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**FAO GLOBAL INFORMATION AND EARLY
WARNING SYSTEM ON FOOD AND
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WORLD FOOD PROGRAMME

**FAO/WFP CROP AND FOOD SUPPLY ASSESSMENT
MISSION TO ETHIOPIA**

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26 January 2000

**FAO GLOBAL INFORMATION AND EARLY WARNING SYSTEM
ON FOOD AND AGRICULTURE
WORLD FOOD PROGRAMME**

SPECIAL REPORT

**FAO/WFP CROP AND FOOD SUPPLY
ASSESSMENT MISSION TO ETHIOPIA**

26 January 2000

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Mission Highlights

- Poor belg rains and a late start to the main rains have resulted in poor land preparation, late planting, a reduction in planted area and heavy weed infestations. But the main rains were mostly heavy, well-distributed and continued into October, benefiting late sown crops.
- Some recovery of the main (meher) crop from earlier expectations occurred but not in the north nor in parts of the south and east.
- National cereal and pulse production is forecast at 10.72 million tonnes, 6 percent down from last year.
- Food security will be very polarised in 2000. Most surplus-producing areas have had a productive year, whilst production in the deficit areas will be significantly down on last year. Marketing and transport will be critical issues in 2000.
- Cereal import requirement for 2000 is estimated at 764 000 tonnes, which is expected to be mostly covered by food aid.
- Locally purchased grain should be feasible for around 200 000 tonnes of food aid.
- A follow-up mission is recommended for April 2000 to assess the belg crop and to finalize the meher estimates for 1999.

1. OVERVIEW

The FAO/WFP Crop and Food Supply Assessment Mission for 1999 was conducted in two parts, with two different time frames and two counterpart agencies. The findings of both assessments are combined into this one Special Report. The first and larger exercise was that carried out by WFP/Disaster Prevention and Preparedness Commission (DPPC) between 6 November and 31 December. This involved 20 teams (comprising staff of DPPC, WFP and other donors) visiting all the zones in the country and a high proportion of the food deficit woredas. The aim was to assess both the chronic and current vulnerability of local populations to food insecurity, and to quantify the amounts of food aid required during the year 2000. The analysis of the results of this survey was completed by early January 2000. The second part of the Mission was a crop survey conducted by FAO with assistance from MoA during the period of 18 to 30 November 1999. Its remit was to finalize the main season cereal and pulse production estimates for 1998 and to prepare

production forecasts for 1999. The forecasts were developed at zonal level and aggregated to give a national picture of cereal and pulse availability for 2000, together with an estimate of national import requirements. The FAO/MoA team reported its preliminary findings to Government and donors on 6-7 December 1999.

The crop assessment team, comprising international and local consultants, assisted by MoA agronomists, visited all the zones except Gambella and Benshangul and most of the special woredas during a 12-day period, using six separate teams. They consulted with regional bureaux and all the MoA zonal offices to obtain post-harvest estimates of 1998 meher production and MoA's pre-harvest forecasts for 1999. In addition to the crop statistics, information was obtained from the zonal MoA offices on the 1999 growing conditions, input supplies, the stage of harvesting, cereal stocks and recent movements in grain prices. The teams then inspected crops in different parts of each zone and engaged in discussions with farmers and traders. Vegetation and rainfall satellite images (NDVI and CCD) were also used in the field to indicate rainfall and growth patterns in 1999 compared with previous years. Using all this information, the teams amended the MoA pre-harvest forecasts at zonal level and developed their own independent yield forecasts and applied them to the planted area data recorded by MoA. The preliminary forecasts of each individual team were then analysed by the whole mission and final adjustments made. Thus, the Mission has produced a dataset which contains, for each zone and special woreda, the forecast area and production for each cereal, and pulses, for the 1999 meher crop, plus a 3-year time series of actuals: from 1996 to 1998. All these data are based on MoA statistics.

Comparing the aggregated post-harvest production data for 1998 with last year's mission report indicates that the Mission's forecasts were 2.6 percent higher, in terms of total cereal and pulse production in the meher season. Actual production (on the MoA-based time series) was 11.39 million tonnes for last year's meher. For the 1999 meher season, the Mission forecasts a harvest of 10.72 million tonnes of cereals and pulses, some 6 percent below last year's outturn but 22 percent higher than the poor year of 1997. 1999 is still 9 percent short of the record 1996 year. Compared with last year, most of the reduction in production has come from a lower planted area (down by 4 percent), although the mean yield of all cereals and pulses has also fallen, by 2 percent. The most important factors affecting areas planted and yields this year were the poor belg rains, the late start of the meher rains and, in the unimodal areas of the west, the late start to the rains for long-season crops.

The dry belg season in much of the country (but specially in the north) left livestock in poor condition and in reduced numbers. The availability and performance of plough oxen were significantly reduced and land preparation suffered. The delayed main rains led to late cultivation and planting and, in some areas, long-cycle stalk crops (especially sorghum) could not be planted. In most areas there was a switch from long to short cycle crops (both to short season stalk crops and to small grains). Total areas of sorghum and maize are down on last year by 15 and 8 percent respectively, but wheat, pulses and teff areas are higher by 4.2 and 1 percent. Cultivation, planting and weeding of different crops were concentrated into a short time period and the effectiveness of these operations was poorer than usual.

The late start to the season, coupled with poorer land preparation, resulted in exceptionally high weed infestations with consequent losses of yield. However, once the main rains came and the crops were planted, the season was relatively favourable in most areas, except the north (Tigray, Wag Hamra and Wollo) and the south (North and South Omo, Konso, Burgi and Borena). The rains were mostly heavy and well-distributed and frequently extended into mid-late October, so benefiting late-sown crops. Although there were reports of waterlogging, floods and hail damage, and critical dry spells in some areas, the meher season was mostly good, and crops recovered, to some extent, from a poor start. The surplus-producing areas, in particular, seem to have done well, whilst the deficit areas in the north, east and south are well below average. Pests and diseases have not been a major factor overall, but weed populations have doubtless taken their toll. More farmers than ever joined MoA's 5-year old extension package scheme, and consumption of fertilizers, improved seed and even herbicides has increased. The harvest is significantly late (by about one month in many areas) but maize harvest is almost complete, sorghum hardly started and teff and wheat harvesting is now underway.

The reduction in production from last year is most severe in Tigray (35 percent decline) but the southern region (SNNPR) is also forecast to be down, by 12 percent. Amhara region is 5 percent lower and Oromia is forecast at 1 percent lower than 1998. In terms of individual cereals, the greatest reduction is the 26 percent fall in sorghum production, with maize down 13 percent and barley slightly down on last year. Production of wheat, teff and pulses are all expected to be higher than last year.

The prices of most cereals are now falling, particularly for maize, which has reached US\$75 per tonne in some of the surplus areas of the west. Sorghum is still expensive (US\$150 per tonne) as its harvest has hardly started, and wheat prices are coming down in anticipation of good production. Teff is maintaining its premium but prices are generally easing down. In the north and other deficit areas, prices are higher due to transport costs from surplus areas and local shortages. By early December 1999, stocks of cereals were running low, exacerbated by the late harvest. This partly explains the relatively strong prices at this time of the year.

With national production expected to be significantly down on last year, supplies will be inadequate for normal levels of consumption, but there are striking differences between the normal deficit areas which have done badly in 1999 and the surplus areas where crops are good (i.e. Gojam, Arsi, Wollega). The polarization of these two broad areas of Ethiopia, at least in terms of food security, will be more marked in 2000.

With a below-average belg crop anticipated for 2000 (due to continued shortages of oxen and possibly of seed), the Mission estimates the national import requirement to be 764 000 tonnes - significantly above last year's level. This assumes similar per caput consumption levels to last year, similar exports (mainly pulses) and no drawdown of stocks. This increased import requirement is expected to be almost entirely supplied as food aid to support 7.8 million people affected by severe food shortages resulting from droughts, waterlogging and other weather related hazards. This high level of anticipated food aid had been exacerbated by the significant depletion of assets over recent years. Beneficiaries' coping mechanisms are no longer available,

including decreases in traditional income-earning opportunities and reduced agricultural output. In addition to the relief needs caused by natural disasters, food aid will also be needed for IDPs coming from the border areas with Eritrea, who have been unable to plant their land and who have lost cross border trade and labour opportunities due to the conflict.

The Mission suggests that around 200 000 tonnes of food aid could be procured locally, from the surplus-producing areas.

2. SOCIO-ECONOMIC CONTEXT

2.1 Macroeconomic situation^{1/}

Ethiopia is classified as one of the poorest economies in the world with a GDP per caput of US\$102 in 1998, compared with US\$339 for Uganda and US\$342 for Kenya. Incomes are highly skewed, with a very small proportion of the population being extremely rich, but with 60 percent of the population below the absolute poverty line. Between one and five million people receive assistance each year from government, international donors and NGOs, mainly to alleviate drought-affected or man-made famines. Current economic policies are aimed at reducing poverty (particularly in the rural sector) and improving access to adequate food.

The economy is highly dependent on agriculture, which, with forestry, accounted for 50 percent of GDP in 1996/97. The industrial sector is small (11 percent of GDP) of which only 4 percent is classified as manufacturing. Services comprised 39 percent of GDP in 1996/97, which includes the growing sectors of transport, building and tourism - all encouraged by recent liberalization measures.

During the period 1981-91, the economy grew at only 1.6 percent annually (the population growth rate was 3 percent), mainly as a result of the poor performance of agriculture resulting from policies which failed to provide adequate incentives to the country's 7 million farmers. However, since 1991, economic growth has improved, partly as a result of higher agricultural output (through more liberalized policies) and partly due to better capacity utilization in industry and improvements in the service sector. From 1994 to 1998 real GDP growth averaged 5 percent per annum.

Inflation has been held in check for the last 5 years and is currently running at 3 percent per annum for consumer prices. The exchange rate has declined from 5.09 birr/US\$ in 1994 to 8.20 birr/US\$ in late 1999.

There have been major changes in economic policy since 1992 which have aimed at reducing the government's role, encouraging privatization and liberalising markets and exchange rate policies. Despite the undoubted success of the new policies, the economy still faces severe structural and policy-related problems, including chronic food insecurity and persistent poverty for much of the population.

An enhanced structural adjustment facility (ESAF) has been in place until its expiry in October 1999, to facilitate the movement to a market-based

economy with liberal private participation. Most donors and domestic investors, however, consider that the pace of reform has been slow and that several policy measures have yet to be fully implemented (e.g. land ownership reform). The conflict with Eritrea is becoming a major factor in the economy as government spending shifts from domestic capital investment to defence spending. The donor community is now phasing down its development assistance and the IMF is unlikely to renew the ESAF until the war appears to be over. Debt relief proposals for Ethiopia are also on hold until the conflict with Eritrea is resolved.

