SPECIAL REPORT

FAO/WFP CROP AND FOOD SECURITY ASSESSMENT MISSION TO ETHIOPIA

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Mission Highlights

- Poor 2009 secondary season "belg" rains followed by late meher rains affected 2009 crop production, particularly long maturing crops, in several parts of the country.
- National cereal and pulse production in 2009/10 is forecast at 16.8 million tonnes, comprising 15.69 million tonnes from the meher peasant holdings, 350 000 tonnes from commercial and cooperative farms and a forecast average belg harvest of about 780 000 tonnes in 2010.
- At this level, national cereal and pulse production in 2009/10 is some 4.7 percent below the all time record harvest in 2008/09 but still about 7 percent above the previous five years average.
- Cereal prices remain stable or declining, but are still well above the levels before the 2007/08 food price crisis.
- Cereal import requirement in 2010 is estimated at about 1.16 million tonnes of which 520 000 tonnes are anticipated to be imported commercially. Cereal food aid commitments under the relief and safety net pipeline stand at about 650 000 tonnes, covering the estimated gap of about 640 000 tonnes.
- About 5.23 million people are currently estimated to be in need of relief food assistance. As of February, the national relief pipeline has a shortfall of 290 000 tonnes.

1. OVERVIEW

An FAO/WFP Crop and Food Security Assessment Mission visited Ethiopia from 9 November to 4 December 2009 to estimate the 2009 main meher season cereal and pulse production; review the 2009 secondary belg season harvests; forecast the 2010 belg season production; and assess the overall food supply situation for the 2010 marketing year (January/December). Accompanied by experts from the Ministry of Agriculture and Rural Development (MoARD), the Central Statistics Authority (CSA) and by observers from USAID/FEWSNet and the Joint Research Centre of the European Commission (EC-JRC), the Mission mobilized seven teams and visited, over an 18-day period, 62 zones and special woredas (districts) covering all the grain producing regions and the marginal areas.

The Mission obtained pre-harvest planted area estimates from the annual CSA sample survey. At regional level, CSA data were disaggregated by main crops. At zonal level data were provided only at aggregate level by main commodity groups such as cereals, pulses and oilseeds. Yield estimates for all major food crops were obtained from woreda, zonal and regional agricultural bureaux, which were cross-checked against information provided by farmers, traders, NGOs that were interviewed during the field trips and against remote sensing and rainfall data provided by early warning systems. Within the visited zones and special woredas, about 250 key informant interviews were conducted, about half of them with farmers and associated with crop inspections, including spot-check crop-cuts. Market visits, livestock body condition scoring and continuous transect observation recording of crops and their conditions using the Pictorial Evaluation Tool (PET) were conducted over about 22 000 km travelled by the teams. This information provided the background with which teams audited performance data received and, where considered necessary, yield forecasts were adjusted to take into consideration the latest and broader information collected by the teams.

The Mission also acquired CSA pre-harvest yield estimates, determined by CSA staff from farmer interviews conducted in September/October against which to compare and contrast the Mission's later November/December findings. To determine food needs, the Mission held interviews with different stakeholders such as FEWSNet, DRMFSS, Save the Children UK, OCHA, UNICEF and also reviewed preliminary reports from the mid meher and meher needs assessments.

The overall agricultural performance of the 2009 meher season has been affected by general late seasonal rains coupled with erratic distribution, prolonged dry spells and below normal amounts in several eastern pats of the country. In particular, the poor performance of the meher rains affected eastern, south-eastern and southern Tigray, eastern Amhara, Afar, Gambella, parts of eastern Oromia, parts of SNNPR and Somali Regions. Although the performance of meher rains was relatively better in the western parts of the country, the late onset of the rains, which necessitated re-plantings in parts, affected yields of crops in some traditionally high-producing areas, especially in West Shewa, East Shewa and Arsi in Oromia; Awi, East Gojam, West Gojam, North Gonder and South Gonder in Amhara; and Metekel and Pawe Special Woreda in Benishangul Gumuz.

Nationally, the Mission forecasts total cereal and pulse production in 2009/10 at 16.8 million tonnes, comprising 15.69 million tonnes from the meher peasant holdings, 0.35 million tonnes from commercial and

cooperative farms and a forecast belg harvest of about 0.78 million tonnes in 2010. At this level, the output is some 4.7 percent below the all time record harvest in 2008/09 but still about 7 percent above the previous five years average. Sorghum and maize crops have been most adversely affected, while production of teff and barley is less affected and production of wheat is expected to increase.

As a result, the cereal import requirement in 2010 is estimated at nearly 1.16 million tonnes. With commercial imports forecast at 520 000 tonnes and food aid in pipeline and pledges currently amounting to about 30 000 tonnes, there is an uncovered gap of about 610 000 tonnes.

Cereal wholesale and retail prices in main markets have reached record levels between October and November 2008, with severe consequences on food access of the most vulnerable households, especially in urban areas. In particular, between February and August 2008, in only six months, nominal retail prices have almost doubled in the case of wheat, teff and sorghum and increased by 150 percent in the case of maize. Since April 2008 to the present, the wholesale price of wheat is constantly above the international parity price, showing the profitability of commercial imports.

The meher needs assessment projected that a total of 5.23 million people would need emergency food assistance from January to June 2010. Taking into consideration various factors, the Mission concluded that the number of people in need of emergency food assistance could rise to approximately 6.5 million people by June 2010, depending on performance of belg rains (February-May). This estimation takes into consideration 1.2 million people facing a net livelihood deficit, the current limitations of non-food emergency response mechanisms in the country, and the experience from the last few years of increasing needs during the middle of the year. In order to address the needs of affected people a total food emergency requirement for the period January to June 2010, including TSF will be in the range of 640 000 to 760 000 tonnes.

2. <u>SOCIO-ECONOMIC CONTEXT</u>

2.1 <u>Macro-economic situation</u>

Ethiopian economy has experienced a broad-based and steady growth of real GDP over the past six fiscal years. After a decline of 2.1 percent in 2002/03 as a result of a severe drought that affected agricultural production, real GDP has showed a strong positive performance, totalling a cumulative growth of about 76 percent. The National Bank of Ethiopia estimates real GDP growth in 2008/09 at 11.2 percent. As in the recent past years, the main determinants of the sustained economic growth are the good performance of agricultural production, with significant contribution of manufacturing and services as well as the expansion of the construction sector (mainly housing, roads and hydroelectric dams).

Poverty headcount declined from 44 percent in 2000/01 to 36 percent in 2005/06 and has likely continued to fall given the high levels of growth. Infrastructures have expanded rapidly: the paved road network has increased by 43 percent, power generation has nearly doubled, primary school enrolment has increased from 5.2 to 13 million and most health indicators have shown steady improvements. However, in 2008/09 fiscal year, the country has faced the twin challenge of record high inflation and low international reserves. In order to react to this macroeconomic crisis, the Government adopted the following main specific measures:

- 1. Considerable adjustment of the fiscal deficit by cutting net domestic borrowing (apart from parastatal institutions) to zero. The fiscal deficit successfully dropped to an estimated 2.3 percent of GDP in 2008/09, although it is expected to widen to 3 percent of GDP in 2009/10 because of the adoption of a slightly looser fiscal policy in response to global economic fragility.
- 2. Elimination by October 2008 of fuel price subsidies by fully adjusting domestic prices to the import parity level. This measure represents a reduction of budget expenditures by some USD 200-250 million per year.
- 3. Import of 822 000 tonnes of wheat since August 2008 and its distribution at subsidized prices in urban areas to flour mills, traders and consumer associations of which 450 000 tonnes were imported and distributed in 2009. In addition, the Government removed value added tax, turnover tax and surtaxes on some food items to ease the pressure on local prices.
- 4. In January 2009, the Government increased the daily wage for public works in PSNP from ETB 8 to ETB 10 per day. A further increase could be made in 2010 subject to review of actual grain prices.

The reduction of domestic borrowing has been felt through reduced growth of public expenditure, especially in non-social sectors. In fact, the bulk of social sector spending through block grants to *woredas* has been guaranteed by the Protection of Basic Services (PBS) project, a multi-donor framework set up by the World Bank in 2006 to support decentralized public service delivery in basic education, primary health, water supply, agriculture and rural roads. Until 2008, the PBS programme has in fact secured approximately

USD 800 million from donors, with the Government providing a counterpart funding of about USD 1.7 billion. In total, the overall balance of Government finance in 2008/09 (including external grants) shows a budget deficit of 1.1 percent of GDP, the lower in the last five years.

The need of major public enterprises (such as the state-owned electric power (EEPCo) and telecom (ETC) companies) to borrow externally to finance their infrastructure development has increased the external public debt from USD 1.3 billion in 2008 to USD 2.7 billion in 2009.

	2006/07	2007/08	2008/09
Real Sector & Prices (% change over previous year)			
Real GDP	11.5	11.6	11.2
Agricultural Value Added	9.4	7.5	6.0
Non-Agricultural Value Added	13.3	15.4	15.7
All Services	14.3	17.0	17.3
Consumer Price Index	15.8	25.3	36.4
Government Finance (% change over previous year)			
Domestic Revenue (including grants)	26.3	35.1	35.8
Tax Revenue	22.6	37.1	20.0
External Grants	103.2	30.7	12.9
Total Expenditure	21.0	31.8	27.2
Overall Balance (including grants) (as % of GDP)	3.6	2.9	1.1
External Sector (% change over previous year)			
Exports	18.5	23.7	-1.2
Imports	11.6	32.9	13.5
Average Exchange Rate ETB/USD	8.79	9.24	10.4
Reserve in months of imports	2.1	1.6	1.7
Total Merchandise Exports (million USD)	1185	1466	1448.0
Total Merchandise Imports (million USD)	5126	6811	7727.0
Total Trade Balance (million USD)	-3941	-5345	-6279.0
Overall Balance of Payments (million USD)	85.2	-263.3	376.9

Table 1 – Selected macro-economic indicators

Source: Ministry of Finance and Economic Development; National Bank of Ethiopia.

Nominal domestic revenue in 2008/09 (including grants) remains low as a percentage of GDP at only 11.7 percent, but it has increased by 35 percent if compared to previous fiscal year. Despite the creation in mid-2008 of the Ethiopian Revenue and Custom Authority whose Mission is to boost tax collection, the tax revenue-GDP ratio has gradually declined in the past few years, reaching a low 8.1 percent in 2008/09, posing significant constraints to Government's capacity to finance its spending objectives.

The total value of exports in 2008/09 slightly declined compared to the previous few years due to low traded volumes and low international prices of coffee, leather products and pulses. Export of pulses was partly discouraged by the relatively higher domestic prices. By contrast, exports of oilseeds and chat sustained their growing trend, in terms of both volume and value. It is worth to note that, despite the lower international prices, the share of oilseeds exports, mainly sesame, increased from 10 percent to 25 percent of the total export earnings. Although export volumes and values are still limited in absolute terms, the flower sector has shown signs of promise.

Commodities	2006/07	2007/08	2008/09	Last year's change (%)
Coffee				011011g0 (707
Value	424.2	524.2	375.0	-28.5
Volume	176.4	170.7	134.0	-21.5
Oilseeds				
Value	187.4	219.0	356.1	+62.6
Volume	235	152.1	287.0	+88.7
Chat				
Value	92.8	108.2	138.7	+28.1
Volume	22.7	22.4	25.4	+13.3
Leather & leather products				
Value	89.6	99.2	75.3	-24.1
Volume	15.8	14.9	7.3	-51.1
Pulses				
Value	70.3	144.5	90.7	-37.2
Volume	158.8	233.0	138.0	-40.8
Gold				
Value	97.0	78.8	97.8	+24.2
Volume	5.6	3.8	4.9	+28.9
Other exports	223.8	291.9	313.4	+7.4
Total exports	1185.1	1465.8	1447.9	-1.2

Table 2 - Major exported commodities	(value in USD million	is; volume in '000 tonnes)
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Source: National Bank of Ethiopia and Ethiopian Customs Authority.

The value of imports increased by 13.5 percent in 2008/09, less than the rate in 2007/08 due to the lower international prices of fuel products and other products (such as fertilizers). By the end of 2008/09 fiscal year, the trade deficit reached a record level of USD 6.28 billion, an increase of about 17.5 percent compared to the previous year. Thus, exports were able to finance less than 9 percent of imports.

In 2008/09, the official exchange rate of the national currency has been depreciated due to the high inflation rates that have eroded the competitiveness of tradable sectors and exacerbated the external imbalance. In fact, compared to average levels of 2003-07, the real effective exchange rate had appreciated by some 35 percent as of June 2009. Consequently, the official exchange rate of the ETB against the USD has been depreciated by 9 percent at the beginning of July 2009 with a further depreciation of about 5 percent in January 2010 and it currently stands at record low USD 1= ETB 13.57 (February 2010).

