessel arrivals will be scheduled in accordance with the port capacity and the existing good coordination between relief agencies, major importers of bulk cargo and the port authorities. Relief vessels are expected to be promptly berthed on arrival, given that Djibouti and Ethiopia both have well-established procedures for shipment processing and customs. Adequate quayside space at the bulk terminal allows for marshalling of a large number of trucks, placement and operation of bagging machines and for shunting of cargo for loading into railway wagons.

Port Warehousing: Whereas it is always the intention to discharge directly from vessels onto trucks, some agencies maintain storage capacity inside the port (for example, WFP has 11 000 tonnes of storage at the port bulk terminal). Additional warehousing can readily be commercially leased outside the port area. This warehouse capacity ensures that vessels can continue to be discharged and released even if there are occasional problems with documentation, temporary shortages of trucks and/or blockages on the Djibouti to Ethiopia road.

Overland Transport: Available transporters have a combined uplift capacity of over 60 000 tonnes. The available truck fleet transferring inland from Djibouti is over 3 000 trucks, which would be able to cope with the potential off-take. (WFP's contracted transporters have a total of 1 787 trucks and are able to transport an average of over 5 000 tonnes per day from the port). Depending on destination, the railway offers between 4 000–7 000 tonnes of capacity per month for delivery into Ethiopia.

Inland Warehousing, Transport and Distribution: Emergency relief food is received directly by DPPC, WFP and NGOs or by the EFSR as repayments for loans. With over 400 000 tonnes of storage capacity available at strategic locations in the country, the DPPC and the EFSRA have adequate warehouse space to receive and promptly offload relief cargo. Where required, DPPC can lease additional commercial storage.

Alternate Routes into Ethiopia: In the unlikely event that vessel arrivals coincided to the point that they exceed Djibouti's port capacity, consideration will be given to alternate import corridors: For 2003, Berbera port in Somalia was effectively used to import 50 000 tonnes of wheat. Although the not all of the Port Sudan Corridor was used for food aid deliveries to Ethiopia in 2003, the section from Gedaref in Sudan through Gallabat/Metema to Woreta in Ethiopia was effectively used to import 24 000 tonnes of sorghum.

5.3.9 Implementation

New Coalition for Food Security in Ethiopia: This government-led Coalition of national and international agencies has identified the major causes of transitory and chronic food insecurity in Ethiopia. The objective of the Coalition Food Security Programme is to attain food security of the chronically food insecure population of five million and significantly improve and sustain overall food security of ten million additional food insecure people within five years. The underlying principles of intervention include: upscaling of activities that have proven to work, safety net programmes, participatory development and social mobilization, technology devices suitable for the labour, capacity at grass roots level, gender focus, environmental protection management and rehabilitation. The Coalition Programme presents great challenges and opportunities to future food aid activities in Ethiopia, in particularly the recognition of the need to upscale food-for-assets activities such as soil and water conservation and the potential of mother and child health activities and school feeding to serve as food-supported safety nets. Coalition activities will be crucial to reducing the scale of future emergency activities, but the transition between emergency activities and coalition activities such as safety nets will have to be carefully managed, especially during the next two years.

Transition: The year 2004 will be a transitional period in which DPPC, together with WFP and NGOs will the initially continue to manage the food component for both predictably and unpredictably food-insecure populations. Safety-net mechanisms are anticipated to be developed to assist the predictably food insecure population and the responsibility of addressing the predictably food insecure population will shift to the Food Security Unit under the Ministry of Rural Development.

Employment Generation Schemes (EGS): These are types of "food-for-work" or "food-for-assets" activities that are intended to maximize the benefit of relief resources by linking them to the creation of sustainable developmental assets. EGS activities have been implemented with varying levels of success for the past decade. In many areas, a successful contribution has been made to soil and water conservation, rural road rehabilitation and other efforts that build community assets, while providing employment for disaster-affected people who receive their relief needs as food and/or cash. EGS must have modest objectives, flexible implementation modalities, implementation capacity at district level and more predictable resource flows. Further support is needed to enable districts to adopt flexible and diverse planning and implementation modalities, based on realistic assumptions on timing of arrival of resources, levels of capacity, availability of complementary inputs and other factors such as local priorities and agro-climatic conditions.

Direct Cash Contributions: Some of the relief food requirements could be met through direct cash contributions to beneficiaries. When considering substituting food with cash, the capacity for implementation should be carefully considered. Based on experience to date, relief cash resources are recommended to be

used only where the area and institution already have experience. Moreover, cash approaches to relief should be flexible to reflect market conditions and maximize benefits to beneficiaries. For example, in remote areas where cereal prices tend to be high, food assistance may be the preferable relief resource.

Gratuitous (“free”) Relief Distributions: While other modalities, such as employment generation schemes and direct cash contributions will be used to the extent possible, many people identified for food assistance will be continue to be reached through gratuitous relief food distributions. Ethiopia has well-established mechanisms for gratuitous relief distributions and efforts continue to improve targeting at the field level.

Targeting: National Food Aid Targeting Guidelines were developed by the DPPC and international partners and first issued in 2000. DPPC and partners continue training efforts in the application of the guidelines. Of the 156 drought-prone (most vulnerable) *woredas* identified, 117 *woredas* remain to be trained. Subject to funding, training will involve almost 6 500 Development Agents, peasant association leaders and *woreda* officials for around 3 000 peasants associations (over 2 million households).

Coordination: Relief food agencies will coordinate food distribution activities based on the national requirements disaggregated to *woreda*-level. The coordination body is in the government’s DPPC. The Food Aid Task Force (DPPC, WFP, NGOs and donors) reviews the relief food situation on a regular basis. Moreover, in 2004, close coordination will be necessary with the New Coalition for Food Security to facilitate transition activities as initiatives of the Coalition begin to address the needs of certain food insecure population groups.

This report has been prepared under the responsibility of the FAO and WFP Secretariats with information from official and unofficial sources. Since conditions may change rapidly, please contact the undersigned for further information if required.

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