The forecast growth in GDP for 1998/99 of 6.7 percent is therefore unlikely to be achieved due to the distraction of the war effort, reduced donor support, and low international coffee prices (coffee accounts for 65 percent of Ethiopia's exports). The economic performance this year is also strongly influenced by agricultural output. Earlier this year, the belg crop failed in many areas and, although an average meher crop is possible in 1999, the coffee price situation will reduce foreign earnings and increase the trade deficit.

2.2 Population

The Office of the Population and Housing Census Commission of the Central Statistical Authority released the results of the 1994 census in June 1998. According to the report, the population was 53.48 million, comprising 86 percent rural and 14 percent urban, with a mean annual growth rate of 3.09 percent per annum. Extrapolating from this census, the population at July 2000 is projected to be 63.49 million - used by the Mission to estimate food consumption needs in 2000. The geographical breakdown of the country's population is indicated in Table 4.

2.3 Recent performance of the agricultural sector

Crop production has increased considerably, broadly keeping in line with population growth since the early 1990s. This is due to increased fertilizer usage and a slight increase in cultivated area. However, environmental degradation is widespread, caused by cultivation on steep slopes without effective terracing and continuing deforestation of hills for firewood and charcoal for sale. Although progress has been made in protecting some eroded hillsides through closure, much more needs to be done if crop production is to increase to provide sufficient food for the increasing population in the long term.

Whilst crop losses by poorly distributed rainfall, pests and diseases and other causes were still important during 1999, the main cause of poor agricultural performance lies in agricultural policies regarding land tenure, supplies of fertilizers, modern herbicides and other agricultural chemicals, and the low supply of improved seeds.

Under the present system, security of land tenure is far from absolute and redistributions of land are relatively common, with the result that necessary investments of labour and money in land improvements are often not made for fear of reallocation of such improved land holdings to others. Farmers are not allowed to own land and so have little or no personal wealth to use as

collateral for loans and have weak incentives for investing in improvements. Soil conservation improvements are rarely carried out on the large areas of communal land due to a lack of personal incentives. Regional governments and some NGOs have persuaded farmers of the benefits of closing of mountain slopes with encouraging results in parts of Oromiya and Tigray. An attempt to provide farmers with improved, though not private, title to highly eroded, formerly common land in North Wollo has been encouraging. Within three years, degraded and bare hillsides and gullied land are now covered with grass and shrub vegetation, which can be selectively and sustainably harvested to provide livestock forage, firewood and in the longer term, building poles. The provincial administration is now extending the idea throughout the zone.

The very small area of many holdings is also a major problem, with families of five people having as little as 0.25 hectare in Delanta woreda in North Wollo. Even given perfect growing conditions, such small farms cannot produce sufficient food for a year and many have to make up the difference by exploiting local forests for firewood and charcoal and cutting grass cover for sale as thatch and fodder. With population growth continuing at about three percent, overcrowding on these very small land areas is bound to increase. Many areas in Tigray and North Wollo are never able to provide sufficient food for a year, forcing heads of households to move to other areas to work as labourers or to cut trees for firewood and charcoal, with serious environmental effects.

The recommended fertilizer package is the same throughout the country at 100 kg of DAP and 50 kg of urea per hectare. Fertilizer usage has increased by 64 percent since 1994 and this has contributed to higher yields in the more favoured areas of the country such as Arsi, parts of Bale, Gojam and Gondar. In Amhara Region, which uses 26 percent of the national supply, fertilizer use increased from 45 000 tonnes in 1994 to 74 000 tonnes in 1999. In the better land areas of Amhara, such as Gojam, fertilizer responses are good and the investment easily pays for itself. Very high crop yields can and are being achieved in Arsi, Gojam, parts of Shoa and Gondar, Wollega, Illubabor where improved farming packages have been implemented.

In areas such as Tigray, Wag Hamra and North Wollo, where water stress is a chronic problem, fertilizer usage has not, and often cannot, produce the desired effect of increasing yields, with the result that farmers accumulate debts which in many cases they cannot repay. The national recommended rate for fertilizer should be reconsidered in such marginal areas. There is also a need for greater flexibility with regard to repayments so that oxen and other vital possessions should not have to be sold to defray credit obligations.

In 1999, the failure of the belg rains in Tigray and North Wollo meant that high yielding, long term crops of maize and sorghum could not be planted. Land cultivation was hampered by the dry conditions and by a shortage of oxen. When the meher rains finally arrived in late June they were extremely heavy and caused considerable waterlogging on shallow soils and on vertisols. It is thought that the applied fertilizer was rapidly leached away during this period, leaving little or no response in the final crop yield.

2.4 Food security and nutrition

The Mission has forecast the overall harvest at 6 percent below that of 1998. Although this is a better result than might have been expected in August-September 1999, it masks very serious food shortages in specific areas including much of Tigray, northern parts of Amhara, east and south Oromiya, Somali, and south east SNNP and in Afar. This will mean that food security and nutrition standards, already precarious, will decline sharply, especially in South and North Omo, the special woreda of Konso, the woredas of Abergele, Atsbi and Hawzien in Tigray and many woredas in Wag Hamra, North and South Wollo, and South Gondar where many thousands of families will be forced to migrate to more favoured areas in search of survival and employment.

3. FOOD PRODUCTION IN 1999

3.1 Area planted

Overall, the cropped area was reduced by 3.6 per cent due to the failure of meher rains in lowland areas of Tigray and Wollo, displacement from farms along the war front with Eritrea, and to various other causes such as flooding in Gambella, drought in Somali, South Omo, Eastern and Southern Oromiya and other causes. The failure of the belg rains meant that long season sorghum and maize crops normally planted at the end of the belg rains, were not planted this year in some areas of Tigray, Amhara, Oromiya and elsewhere. As a result, overall areas planted to maize and sorghum were reduced by 8 percent and 15 percent, respectively. Long term stalk crops were replaced by short season sorghum, by teff, wheat and barley.

Lack of oxen is now a serious problem in North Wollo and Wag Hamra, with only 19 percent of farmers in North Wollo having the required pair of oxen. Shortages of oxen were also reported from Gurage and East and West Hararghe zones. This was compounded by lack of planting rains, which concentrated cultivation into a short period.

The total planted area for cereals and pulses is estimated at 10 885 400 hectares - the lowest of the last four years. The area planted to pulses increased by 2.1 percent to 1 519 200 hectares, and the wheat area increased by 3.6 percent to 1 658 000 hectares. Teff area is 3 percent above last year and all other cereal areas are lower.

3.2 Rainfall and crop conditions

The absence of belg rains was almost total in Wollo and Tigray and was considerably reduced in East and West Hararghe in Oromiya Region and in North Omo. In Arsi and Bale the 1999 belg production was considerably reduced. Belg crops normally account for around 5-10 percent of overall production, but up to 17 per cent of the annual crop in areas such as North Wollo. The failure of belg rains resulted not only in the loss of potential belg crops, but also prevented the sowing of long season, high yielding crops of maize and sorghum. These high yielding crops were replaced by teff, wheat,

barley and lower yielding short term sorghum varieties. Land preparation was also much disrupted by the dry conditions and this led to poor seed beds leading to poor crop establishment and heavy weed growth, with wild oats, various perennial grass weeds and Striga being most important.

In some areas such as North Wollo, forage is so scarce that farmers leave weeds to grow almost to maturity in order to feed livestock, but with disastrous effects on crop yields.

The main meher rains were delayed by one week to six weeks depending on location, but when they began they were of high intensity and caused water-logging of some crops in July and August. The meher rains came to an end earlier than usual in parts of Tigray, North Wollo and Wag Hamra and this prevented crops from reaching their full potential. However, the rains persisted into October over most of the country and good yields of wheat and teff, in particular, were obtained. Late rains which fell in the last week of October, caused losses to teff crops in North Wollo and farmers in Tigray, fearing such rains, harvested teff earlier than at the optimum time, reducing yield potential.

Severe frosts in the highlands of Wollo prevented normal grain fill of barley and wheat crops and hail damage was severe in parts of Tigray and Wag Hamra, where nine hail storms in July, August and October severely damaged crops of peas, beans, teff, wheat and barley.

3.3 Inputs

Supplies of improved seed continue to improve, but much remains to be done. Total national supplies of hybrid maize amounted to 1 450 tonnes, while 4 676 tonnes of open-pollinated maize seed, sufficient to plant 187 000 hectares (11 percent of the total area planted) were sold. Supplies of improved wheat seed amounted to 12 364 tonnes, sufficient only for about five percent of the planted area. The vast majority of farmers still rely on home-saved seed which does not receive a seed dressing, leaving the emerging crop vulnerable to many soil pests and seed-borne diseases, such as Smut, which reduce yield potential considerably, both in current and in future years.

Following a 27 percent increase in fertilizer usage in 1998, a further increase of 2.6 percent was recorded in 1999 to 192 995 tonnes of Diammonium Phosphate (DAP) and 92 828 tonnes of Urea. At the nationally recommended application rates of 100 kg/hectare of DAP and 50 kg/hectare of Urea on cereals, this is sufficient to fertilize approximately 20 percent of the cereal crops grown nationally, assuming it was only applied on cereals. As might be expected from these figures, local fertilizer shortages were reported from various centres throughout the country indicating a need for increased supplies and improvement in the distribution systems at regional level.

The demand for effective herbicides is not being met. The main herbicides in use, 2-4D and MCPA, are in short supply. Modern, wide spectrum herbicides which are safer, control more weeds and are not so timing specific as the hormone herbicides, are unavailable even in the high potential areas where their use could increase yields.

3.4 Pests, Diseases and Weeds.

A total of 260 687 hectares of various crops were affected by Army Worm attacks in nine of the eleven regions. Of this a total of 92 749 hectares were sprayed with 113 000 litres of liquid and 54 783 kgs of WP insecticides. A total of 318 138 hectares of grassland was also treated. Crops in Amhara and SNNP Regions were worst affected with 79 000 and 80 000 hectares affected. Other regions affected included Somali (47 437 hectares), Tigray (17 092 hectares) and Oromia (21 042 hectares). A total of 2 014 hectares of crops had to be replanted.

Overall, pest and disease damage in 1999 was less than normal. Sorghum chafer beetles caused considerable crop damage to both sorghum and teff in South Wollo and to a lesser extent in North Wollo. The Wollo bush cricket caused local damage in Wag Hamra and Wollo.