The depreciation of the ETB was also driven by the tight situation of foreign-exchange reserves, depleted by the increasing import bill and by a decline in remittances from the diaspora affected by the international economic and financial recession. The foreign-exchange reserve reached its record low level of USD 906 million in 2007/08 and increased to USD 1.5 billion in June 2009 (thus increasing the reserve from 1.2 to 1.8 months of imports). This was helped by lower fuel prices and the disbursement of new grants and concessional loans by donor community such as the new IMF funds released in September 2009 through the Exogenous Shocks Facility (ESF).

In 2008/09 (July-June), average inflation rate stood high at 40.6 percent (based on 12-month moving average), with an historical peak of 46.1 percent in February 2009, about 28 percentage points above the corresponding rate of February 2008. Similarly, food inflation rate in February 2009 stood at record 61.1 percent, with an increase of 37.4 percentage points if compared to the same month in 2008. Since then, overall and food inflation rates have rapidly and constantly declined, reaching the levels of 6.6 and 0.7 percent respectively in January 2010. Non-food inflation rate has shown a slightly different pattern, with a more modest increase until the beginning of 2009 (essentially due to a lower increase in prices of raw materials and services) and then gradually declining since June 2009 (see Figure 1).



Source: Central Statistical Agency.

The cereal price index (whose weight is about 23 percent of CPI) reached a record peak of 290 (December 2006=100) in September 2008. It quickly dropped to 214 in just three months (see Figure 2) where it stabilised for few months. The arrival of the meher crop on markets has further pushed down the CPI and by January 2010 the CPI declined by almost 13 percent from August 2009. Other factors at play include, the importation and distribution at subsidised prices of about 822 000 tonnes of wheat by the Government since August 2008; Suspension of large volumes of local grain purchases; removal of value added tax, turnover tax and surtaxes on selected food items; and significant grain imports by humanitarian agencies (mainly wheat and red sorghum) to replenish stocks loaned by the Emergency Food Security Reserve Administration (EFSRA) and to cover food needs of the PSNP or of some localized emergency situations.

Figure 1 – Inflation trend



Source: Central Statistical Agency.

2.2 **Poverty and population**

According to the 2009 Human Development Report of the United Nations Development Programme, Ethiopia is ranked 171st out of 177 countries in the human development index, with a GDP per capita adjusted with the Purchasing Power Parity of only USD 779 (compared to almost USD 2 000 average for Sub-Saharan countries). According to the latest Household Income, Consumption and Expenditure (HICE) Survey by the Central Statistical Authority (CSA), the incidence of national poverty declined from 44.2 percent in 1999/00 to 38.7 percent in 2004/05. In particular, reductions in poverty levels were observed in rural areas following the steady increase in Government's pro-poor expenditures (averaging at about 13 percent of GDP in the last five years). On the other hand, urban poverty has shown only a marginal decline especially due to the limited capacity of the manufacturing sector to absorb the increasing number of economically active population in towns as well as the negative impact on household budget of increasing prices of food commodities.

Regarding non-income poverty indicators, gains in welfare have been significant during the last ten years when Ethiopia began decentralizing basic service delivery responsibilities, first to regions and then more recently to local governments. For instance, primary school enrolment has risen to over 91 percent; there has been a sustained decline in child malnutrition; infant mortality rates has fallen from 123 in the early 1990s to 77 by the end of 2005; while the proportion of the population with access to clean water has more than doubled (from 19 percent in the 1990s to 52.4 percent by the end of 2006/07).

Rapid population growth remains a major barrier to poverty reduction. The addition of about 2 million persons per year puts tremendous strains on Ethiopia's environment, the economy and the ability to deliver proper services. According to the recently released 2007 Population and Housing Census, Ethiopia's population was 73.9 million in May 2007. Ethiopian population is still overwhelmingly rural, with 16.2 percent living in towns and only Addis Ababa, the capital, accounting for 2.7 million people (about 3.7 percent of the total population). Applying the official overall annual population growth rate of 2.6 percent, total population for mid-year 2010 has been estimated by the Mission at about 80 million.

2.3 <u>Recent developments in food security policy</u>

Since early 1990s, the Government has adopted the Agricultural Development Led Industrialization (ADLI) policy that primarily focused on the intensification of production systems. Current agricultural policy is still based on the ADLI framework but, within the 2006/10 Plan for Accelerated and Sustained Development to End Poverty (PASDEP), it shows a shift in strategy toward a more market-oriented agriculture, either at

national than international level, and the promotion of private investments. As reported in the PASDEP, the main instruments to achieve these objectives are: (i) the construction of farm-to-market roads; (ii) the development of agricultural credit markets, (iii) the improvement of specialized extension services; (iv) the promotion of specialized export crops (such as spices, cut flowers, fruits and vegetables); (v) the increase of irrigated area through multi-purpose dams; (vi) the adoption of measures to improve land tenure security; (vii) the introduction of reforms to improve the availability of fertilizer and seeds.

In August 2009, the MoARD launched the 2010-2014 Food Security Programme (FSP) whose aim is to improve food security for chronic and transitory food insecure households in rural areas putting them on a trajectory of asset stabilization and accumulation to finally become food sufficient first and then food secure. In order to achieve this goal, the FSP relies on the following four activities:

- the third phase of the Productive Safety Net Programme (PSNP), including a Risk Financing mechanism,
- the Household Asset Building Programme (HABP),
- the Complementary Community Investment programme (CCI) and
- the Resettlement Programme.

Other important recent policy measures related to food security are the Fertilizer Support Project and the Agricultural Growth Programme (AGP).

2.3.1 The Productive Safety Net Programme (PSNP)

The PSNP was launched in January 2005 for assisting initially about 5 million chronically food-insecure people in rural areas. The PSNP represented a significant transformation of the Government's food security policy. It follows the same approach that inspired food policies during last five years: moving away from appeals for emergency food aid toward a more articulated development-oriented plan to address the underlying causes of household food insecurity and protect livelihoods. PSNP's objectives are the reduction of household vulnerability, the improvement of household and community resilience to shocks and breaking the cycle of dependence on food aid. The key goal is to enable chronically food insecure household to acquire sufficient assets and income in order to "graduate" out of food insecurity.

Through the PSNP scheme, the chronic food insecure families receive cash or food transfers, either 'for work' (through labour-intensive public works in soil and water conservation, water harvesting, small-scale irrigation, reforestation, rural infrastructure development, horticultural development and water supply schemes) or 'for free' (through direct support to labour-poor households, including the elderly, sick and female-headed households), on a regular and predictable basis, with financial and technical support on a multi-annual basis. From its start, the PSNP has progressively shifted away from giving support in-kind towards providing cash transfers that increase flexibility over households' consumption decisions to meet immediate needs while protecting their assets.

The first "transition" phase of the PSNP has been completed in December 2006, during which period the necessary institutional structures, implementation capacity, financing modalities and financial management systems are being put in place. During 2006, the PSNP was scaled up to reach 7.23 million people (more than 1.4 million households) and it operated in approximately one third of the country, in over 230 woredas in seven regions (Tigray, Amhara, Oromiya, SNNPR, Afar, Harar and Dire Dawa). The second "consolidation" phase started in the first quarter of 2007 and lasted until the end of 2009. It aimed at consolidating the results achieved in the first phase building on three components: (i) Safety Net Grants for activities including Public Works and Direct Support (ii) Risk Financing, which provides additional resources for these activities to allow the programme to scale-up in response to shocks, and (iii) Institutional Support, focused on capacity building, monitoring and evaluation, and programme governance.

Between mid-2007 and the end of 2008, due to the escalating food prices and stagnant labour wages for public works, the proportion between food and cash transfers via PSNP substantially shifted in favour of food, reversing the situation that characterized the beginning of the programme in 2005-06. In addition, at the end of 2008, the record food inflation coupled with a poor production of the 2008 Belg season induced the PSNP to advance resources to provide supplementary food and cash assistance to 4.4 million of its worst affected beneficiaries. Additional financial resources were made available by the World Bank through Global Food Crisis Response Programme (GFRP). In addition, the reduction of purchasing power was addressed by increasing by 25 percent the daily wage for public works from ETB 8 to 10. This situation led to additional financing requirements of the PSNP of USD 164 million for 2008/09.

Following a comprehensive review process of the first two phases, a third phase has been approved and it will run from 2010 to 2015. Beneficiary population has been scaled up to about 7.6 million in 290 woredas in eight regions (with the inclusion of Somali). This phase will continue the implementation of the three components of the second phase adding a new one on Household Asset Building, which would provide support to the Government's HABP to help food-insecure households to diversify their income streams and raise productivity, partly by improving access to credit. The renewed focus on protection of households' assets is due to the fact that, as of April 2009, only about 57 000 households (about 280 000 individuals) had graduated from the PSNP, showing that strengthening livelihoods to make households food secure is a longer and more complex process than was suggested by the initial five-years timeframe of the PSNP. The third phase is expected to cost USD 2.26 billion¹, with the inclusion of USD 580.9 million from USAID and WFP in-kind contributions (as food resources), and financing of public works will use almost half of the total budget. Donors have already committed some USD 1.72 billion, leaving a significant financing gap of USD 536.5 million or 24 percent of the total estimated cost.

2.3.2 Household Asset Building Programme (HABP)

The Household Asset Building Programme (HABP) is designed to prevent asset depletion by assisting food insecure households in PSNP woredas to transform their productive systems by diversifying income sources, improving productivity and increasing productive assets. The Programme has been designed to strengthen the extension system and rural service providers to deliver demand-driven and market-oriented assistance to food insecure households. Extension workers are expected to provide advice to identify investment opportunities to develop new farm and non-farm income-generating activities. At the same time, extension services will be de-linked from credit provision and a sustainable financial system needs to be established in food insecure woredas.² The HABP intends to support micro finance institutions (MFIs)³, such as the Rural Savings and Credit Cooperatives (RUSACCOs), in expanding their outreach and offering a range of products tailored to help food insecure households to implement their investments. The HABP recognises also that a different approach to building sustainable livelihoods is required in pastoral areas of Afar, Somali, Oromiya and SNNPR, with a special focus on risk management activities as they frequently suffer from drought and other shocks.

2.3.3 <u>The Complementary Community Investment (CCI) Programme</u>

The Complementary Community Investment (CCI) component of the FSP is a programme of capital intensive community infrastructure development aimed at benefiting groups of food insecure populations living in selected chronically food insecure woredas. Investments will focus on pastoral, semi-pastoral and moisture-stressed highland areas. Regions will define woredas in need and best able to take advantage of such investments.

2.3.4 <u>The Resettlement Programme</u>

In the past years, the Resettlement Programme has already moved about 190 000 households from marginal lands in chronically food insecure areas to new, more productive lands in the western parts of Amhara, Oromiya, SNNP and Tigray Regions. These represent 43 percent of the Government's target of 440 000 households. The current programme aims at increasing the number of resettled households, but in particular it will consolidate the infrastructure, services and natural resource development for the existing settlers.

2.3.5 The Fertilizer Support Project

Within the World Bank Emergency Food Crisis Response Programme, its aim was to contribute Government's efforts to ensure availability of fertilizers during the 2009 belg and meher seasons by providing the necessary foreign exchange to support import and distribution of a significant share of the fertilizer demand in 2009. The Project amounted at USD 250 million that were disbursed to support the importation of fertilizers. The total fertilizers' demand for 2009 was estimated at 600 000 tonnes, 510 000 tonnes of which were procured by the Project and the remaining 90 000 tonnes of urea were imported with the support of the African Development Bank. The parastatal Agricultural Input Supply Enterprise (AISE) played the role of procuring entity, delegated by cooperatives and unions to import all fertilizers. The cooperative system has then been in charge for the domestic distribution.

² Previously, credit was provided through the Extension Service, but this led to confusion about the terms under which the funds were given, low repayment rates, and friction between communities and Development Agents who were responsible for loan collection.

¹ Financing of first and second phases was USD 409.0 million and USD 1040.2 million, respectively.

³ Since 1996, 29 MFIs have been established in all regions, with about 2.4 million clients. Loans are mainly requested for cattle fattening or sheep and goat rearing and their size ranges from ETB 150 to ETB 5 000.