The parasitic weed, Striga, affected yields of sorghum and to a lesser extent, maize, particularly on areas subjected to severe moisture stress. Wild oats was commonly seen in fields of barley, wheat and teff in Tigray and other regions. Grass weeds, particularly perennial couch grass, are becoming increasingly difficult to control, especially in view of the shortage of oxen for ploughing in Wollo, Tigray and other areas.

3.5 Yields

The shorter than average rainy season and the total absence of the belg rains in the north reduced overall national average yields from 1.009 tonnes/hectare to 0.985 tonnes/hectare. The loss of higher yielding long term sorghum and maize crops due to lack of rain in April/May meant that lower yielding sorghum varieties and teff had to be substituted. As a result, maize yields declined from 1.63 to 1.47 tonnes/hectare, while sorghum yields also declined, for the same reason, from 1.02 to 0.91 tonnes/hectare. Wheat yields, on the other hand, increased from 1.20 tonnes/hectare to 1.27 tonnes/hectare due to favourable rains later on in the season. Teff yields were broadly similar to those of the previous year, despite the fact that more short duration teff had to be substituted for higher yielding long season varieties. Fertilizer usage was increased on teff and wheat, but still well below required levels. Barley yields increased slightly from 0.99 to 1.02 tonnes/hectare, though in some highland areas, such as North Wollo, barley yields were severely reduced by frost damage.

Lack of moisture followed by intensive rainstorms in Tigray and North Wollo reduced fertilizer responses in those areas almost to zero. Lowland areas of Tigray, Wag Hamra and North Wollo suffered drought conditions, sometimes preventing any cultivation this year. Yields of crops affected by moisture stress were predictably low.

3.6 Cereal and Pulse Production Forecast.

The Mission estimates (Table 1) that cereal and pulse production will be 9.69 million tonnes and 1.03 million tonnes, respectively, giving a total production of 10.72 million tonnes, compared to the adjusted post-harvest production of 11.39 million tonnes in 1998, a decrease of 0.67 million tonnes, or 5.9

percent. Regional comparisons for the past three years for all cereals and all pulses are shown in Table 2. Some minor discrepancies for 1997/98 between this report and the 1998 Special Report are explained by the use of an improved historical time series in the present report.

Table1. Ethiopia: Area ('000 ha), Production ('000 tonnes) and Yield (tonnes/ha) of cereals and pulses in 1999/00 Meher season

Region/ Crop		TEFF	BARLEY	WHEAT	MILLET	OATS	RICE	MAIZE	SORGHUM	TOTAL CEREALS	PULSES	CEREALS AND PULSES
Tigray	Area	194.4	130.3	103.2	101.1	-	-	70.8	208.6	808.3	56.5	864.8
	Yield	0.42	0.58	0.66	0.54	-	-	0.75	0.78	0.61	0.45	0.60
	Production	81.7	76.1	67.9	54.4	-	-	53.2	162.6	495.9	25.1	521.0
Afar	Area	2.3	0.0	0.1	-	-	-	4.7	1.9	9.0	0.7	9.7
	Yield	0.50	0.80	0.80	-	-	-	1.20	1.40	1.06	0.57	1.02
	Production	1.1	0.0	0.1	-	-	-	5.7	2.7	9.6	0.4	10.0
Amhara	Area	1 118.2	500.8	508.1	234.9	36.4	2.7	331.3	462.1	3 194.4	662.3	3 856.7
	Yield	0.83	0.91	1.13	1.07	0.79	3.01	1.94	1.01	1.05	0.73	1.00
	Production	927.4	458.1	576.4	251.7	28.6	8.0	644.2	465.0	3 359.6	481.6	3 841.2
Oromia	Area	1 149.0	567.9	891.2	75.3	5.0	0.4	875.2	548.0	4 112.0	616.1	4 728.1
	Yield	0.73	1.21	1.38	0.75	0.61	0.78	1.44	0.95	1.12	0.65	1.06
	Production	836.3	686.3	1 229.9	56.2	3.0	0.3	1 256.5	518.3	4 586.9	401.7	4 988.6
Somali	Area	-	12.7	7.1	-	-	-	89.9	63.6	173.3	5.1	178.4
	Yield	-	0.25	0.20	-	-	-	0.32	0.17	0.26	0.14	0.26
	Production	-	3.2	1.4	-	-	-	29.1	11.1	44.8	0.7	45.5
Benshangu I Gumuz	Area	20.2	2.0	3.0	24.3	-	-	20.9	30.0	100.4	5.2	105.6
	Yield	0.42	0.60	0.60	0.09	-	-	1.70	0.98	0.78	0.68	0.78
	Production	8.5	1.2	1.8	2.2	-	-	35.5	29.4	78.6	3.5	82.1
SNNPR	Area	241.3	120.9	170.6	2.8	-	-	328.4	70.6	934.5	171.4	1 105.9
	Yield	0.66	0.97	1.41	0.86	-	-	1.51	0.97	1.16	0.68	1.08
	Production	158.3	117.3	239.7	2.4	-	-	495.9	68.6	1 082.2	116.0	1 198.2
Gambella	Area	-	-	-	-	-	-	4.7	1.2	5.9	0.2	6.1
	Yield	-	-	-	-	-	-	1.20	1.00	1.16	0.90	1.15
	Production	-	-	-	-	-	-	5.6	1.2	6.8	0.2	7.0

Table 1 Cont'd

Region/ Crop		TEF	BARLEY	WHEAT	MILLET	OATS	RICE	MAIZE	SORGHUM	TOTAL CEREALS	PULSES	CEREALS AND PULSES
Harari	Area	-	-	0.7	-	-	-	1.6	8.2	10.5	-	10.5
	Yield	-	-	1.00	-	-	-	1.50	0.90	1.00	-	1.00
	Production	-	-	0.7	-	-	-	2.4	7.4	10.5	-	10.5
Addis Ababa	Area	4.3	0.3	3.0	-	-	-	-	0.0	7.5	1.8	9.4
	Yield	0.90	1.31	1.50	-	-	-	-	0.80	1.15	0.66	1.06
	Production	3.9	0.4	4.4	-	-	-	-	0.0	8.7	1.2	9.9
Dire Dawa	Area	-	-	-	-	-	-	0.5	9.7	10.2	-	10.2
	Yield	-	-	-	-	-	-	1.60	0.70	0.75	-	0.75
	Production	-	-	-	-	-	-	0.8	6.8	7.6	-	7.6
Total	Area	2 729.7	1 334.8	1 687.0	438.3	41.4	3.1	1 728.1	1 403.9	9 366.3	1 519.2	10 885.4
	Yield	0.74	1.01	1.26	0.84	0.76	2.72	1.46	0.91	1.03	0.68	0.98
	Production	2 017.2	1 342.6	2 122.5	366.8	31.6	8.3	2 529.0	1 273.1	9 691.2	1 030.5	10 721.7

Table2. Ethiopia: Cereals and Pulses Production: Comparison of 1996/97 to 1999/00 Meher Season

REGION		Cereals		Pulses		Cereals & Pulses	
		Area ('000 ha)	Production ('000 tonnes)	Area ('000 ha)	Production ('000 tonnes)	Area ('000 ha)	Production ('000 tonnes)
Tigray	1996/97	840.0	638.1	70.2	36.3	910.2	674.4
	1997/98	889.1	505.2	56.5	17.7	945.6	522.9
	1998/99	907.1	774.5	53.8	26.9	960.9	801.4
	1999/00	808.3	495.9	56.5	25.1	864.8	521.0
Afar	1996/97	NA	NA	NA	NA	NA	NA
	1997/98	NA	NA	NA	NA	NA	NA
	1998/99	19.3	7.7	0.9	0.1	20.1	7.8
	1999/00	9.0	9.6	0.7	0.4	9.7	10.0
Amhara	1996/97	3 192.2	3 412.8	645.2	430.6	3 837.3	3 843.3
	1997/98	3 216.5	2 503.1	692.4	325.7	3 908.9	2 828.8
	1998/99	3 354.3	3 567.9	692.0	464.2	4 046.3	4 032.1
	1999/00	3 194.4	3 359.6	662.3	481.6	3 856.7	3 841.2
Oromia	1996/97	4 034.1	5 354.7	552.7	386.9	4 586.8	5 741.6
	1997/98	4 001.0	3 846.9	582.6	266.8	4 583.6	4 113.6
	1998/99	4 181.2	4 664.5	545.1	374.0	4 726.2	5 038.5
	1999/00	4 112.0	4 586.9	616.1	401.7	4 728.1	4 988.6
Somali	1996/97	85.3	27.3	0.0	0.0	85.3	27.3
	1997/98	82.4	17.8	0.0	0.0	82.4	17.8
	1998/99	172.1	19.2	5.5	0.4	177.5	19.6
	1999/00	173.3	44.8	5.1	0.7	178.4	45.5
Benshangul Gumuz	1996/97	97.0	87.6	7.9	4.1	104.8	91.7
	1997/98	124.5	110.2	6.8	3.6	131.3	113.8
	1998/99	109.4	100.2	7.6	5.8	117.0	106.0
	1999/00	100.4	78.6	5.2	3.5	105.6	82.1

Table 2 Cont'd

SNNPR	1997/98	1 136.5	1 092.4	185.1	87.5	1 321.6	1 179.9
	1998/99	1 026.1	1 231.1	181.8	123.0	1 207.9	1 354.1
	1999/00	934.5	1 082.2	171.4	116.0	1 105.9	1 198.2
Gambella	1996/97	8.7	10.9	0.0	0.0	8.7	10.9
	1997/98	13.3	10.0	0.0	0.0	13.3	10.0
	1998/99	11.8	9.2	0.0	0.0	11.8	9.2
	1999/00	5.9	6.8	0.2	0.2	6.1	7.0
Harari	1996/97	11.2	11.3	0.3	0.2	11.5	11.6
	1997/98	11.9	12.4	0.3	0.2	12.2	12.6
	1998/99	8.8	8.0	0.0	0.0	8.8	8.0
	1999/00	10.5	10.5	0.0	0.0	10.5	10.5
Addis Ababa	1996/97	8.8	10.9	2.1	1.6	11.0	12.6
	1997/98	7.3	5.6	2.0	0.5	9.3	6.1
	1998/99	7.5	6.7	1.8	1.1	9.3	7.8
	1999/00	7.5	8.7	1.8	1.2	9.4	9.9
Dire Dawa	1996/97	11.2	11.1	0.0	0.0	11.2	11.1
	1997/98	2.0	0.8	0.0	0.0	2.0	0.8
	1998/99	9.5	9.6	0.0	0.0	9.5	9.6
	1999/00	10.2	7.6	0.0	0.0	10.2	7.6
Total	1996/97	9 442.5	10 842.2	1 477.0	996.9	10 919.4	11 839.1
	1997/98	9 484.4	8 104.5	1 525.7	701.8	11 010.1	8 806.3
	1998/99	9 807.0	10 398.6	1 488.4	995.5	11 295.3	11 394.1
	1999/00	9 366.3	9 691.2	1 519.2	1 030.5	10 885.4	10 721.7

3.7 Other crops

Rice production is expanding fast in the Gondar/Gojam area. Sweet potato is an important crop in Sidama in the SNNP region. Solanum potato is important in the highlands of East Gojam, in South Gondar, Awi and Alemaya in Hararghe. Supplies of potato seed, however, are low with only 355 tonnes being sold during the year. Oilseed crops such as nuq, sunflower, safflower are grown. Enset remains an important staple in the Gurage area and in Wollega, Illubabor and Kaffa. Coffee and chat, the latter of which is expanding into Wollo, are major cash crops in Kaffa, Illubabor and Hararghe. Coffee prices have fallen sharply at producer level, but yields this year are good. Chilli peppers are widely used in Ethiopia, but an unidentified fungus disease has hit production in Gurage zone, one of the main production areas.