2.3.6 The Agricultural Growth Programme (AGP)

The idea of the AGP started in April 2008, when a group of donors expressed interest in financing a growth agenda with a pooled or coordinated funding in order to harmonise efforts to promote agricultural growth. The AGP is still under preparation and its budget is planned at USD 300 million. The AGP objective is "to increase productivity in a sustainable manner, strengthen marketing and facilitate value addition of selected livestock and crop products in targeted areas with due attention to women and youth". The programme will focus on geographic areas that will most likely lead to high returns and on selected commodities whose production intensification and availability of markets is likely to be highly profitable. The AGP is expected to be implemented in about 80 woredas located in Amhara, Oromia, SNNP and Tigray Regions. Being oriented to highly productive areas, the AGP tends, in principle, to exclude the PSNP woredas.

3. FOOD PRODUCTION IN 2009

3.1 General

The Central Statistical Agency (CSA) estimates that a total of 12.4 million ha are being farmed in Ethiopia, producing mainly cereals and pulses, but also considerable quantities of oil-seed such as sesame, root crops such as cassava, Solanum potato and sweet potato, stem crops such as Enset and many fruit crops, including bananas, mangoes, citrus and others. In 2009, the total area under meher cereal crops is estimated at 9.16 million ha, with 1.41 million ha being used for pulse crop production.

Ethiopia is overwhelmingly dependent on annual rainfall, which is normally considered as occurring in two distinct rainy seasons, the belg and the meher seasons. Long season crops of maize and sorghum are planted in April and May, but in 2009 these plantings were disrupted by the late belg rains. By convention, all crops harvested by 31 August are regarded as 'belg' crops, while crops harvested from 1 September to 31 March are regarded as 'meher' crops. Traditionally, the belg production supplies about 8 percent of annual national crop production. The CSA estimated 2009 belg crop production at 774 534 tonnes, made up of 694 200 tonnes of cereals and 80 334 tonnes of pulse crops, about 4.8 percent of the overall 2009 production.

The population of Ethiopia is one of the least urbanized in Africa, with an estimated 80 percent of the people dependent on agriculture and pastoralism for their livelihood. Agriculture is still highly labour intensive, with ploughing being done using the traditional *maresha* plough, normally drawn by two oxen. Land is ploughed repeatedly, especially for the ultra-small seeded teff crop which needs a very fine seed bed. By reducing soil to such fineness, the risk of erosion is increased, especially on slopes, where many farms are situated. The use of Conservation Agriculture is at a very early stage of adoption, but as it typically prevents over 90 percent of soil erosion when properly implemented, its introduction and demonstration is very desirable.

Teff is the most valuable cereal crop, but it is not as productive as long-cycle maize and sorghum crops or the short-cycle wheat and barley crops that are also widely grown. Root crops such as sweet potato and cassava are important in the south of the country, with enset, the "false banana" (Enset ventricolosum), being important in several districts south of Addis Ababa. With poor harvests in these areas in recent years, over-harvesting of enset has taken place as people strove to meet their food needs.

Cash cropping is important, with coffee, oilseeds such as sesame, nug (Niger seed), sunflower, safflower in drier areas, chat and sugar cane. Sesame has increased in importance and there is good foreign demand for the high quality product that is mainly produced in Western Tigray. Fruit crops include mango, bananas and various citrus crops. Eucalyptus plantations provide building timber and the wood is also used for furniture and firewood.

3.2 Rainfall in 2009

Two major factors affected crop production in Ethiopia in 2009. The first was the virtual failure of the belg rains that not only reduced the 2009 belg harvest, but also delayed land preparation and prevented the planting of high-yielding long-cycle meher crops, such as maize and sorghum. These crops were often substituted by short-cycle crops such as teff, wheat and barley, which are inherently lower yielding. This shift contributed to reduce 2009 aggregate crop production.

The second factor was inadequate performance of meher rains across the country, with late onset, erratic distribution and early cessation. This situation affected in particular central, south-eastern and southern Tigray, eastern Amhara (especially lowlands of North and South Wollo), Afar, Gambella, parts of Oromia

(especially Illubabor, East and West Hararghe) and parts of Somali region and SNNPR. In a lesser extent, the poor performance of meher rains affected also some high-producing areas, such as North Shewa, East Shewa, Arsi and midlands and highlands of Bale in Oromia; Awi, East Gojam, West Gojam, North Gonder and South Gonder in Amhara; and Metekel and Pawe Special Woreda in Benishangul Gumuz. In these areas, the meher rainfall only began between the last week of June and mid-July instead of its normal start at the end of May/beginning of June. This caused delays in land preparation and there was a rush of jobs to be done all at once, such as ploughing, planting and weed control. Poor meher rainfall in pastoral and agropastoral lowlands of South Omo, Borena and lowlands of Bale and Guji reduced pasture and water availability, resulting in early migration of livestock.

As an example, the normal onset of the meher rains in Adigrat (eastern Tigray) takes place in the first week of June and the rains usually cease around September 20. In 2009, the meher rains began on June 22 and ended on August 22, almost a month too soon. There was also a break in rainfall from August 1 to 14 which resulted in the destruction of the pulse harvest and badly affected other crops. Then, once the rain resumed, there was good distribution until the first week of September, when there was a three-week dry period. This dry period coincided with the flowering and grain filling stages of both pulses and cereals and had an adverse effect on yields. Fortunately, the rain resumed again, beyond the normal season, at the end of September and saved many crops from total loss. However, yields and crop quality were both reduced because of this dry period at such a crucial growth stage in these high-potential zones.

Annex 1 provides monthly NDVI data (elaborated by the Joint Research Centre of the European Commission) that show vegetation anomalies (comparing 2009 with 2008) from June to November.

3.3 Area planted

The Mission used CSA figures for 2009 area planted by peasant holdings. The total area planted to cereals for the meher season on small farms is estimated at 9.16 million ha, an increase of about 395 000 ha, or 4.5 percent above the previous year. The area under pulse crops declined from 1.59 million ha in 2008 to 1.41 million ha in 2009, a decrease of about 175 000 ha or 11.0 percent. In the absence of similar data for the commercial sub-sector, the Mission estimated area planted with cereals and pulses at 140 000 ha, using as a proxy the 2008 data.

3.4 Factors affecting yield

3.4.1 <u>Seeds</u>

The usage of improved seeds is one of the most efficient ways of raising crop production, but in Ethiopia less than 10 percent of farmers use improved seeds. This is partly a supply problem due to the inability of the various suppliers (the Ethiopian Seed Enterprise and other suppliers including international firms such as Pioneer Seed Company and cooperative seed producers) to meet the demand. Also, as farmers have little working capital and uncertain access to credit, they often cannot afford the cost of improved seed and the fertilizer it requires to achieve its maximum genetic potential and yield. Hence, most farmers use second or later generation seed, thereby reducing harvest potential.

The major supplier of seeds to farmers is the Ethiopian Seed Enterprise (ESE) and its sales figures in the last three years in quintals are shown in Table 3.

	ion or improved s	eeus in recent	years (quintais)	
Crops	2006	2007	2008	2009
Wheat	115 888	75 602	121 749	123 215
Maize (hybrid)	35 082	50 554	36 167	29 657
Maize (composite)	11 568	4 194	5 767	8 530
Maize total	46 650	54 748	41 934	38 187
Sorghum	139	279	787	1 504
Barley	10 023	6 355	6 457	9 053
Teff	3 527	5 816	6 541	7 872
Field peas	796	1 388	1 003	419
Faba bean	2 232	2 720	3 438	2 265
Haricot bean	4 369	2 238	1 925	4 000
Soya bean	812	1 705	469	210
Chick peas	2 208	1 346	2 795	2 904
Lentils	1 884	664	1 177	809

Table 3 - ESE distribution of improved seeds in recent years (quintals)

Source: Ethiopian Seed Enterprise (ESE).

Assuming a planting rate of 25kg/ha for maize, the amount of hybrid seed available from ESE in 2009 was sufficient to plant only 118 628 ha or 6.6 percent of the total maize area of 1.79 million ha. The Mission learned that Pioneer Seed Company sold 25 000 quintals, sufficient for 100 000 ha, depending on seed size. Hybrid seed availability is therefore less than 230 000, or about 12.2 percent of the amount of maize grown. The ESE has tentatively estimated availability and allocation of seeds for the year 2010, as shown in Table 4. These figures show a substantial increase in the expected availability of both improved wheat and hybrid maize seed, with a threefold increase in the availability of improved wheat seed and a doubling of the availability of hybrid maize seed.

Crops	Amhara	Oromia	SNNP	Tigray	Others	Total
Wheat	98 293	137 610	98 293	39 317	19 658	393 172
Maize (hybrid only)	19 029	12 115	21 963	56	6 395	59 558
Sorghum	554	680	127	206	16	1 583
Barley	3 927	11 227	2 717	1 482	-	19 365
Teff	7 214	8 160	2 966	4 302	-	22 642
Field peas	114	169	73	87	14	4
Faba bean	1 501	1 592	637	773	46	4 549
Haricot bean	147	720	736	25	8	1 636
Soya bean	187	826	80	240	-	1 333
Chick peas	3 008	2 557	376	1 429	150	7 520
Lentil	30	34	2	18	2	86

Table 4 - Expected	production &	distribution of im	proved seeds by	y ESE in 2010 (quintals)
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Source: Ethiopian Seed Enterprise (ESE).

In addition to ESE and multinational seed companies, cooperative unions are also widely engaged in the production of improved seed of various crops, with support from the European Union, other donors and various NGOs. This helps to raise the total available improved seed but the use of such seed still remains less than 10 percent of all crops grown.

3.4.2 Fertilizers

According to CSA figures provided to the Mission, almost 90 percent of all chemical fertilizers are applied to cereal crops, with teff receiving about 30 percent, wheat also about 30 percent, barley 8-9 percent and pulses about 10 percent.

Ethiopia totally depends on imports to meet its annual fertilizer demand. The foreign exchange needed for fertilizer importation is financed through loans, donor assistance (grants) and the Government treasury. Hence, precision in planning and fine-tuning of marketing activities are necessary to ensure timely imports and supplies. The fertilizer sector has been deregulated and opened for private competition since the mid 1990s. Following the issuance of the fertilizer policy, the pan-territorial fertilizer pricing system was eliminated and subsidies were removed. However, aware of the strategic role of the fertilizer sector in achieving self-sufficiency and in alleviating poverty, the Government of Ethiopia is still involved in the sector by making credit available to farmers and by encouraging more fertilizer use. New Government import guidelines have been recently issued in order to facilitate access to credit (especially on collateral requirements) and increase the number of private importers.

Through the World Bank Fertilizer Support Project, some 626 000 tonnes of fertilizers have been imported in 2009 (see Table 5), about 40 percent more than the volume imported in 2008. In particular, imports of DAP have increased from 282 600 tonnes in 2007/08 to 420 000 tonnes in 2008/09, while imports of urea passed from 159 500 to 206 300 tonnes in the same period. At aggregate level, total fertilizer availability is estimated at about 728 000 tonnes, comprising 101 500 tonnes of carryover stocks. The parastatal Agricultural Input Supply Enterprise (AISE) played the role of procuring entity, while cooperatives and unions were as usual in charge of the domestic distribution.

Table 5 – Fertilizer supply in 2009 (tonnes)

	Op	ening stoc	ks		Imports		Total supply			
	DAP	Urea	Total	DAP	Urea	Total	DAP	Urea	Total	
Amhara coop unions	12 468	9 508	21 976	94 009	43 362	137 371	106 477	52 870	159 347	
Oromia coop unions	31 379	14 147	45 526	108 416	46 861	155 277	139 795	61 008	200 803	
SNNPR coop federation				72 987	17 691	90 678	72 987	17 691	90 678	
AISE Wondo trading PLC	9 783	5 842	15 625	110 823 34 234	82 730 15 618	193 553 49 852	120 606 34 234	88 572 15 618	209 178 49 852	
Tigray coop unions	7 878	10 466	18 344				7 878	10 466	18 344	
Total	61 508	39 963	101 471	420 469	206 262	626 731	481 977	246 225	728 202	

Source: Agricultural Marketing Department, MoARD.

Sales of fertilizers for 2009 meher season were delayed and reduced compared to the expected demand of 600 000 tonnes because rains were late in many areas and farmers tends to buy their basal fertilizer (mainly DAP) only when rains and land preparation start. As reported in Table 6, sales amounted to only 426 000, leaving about 303 000 tonnes of fertilizers in cooperatives' storage facilities in readiness for the 2010 season.

	DAP	Urea	Total
Oromia	109 143	48 946	158 089
Amhara	86 270	56 706	142 976
SNNPR	42 285	7 375	49 660
Tigray	10 692	7 220	17 912
Harari	9	57	66
Afar	252	126	378
Somali	134	87	221
B. Gumze	800	200	1 000
Dire Dawa	10	10	20
Others	28 644	27 710	56 354
Total	278 239	148 437	426 676

Table 6 - Fertilizer sales in 2009 (tonnes)

Source: Agricultural Marketing Department, MoARD.