3.8 Livestock

According to 1999 FAO data, Ethiopia has 36 million cattle, 22 million sheep, 17 million goats, one million camels, three million horses and over five million donkeys. There is a chronic shortage of grazing and dry season forage for this immense livestock population. This animal feed problem is particularly acute on very small farms in densely populated areas of Wollo, Tigray, Gurage and elsewhere.

Due to the late onset or the failure of belg rains with consequent feed and water shortages, over 20 000 cattle were reported to have died in the Kobo and Alamata woredas in North Wollo and South Tigray. High livestock mortality was also reported from the Rift Valley area of Oromiya region and from Eastern and Southern Oromiya, SNNP and Somali regions. Due to lack of demand for the high numbers on offer and lack of forage, livestock prices in Tigray are only half their level of the previous year. Grazing conditions are poor in the lowlands of Bale, Tigray, Wollo and Wag Hamra and people there have already started to migrate with their stock in search of forage and employment.

Severe losses of cattle herds were reported from Jijiga in Somali Region and from South Omo and Borena. This will have profound effects on the availability of oxen for next season. A large trade in well-finished cattle to the port of Berbera in Somalia continues.

4. MEHER SITUATION BY REGION

4.1 Tigray

Cereal and pulse crop production for the meher season in Tigray, is estimated at 521 000 tonnes, a decrease of 35 percent compared to the previous year. The total absence of any belg rains, which in South Tigray provides moisture for long season meher crops of sorghum and maize, greatly reduced the area under these higher yielding crops. Land preparation was also greatly hampered by lack of belg rains and by the late arrival of the meher rains, leaving soils hard and difficult to work. Oxen were scarce in many areas and weakened by lack of forage and poor water availability. Overall, the cropped area in Tigray is 10 percent lower than last year.

The Southern Zone of Tigray has eight woredas, four of which normally have a significant belg crop. This year, the belg crop, which normally accounts for up to 17 percent of annual production, failed for the fifth year in succession. Grazing for livestock was also badly affected by the drought especially in Raya and Azebo and Samre woredas.

Meher Rains were late by two to six weeks and in many areas stopped earlier than usual, leaving crops without sufficient moisture to ensure proper grain fill.

However, intensive rainfall during July and August in some areas resulted in water-logging and, to a lesser extent, flooding, while other areas (often within the same woreda) suffered from drought. All woredas in East Tigray and in the mid-altitude woredas of western, central and southern Tigray suffered from excess rain. Frost and hail were reported in pockets in all zones. In general, mid-altitude and highland areas suffered from excess rain, while lowland areas received insufficient rain.

Weed infestation was extremely heavy throughout Tigray Region due to poor land preparation and weeds such as striga in the Central and West zones severely weakened stunted sorghum crop stands.

The war with Eritrea has resulted in displacement of over 349 000 people and the abandonment of thousands of hectares of land in the border areas. This has naturally reduced cropped area and the land available for grazing. Cattle prices are well down on average levels due to feed shortages and lack of effective demand. Reports of sales of oxen indicate severe hardship.

Fertilizer responses were poor, especially in the drier lowlands and in those areas which suffered from waterlogging during August. This has left many farmers with large debts and some were forced to sell livestock in order to repay loans. This will have far-reaching effects on the ability of farmers to cultivate all their land in future.

4.2 Amhara

Cereal and pulse crop production in Amhara is forecast at 3 841 000 tonnes, a decrease of 4.7 percent over the previous year. Harvested area declined by 5 percent due to adverse weather conditions and lack of oxen. Overall yields were similar to last year at 1.0 tonne/hectare, but this masks large variations between zones such as North Wollo, where yields were very low due to frost and drought, and East Gojam which recorded average cereal yields of 1.5 tonnes/hectare.

Due to lack of rain in April and May, long term sorghum and maize crops could not be planted in April. These were substituted by lower potential short term varieties of teff, sorghum and maize which were planted in June/July when the meher rains arrived from one to eight weeks late. Rains were then very heavy during July and into August, causing waterlogging on vertisol soils. In Wag Hamra the meher rains ended earlier than usual, preventing normal crop development.

Lack of oxen has hampered cultivation in North and South Wollo. Given the non arrival of belg rains and the consequent rush to plant crops with the late arriving meher rains, standards of cultivation declined and this resulted in much worse than usual weed growth. Excess rains in the highlands during July and August caused waterlogging of vertisol soils.

Ethiopia
1997

Late rains in October caused heavy damage to short term teff crops in the lowlands of Kobo . In the highlands the rains ended prematurely in mid-September and this reduced grain fill, while frosts in these areas in October prevented normal grain development, sharply reducing barley yields in the affected areas.

Dry conditions in March to June in almost all zones of Amhara, followed by a shortage of pasture and water, reportedly led to high mortalities and physical deterioration of livestock. Although no major outbreaks of livestock diseases were reported, the high number of deaths, coupled with unusually heavy supply of livestock to the market, have kept down herd sizes. Livestock prices in Wag Hamra zone have dropped dramatically where market demand for livestock has steeply declined. In addition, many households throughout the Region are faced with standing debts which will have to be paid from this year's meher harvest, with a consequent impact on food security.

4.3 Oromiya

Production of cereals and pulses is forecast at 4 988 600 tonnes, a decrease of one percent on the previous year and 13.1 percent below the record production achieved in 1996. Oromiya is divided into Northwest and Southern Regions, covering a huge area of the country with a vast range of ecosystems, from the semi-desert woredas bordering Kenya to the fertile lands of Arsi and the highlands of North Shoa, and west to the border with Sudan.

Arsi Zone is one of the most productive areas of Ethiopia and total production of cereals and pulses in 1999 is estimated at 954 000 tonnes, an increase of almost 33 percent above that of 1998. This is despite the late belg rains, which either delayed planting of long cycle sorghum and maize crops or forced their replacement by short cycle crops such as wheat. Wheat production in Arsi zone rose by 59 percent to 445 680 tonnes compared to the previous year, due to generally favourable rainfall and the relative absence of yellow rust which caused heavy yield losses in 1998. Rainfall in Bale zone was adequate except for a few lowland areas and yields increased by 30 percent to 0.95 tonnes/hectare. Production of cereals and pulses in Bale rose by 50 per cent to 206 000 tonnes compared to the previous year.

The belg rains were delayed by four weeks in East and West Hararghe and were erratic and unevenly distributed to such an extent that the belg crop was a total failure. The lack of belg rains reduced the condition and number of oxen due to fodder and water shortages, and the dry conditions and late meher rains made cultivation difficult. As a result, planted areas for the meher crop were reduced. Although the meher rains were late, they continued long enough for crops in the highlands to complete their growth cycle. In the lowlands, rains were insufficient and lower yields are expected. Pest and disease incidence was lower than usual in East and West Hararghe and there was no significant increase in the use of fertilizer or pesticides.

Malaria and relapsing fever affected farmers in Gechi and Hallu Bure woredas of Illubabor and Jimma, reducing the area planted. Six woredas in Illubabor and seven woredas in Jimma zone were facing difficulties. Hailstorms and excessive rains damaged maize, sorghum, teff and coffee. Coffee prices are low. Livestock prices in October were reported to be very low.

In the East Shewa woredas of Adami Tulu, Zewaya Dugda and Dugda Bora, maize crops which failed due to late rains were replaced by wheat and teff. The rains continued long enough for these wheat and teff crops to produce good yields, especially on farms using improved seed and fertilizers.

In Borena, dry conditions had a disastrous effect on crop production, with cropped area reduced by 58 percent to 52 000 hectares and production reduced to 32 360 tonnes compared to 78 190 tonnes in 1998. The hagaya rains which normally occur from October to December are very important in Borena. The last two seasons have seen the failure of these rains with the decline being worst in the lowlands. Cumulative rainfall for the September-November period was reported as well below average and pasture availability is a very serious constraint in the woredas of Dire, Arero, central/south Yabello, and eastern Teltele. Encroachment of bush vegetation in areas that were previously quality pasture is also an ongoing problem. The zonal and woreda officials have reported an unusually high occurrence of livestock deaths. Among the losses, calves and productive cows have reportedly suffered disproportionately, with implications for short term food security (i.e. less milk for household consumption), and for the decline of household assets. Livestock prices are dropping, and the terms of trade are unfavourable for pastoralists selling animals to buy grain. The next rains are due in March to May but if the hagaya rains do not provide sufficient moisture for the recovery of the rangelands, even more cattle deaths are predicted.

Cereal prices in Oromiya Region were high at the time of the assessment particularly for markets in West Hararghe, East Shewa, East Wellega, Illubabor, Jimma, Bale, North Shewa and West Shewa zones. High cereal prices are partly due to a perception of poor meher harvest prospects in some areas, and partly due to the late harvest with new grain entering the market a month later than normal. Livestock prices were abnormally low for this time of year for most zones except in East Hararghe, where prices have recently increased to levels similar to the same period in previous years.