3.4.3 <u>Chemicals</u>

The use of herbicides and other agro-chemicals is still very low in Ethiopia. The total sales of 2,4D, the main herbicide, by the AISE in 2009 were 340 013 litres, while sales of Malathion and Endosulfan were only 1 917 and 7 384 litres, respectively. Other companies are also involved in the supply of agro-chemicals, but the amount supplied is modest by international standards.

3.4.5 Pests and diseases

The incidence of pest and disease outbreaks was unusually low in 2009, with no major outbreaks of common pests such as the Desert Locust, Wollo Bush Cricket, Army Worm or Quelea Quelea attacks. Such outbreaks were quickly and efficiently controlled by the authorities concerned. Stalk borer is a major insect pest in sorghum and maize, but in 2009 it was not any more prevalent than normal. The parasitic weed, Striga, was seen widely and is a threat to sorghum yields, especially in Tigray Region. An unidentified pest, similar to Army Worm, was reported to have caused damage to crops in some areas of SNNPR.

3.5 <u>Other crops</u>

Root crops such as cassava, sweet potato and Solanum potato are important in SNNPR. In 2009, due to poor belg rains, it proved difficult to maintain supplies of sweet potato vines in SNNPR, which reduced the amount of this high-yielding crop that could be planted.

Enset or false banana is an important crop in Gurage and other areas south of Addis Ababa. Due to a succession of poor seasons, over-harvesting of this staple food was reported.

Coffee crops were reported to be good in the traditional growing areas of SNNPR.

Sesame crops in Amhara and Tigray were generally good, as this crop has low rainfall requirements and prices were reported to be much better than in previous years. Some wind damage was reported from the Humera area and this caused shelling of the crop close to harvest. The high quality of Ethiopian sesame is widely recognized on international markets.

Rice production is increasing rapidly in Ethiopia, with area planted increasing from 35 088 ha in 2007 to 59 310 ha in 2009, according to CSA figures.

3.6 Livestock

Ethiopia has one of the largest livestock inventories in Africa. According to the Agricultural Sample Survey of 2008/09 by CSA, it includes more than 49 million cattle, 47 million small ruminants, 7.6 million equines, 760 000 camels and 42 million chickens (CSA, 2009), with livestock ownership currently contributing to the livelihoods of an estimated 80 percent of the rural population.

In the arid and semi-arid extensive grazing areas in the Eastern, Western and Southern lowlands cattle, sheep, goats, and camels are managed in migratory pastoral production systems. In the highlands, livestock are kept under settled or transhumant systems utilising common pastures many of which have a high clover content, and crop residues. Such livestock includes some 11.5 million oxen providing draught power for the mixed farming system that prevails.

The human population (over 80 percent is engaged in agriculture) is growing at an estimated 2 million per annum and needing more farm land each year. Much of the available land is coming from areas that were hitherto used for livestock grazing. This is reducing the amount of grazing land every year, but especially so in a year such as 2009, when rainfall and hence natural pasture availability, is highly constrained. Livestock are currently subsisting on crop residues in the most drought affected parts of the country, but there is little natural pasture available in these areas, due to a succession of dry years.

Enclosure of hillsides that used to be used for grazing and browsing has also reduced the amount of land available for livestock. Such enclosed hillsides recover vegetation very quickly, protecting soil, but, as noted in the previous CFSAM reports, the introduction of cut and carry systems for grass on these hillsides for livestock use has not yet been properly organized by local authorities.

Some cattle owners are reported to have migrated with their animals in search of grazing to neighbouring woredas. In Tigray it was reported by MoARD staff that up to 400 000 cattle, or 12.9 percent of the estimated 3 103 468 cattle are considered at risk, due to non-availability of grazing. The Belg rains have largely failed in eastern Tigray for three consecutive years, seriously reducing pasture growth.

Livestock prices have been adversely affected by poor pasture growth in the east and south of the country. In South and North Wollo and Eastern Tigray, prices of cattle, sheep and goats have halved compared to last year. Farmers reported that even at such low prices, buyers are scarce. Contrarily, livestock prices are reported to be good in Somali Region, especially after heavy rains in October and November, which helped to improve pasture availability. Demand for stock for the export market is also helping to raise prices there.

No major disease outbreaks were reported, though diseases such as Trypanosomiasis are a problem in the western regions, especially in Benshangul-Gumuz.

Migration of large numbers of livestock from Kenya was reported from Borena Zone, due to poor rains and depleted pastures in that country. Information obtained from Woreda Pastoral Development Officers indicate that 97 000 cattle, 40 000 goats and 1 500 camels had entered eight woredas of Borena Zone between May and July, 2009 from Kenya. This put intolerable pressure on already depleted pasture resources in Borena Zone. With improved rains in Kenya these animals have been brought back home, relieving pressure on pasture in Borena. Other livestock from Kenya and Somalia entered Somale Region, but with improved rains in October in Gode and other zones, these cattle have returned to their normal grazing lands.

3.7 Cereal and pulse production estimates

As already discussed, area data used in the calculations of the 2009 meher cereal and pulse production estimates were provided by CSA for peasant holdings. Yield estimates have been derived by reconciling the CSA pre-harvest 2009 yield estimates with the findings of the Mission during the field work in late November.

Regional totals of area and production, prepared by the Mission, are presented in Table 7. The table indicates a 2009 peasant meher cereal and pulses harvest of 15.69 million tonnes from 10.57 million ha

disaggregated by region and by crop. As reported in Table 8, this is 4.7 percent smaller than the official CSA post-harvest estimates for 2008 record output from a 2.1 percent greater area. Without including pulses, production of cereals is estimated to be 3 percent lower than last year's CSA estimates from a 4.5 percent larger area and it shows the reduction in average yields. However, this level of cereal production from peasant holdings is still 11 percent higher than last five year average. Crops that have been more affected by the adverse weather conditions are sorghum, maize and pulses, whose production is estimated to be lower than previous year by about 26, 11 and 17 percent, respectively. On the contrary, production of teff, barley and wheat is estimated at levels higher than 2008 by 2, 3 and 23 percent. In particular, the significant increase in wheat production is mainly due to the larger planted area, which passed from almost 1.5 million ha in 2009 (about +20 percent).⁴

⁴ Pre-harvest production forecast by the Central Statistical Agency (CSA) based on farmer interviews conducted in September/October 2009 indicate that the meher cereal production by peasant holdings increased by about 6.5 percent compared to 2008 while pulses production decreased by 16.5 percent. Therefore, the increase in the aggregate meher cereal and pulse production by private peasant holdings is put at about 3.8 percent compared to 2008.

Regions	Item	Teff	Barley	Wheat	Maize	Sorghum	Finger Millet	Other	Cereals	Total Pulses	Total Cereals and Pulses
Tigray	Area	192.4	104.9	121.0	69.1	146.2	69.7		703.4	62.4	765.7
	Yield	1.22	1.30	1.35	1.50	1.50	1.10		1.33	1.00	1.30
	Production	234.8	136.4	163.3	103.6	219.3	76.7		934.1	62.4	996.5
Afar	Area				13.2				13.2		13.2
	Yield				2.2				2.2		2.2
	Production				289.7				289.7		289.7
Amhara	Area	1073.0	380.7	547.6	392.5	442.3	179.6	51.9	3067.7	600.6	3 668.3
	Yield	12.2	1.30	1.60	2.10	1.40	1.3	2.85	1.47	1.15	1.42
	Production	1309.1	495.0	876.1	824.3	619.3	233.5	148.1	4505.4	690.7	5 196.1
Oromiya	Area	1106.3	562.5	925.3	971.6	652.8	98.1	39.7	4356.3	592.5	4 948.8
	Yield	1.20	1.50	1.95	2.13	1.50	1.35	1.60	1.66	1.25	1.61
	Production	1327.6	843.8	1804.3	2069.5	979.2	132.4	63.6	7220.2	740.6	7 960.8
Somali	Area				27.5	39.3			66.8	0.8	67.6
	Yield				1.20	1.20			1.20	0.85	1.2
	Production				32.9	47.2			25.1	0.6	80.1
Beni-Gmuz	Area	18.1		1.8	38.1	60.2	32.0	0.4	150.7	9.3	159.9
	Yield	0.96		1.40	1.90	1.35	1.20	1.3	1.41	1.00	1.39
	Production	17.4		2.6	72.4	81.3	38.4	0.5	212.5	9.3	221.8
SNNPR	Area	179.4	78.2	143.6	269.8	90.8	7.6	0.4	769.9	145.8	915.7
	Yield	1.04	1.20	1.80	1.35	1.30	1.60	1.1	1.34	0.85	1.26
	Production	186.6	93.8	258.5	364.2	118.1	12.2	0.4	1033.9	124.0	1 157.8
Gambella	Area				6.0	3.7			9.7	0.2	9.9
	Yield				1.80	1.80			1.80	1.20	1.79
	Production				10.8	6.7			17.5	0.2	17.7
Harari	Area			0.3	1.5	5.2			7.0	0.0	7.0
	Yield			1.45	1.80	1.10			1.26		1.26
	Production			0.4	2.7	5.7			8.9	0.0	8.9
Addis Ababa	Area	3.9	0.1	4.0	0.0	0.0			8.1	1.5	9.6
	Yield	1.30	1.50	2.00	2.2	1.2			1.65	1.00	1.55
	Production	5.1	0.2	8.0	0.0	0.0			13.4	1.5	14.8
Dire Dawa	Area				0.5	6.7			7.3	0.3	7.6
	Yield				0.90	1.00			0.90	0.85	0.90
	Production				0.5	6.7			7.2	0.3	7.5
Total	Area	2573.2	1126.5	1743.6	1789.8	1447.4	387.0	92.4	9159.9	1413.4	10 573.3
	Yield	1.20	1.40	1.79	1.96	1.44	1.27	2.30	1.54	1.15	1.48
	Production	3081.5	1569.2	3113.3	3501.0	2083.5	493.2	212.7	14062.2	1629.6	15 691.8

Table 7 - Area ('000 ha), production ('000 tonnes) and yield (tonnes/ha) of cereals and pulses in 2009 meher season for peasant holdings

	Cer	eals	Pu	lses	Cereals a	nd pulses
	Area	Production	Area	Production	Area	Production
	(ha)	(tonnes)	(ha)	(tonnes)	(ha)	(tonnes)
2004	7 637 524	10 030 836	1 349 116	1 349 579	8 986 640	11 380 415
2005	8 081 401	11 624 271	1 292 170	1 271 247	9 373 571	12 895 518
2006	8 471 920	12 879 793	1 379 046	1 578 622	9 850 966	14 458 414
2007	8 730 001	13 716 991	1 517 662	1 782 739	10 247 663	15 499 730
2008	8 765 439	14 496 406	1 588 432	1 964 630	10 353 871	16 461 036
2009	9 159 936	14 062 222	1 413 362	1 629 559	10 573 298	15 691 781
Five-year average	8 337 257	12 549 659	1 425 285	1 589 363	9 762 542	14 139 023
% change 2009	+4.50	-3.00	-11.02	-17.06	+2.12	-4.67
vs. 2008						
% change 2009	+9.87	+12.05	-0.84	+2.53	+8.30	+10.98
vs. five-year						
average						

Table 8 – Grain production from 2004 to 2009 meher seasons for peasant holdings

Source: data from 2004 to 2008 by CSA; 2009 data estimated by the Mission.

As reported in Table 9, the Mission estimated production of cereals and pulses for commercial farms in 2009 meher season at about 351 000 tonnes (as in 2008). This brings the Mission's estimate of total 2009 meher cereal and pulse production (peasant and commercial sectors) slightly above 16.04 million tonnes from a total of 11 million ha.

	2007				2008	3	2009		
	Area (ha)	Yield (t/ha)	Prod. (tonnes)	Area (ha)	Yield (t/ha)	Prod. (tonnes)	Area (ha)	Yield (t/ha)	Prod. (tonnes)
Cereals & Pulses	178		411	176		351	141		351
Total Cereals	158		381	156		327	140		333
Teff	5	1.7	8	5	1.1	5	5	1.1	6
Barley	0	1.9	1	1	1.7	2	1	1.7	2
Wheat	33	2	66	20	2	40	22	2	44
Maize	54	3.6	191	50	3.2	160	45	3.4	153
Sorghum	66	1.8	115	80	1.5	120	80	1.6	128
Total pulses	20	1.5	30	20	1.2	24	15	1.2	18

Table 9 - Commercial farm estimates for cereals and pulses (2007-2009)

Source: 2007 and 2008 data by CSA; 2009 data estimated by the Mission.