4.4 Benshangul/Gumaz

The total production of cereals and pulses in Benshangul/Gumaz is estimated at 82 000 tonnes, a decrease of 23 percent on the previous year. Many areas received excessive rain during September-October, often accompanied by hailstorms, flash-flooding, and water-logging. Localities heavily affected include Guba and Pawe woredas of Metekel zone; Assosa, Bambasi and Kumruk woredas of Assosa zone; Bello Jefonfoy woreda of Kemashi zone, and the special woreda of Mao Komo.

4.5 Gambella

Production of cereals and pulses in Gambella is estimated at 7 000 tonnes, compared to 9 000 tonnes in the previous year. Maize and sorghum are the main crops in Gambella, but agricultural methods are primitive, leading to low yields. The early rains were poor in May and June, followed by excessive rains and flooding of the main rivers draining the Western Highlands in July and October. This severe flooding was the consequence of heavy rains on the deforested highlands of Western Ethiopia. Some of the cereal crops are planted in October and harvested in January, and this year the floods had still not receded by late October, delaying land

preparation and planting. A similar pattern was seen during the 1998/99 season and is the main cause of food insecurity in this otherwise well-endowed area.

Trypanosomiasis is a major problem in cattle in Gambella.

4.6 Addis Ababa

The total planted area for cereals and pulses in the Addis Ababa Administration in 1999 is estimated at 9 400ha and production is estimated at 9 900 tonnes, an increase of 17 percent above that of the previous year. The main crops are teff and wheat.

4.7 SNNPR

Production of cereals and pulses in SNNPR in 1999 is estimated at 1 198 000 tonnes compared to 1 354 000 tonnes in 1998. Area and production were down by 8 and 12 per cent respectively in 1999 compared to the previous year.

An army worm outbreak in April, May and June damaged immature cereal crops especially in Gurage. Also in Gurage, the failure of the belg rains, the erratic rainfall pattern during the meher rains and poor land preparation all combined to reduce production by an estimated 25 percent below that of the previous year. A serious outbreak of a fungal disease on red chilli pepper, a major cash crop in Gurage will have serious implications for farm incomes in this densely populated area.

Following the failure of the main meher and the short October - December rains in 1998, the belg rains also failed in North Omo zone and in Konso, Burgi and Amaro Special Woredas. In Konso, cereal and pulse production is estimated at less than 4 000 tonnes, compared to 18 000 tonnes in 1998. This has led to serious food shortages in Konso and will require frequent monitoring during the early months of 2000. In North Omo, production of cereals and pulses, at 14 240 tonnes, increased by 3 percent compared to the very poor result of the 1998 harvest, but far below the record harvest of 39 600 tonnes achieved in 1996. Prices of firewood in the densely populated areas around Sodo in North Omo were down by 75 percent in August compared to the same period last year - a major indicator of crop failure. In woredas such as Kindo Koysa of North Omo zone, a shortage of plough oxen and seeds meant that some land was unplanted. North Omo zone reported army worm damage to crops in May and June, but adequate control measures were later taken. The sweet potato crop is especially important in the densely populated woredas around Sodo, but the failure of October- December rains in 1998 resulted in the failure of this potentially high yielding crop.

In South Omo, production is estimated to have declined from 33 500 tonnes of cereals and pulses in 1998 to 15 500 tonnes this year, a decrease of 54 percent.

Many cattle in the region have died due to the prolonged drought and the survivors are in very weak condition due to lack of grazing. Konso and Burgi special woredas have experienced particularly severe deteriorating livestock conditions. In Konso, pasture and drinking water have become scarce and most ponds have already dried up. There have been no unusual or uncontrolled outbreaks of livestock diseases but endemic diseases such as trypanosomiasis and foot and mouth disease have become widespread.

Foot and mouth disease has reportedly killed a large number of cattle in Kindo Koisha woreda of North Omo. Marketing outlets for cattle in Kenya have been closed off by the Ethiopian government in order to facilitate tax collection. CARE operates an emergency destocking project under which cattle too weak for marketing are slaughtered and the meat dried for distribution among the affected population.

4.8 Harari

Harari is a small region around the city of Harrar and the major crops are long cycle sorghum, and maize, which together contribute about 85 percent of food production. Due to failure of the belg rains and the late onset of the meher rains, long cycle maize and sorghum were replaced by early maturing sorghum. Favourable growing conditions for this crop resulted in a 31 percent increase to 10 500 tonnes in cereal production in Harari, compared to the previous season.

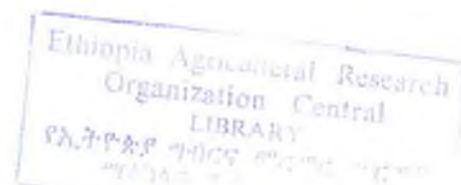
4.9 Somali

Somali region had a very poor season in 1998 and some overall improvement is anticipated this year. The 1999 belg rains began on time in March and continued into April. Most of the long cycle maize and sorghum crops were also planted during this period. This was followed by a locally severe army worm infestation in April, and a more widespread prolonged dry period during May and June, which destroyed about 90 percent of the crops. The meher rains which started in July were much better and more evenly distributed than in the previous year and led to an increase in yield, more than doubling production from 20 000 tonnes to 46 000 tonnes. However, some parts of Somali region have experienced rainfall failures this year, particularly around Gode, which straddles the Wabi-shebele river in the south of the region. Neighbouring zones of Gode are also experiencing multiple season failures, including parts of Korahe, Afder, Fiq, Liben, Degehabour and Warder.

The failure of belg rains and the delayed meher rains have had a disastrous effect on livestock in Somali Region, with many thousands of animals dying as a result of the drought. This will have a serious effect on the availability of work oxen during the 2000 season, especially as there is a thriving export trade in livestock following the lifting of an export ban by Saudi Arabia. In general the season's pasture availability is described as much below normal for this time of the year. Livestock migration in Afder Zone is reported to be occurring outside the traditional migration areas. Long distance trekking of the animals to and from pasture and water points is contributing to the deteriorating livestock condition. High cattle mortality near Gode has been reported, along with significant stress migration.

4.10 Dire Dawa

Sorghum and irrigated maize are the main crops in Dire Dawa region and this year a total of 820 tonnes of maize was produced from 500 hectares planted. A total of 9 700 hectares of sorghum was planted, producing 6 790 tonnes of grain. 1 820 hectares of early sown sorghum had to be replanted due to drought and total cereal production is expected to be reduced by 13 percent compared to the 1998 harvest.



4.11 Afar

The Afar region is populated by pastoralists, and crop production is a secondary activity. The belg rains were a total loss and the onset of the meher rain was late compared to normal years. In the northern zones (2, 4 and part of 1) the meher season was abnormally short with poor pasture conditions early in the season. Maize, sorghum and teff are the main crops and the Mission forecasts production of 9 600 tonnes of cereals and 410 tonnes of Faba beans and chick peas, an increase of 28 percent over the previous low yielding year. This area is never self sufficient in grain but depends on livestock sales to provide for its cereal needs.

The drought conditions forced Afar nomads to bring their livestock to the areas along the Awash river in search of water and grazing. This led to temporary overgrazing of the land along the river.

Poor market access is a chronic problem throughout Afar Region. Pastoralists selling livestock must travel great distances to markets in neighbouring regions, so diminishing the quality of the Afar animals and reducing prices.

5. BELG 1998 AND 1999

The belg season normally starts in February, continuing (in the belg areas) through to May. In the northern highlands, barley is planted on these belg rains with harvesting occurring before the meher rains in June-July. But in the lowland parts of the belg areas (in the north, in Bale and parts of the south) the most important contribution of the belg rains is to enable the planting of long cycle sorghum and maize crops which bridge the dry period before the meher rains and extend through the meher season, to be harvested after the main rains cease. Crops which are planted in the belg season and harvested before 31 August are classified as "belg crops" by the MoA. Normally half the belg crop occurs in Oromiya, 30 percent in SNNPR and 17 percent in Amhara.

In 1999, the belg season was extremely poor, and even non-existent in the north - with severe losses of normal production. In the east and southern areas the belg rains were more normal and some reasonable crops were harvested. A total belg production figure of 160 000 tonnes has been used by the Mission for the 1999 belg - using the MoA definition. This is more than 50 percent down on the long-term average.

For 2000, the Mission has cautiously forecast the belg crop at 250 000 tonnes - still well below the average, due to expected shortages of draught oxen caused by heavy losses in 1999, and some scarcity of appropriate seed. Should the belg crop deviate from this forecast, the import requirement (Table 3) will be correspondingly higher or lower than that estimated in Section 6. Because of the uncertainty surrounding belg forecasts at this time, the Mission recommends that a small team, investigates the belg outturn at around April 2000. A review of the 1999 meher forecast could also be carried out at this time, so enabling an update of the national grain supply/demand situation.

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6. FOOD SUPPLY AND DEMAND IN 2000

6.1 Market situation

At the end of 1998, the prospects were for a good harvest and prices for all grains fell during the harvest period. However, some very late rain and a high incidence of yellow rust on wheat led to some doubts about the size of the crop and prices began to firm in February 1999. This movement was exacerbated by the extremely poor belg rains, particularly in the north of the country where virtually no belg crop was harvested. Prices continued to rise in the March to August period, influenced by the low belg production and by the late start to the main rains. The meher rainy season eventually started up to two months late but precipitation was good and well-distributed. Some confidence about production returned and most cereal markets eased downwards after September 1999. These movements are illustrated in Figure 1, which shows prices for the five main grains at the most important urban market for each. The series ends at September 1999 and therefore does not show the further falls in price which have occurred in October-November. In the surplus maize areas of the west (e.g. Nekempte), the crop was virtually harvested by late November and prices for maize have fallen to well below 100 birr/quintal, and as low as 60 birr/quintal in smaller markets. This equates to a current world market price of around US\$75 per tonne. Sorghum prices are stronger since the harvest is very late and production is generally expected to be down due to the late rains. Sorghum prices are likely to stay well above world market prices, even as the harvest gets underway in December. Wheat and barley prices have moved together during 1999 and both have already fallen during the harvest period - particularly wheat in the surplus areas such as Arsi. The price premium for teff is clear from Figure 1 but it, too, is now falling as a result of a favourable harvest, now underway.

In the deficit areas (not shown in Figure 1), prices are higher than indicated; for example teff in Mekelle has stayed around 70 birr per quintal above the Debre Markos price throughout the year. Although prices in deficit areas will fall during the December-January period, they will remain well above those recorded in surplus areas. This has obvious implications for accessibility to food supplies of the impoverished populations in the deficit areas who have suffered further setbacks this year through drought-related losses of both livestock and food crops.