3.8 Belg harvest

The Mission was provided with the CSA post-harvest assessment of the 2009 belg season. 2009 belg rains were well below normal level in many belg producing areas and this not only led to the failure of many belg crops, but also caused poor yields of long-season maize and sorghum crops, normally planted in April and May or to their substitution by short-season crops of teff, wheat and pulses that are normally planted with the meher rains in June and July. CSA estimated 2009 belg production of cereals and pulses at about 775 000 tonnes, 3.6 percent above drought-affected production of 2008, but well below the production of 1.5 million tonnes obtained in 2007.

		2007			2008			2009	
Crops	Area	Yield	Prod.	Area	Yield	Prod.	Area	Yield	Prod.
	(000 ha)	t/ha	(000 t)	(000 ha)	t/ha	(000 t)	(000 ha)	t/ha	(000 t)
Teff	111	0.8	84	69	0.5	33	91	0.4	40
Barley	237	1.6	373	142	0.8	112	206	0.6	131
Wheat	148	1.3	187	65	1.0	67	81	0.9	71
Maize	315	2.1	649	512	0.8	412	538	0.7	400
Sorghum	60	1.4	82	61	0.4	25	64	0.6	38
Finger millet	5	0.7	4	2			1		
Oats	6	1.1	7	12	1.0	12	13	0.8	10
Rice	5	3.6	18				2	2.4	4
Total cereals	888		1 405	863		661	996		694
Total pulses	138		113	188		87	206		80
Cereals & pulses	1 025		1 517	1 050		748	1 202		775

Table 10 – Belg season production estimates of cereals and pulses (2007-2009)

Source: 2007 and 2008 data by CSA; 2009 data estimated by the Mission.

Aggregate 2009/10 national production of cereal and pulses, including Mission's estimates for 2009 Meher production by both peasant holdings and the commercial sector plus the forecast for 2010 Belg production to be harvested next July, is estimated at 16.8 million tonnes, about 4.7 percent below 2008 record output but still 6.9 percent above last five year average.

Table 11 – National production of cereals and pulses (tonnes) in 2007, 2008 and 2009 (000 tonnes)

	<u> </u>		· · · · · · · · · · · · · · · · · · ·
	2007/08	2008/09	2009/10
Meher production (peasant holdings)	15 500	16 461	15 692
Meher production (commercial sector)	411	409	351
Belg production	748	775	776
Total national	16 659	17 645	16 819

Source: CSA data for years 2007/08 and 2008/09; Mission's estimates for 2009/10.

4. GRAIN SUPPLY/DEMAND SITUATION

4.1 Cereal markets and trade

Figures 4 indicates cereal wholesale prices in Addis Ababa (in nominal terms) reaching record levels between September and October 2008 with serious negative impact on consumers' purchasing power. Between February and September 2008, in only seven months, nominal wholesale prices of cereals have increased by about 90-100 percent for teff and wheat and by 130-140 percent for maize and sorghum.



Figure 3 - Nominal wholesale cereal prices in Addis Ababa (January 2007-January 2010)

Source: Ethiopian Grain Trade Enterprise (EGTE).

In last few months, cereal prices in Addis Ababa market have stabilised or declined further. For instance, in February 2010 prices of maize, white sorghum, mixed teff and white wheat declined in nominal terms by 22 percent, 4 percent, 11 percent and 13 percent respectively, compared to a year earlier. Overall, despite the steady decline and stabilisation of prices, price levels in the last few months are still higher than the pre-price crisis levels. Wholesale wheat price dropped by almost 32 percent from the record level achieved in September 2008 to February 2010. This is essentially due to the introduction in the market of 822 000 tonnes of Government imported wheat to be sold at subsidized prices to low-income households in several urban areas. The availability of subsidized wheat in almost all markets has also contributed to the stabilization of prices of other cereal crops. Wholesale price of maize has also gradually declined from the September 2008 record level as a result of the lower demand by humanitarian agencies following Government's restrictions for bulk purchases of cereals from local markets. In February 2010, maize was traded in Addis Ababa wholesale market at low price of ETB 277 per 100 kg, about 52 percent lower than the September 2008 record.

Another notable feature is that since April-May 2008 domestic wholesale prices of wheat and maize in Addis Ababa started to be above import parity prices,⁵ indicating that local wholesale prices did not follow the downward trend in international prices that began in March 2008, but continued to rise or stabilized at high values (see Figures 4 and 5). Since then the domestic wholesale price of wheat has remained above the import parity price whilst the import parity price of maize is again above the local price since the end of 2009. In January 2010, the local price of wheat was above the import parity price by some 35 percent. This means that, from April 2008 to the present, commercial imports of wheat become profitable and that sometimes they were prevented only by constraints such as the low availability of foreign currency or the lack of bank credit for grain trading. Furthermore, the governmental intervention to stabilize the market injecting subsidized wheat brought the wholesale price down at average USD 450/tonne from record level of almost USD 710/tonne, but it is still well above the 2009 average import parity price of USD 300/tonne.



Figure 4 - Wholesale price and import parity price for white wheat in Addis Ababa market

Source: Mission's estimates.

⁵ Import parity is estimated as fob US Gulf (US N.2 hard red winter wheat and US N.2 yellow maize) plus USD 30/tonne as freight to Dibouti port plus USD 60/tonne as transport and marketing costs to wholesale market in Addis Ababa.



Figure 5 - Wholesale price and import parity price for white maize in Addis Ababa market

4.2 Recent trends in cereal imports

Commercial imports of cereals, mainly wheat, have risen strongly in the last couple of years, a reflection of the Government's effort to stabilise prices following the significant increase in domestic food prices. As shown in Figure 6, food aid imports of wheat are still significant but in the last two years commercial imports have significantly increased.



Figure 6 – Imports of wheat, both commercial and food aid, in 2004-2009 ('000 tonnes)

Maize imports ranging in volume between 30 000 to 82 000 tonnes in the last five years is mainly in the form of food aid. On the other hand, food aid imports of sorghum have been negligible until 2007 when there was a sharp increase in last two years, with import amounts reaching 240 000 tonnes in 2008 and 108 000 tonnes in 2009.

4.3 National grain supply/demand balance in 2009

As in 2006, 2007 and 2008 CFSAM reports, the Mission presents a disaggregated version of the national grain supply/demand balance, considering separately teff, wheat, barley, maize, sorghum, finger miller, other cereals and pulses. The 2010 national grain balance (January-December) is summarized in Table 12 and is based on Mission's production estimate for the 2009 Meher crop and forecast of the 2010 Belg crop and the latest information on consumption, trade flows and stocks availability.

Source: FAO/GIEWS database.

- Total cereal and pulse production is estimated at 16.82 million tonnes, including 16.04 million tonnes from the main 2009 meher crop and a provisional forecast of 776 000 tonnes for the 2010 belg crop.
- Opening stocks of grains for 2010 marketing year (January/December) are estimated at about 290 000 tonnes of which about 150 000 tonnes are held by the Emergency Food Security Reserve Agency (EFSRA).
- Feed use is forecast at 325 000 tonnes, largely for the poultry industry, dairy industry and equines.
- Seeds requirements are estimated at about 740 000 tonnes on the basis of recommended seed rate in Ethiopia and a planted area of about 11 million ha of cereals and pulses in 2009/10 (including forecast of 2010 Belg). The following seed rates have been used: 140 kg/ha for wheat, 110 kg/ha for barley, 35 kg/ha for teff, 30 kg/ha for maize, 80 kg/ha for finger millet, 14 kg/ha for sorghum, 100 kg/ha for pulses and 80 kg/ha for other crops.
- Post harvest losses and other uses are estimated at 2.04 million tonnes, with rates ranging from 5 percent for teff and finger millet to as high as 18 percent for maize. Total losses averaged about 12.1 percent of the total production.
- Exports are estimated at 130 000 tonnes, including 100 000 of pulses and 30 000 of teff. Some of these exports are expected to be through cross border trade.
- Food use is estimated at 14.80 million tonnes, using a projected 2010 mid-year population of 80 million persons and a per capita average consumption at 185 kg of cereals and pulses. Per-capita consumption comprises 47 kg of maize, 38.5 kg of wheat, 33.5 kg of teff, 31 kg of sorghum, 14 kg of barley, 6 kg of millet, 14 kg of pulses and 1.2 kg of other cereal crops.
- Closing stocks are forecast at 230 000 tonnes compared to the opening stocks of about 290 000.
- The cereal import requirement in 2010 is forecast at 1.16 million tonnes, mainly wheat, with some minor quantities of maize and sorghum.

	Teff	Wheat	Barley	Maize	Sorghum	F. Millet	Others	Total cereals	Pulses	Cereals & pulses
Domestic availability	3 151	3 296	1 732	4 125	2 286	506	242	15 338	1 771	17 109
Opening stocks	30	60	30	50	35	10	15	230	60	290
Total production	3 121	3 236	1 702	4 075	2 251	496	227	15 108	1 711	16 819
2009 meher season	3 081	3 165	1 572	3 675	2 214	493	213	14 412	1 631	16 043
2010 belg season	40	71	130	400	38	3	14	696	80	776
Total utilization	3 151	4 276	1 732	4 203	2 387	506	242	16 497	1 771	18 268
Food use	2 840	3 560	1 280	3 280	1 960	400	200	13 521	1 280	14 802
Seed use	91	251	132	59	20	31	8	594	147	741
Feed use			120	100	100	5		325		325
Losses & other uses	156	405	170	734	281	60	23	1 828	214	2042
Comm. & informal exports	30							30	100	130
Closing stocks	33	60	29	30	25	10	11	198	30	228
Estimated import requirement		-980		-78	-101			-1 159		-1 159
Anticipated commercial imports		520						520		520
Estimated gap		460		78	101			639		639

Table 12 - National grain supply/demand balance, January-December 2010 (000 tonnes)

Table 12 indicates a cereal import requirement of about 1.16 million tonnes. The Mission estimates that Ethiopia is able to import commercially about 520 000 tonnes of cereals. This is mainly based on estimates in 2008 and 2009. This leaves an estimated gap of about 640 000 tonnes. Taking into account cereal food aid in stocks and pledges amounting to 650 000 tonnes, the requirements to cover for the estimated gap could be fully met. However, international assistance is still required to meet the pipeline relief food needs shortfall, which as of February is estimated at about 290 000 tonnes of mixed commodities (cereals, pulses, vegetable oil and blended food).

5. HIGHLIGHTS/SUMMARY FOOD SECURITY STATUS IN 2010

The food security situation in Ethiopia in 2009 has been largely driven by the high food prices though cereal prices declined by 25 percent in December 2009 compared to December 2008, they have remained more than 50 percent above the five year average. Added to this was the global financial crisis that has been transmitted to exporting sectors in Ethiopia. At household level, this resulted in the reduction in income for most households depending on export oriented sectors, particularly coffee and chat farmers, who reported reduction in income attributed to low demand for their product and low prices⁶.

Furthermore, the subsequent poor rainfall seasons in 2007/08 and 2008/09 especially the belg/gu rains affected food insecurity for most of the pastoral areas, mainly the eastern lowlands of Guji and Bale and Borena zones of Oromiya region and most of Afar and Somali regions. The late, erratic and early cessation 2009 Meher rainfall resulted in poor crop production resulting in poor food access and incomes in eastern and southern Tigray, eastern Amhara and Oromiya region, southern and eastern SNNPR and most of Gambella regions, for the period January to June 2010. Added to this are chronically issues affecting food insecurity namely: land degradation with 50 percent of the highlands believed to be degraded; land pressure resulting in 37 percent of the farming households in the country cultivating less than 0.5 ha and some 87 percent cultivate less than 2 ha⁷; the poverty level with 37 percent of the population leaving below the poverty datum line; and high population growth now estimated at 2.6 percent outstripping the cereal production though growing by more than 10 percent per annum.

The food insecurity in the affected areas in 2010 will certainly lead to higher levels of malnutrition unless appropriate food and non food interventions are undertaken in time. The meher needs assessment projected that a total of 5.23 million people would need food assistance from January to June 2010. Taking into consideration various factors, the Mission concluded that the number of people in need of food could rise to approximately 6.5 million people for the period May/June 2010, depending on performance of belg rains (February-May). In order to address the needs of affected people a total food emergency requirement, including TSF will be 758 973 tonnes.

5.1 Household food security and nutrition

Regardless of substantial resources invested each year by the Government and its partners to reduce food insecurity, both chronic and transitory food insecurity problems continue at the household level. The major factor contributing to food insecurity remains to be consecutive below normal rainfall seasons. Other factors contributing to household food insecurity include the food prices that though have decreased compared to 2008 have remained above average; markets functionality in some rural areas; access to credit for agricultural inputs; lack of pasture and water for livestock; and inadequate water for human consumption especially in the lowland and pastoral areas; low livestock productivity that has not recovered from subsequent droughts; inadequate veterinary and health services; and population growth that is not matching the agricultural production. Malnutrition continues to affect populations especially in the lowlands areas of SNNP, Oromiya, Amhara, Tigray regions and some parts of Somali and Afar regions.

Once a year the Government of Ethiopia, together with its development partners, conducts a seasonal assessment in November/December to assess the impact of the meher rainfall (July to October) on production and the livelihoods of the communities with a view to identifying short term and long term humanitarian needs for timely intervention by the Government and its partners. Up to 2007, the meher assessment used to come up with only food needs for affected populations. However, the Government has continually reviewed and changed the strategy shifting from being food focused to an all hazard disaster risk management and response system. With effect from 2008, the combined meher seasonal assessment came up with humanitarian needs of the affected population covering all sectors in addition to food needs including education, health, nutrition, education, water and sanitation, agriculture and livestock needs. In 2009, due to the poor belg (February to June) performance and the forecasted below normal and late start of the

⁶_Macro and Household level Impact of The Global Financial Crises, *Ethiopian case Study, WFP, September 2009.*

⁷ CSA, 2003.

meher/kiremt rains, the Government commissioned a mid-meher⁸ assessment to evaluate the season's performance. The objective of this assessment was to assess the likely impact of delayed and erratic performance of kiremt rains (July to October) on livelihoods and crop production and forecast food security conditions between January and June of 2010.

5.1.1 <u>The Multi-Agency Needs Assessments</u>

A multi-agency and multi-sector assessment has generally adopted the Household Economy Approach (HEA) for the assessment and analysis of food needs in Amhara, Oromiya, Tigray, SNNP, Somali and Afar regions, while traditional methodology is still applied in Gambela and Benshangul regions. The seasonal assessment analysis is carried out using the HEA Livelihoods Impact Analysis Spreadsheet (LIAS) for deriving of food needs, whilst other approaches are used to come up with the non food needs. The LIAS identifies the wealth group affected in each woreda, months of deficit, and quantifies the population in need under both the "survival" and the "livelihood protection" thresholds. The "*Survival*" threshold is the amount of food and cash income required to cover in the short term food needs and the cost of preparation. The "*Livelihood*" protection threshold is cash income required to maintain expenditure on basic non food goods and services such as agricultural inputs, routine health care, tax, vaccines, and school expenses at household level to avoid erosion of assets compared to the levels prevailing in the reference year⁹. The livelihoods protection threshold is set at a level that assumes additional income can be generated without applying negative coping strategies.

Prior to 2009, emergency needs were derived by considering the total deficit (summing up individuals falling within the survival and livelihood protection deficits) less the productive safety net beneficiaries at woreda (district) level. Furthermore, all individuals included in the total deficit (survival and livelihood) were targeted for food or cash assistance intervention. However, in a departure from past precedent, the Governments Disaster Risk Management and Food Security Sector (DRMFSS) has, in the contingency planning document¹⁰ generated from the mid meher assessment shifted to target only those in the survival deficit with emergency food or cash assistance under safety net. The same approach was applied in the meher needs assessment of December 2009. The Government anticipates that the needs of the population falling under the livelihood protection threshold would be addressed through emergency interventions by the non-food sectors such as agriculture and livestock, water sanitation and hygiene, health and education. Based on this analysis, the contingency planning document released in December 2009, indicated that 4.8 million people were food insecure and provided the preliminary planning figures for emergency needs for the period January to June 2010.

In order to update the needs generated in the contingency planning document, the Government and its partners conducted a multi sector and multi agency meher needs assessment between 22 November and 14 December 2009. Information from this assessment informed a Humanitarian Requirements Document (HRD) released early February 2010 and replacing the December 2009 contingency plan.

5.1.2 <u>Nutrition and health assessments</u>

Nutrition surveys in Ethiopia are carried out on an ad hoc basis in response to reported emergencies in different areas of the country. However with effect from 2009, the surveys carried out in response to the 2008 nutrition crisis have provided baseline for future monitoring of nutrition especially in SNNP, Amhara, Oromiya, Tigray, Afar and Somali regions. (For details and more information on nutrition see health and nutrition section below)

5.2 <u>Methodology for assessing current food security</u>

In assessing food security of affected communities, the Mission has relied mostly on the DRMFSS led joint Government and multi agencies mid meher assessment contingency plan report, the meher seasonal needs assessment reports and other food security updates available in the country. Interviews were held with some relevant agencies involved in the mid meher assessment to verify information on the food security situation in the country. Other food security related field reports, food security updates from various agencies and nutrition assessments provided valuable information on the food security situation.

⁸ The assessment was conducted between 28 September and 11 October 2009.

⁹Source: Household Economy approach manual.

¹⁰ Joint Government and humanitarian partners' national contingency plan, December 2009.

5.3. Programmes targeting food insecure households

The two largest food security related programs are carried out through (and in coordination with) the Government's Disaster Risk Management and Food Security Sector (DRMFSS) of the Ministry of Agriculture and Rural Development (MoARD). When planning to provide assistance at the local level, eligible households are usually identified by the community representatives using local criteria of the most vulnerable in the community or the national relief targeting guidelines that are currently under revision.

5.3.1 The Productive Safety Net Programme (PSNP) within the Food Security Programme

The Government's Productive Safety Net Programme has been implemented since 2005¹¹ to address problems faced by chronically food insecure households in a way that prevents asset depletion at the household level and create assets at the community level.¹² A monthly resource transfer to poor households is in the form of cash, and/or food. Once enrolled in the PSNP, a household receives 6 months of assistance on a multi-annual basis until it reaches a level of asset holding to graduate from the programme. In 2009, the PSNP has provided assistance to approximately 7.5 million persons. In the Somali region, there are plans to expand the PSNP to cover a total of 409 770 people in 15 woredas in 2010, an increase of 152 percent over 2009 beneficiaries in the region. Most PSNP woredas provide cash transfers following harvest and then food transfers for the last two or three months of assistance, which usually coincide with the hunger season normally between June to August. In PSNP woredas where availability in markets is a problem especially in Afar and Somali regions, food transfers are given for all six months of assistance.



From 2010, the PSNP is integrated within the broader Food Security Programme. This is the main programme addressing food insecurity in Ethiopia. It combines the support to food access through the PSNP with developmental interventions in household asset building, complementary community infrastructure, and resettlement. This aims to provide a coherent and systematic approach to addressing the causal factors for food insecurity in Ethiopia.

5.3.2 <u>Emergency food assistance and other programmes</u>

In addition to the PSNP, other WFP's food security related interventions include the following:

• Depending on the humanitarian situation and available resources, emergency-affected people are provided with a monthly individual ration comprising 15 kg cereals, 1.5 kg pulses and 0.45 kg vegetable oil.

¹¹ PSNP started in six regions of Tigray, Amhara, Oromiya, SNNP, Harar and Dire Dawa administrative regions.

¹² Major components of public works are rural road construction, water development, water harvesting, soil and water conservation, forestry development and development of social infrastructures (health posts, schools rehabilitation, child care facilities etc).

- The Enhanced Outreach Strategy/Targeted Supplementary Food for child survival (EOS/TSF) which
 was launched in 2004 is a joint programme by the ministry of Health with UNICEF support and the
 DRMFSS with WFP support. The programme provides nutritious fortified food and vegetable oil for
 moderately malnourished children who are under five years, together with pregnant and lactating
 women. Severe cases of malnutrition are referred to the nearest Therapeutic Feeding Programmes
 (TFP) managed by the Ministry of Health and/or Non-Governmental Organisations (NGOs).
- The Sustainable Land Management programme, including interventions such as MERET, focuses on managing environmental resources to increase food productivity in a sustainable manner in Amhara, Dire Dawa, Oromiya, SNNP, Somali and Tigray regions. Cash or food assistance is provided to food insecure households involved in activities such as soil and water conservation, rural infrastructure, and reforestation activities.
- Several agencies are involved in conducting nutrition assessments to inform the Government and support the food insecure households.

5.4 Impact of belg and meher seasonal performance on food security

Rural populations are highly dependent on their own crop and livestock production to access food and incomes. Therefore in addition to decreased food, rainfall failure leads to fewer incomes for majority of the rural households. On the other hand urban residents, the pastoralists and some of the rural poor purchase most of their food and any price increases affects access to food leading to households being food insecure.

5.4.1 Food security and areas of concern for January to June 2010

5.4.1.1 Gambela region

Gambela is generally regarded as a food secure region benefiting from two crop harvests per year; one from the meher season and a second one from recession farming facilitated by annual flooding of Baro and Giilo rivers. However 2009 recorded a meher crop failure in most woredas, hence there will be no recession farming due to reduced precipitation. This means less food available in the region, reduced incomes and reduced access to food for many households in this region. Continued internal clan conflicts and cross border cattle raiding from neighbouring Sudan also contributes to food insecurity in the region. Apart from destabilising communities, the continued conflict within Sudan will further inhibit cross border trade with that country thus reducing possible incomes obtainable from trade. Furthermore refugee influx into Gambela could result from the conflict and elections in Sudan. Additionally conflict within Sudan prevented crop production for population along the border such as Akobo and Jore woredas. Hence drought and conflict resulted in most of Gambela population not able to access food. Prices of cereals were reported to be on the increase while livestock prices remained low with unfavourable terms of trade for pastoral communities. Assessment teams observed some signs of malnutrition in the assessed woredas.

5.4.1.2 Eastern and southern parts of SNNP region

Crop performance in the Eastern part of SNNP was considered to be below normal compared to the baseline year. However, overall performance of coffee was reported to be good in most places and the production is expected to be similar to the normal year. Hence, crop production and food security is expected to be much better than last year in most areas of the region except the few dry lowland areas. The good coffee production will offer the much needed labour opportunities providing income to households that highly depend on this source livelihood. Coffee casual employment is mainly from washing coffee, harvesting and weeding. Food security could however be threatened by pepper growth (an important cash crop) that has been affected due to lack of adequate moisture during May to June. In addition, *enset* area coverage has been declining in the last few areas in the region mainly attributed to disease and being overused during the consecutive drought periods. Planting of the sweet potato was hampered by lack of planting material following poor production of the previous meher and belg seasons.

Although the belg production has been affected by poor performance, malnutrition rates continue to decline probably as a result of the on going relief and safety net programme interventions and better compensatory meher harvest in the western part of the region. However the food security situation was reported to be worsening in the lowland and dry midland areas¹³ that faced 2 to 4 consecutive below normal rainy seasons.

There have been no reported negative coping strategies in most parts of the region. Exceptions are pastoralist areas of South Omo zone where application of coping strategies have been reported. These include reduction in number and size of meals, dependency on social network, hunting small animals and

¹³ These are lowland parts of Gamo Gofa, Wolayita, Dawro, South Omo, Derashe, Konso, Amaro, Burji and Alaba.

wildlife for food and restricted consumption of food by adults to allow enhanced consumption by children. Increased quantity of charcoal making, fire wood collection for sale is a typical coping strategy that the community resorts to in times of food insecurity. Populations in the affected areas will be expected to utilise other normal coping strategies like out migration of young family members to other areas in search of labour to earn incomes. Considering that the next harvest will be in June 2010, affected communities will need food assistance from January till June 2010

5.4.1.3 South Eastern Oromiya and most of the Somali region

This area covers Oromiya zones of Borena, lowlands of Guji, and Bale and the southern parts of Somali region that depend on gu/belg and deyr rains. Performance of the 2009 deyr rains (October - November) led to improved pasture and water availability both for humans and livestock. Increased milk has been reported in these areas and this will contribute to good nutrition especially for children in the short term. Despite the improvement in water resources from the unusual October rains, some locations in lowlands of Borena and Bale zones started reporting serious water shortages for human consumption in January 2010. In the affected areas of Oromiya, livestock body condition has been declining and early livestock migration from Bale and lowlands of Borena zones was reported. There are no major livestock deaths but households are already selling more livestock to meet food and other non-food needs. Incomes from crop production and livestock sales have decreased and this will affect food security at the household level. This situation will likely prevail in the coming dry months (January to March).

Livestock that had migrated to these areas from Kenya are also reported to have returned thus decreasing chances of resource based conflict among communities in these areas. Nonetheless resource – based conflicts in areas bordering Borena and Bale zones of Oromiya and Salahad and Filtu woredas of Somali region still threaten trade and livestock movement¹⁴.