Although some carryover stocks from 1998 still exist in the surplus producing areas, these are being depleted rapidly because the flow of new crop grain is delayed due to the late harvest. In effect, 1998 production has fed the country for an extra month this year, with the result that old cereal stocks are becoming low. Had the harvest been on time, 1999 might well have seen some build-up in stocks. As the season stands, the Mission has estimated the closing stock position at close to one month's consumption (see national cereal balance, Table 3).

After the post-harvest depression in most grain prices, it is likely that prices will again begin to rise in February as it becomes clear that the 1999 main season crop is smaller than last year. From March onwards, prices will be affected by the strength of the belg rains and the ability of farmers to plant long-cycle crops (maize and sorghum) early in the season. A favourable belg season would help to mitigate the normal

upward price pressures in the period April-July, but the opposite might also occur. Another poor belg crop in 2000 would push prices well above the levels seen in 1999. Apart from rainfall, the prospects for the belg season are not good, at least in Tigray, Wollo and North Shoa, due to the depletion of oxen and some shortages of seed.

6.2 National food balance

Following a poor harvest in 1997 the opening stock levels in January 1998 were heavily depleted to a record low level. The improved crop in 1998 permitted building up of stocks in 1999 despite the poor secondary belg crop. The national cereal and pulse balance for 2000 is indicated in Table 3 and assumes **no stock change** over the year. The closing stock level of 860 000 tonnes represents a little more than one month's consumption. **Cereal and pulse production** comprises the Mission's forecast of the 1999 meher crop (10.72 million tonnes) plus a conservative belg crop of 250 000 tonnes - below the long term average - on the assumption that adequate cultivation will be difficult because of shortages of oxen and seed. **Total grains availability** is therefore 11.83 million tonnes - close to last year's figure.

Table 3: Ethiopia - Total grains balance sheet, January-December 2000 ('000 tonnes)

(Population 63.49 million)	
Domestic availability	11 830.0
Opening stocks	860.0
Production	10 970.0
- Meher	10 720.0
- Belg	250.0
Total utilization	12 594.0
Food use (150 Kg)	9 524.0
Feed use	200.0
Other uses (17 percent)	1 860.0
Exports	150.0
Closing stocks	860.0
Import requirements	764.0 ^{1/}

^{1/} To be mostly covered by food aid.

On the demand side, **food consumption** is forecast on the basis of a CSA-derived population of 63.49 million at mid-2000, and a per caput consumption of 150kg (as for 1999). Large regional variations exist in cereal consumption levels and the Mission has attempted to estimate the different rates for different zones based on the local importance of roots, tubers and animal products in the diet. The results of this exercise are shown in Table 4, which also indicates a weighted average national consumption level of 150 kg per caput. The use of cereals and cereal by-products for **animal feed** is expected to decline in 2000 due to lower livestock numbers and tighter cereal supplies compared with 1999.

Other uses and losses are again estimated at 17 percent, comprising 11 percent as post-harvest losses and 6 percent as the weighted average requirement for seed. Grain used for local brewing is considered to enter

the food chain. Imported barley and malt for commercial brewing is included in the figure for imports.

Exports are likely to be lower in 2000, being mainly restricted to pulses, particularly haricot beans and faba beans, for which this has been a favourable season. Cereal exports are completely blocked to the north and are unlikely to Sudan or Kenya in any large volumes, partly because of uncompetitive prices compared with the low world prices.

As indicated in Table 3, the **import requirement** is 764 000 tonnes - more than 100 000 tonnes higher than last year, to be covered almost wholly by **food aid**. Local purchases should be feasible for around 200 000 tonnes from the surplus producing areas within the country. Commercial imports in 2000 are forecast to be negligible, as was the case in 1996 and 1997.

6.3 Regional food balances

Table 4 is an attempt to identify those areas in surplus and deficit at zonal and at regional level. Consumption requirements are built up from CSA's zonal population estimates and from Mission-derived per caput consumption rates. These vary from 116 kg per caput in the pastoral areas to 164 kg in the highland areas in the north, with an average for the country of 150 kg, to match the assumption in Table 3. The zones were categorised according to the importance of grains in the typical diet, having regard to the consumption of enset, roots and livestock products. Some zones were split into more than one category and the proportions allocated. Per caput cereal and pulse consumption figures were decided for each type of diet in consultation with the Mission's nutritionist and adjusted to give a weighted average of 150 kg.

Total consumption requirements for each zone are set against the net production forecasts after allowing for seed, waste and animal feed. The consequent surpluses and deficits are shown in the sixth column of Table 4, expressed in total amounts of cereals. Thus, the largest surplus zones are Arsi, West and East Shoa in Oromiya and East and West Gojam in Amhara region. The South (SNNPR) is in heavy deficit with only Hadiya indicating a significant surplus this year. Tigray as a whole is heavily in deficit despite the surplus in West Tigray.

It should be noted that no account is taken of changes in stocks or trade into or out of a zone, in compiling these surpluses and deficits. The figures merely compare consumption with net production. Despite these limitations, the table is intended to provide information useful for identifying surplus areas for possible local purchases for food aid, as well as those with significant deficits. The seriousness of the deficits is indicated by expressing the figures per caput (in kg) as shown in the final column of Table 4. Thus, apart from the urban areas, the most critical food deficits per person are in East and Central Tigray, North Wollo and Wag Hamra in the north; in East Hararghe, Borena, Afar and Somali in the east, and in Sidama, Gedeo, North and South Omo, Yem and Konso in the south. Gambella in the far west also shows a large deficit this year. The per caput surpluses and deficits are plotted in the map at Figure 2.

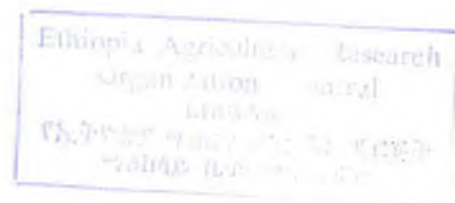


Figure 2: Net surplus or Deficit per caput by zone, 2000

Source: Mission estimates of production and consumption based on CSA Population Census, 1994

Table 4: Ethiopia: Forecast Grain Surpluses/Deficit by zone 2000

REGION	ZONE	POPULATION ('000)	CONSUMPTION NEEDS ('000 tonnes)	NET PRODUCTION ('000 tonnes)	SURPLUS (+) or DEFICIT (-) ('000 tonnes)	SURPLUS (+) or DEFICIT (-) per caput (kg)	
Tigray	West	865	142	202	60	69.7	
	Central	1 111	182	82	-100	-90.4	
	East	689	113	32	-82	-118.4	
	South	1 029	169	111	-58	-56.0	
	Tigray Total	3 694	606	426	-179	-48.5	
Afar	All	1 216	141	8	-133	-109.5	
Amhara	N.Gondar	2 460	403	560	157	63.8	
	S.Gondar	2 083	341	268	-74	-35.4	
	N.Wello	1 485	244	96	-148	-99.6	
	S.Wello	2 501	410	260	-150	-60.0	
	N.Shoa	1 838	301	414	113	61.3	
	E.Gojam	2 003	328	626	298	148.6	
	W.Gojam+Bah.D	2 209	362	618	256	115.9	
	Wag Hamra	325	53	21	-32	-99.7	
	Awie	845	139	243	104	123.1	
	Oromiya	545	64	49	-15	-27.8	
	Amhara Total	16 294	2 645	3 153	508	31.2	
	Oromiya	W.Wellega	1 847	303	342	39	21.0
		E.Wellega	1 496	245	286	41	27.6
		Illubabor	1 011	147	170	22	22.0
Jimma		2 340	342	270	-72	-31.0	
W.Shewa		2 780	455	746	291	104.6	
NW.Shewa		1 382	227	289	62	44.8	
E.Shewa		1 991	320	541	221	110.7	
Arsi		2 646	434	812	379	143.0	
W.Hararghe		1 518	234	202	-32	-21.2	
E.Hararghe		2 184	347	244	-103	-47.1	
Bale		1 453	191	204	13	9.1	
Oromiya Total	22 354	3 512	4 140	628	28.1		

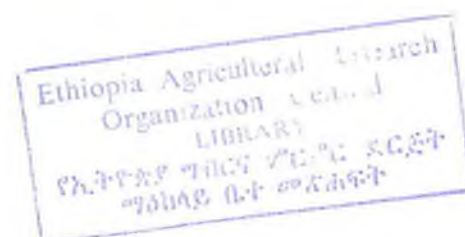


Table 4 Cont'd

REGION	ZONE	POPULATION ('000)	CONSUMPTION NEEDS ('000 tonnes)	NET PRODUCTION ('000 tonnes)	SURPLUS (+) or DEFICIT (-) ('000 tonnes)	SURPLUS (+) or DEFICIT (-) per caput (kg)
Somali	All	3 698	429	40	-389	-105.2
Beni-Shangul	All	537	85	67	-19	-34.5
SNNPR	Gurage	1 877	236	199	-37	-19.7
	Hadiya	1 267	160	239	80	62.8
	K.A.T.	877	110	129	19	21.2
	Sidama	2 466	310	116	-194	-78.9
	Gedeo	680	86	10	-76	-111.1
	N.Omo	3 142	396	133	-263	-83.6
	S.Omo	395	48	13	-36	-90.9
	Kaffa Shaka	875	110	99	-12	-13.4
	Bench-Maji	393	48	37	-11	-28.5
	Yem	78	10	3	-7	-94.8
	Amaro	119	14	7	-7	-61.1
	Burgi	46	5	15	10	220.6
	Konso	190	31	12	-19	-100.3
	Derasha	108	17	20	2	22.5
	SNNPR Total	12 513	1 584	1 033	-552	-44.1
Gambella	All	211	33	6	-27	-128.3
Harari	All	160	26	9	-17	-109.0
Addis Ababa	All	2 495	410	8	-402	-161.0
Dire Dawa	All	318	52	6	-46	-144.0
Ethiopia Total		63 490	9 523	8 896	-627 1/	-9.9

1/ Excluding animal feed and exports.

6.4 Food Aid Requirements

Review of Relief Food Aid Distribution in 1999

Relief food aid requirements and actual distributions in Ethiopia have varied considerably in recent years as outlined in Table 5.

Table 5. Ethiopia: Relief Food Aid Estimates and Distribution 1995-99

Year	Initial FAO/WFP Estimated Tonnage (A)	Final Revised Tonnage (B)	Tonnage Distributed (C)	Distributed as % of Estimated (D) = (C)/(A)	Affected Population (mn)	
					Initial (E)	Revised (F)
1995	427 000	492 848	347 379	81	4.0	4.0
1996	291 000	262 060	219 000	75	2.3	2.7
1997	186 000	329 450	306 000	165	1.9	3.4
1998	420 000	602 134	294 932	70	4.7	5.3
1999	181 871	460 609	391 558 *	215	2.2	6.6
Average	301 174	429 420	311 774	104	3.0	4.4

Sources for (B), (C), (E) and (F) are from the DPPC Appeal Documents.