Reports from Somalia indicate that as of January 2010, livestock had started moving from Somalia to Ethiopia's Degehabur and Warder Zones of Somali region¹⁵. This extra livestock will inevitably lead to pasture depletion in affected zones and increase food insecurity in the region. Recent reports from Somali region indicate that prices of livestock have remained relatively stable in most parts of the region although incomes from livestock sales have declined by about 40 percent in pastoral woredas of the region due to the deterioration of livestock body conditions resulting from poor veterinary services and poor markets functionality. On a positive note, high livestock prices especially in Dagehabur, Afder, Liban, Fik and Shinile zones have been reported probably as a result of demand from the Gulf States and Kenya. Communities in these areas may take advantage of this by selling their livestock to access income.

Most grain consumed in the Somali region comes from Western Ethiopia and Somalia, however bad roads and conflict are limiting food movement therefore household access to food. However, the production from Gode irrigation scheme that will start harvesting cereals and pulses in 2010 will further stabilize prices in the southern zones. WFP field reports indicate more food assistance was delivered to Somali region in 2009 compared to previous years. However malnutrition rates for Somali region during April to June were reported to be high (see more details under nutrition section). Fifteen woredas¹⁶ from Somali region will be included in the PSNP program. It is hoped that this will further improve food security for people in these woredas.

5.4.1.4 Afar region and Northern Somali zones of Shinile and Jijiga

All woredas of Afar region are covered by the PSNP. Afar areas of Argoba and Abala experienced total crop failures in 2009. The Afar region as a whole reported poor livestock condition, high mortality rates in some woredas and less livestock herds as a consequence of consecutive depletion of herds in the last 3-4 years. This has led to less income for households, less access to milk and high malnutrition rates. Grain reaching this region is usually imported from neighbouring regions of Oromiya, Amhara and Tigray. However, food availability from these regions is likely to be less in 2010 given reduced crop production resulting from poor rainfall in 2009. Therefore grain reaching Afar and the Northern areas of Shinile and Jijiga will probably be commanding higher prices in 2009 compared to last year (or the long time averages) making it more difficult for poor household to purchase such grain. Jijiga residents may be able to benefit from the current high livestock prices prevailing in the area (because of better access to nearby external markets) to bridge the food security gap.

¹⁴ FEWSNet Ethiopia food security outlook for October to March 2010.

¹⁵ Food Security and Nutrition analysis Unit – Somalia – Post Deyr 2009/10 Assessment Analysis, January 2010.

¹⁶ Afdem, Babile, Barie, Doloodo, Filtu, Dolobay, Hargelle, Charati, Mustahil, Hudet, D/Habour, Harshin, Shinile, Erer and Gursum woredas.

Faced with inadequate food, households will tend to increase charcoal and firewood sales leading to further environmental degradation. This may be followed by more livestock sales further lowering livestock herds and inhibiting recovery efforts in the near future.

5.4.1.5 Central areas of the country comprising of Eastern parts of Tigray, Oromiya and Amhara regions

These areas are mostly covered by the PSNP an indication that they are already chronically food insecure. Information from the mid meher assessment and other sources indicate that these areas exhibit the following characteristics; they are lowlands that received less rainfall especially in lowlands of East Hararghe, West Hararghe, East Shewa, Arsi, West Arsi and some areas of Bale zone. In Tigray it was Mereb Leke, Tanqua Abergele, Raya Azebo, Hintalio Wajirat, and Saese Tsaeda Emba woredas. Crop production was extremely poor in these lowlands. Labour opportunities in the affected areas are limited so households' access to incomes is also limited. Being belg crop dependent, the earliest next harvest is expected in June 2010.

In the affected areas of Tigray region, prices of livestock are reported to be low and are predicted to continue declining due to expected increase in livestock sales and deteriorating livestock body condition in coming months. Access to casual labour (urban) has reduced by up to 90 percent compared to 2007. In Amhara a decline in prices of livestock was recorded in Wag Himra and North Wollo zones while the prices of shoats were increasing¹⁷. In Oromiya, livestock body condition has been declining in East and West Hararghe zones. Lowlands of Arsi, East and West Hararghe Zones have reported water shortages.

Prices of cereals were reported to be on the upward trend and high levels of malnutrition reported in the affected areas. If no immediate interventions are made, households will be forced to reduce quantity and frequency of meals sooner than normal. Other coping strategies might be to increase sales of charcoal and firewood followed by selling of productive assets and finally migrating to any areas where they may see possibilities of accessing food.

5.5 <u>Health and nutrition</u>

Although nutrition surveys are not conducted for surveillance purposes, the emergency response surveys carried out in the country during 2009 indicated a general improvement in the nutritional status of populations in SNNP, Amhara and Oromiya regions. Further information indicate the nutrition status had improved and the rate of admissions in Outpatient Therapeutic Programmes (OTPs)¹⁸ and stabilisation centres (SC) had also considerably reduced compared to previous months as depicted in the Figure 8 below. This has been attributed to food from belg harvests for SNNP and additional emergency food provided through PSNP and other relief operations.



Figure 8 - OTP admissions in some previous hotspot woredas of SNNP region

<u>Note</u>: The eight woredas include: Boloso Sore, Boloso Bombe, East Badwach, West Badawacho, Shashego, Damot Gale, Boricha and Shebedino.

¹⁷ OCHA Humanitarian Bulletin – Ethiopia, 25 January 2010.

¹⁸ The aim of therapeutic feeding programs is to provide medical and nutritional treatment for the severely malnourished in an effort to reduce and prevent excess mortality.

The Emergency Nutrition Quarterly bulletin for the second quarter of 2009 indicates that there were increases in number of admissions partially attributable to a significant increase in new Therapeutic Feeding Programs (TFP) sites opened. The number of TFP sites increased by 86.5 percent, from 1 372 in the first quarter to 2 558 in the second quarter in six regions (SNNPR, Amhara, Somali, Tigray, Afar and Oromiya). More health posts in hotspot woredas of Amhara, Oromiya, SNNP and Tigray were providing OTPs in December compared to September 2009 (see Table 13 below). An increase in therapeutic programmes could be an indicator of increased cases of malnutrition.

Region	Percent of health posts providing OTP in hotspot woredas					
	September 2009	December 2009				
Amhara	15.5	35				
Oromiya	36.6	41.4				
SNNP	70.7	77.6				
Tigray	11.8	27.7				

Tahlo	13 -	n hotena	t woredae	Sontombor	and	December	2009
lable	13 -	n notspe	i woreuas	September	anu	December	2009

Source: UNICEF reports.

Nonetheless recent reports from various agencies indicate a deteriorating nutrition situation during December 2009 with increasing outpatient therapeutic admissions in East Hararge and West Hararge woredas (of Oromiya region) and in some areas of Tigray region¹⁹.

New cases of Acute Watery Diarrhoea (AWD) among migrant communities in Afar Region and residents of South Omo woreda of SNNP were reported as at November 2009. The governments' regional health and water Bureaus, in conjunction with humanitarian partners, are continuously monitoring and responding to any emerging cases of AWD, therefore it is not a major threat to food security.

Despite reported increase in delivery of food assistance to the Somali region malnutrition rates remain high. The high malnutrition rates are attributable to poor livestock conditions, inadequate relief supplies in some areas, acute water scarcity, low coverage of measles immunisations in addition to poor access and movement restrictions and low access to markets.

Table 14 - Nutrition Survey results for Soman region non April to Sune 2005								
Zone	Liben	Afder	Fik	Gode	Shile	Degahabur	Warder	
Woreda	Filtu	Barey	Hamero	Kelafo	Aysha	Dagehabur	Bokh	
% GAM	14.5	16.3	18.4	18.2	15.2	21.9	21.4	
	(11.1-17.9)	(13.3-19.3)	(15.8-21.1)	(15.5-21.0)	(11.4-19.0)	(18.4-25.3)	(16.7-26.0)	
% SAM	0.8	1.1	2.2	2.3	1.8	2.2	3.3	
	(0.1-1.5)	(0.5-1.7)	(1.2-3.2)	(1.3-3.3)	(0.8-2.9)	(0.8-3.6)	(1.3-5.4)	
Rating	Poor	Serious	Serious	Serious	Serious	Critical	Critical	

Table 14 - Nutrition survey results for Somali region from April to June 2009

Source: Emergency Nutrition Quarterly Bulletin (2nd quarter) – Ethiopia. Nutrition surveys were conducted in April and May 2009.

In spite of rigorous implementation of PSNP in chronically food insecure woredas since 2005, coupled with massive food assistance and increased crop production in the last couple of years, malnutrition rates continue to affect populations in various areas. With current reduced crop production and poor rainfall, malnutrition rates are expected to be on the increase especially in Somali and Afar regions, eastern and southern parts of SNNP, eastern parts of Amhara, Tigray and Oromiya regions. Signs of malnutrition were observed in Gambela region and the trend may escalate if measures are not taken to arrest the situation.

5.6 Estimated numbers of people in need of food security assistance

5.6.1 <u>Rural food insecurity</u>

The number of people in need of emergency food assistance is derived from the recent meher assessment. In analysing the number of people in need of emergency food assistance this Mission decided to consider two scenarios: a) that people facing survival deficit are considered as the emergency case load, hence giving a caseload of 5.23 million at the beginning of 2010 as reported in the Humanitarian Requirements Document of February 2010; and b) taking into consideration 1.2 million people facing a net livelihood deficit, the current limitations of non-food emergency response mechanisms in the country, and the experience from the last few years of increasing needs during the middle of the year, emergency needs could rise to a caseload of 6.5 million people by June 2010.

¹⁹ USAID Food Security Update for Ethiopia, December 2009.



Figure 9 - Emergency beneficiaries January to June 2010

The main guiding factor for a possible increase in emergency needs is the rainfall performance in the last two years and the resulting numbers of beneficiaries at different times of the year, keeping in mind that in the last two years emergency needs were determined by the sum of livelihoods and survival caseloads less safety net beneficiaries. A further guiding factor was production in the last two years especially the 2008 that was considered a "bumper" compared to the current crop production.

After considering the foregoing, the fact that the country has experienced reduced crop production and the reality that response mechanisms for non food are not in place within the country to effectively deal with the people facing a livelihood deficit, the Mission concluded that the most likely total emergency case load will be like in previous years total livelihood and survival deficit less safety nets (PSNP). The emergency beneficiary caseload in the last two years, numbers of people in need of food assistance kept rising up. In 2008, the numbers increased from 2.2 million in January to 4.6 million in May 2008 and then 6.4 million in August 2008. In 2009, the numbers increased from 4.9 million in January 2009 to 5.2 million in May 2009 and then 6.2 million in August 2009. Hence, numbers could also increase in 2010 form the current figure of 5.2 million in January 2010 to rise to a caseload of 6.5 million in May/June 2010, unless mechanisms put in place arrest the escalating of needs (see Table 15 below).

Table ⁻	15 - Time series of actual food assis	stance in 2008, 2009 and projection for 2010
	0000	0000

		2008			2009	2010		
Region	Meher needs assessment survival and livelihoods January 2008	Revised May 2008	Belg assess- ments August to December 2008	Meher needs survival and livelihoods January 2009	Revised May 2009	Belg assess- ments July/August	Mostly survival deficit only January 2010	Survival and liveli- hood deficit May/June 2010
Afar		0		86 428	86 428	66 185	87 290	87 290
Amhara		815 630	814 572	995 095	995 095	901 308	994 800	1 255 839
B. Gumuz	10 700	10 700	10 700	35 233	35 233	32 701	32 670	32 670
Dire Dawa		0	25 687	7 644	7 644	7 094	41 010	41 010
Gambella	66 500	66 500	77 025	31 000	31 000	74 578	84 360	84 360
Harar		3 200	3 200	-	-	81 230	9 290	9 290
Oromiya	543 624	1 045 191	1 521 590	683 839	913 227	1 376 294	1 088 903	1 897 691
SNNPR	523 143	1 341 050	1 485 396	881 739	949 582	1 175 984	852 020	1 010 763
Somali	1 020 820	1 025 030	1 881 495	1 550 143	1 526 071	1 832 217	1 397 160	1 397 160
Tigray	16 680	310 000	601 435	684 839	684 182	692 342	641 949	646 024
Grand Total	2 181 467	4 617 301	6 421 100	4 955 960	5 228 462	6 239 937	5 229 452	6 462 097

The breakdown of needs in 2010 would be such that the population requiring emergency needs could be about 5.23 million in the first half of the year rising to 6.5 million people by June 2010, unless Belg production is exceptionally good for those areas depending on Belg production. For the summary of needs in 2010 see Tables 16 and 17.