* Estimated figure

In December 1998 the joint FAO/WFP crop and food supply assessment mission estimated that Ethiopia would require 181 871 tonnes of relief food aid in 1999 to cover the needs of 1.89 million people. The beneficiaries identified by the mission as eligible for relief were mostly farmers whose agricultural production had been affected by poor belg rains followed by late, low and erratic rainfall during the meher growing season. The mission estimated that the average duration of assistance during 1999 would be six months. The estimate did not include relief food needs for Ethiopians displaced by the Ethiopia/Eritrea border conflict, nor the relief needs of pastoralists.

DPPC launched an appeal for emergency food assistance in December 1998 estimating the relief food needs for 1999 at 282 753 tonnes for 2.2 million people. The increase on FAO/WFP's December estimate was accounted for by the inclusion of the internally displaced in DPPC's figures.

Subsequently, however, the year was characterized by growing needs, brought about by the almost total failure of the belg and a variety of widespread current shocks, including pest and weed infestations, flooding, hail, and excess or shortage of rain, depending on area. In many parts of the country the nutritional situation, particularly of young children, pregnant and lactating women and the elderly, deteriorated over the course of the year. Owing to the increased need and the practice of widespread redistributions, rations were significantly diluted, with families in some cases receiving as little as 12.5 kgs of cereals per month. As a result, DPPC was obliged to launch a series of updated appeals, as outlined in Table 6.

Table 6. Ethiopia: DPPC Relief Food Aid Appeals, 1999

Date of Appeal	No. of beneficiaries due to			Total Relief Needs (mt)	Period covered
	Natural Causes	Man Made Causes	Total		
April 8	2 857 318	396 983	3 254 301	319 586	Jan.-Dec.
May 27	4 218 620	384 858	4 603 478	358 950	June-Dec.
July 16	4 993 725	384 858	5 378 583	436 158	June-Dec.
October 18	6 619 586	365 316	6 984 902	274 023	Oct.-Dec.
November 5	5 457 300	316 000	5 773 300	260 069	Jan.- Mar.2000

- *April 8 1999* - following the post harvest assessment the tonnage requested was revised upward to 319 586 tonnes for 3.25 million beneficiaries.
- *May 27 1999* - donor response to the December 1998 appeal was relatively poor, and in May a new appeal was launched to cover the period from June to December 1999 requesting a tonnage for the seven month period of 358 990 tonnes for 4.6 million people.
- *July 1999* - In response to reports of additional need, the tonnage was increased to 436 158 tonnes of cereals for 5.4 million people, of which 386 586 tonnes was considered for 4.99 million victims of crop failure. In order to verify these requests, joint assessment teams visited North and South Gondar, South Tigray and South Wollo in early September.
- *October 18 1999* - DPPC reported that the requirements for the last three months of the year amounted to 274 023 tonnes. Based on existing stocks and pledges of 200 000 tonnes they indicated a remaining shortfall of about 74 023 tonnes to cover the unmet needs for October through December. This brought the total cereal tonnage requested for the period June to December 1999 to 460 609 tonnes for a maximum of 6.6 million victims of drought and crop failure, while 49 572 tonnes of cereals was the annual requirement for 384 858 internally displaced.
- *November 5 1999* - In response to growing concern over relatively poor meher harvest forecasts, and predictions of limited carryover stocks, DPPC took the unprecedented step of launching an appeal for 260 069 tonnes of cereals to cover projected needs for 5.8 million people during the first quarter of 2000, largely to ensure that there would be no gaps in the food pipeline. At the time it was understood that adjustments would be made based on the findings of the 1999 needs assessment exercise.

Relief Assistance to Victims of Drought and Crop Failure

Initial donor response to the government's December 1998 appeal was very poor with the only pledge being 30 000 tonnes from the European Union. However, in response to growing reports throughout the country of a deteriorating situation, donors carefully considered DPPC's requests as outlined in their May appeal. Based on this appeal, WFP approved an

emergency operation (Emop) 6143 to provide 93 600 tonnes of cereals to 1.2 million beneficiaries, which covered approximately 30 percent of the needs. Global response to the May appeal was extremely positive, with donors providing a total of 375 012 tonnes, including carry-over pledges of 19 528 tonnes. This meant that 97 percent of the 386 586 tonnes requested for the victims of crop failure in the July appeal were met. More recently, in response to the October and November appeals, WFP prepared a budget revision to Emop 6143 requesting a total of 58 216 tonnes of cereals. To date, only 29 997 tonnes have been pledged against this request. It is noteworthy that the GoE (through the DPPC) has itself borrowed 20 000 tonnes from the EFSR, as a component of the government's formal response.

As indicated in point d) above, the total revised tonnage of cereals requested for June to December 1999 amounted to 460 609 tonnes. As of December 1999, 405 009 tonnes of cereals had been pledged by donors meaning a shortfall of 55 600 tonnes or 12 percent. Of these pledges, 352 134 tonnes of cereals had been delivered, including 294 289 tonnes of borrowings from the Emergency Food Security Reserve (EFSR) against undelivered but confirmed pledges. The average time between a confirmed pledge and when the food actually arrives in the country is five months, so having the facility of making immediate borrowings against the EFSR helped to avert a major disaster. The carryover of relief food stocks and pledges from 1999 to 2000 is estimated at 32 000 tonnes and 52 875 tonnes respectively. A significant part of the carry-over pledges includes food which was requested under the budget revision to emop 6143, which was only approved on 23 November.

Total relief food distributions by DPPC and NGOs during 1999 amounted to 391 558 or 85 percent of the revised 1999 relief food requirements. Taking into consideration repayments destined for the EFSR, carry-over stocks for the year 2000 only amount to 32 000 tonnes, one of the lowest in recent years, which reflects the difficult situation and pressing need for relief food faced during 1999.

Table 7. Ethiopia: 1999 Relief Food Aid Balance (tonnes)

1. Total relief food availability in 1999	476 433
- Carryover stocks and pledges from 1998	60 359 ^{1/}
- 1999 (Jan-Dec) delivered relief pledges	363 199
- 1999 (Jan-Dec) undelivered relief pledges	52 875
2. 1999 Estimated Distributions	391 558
3. Carryover stocks and pledges into 2000	84 875

^{1/} Including 1 080 tonnes of pulses

Relief Assistance to the Internally Displaced

Total annual cereal requirements requested by the government for 384 858 internally displaced amounted to 49 572 tonnes. In response, WFP approved an Emop 6080 in March 1999 requesting 36 720 tonnes of cereals for a nine month period. However, the timing of the donor response resulted in a two month break in the cereals pipeline during September and October. Despite the break, there have been significant donor pledges, and the situation at the year end is that 35 398 tonnes of cereals or 96.4 percent of the amount requested in the WFP-supported operation have been met. Of these pledges, 26 514 tonnes of cereals had been delivered, including 15 800 tonnes of borrowings from the

Emergency Food Security Reserve (EFSR) against undelivered but confirmed pledges. The government itself borrowed 5 000 tonnes of grain from the EFSR in November.

In addition to food aid deliveries received against relief requirements, Ethiopia received in 1999 140 871 tonnes of cereals for regular food aid programmes.

Methodology for Assessing Relief Needs for the Year 2000

In mid-1999, under the umbrella of DPPC's Early Warning Working Group, three smaller working groups were established with the mandate of planning and implementing the 1999 emergency needs assessment. The methodology group was composed of a number of different agencies, and involved active participation from DPPC, WFP, EC, USAID, CIDA, UNICEF, MoA, and SCF-UK. During the period August-October 1999, the methodology group met frequently to develop the needs estimation methodology, which contained both qualitative and quantitative elements. A one day awareness and training workshop was held for field teams in early November, prior to departure for the field.

The methodology implemented this year contained significant improvements over methodologies used in previous years, with greater emphasis placed on:

- systematically considering a woreda's "chronic" food security status, providing the context for a better understanding of emergency needs in 2000,
- 2) understanding household food security, through increased contact with members of "affected" households, using semi-structured interviews with both female and male members.

"Current" vulnerability to food insecurity was assessed using factors which reflect access to food. More specifically, changes in household income (crops, livestock, off-farm income, trade, and remittances), and changes in purchasing power (market prices of staple foods) were examined to assess overall current food insecurity. Changes in current vulnerability status were discussed, in relation to most years in the 1994-98 period. Discussions took place primarily with household members in affected areas, as well as with community leaders, local experts and officials from relevant government offices.

The negative shocks of the 1999 season were interpreted in the context of "chronic vulnerability" for which a *chronic vulnerability index* was created. This index incorporates a variety of food security and poverty indicators based on 1994-98 data, such as: crop production, livestock assets, pasture quality/availability, road access, food prices, previous assessed needs, drought risk, crop production variability, and cumulative weather shocks over time. The index exists for more than 400 woredas throughout the country, covering mostly crop-dependent regions.

Ratings of both "current vulnerability" and "chronic vulnerability" were merged to create a more comprehensive understanding of combined/overall vulnerability. Teams assessed how overall vulnerability was changing relative to previous years, and then used previous years' assessed needs data to approximate to the needs in the coming year. A dialogue then took place between assessment team members and the members of local level DPPC committees, allowing information and

requests from all concerned parties to be heard, before final needs estimates were reached.

Relief Food Aid Requirements in 2000

The mission estimates that relief food needs for Ethiopia in 2000 amount to 764 455 tonnes for about 7 767 594 affected people for an average duration of six months. This is 66 percent higher than the final revised estimates for 1999 and is the highest needs assessment for eight years. Details are shown at zonal level in Table 8. Thirty-eight percent of the relief food aid needs are required in Amhara Region, 20 percent in Oromiya, 17 percent in Tigray, 10 percent in SNNPR and 15 percent in Somali Region. Food aid need calculations continue to be made using the standard ration of 15kgs. cereal per beneficiary, per month.

The estimate of relief food aid requirements does not include the needs for Ethiopians displaced by the Ethiopia/Eritrea border conflict nor other displaced individuals. The Government of Ethiopia estimates that 47 115 tonnes of relief food aid are needed for 349 000 displaced people, and for Ethiopians expelled from Eritrea. Due to the special circumstances of the internally displaced, the assessment of their relief food needs was outside the scope of this mission.

Taking into consideration that carryover pledges of 52 875 tonnes and stocks of 32 000 tonnes relief food aid from 1999 into 2000 are small, and subtracting 28 219 tonnes yet to be resourced under the November approved budget revision of WFP Emop 6143, the net relief food aid requirements in 2000 for victims of natural disasters are estimated to be 651 361 tonnes. As in previous years, this estimate assumes a normal belg harvest in 2000, as well as normal preparations for the next harvest. As was the case in 1999, it is possible that unexpected events may occur and some revisions to the estimate may be necessary. Based on joint assessments, these revisions will be formally communicated to donors by DPPC under its newly adopted rolling appeal process.

Relief food aid will be a critical resource for approximately 8 million rural Ethiopians this year, and will allow many to avoid starvation and to improve their nutritional intake. In many remote areas, food aid distributions will make food more easily accessible where markets function poorly due to low demand. Equally important will be the role which food aid plays in terms of allowing households to avoid totally depleting their asset base, making it more likely that these households will be able to recover from these difficult times.

The food aid needs estimates for the year 2000 are summarised in Table 8 and the maps in Figures 3 and 4.

Table 8. Ethiopia: Affected Population and Food Aid Requirement for the Year 2000 (excluding IDPs)

Zone	Number of beneficiaries	Beneficiaries as a % of rural population	Average duration in months	Relief food needs in tons
W Tigray	74 000	10	10	10 815
C Tigray	481 600	49	9	62 718
E Tigray	256 000	44	8	29 306
S Tigray	235 800	31	7	25 759
Tigray Total	1 047 400			128 598
Afar zone 1	3 369	1	4	202
Afar zone 3	7 752	6	6	698
Afar zone 5	1 650	1	6	149
Afar Total	12 771			1 048
N Gonder	209 935	10	7	21 779
S Gondor	504 383	27	7	53 033
N Wollo	553 663	41	7	54 785
S Wollo	920 931	42	7	96 003
N Shewa	377 737	24	7	38 273
E Gojjam	730	< 1	5	51
Wag Hamra	114 966	38	7	12 247
Oromia	124 871	26	7	12 993
Amhara Total	2 807 216			289 164
Illubabor	75 900	9	4	4 869
Jimma	28 500	1	6	2 558
W Shewa	94 448	4	7	9 897
N Shewa	203 409	16	6	19 050
E Shewa	171 500	11	7	19 125
Arsi	108 145	5	7	10 996
W Hararghe	112 500	8	6	9 728
E Hararghe	254 024	13	5	20 783
Bale	161 181	13	6	14 831
Borena	411 280	27	6	37 015
Oromiya Total	1 620 887			148 851
Shinile	84 340	26	4	5 060
Jigjiga	54 560	8	4	3 274
Fiq	170 660	77	6	15 359
Degehabur	140 000	54	6	12 600
Warder	130 000	41	6	11 700
Korahe	99 000	45	6	8 910
Gode	307 650	76	6	27 689
Afder	205 530	59	6	18 498
Liben	129 260	28	6	11 633
Somali Total	1 321 000			114 723
Asosa	4 201	2	5	315
Tongo SW	250	2	5	19
Beneshangul Gumuz	4 451			334
Guraghe	19 600	1	3	1 019

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Table 8 Cont'd

Zone	Number of beneficiaries	Beneficiaries as a % of rural population	Average duration in months	Relief food needs in tons
Hadiya	32 600	3	4	1 742
KAT	58 800	8	4	3 453
North Omo	433 800	15	6	41 054
South Omo	92 240	26	6	8 764
Burji SW	28 500	72	6	2 565
Konso SW	157 000	90	6	14 130
Derashie S	30 200	32	6	2 718
SNNPR Total	852 740			75 443
Gambella Zone 1	14 000	49	6	1 343
Gambella Zone 2	12 800	40	5	1 013
Gambella Zone 3	13 800	22	4	855
Gambella Zone 4	6 000	18	7	630
Gambella Total	46 600			3 840
Harari	7 070	10	3	318
Dire Dawa	47 459	50	3	2 136
Grand Total	7 767 594			764 455

Table 9. Ethiopia: Affected Population and Food Aid Requirement for the Year 2000 (IDPs only)

Zone	Number of beneficiaries	Beneficiaries as % of rural population	Average duration of assistance in months	Relief food needs in tonnes
W Tigray	116 416	16	9	15 716
C Tigray	88 978	9	9	12 012
E Tigray	110 542	19	9	14 923
Tigray Total	315 936			42 651
Afar	33 064	3	9	4 464
Grand Total	349 000			47 115

The map in Figure 3 shows the total assessed emergency needs for the Year 2000, (excluding IDPs). Darker zones on the map will need more relief grain, while lighter areas will require less. Areas appearing in white on the map were assessed as not in need.

The second map (Figure 4) shows the geographical distribution of assessed needy populations (excluding IDPs) , as a percentage of the total rural population in a zone/woreda.

Events Affecting Food Security in 2000

The reasons for the high food aid requirements for 2000 are complex, and due to a combination of interrelated factors including:

- 1) conventional types of disasters/"shocks" (both natural and man-made);
- 2) shocks over multiple years, sometimes followed by inadequate responses;
- 3) a partially unmet need for assistance from previous years, with cumulative impacts over time;
- 4) the erosion of coping mechanisms for many rural households due to limited income-generating opportunities, or the liquidation of household assets such as livestock;
- 5) problems associated with targeting, leading to the dilution of rations.

The effects of these longer-term cumulative events (associated with items 2-4 above) are evident in terms of the increasing erosion of household assets and the diminished coping capabilities for many rural households. In the past, farmers typically had larger livestock holdings and were able to sell small ruminants such as goats or sheep in the market, providing much needed household income for food grain purchases during the lean season. Following a disastrous belg harvest throughout much of the north of the country this year, many farmers were earlier forced to sell livestock so that this type of asset disposal is no longer available. Labour migration to surplus producing areas (or cash crop growing areas) has long been an important way of obtaining much needed supplementary income for poorer households in food deficit regions. This year, in many traditionally surplus producing areas, the demand for labour is low, due to poor production prospects. Thus the option of labouring for wage income is now much less available.

Although disasters and shocks associated with specific events are generally the precipitating factor bringing about the need for emergency assistance, there is growing consensus that inadequate development plays a major contributing role in the growing emergency needs.

Weather-related events, often in the form of dry spells, or alternatively excessive rains, were prevalent in many areas throughout Ethiopia during the 1999 meher season (see section 4). In the north of the country (mainly Tigray and Amhara Regions) the failure of the belg rains not only meant that the belg harvest of June-July failed; but also had serious repercussions on the meher harvest. Belg rains are critical in many non-belg harvesting areas, in that they are useful for land preparation and critical for the early planting of long cycle crops such as sorghum and maize. Many farmers were forced to shift from higher yielding long cycle crops (sorghum and maize) to lower yielding short cycle crops such as teff. This has had a serious impact on food security in many areas. Details of the crop and livestock situations at regional level are included in Section 4.

In summary, the meher crops were generally favourable in the surplus-producing zones (e.g. Arsi, Gojam, West Wellega), but crop production was badly affected by the poor weather conditions in the more marginal deficit areas. In particular, crop production in most of Tigray, Wollo and

Wag Hamra in the north is well down, and food deficits will be larger than normal in 2000. In the south, North and South Omo, Konso, Burgi and Borena have had an extremely poor season, and in the east, Somali and Afar regions will experience their usual large grain deficits. Pasture conditions were also affected by the poor or non-existent belg rains and the late meher rains in crop dependent areas, and the consecutive poor gu and deyr rains in traditional pastoral areas. Heavy losses of animals have occurred, particularly in the marginal areas of the east, south and north. This has obviously depleted household assets (particularly since livestock prices are low), but may also jeopardize the next cropping season when a shortage of oxen will limit land preparation in the worst affected areas.

In **Tigray**, in addition to the poor meher harvest, the vulnerability of many communities has increased due to the reduction in income-generating possibilities. Labour migration to the commercial farms around Humera (West Tigray), a regular strategy used by households to gain access to cash, has been reduced due to security considerations. Local trade has also been affected by the closure of the border with Eritrea. Local wage rates have dropped by 25-30 percent in all zones as a result of an oversupply of workers.

Also, in **Amhara** region, wage labour is an important source of income in most chronically food insecure areas and wages have been declining as more people are looking for casual work. Firewood and charcoal prices have also declined as more people are involved in selling these commodities throughout the Region.

In some zones of western **Oromiya** (Illubabor, Jimma and West Wellega), due to an increased supply of labour and poor coffee prices, average wage rates for daily labour are expected to decline. Other income earning activities in Oromiya are also reportedly down, including that generated from firewood and charcoal sales. Large volumes of firewood and charcoal in the markets of Arsi, Bale, East and West Hararghe, and East Shewa Zones, have led to low prices.

In **SNNPR**, there have been many reports of malnutrition problems for children under five, for a number of areas, including the woredas of North Omo, Konso, Derashe and Burgi. There is concern that malnutrition could be the highest health problem in these areas unless abated by supplementary food aid assistance. The inadequate supply of supplementary food or lack of it is a very serious problem in most of the woredas visited in the South, and needs due attention and immediate responses particularly in North Omo zone and Burgi special woreda. High population density throughout much of the Southern Region, particularly in the former Wolayita awaraja of North Omo, Sidama and some woredas of KAT zone, is a major factor affecting longer term food security.

Early Warning and Vulnerability Assessment

Several organisations in Ethiopia are active, regarding early warning and vulnerability assessment activities. These include the government's Disaster Prevention and Preparedness Commission (DPPC), USAID's Famine Early Warning System (FEWS), EU's Local Food Security Unit, WFP's Vulnerability Analysis and Mapping (VAM) Unit, as well as systems within NGOs and other organisations. Under the umbrella of the DPPC's Early Warning Department; an Early Warning Working Group was created in 1999 to coordinate pre-assessment and planning activities.

This year the assessment was improved partly due to an increase in the resources mobilised - 20 teams with approximately 90 assessors. The teams spent more time in the field, allowing a more detailed and thorough assessment, and a much better coverage of the pastoral Regions, and they adjusted their timing so that late and post-season factors could be better incorporated into the findings. The methodology used this year was more participatory in nature, allowed for more information to be gathered from affected households, and made use of more gender-sensitive approaches.

This report is prepared on 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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1 / The contents of this section are based on a variety of sources including the FAO Country Economic and Agriculture Sector Profile, UNDP's Ethiopia Development Cooperation and the Economist Intelligence Unit Reports.