Pegion	Bonoficiarios	Emergency food requirements							
negion	Deficiciaries	Cereal	Supp. food	Oil	Pulses	Total			
Tigray	641 949	84 353	8 922	8 124	24 538	125 937			
Afar	87 290	7 856	825	236	786	9 702			
Amhara	994 800	96 671	10 150	2 900	9 667	119 388			
Oromiya	1 088 903	98 001	10 290	2 940	9 800	121 032			
Somali	1 397 160	125 744	13 203	3 772	12 574	155 294			
SNNPR	852 020	76 682	8 052	2 300	7 668	94 702			
B. Gumuz	32 670	1 587	167	48	159	1 960			
Gambella	84 360	7 592	797	228	759	9 377			
Dire Dawa	41 010	3 691	388	111	369	4 558			
Harari	9 290	836	88	25	84	1 033			
Total	5 229 452	503 014	52 882	20 684	66 404	642 983			

Table 16 - Emergency population and food requirements for January to June 2010 scenario one

Source: Meher planning document for January-June 2010 and the PSNP plan for 2010.

Table 17 - Emergency population and food requirements for January to June 2010 scenario two

		Emergency food requirements						
Region	Beneficiaries	Cereals	Supp. food	Oil	Pulses	Total		
Tigray	646 024	58 142	10 175	1 744	5 814	75 876		
Amhara	1 255 839	113 026	19 779	3 391	11 303	147 498		
Afar	87 290	7 856	1 375	236	786	10 252		
Oromiya	1 897 691	170 792	29 889	5 124	17 079	222 884		
Somali	1 397 160	125 744	22 005	3 772	12 574	164 096		
SNNP	1 010 763	90 969	15 920	2 729	9 097	118 714		
Gambela	84 360	7 592	1 329	228	759	9 908		
B. Gumuz	32 670	2 940	515	88	294	3 837		
Harari	9 290	836	146	25	84	1 091		
Dire Dawa	41 010	3 691	646	111	369	4 817		
Total	6 462 097	581 589	101 778	17 448	58 159	758 973		

Assumptions made while calculating the food needs: as in previous years it is assumed that the monthly per capita food ration will comprise 15 kg cereals, 0.45 kg vegetable oil and 1.5 kg pulses for a period of 6 months. The planned supplementary ration for "blanket" distributions to particularly vulnerable groups is assumed to be 35 percent of the needy population, consisting of 4.5 kg. It is also assumed that the ration will be provided with effect from January 2010 onwards.

5.6.2 Urban poor populations

Urban populations purchase majority of their food from markets. With reduced production and expected continued demand, prices will likely increase gradually and poor urban based households may not be able to access enough quantity and quality food unless the Government continues to implement the price stabilization programme through importation of grain.

5.6.3 Food security outlook for January to June 2010

As outlined earlier malnutrition rates seem to be on the decline especially in SNNP for the period January to Dec 2009. This is partially attributable to the PSNP implementation in these areas, access to crops from the belg and meher in addition to food assistance provided to the areas. The expected increase in incomes from coffee and ginger production is expected to slightly improve food security in the region. However the belg dependent Southern parts of SNNP, the special woredas of Konso, Derashe, Burji, Amaro and pastoral areas of Omo that did not benefit much from the October – December short rains will be highly food insecure. This will further be compounded by the reduced access to the sweet potato that is usually consumed in the hunger months of February to May. Therefore food insecurity will increase during the first half of 2010 in these areas compared to the period June to December 2009.

- Incidences of acute watery diarrhoea continue to be reported in the country for example in some parts of Gambela, Somali and Afar regions plus South Omo and Wolaita zones of SNNP. The Government has already responded to the outbreak and it is hoped the situation will be contained in future.
- The October-December rains 2009 received in southern zones of Somali region and lowlands of Bale and Borena in Oromiya region were low and could not sufficiently replenish the major water sources. This has led to reduced milk availability and lack of water in affected areas. The reduced access to milk will inevitably increase malnutrition rates in the coming months. Early livestock migration has been reported in these areas. Although prices of livestock are high in some zones of Somali region, consecutive rainfall failures have led to reduced herds and recovery will take 2-3 consecutive years of good rainfall. Livestock dependent populations will not be able to take advantage of prevailing high livestock prices because of poor livestock conditions brought about by inadequate veterinary services and reduced herds from previous consecutive years of less than normal rainfall. Another factor preventing exploitation of high livestock prices stems from poor roads infrastructure and insecurity in some southern zones of the Somali region. The unfavourable terms of trade between livestock and cereals will further aggravate food security in pastoral areas.
- The Afar region, Shinile and Jijiga zones of Somali region that sometimes import grain from Amhara, Tigray and Oromiya will not access enough cereals because of reduced crop production in the neighbouring three regions.
- Crop production has been severely affected leading to an estimated 4.7 percent decrease in
 production compared to 2008. This means that supply will be less and demand up, leading to a
 possibility of high prices. This will affect mostly households that are dependent on purchasing most
 of their food needs. With reduced incomes at household level, families will not be able to access the
 right quantity and quality of food needed and there will be an increase in the number of people in
 need of food assistance during the 2010 dry season.
- In the last few years food assistance has been provided to affected populations as the need arose. A typical pattern is depicted in Figure 10 below; due to the poor harvest in most areas the hunger season will be much earlier in 2010, hence a pattern will be skewed to the left.



Figure 10 - Food assistance pattern

Source: FEWSNet.

• For the last two good crop production years, despite using both *survival and the livelihoods deficit* thresholds, food needs continuously rose as the year progressed. In 2008, the total failure of *belg* rains in most parts of the country and the absence of the short rainy season that usually occurs between October and December in the Somali Region and SNNPR compounded by high food prices contributed to a significant increase of emergency food insecure caseloads: from 2.2 million in April to 4.6 million in June and 6.4 million in September 2008.

- In January 2009, the Government announced the need for relief assistance to 4.9 million people. Following additional requests for assistance the number of beneficiaries was reviewed upwards to 5.3 million in May. In October following a reduced belg harvest the Government announced that 6.2 million would need emergency assistance until the end of the year. The Government was concerned about poor belg performance plus delayed and erratic kiremt rains in several locations and commissioned an extra mid meher season assessment to gauge needs and provide decision makers with a rational estimate of possible emergency requirements for the first half of 2010. The mid meher assessment projected that 4.8 million people would need food aid from January to June 2010. The figure has been revised upwards to 5.2 after the normal meher assessment.
- The 6.2 million persons who were provided with food assistance for the period June to December 2009 includes October to December when food assistance needs are usually very low because households start accessing food from the meher crops (see Figure 12 above). Given the timing of harvests in Ethiopia and considering that the earliest next harvests will not be forthcoming until June or September 2010 it is not logical to envisage that figures of people in need will reduce to 5.2 million (as projected by the Humanitarian Requirements Document of February 2010) from the 6.2 million that was being targeted in the months after harvest (September to December 2009). Judging from last three years (and compounded by reduced crop production in 2009), the number of food insecure persons is likely to increase as the dry season progresses finally reaching the level of 6.5 million people by May/June 2010 depending on performance of the belg rains (February May).
- Factors that may lead to increased caseload of beneficiaries are escalation of resource-based insecurity in parts of Southern Somali and neighbouring Sudan conflicts affecting populations in Gambela, increased food prices resulting from less supply and increased demand especially in urban, pastoral areas and locations that were affected by lower crop harvests, unfavourable terms of trade between cereals and livestock in pastoral areas as a result of poor livestock body condition due to reduced pasture and less availability of water both for human and livestock. Other factors include reduced sweet potato production in SNNP in addition to reduced incomes from crop and livestock sales.

5.6.4 Factors that may impact on delivery of food aid to people in need during 2010

Food security monitoring systems for both the Government and humanitarian partners have been good at reporting any deterioration of food security conditions at local level. It is anticipated that the trend will continue and the situation may be arrested before it goes out of hand. In addition, the Government has put in place dynamic mechanisms of verification of needs that could be used to revise both emergency food and non food related interventions. However if needs drastically change from the current estimated levels, like last year, agencies may find it difficult to mobilise additional resources at a short notice.

Congestion at the Djibouti often leads to delay in transporting food. Two other corridors; Berbera and Port Sudan were opened in April and May 2009 respectively. Berbera Corridor serves the Somali region while Port Sudan serves the North West of the country. These corridors may ease the delivery chain but available local trucks²⁰ capacity in the country may still pose a challenge to delivering large tonnages of food at ago.

5.6.5 Recommendations to reduce food insecurity

The food assistance strategy (cash and food) being implemented by the Government and its partners are sufficient to deliver aid to affected populations. However some adjustments may have to be done on timing of food assistance. Apart from Somali and Afar regions, which only receive food under the PSNP, other PSNP areas receive food during the hunger season (June to August). In 2010 this may have to be adjusted for areas that will experience food insecurity earlier than June. The affected areas of Gambela, eastern parts of SNNP, South Eastern Oromiya and Tigray, may need food from January/February. More resources will be required to cater for this extended period of food insecurity. Organisations providing food assistance should bear in mind that affected populations may prefer food to cash if food prices escalate as it happened in 2008. This calls for contingency planning to address the situation.

If relief food is not provided in time, communities will resort to destructive coping strategies like selling more firewood and charcoal leading to more environmental degradation and more adverse effects on climate change. Some households may resort to selling remaining assets like breeding stock (cattle, shoats, camels) further aggravating recovery efforts in future. Malnutrition rates will increase among affected populations. In addition to food, affected communities will need support in accessing safe drinking water for humans and livestock, health facilities and veterinary services.

²⁰ Many trucks in the country may be involved in transporting cement, fertilisers and iron especially from November onwards.

5.6.6 Recommendation for future improvement of needs assessments

The main objective of the emergency food intervention is to save lives in crisis situations, protect livelihoods and enhance resilience to shocks, as well as supporting the improved nutrition and health status of children, mothers and other vulnerable people²¹. It is recommended that in future the DRMFSS looks carefully at how best to address needs under the livelihoods deficit and whether the non food needs can adequately cover such deficit or they have to be absorbed into emergency case load.

²¹ Joint Government and Humanitarian Partners Document – Ethiopia, January 2009.

<u>NDVI on June-November anomaly (2009 versus 2008)</u> (Source: Joint Research Centre of the European Commission)





July anomaly (2009 versus 2008, NDVI SPOT VGT)





September anomaly (2009 versus 2008, NDVI SPOT VGT)





November anomaly (2009 versus 2008, NDVI SPOT VGT)



ANNEX 2

Crop production situation by region

<u>Oromiya</u>

Oromiya is a large region, comprising 180 woredas, stretching from East and West Hararghe in the east through East Shewa, Arsi and West Arsi, Bale and West Shewa to West Wellega and Kelem Wellega in the West. It also included Illubabor and the coffee producing area of Jimma.

In Western Oromiya sub-region, which includes Western Shewa, Horo Guduru Wellega, East Wellega, Kelem Wellega, Western Wellega and Illubabor, the onset of the meher rains was on time, with good distribution and amounts, which facilitated the planting of long season crops of maize and sorghum. There was, however, a long dry spell which lasted from the first to the third week of September. This adversely affected crops which were in their flowering stages at the time. Fortunately, the rain resumed in late September and saved the crops except in some lowlands of West Shewa where the damages to crops were high.

In normal years East Shoa zone receives belg rainfall from mid-March, but its onset in 2009 was delayed until mid-May. Furthermore, the belg rainfall was small in quantity erratic in distribution and less favourable for ploughing and land preparation. In the same zone, the meher rains normally begin in the first week of June, but in 2009 they were 3-4 weeks late, particularly in the woredas of Boset, Adama, Dugda and Adami Tulu. The distribution of rainfall in these woredas was also erratic and not sufficient to undertake the required agricultural practices. Furthermore, in most low land areas the rainfall ceased earlier than usual, during the flowering stages of maize and haricot beans and this resulted in yield reductions of up to 70 percent in the affected areas.

No major crop pest has been reported as a serious threat to reduce crop production in East Shewa. The area occupied by pulses increased by about 22 percent when compared with that of the 2008 cropping season due to poor, late belg rains which forced a shift of land from maize and sorghum.

The onset of belg rainfall in West Hararghe is normally in mid-February. During the 2009 belg-cropping season, West Hararghe zone received belg rain in the third week of March and rained in April for a very few days. The belg rainfall was erratic in distribution and small in quantity and delayed the activities of land preparation for long cycle crops (maize and sorghum). The onset of meher rainfall was also late but in mid highland areas the distribution was satisfactory, apart from a break in July. There was good rainfall in August, which benefited late-sown crops in the higher lands. The rain ceased in September while maize and haricot beans were at the flowering stage, leading to significant yield losses.

With respect to pest and disease problems, only stalk borer infestation on maize and sorghum was reported.

The amount of fertilizers distributed in the 2009 cropping season in West Hararghe increased from 1 864 tonnes in 2008 to1 950 tonnes, an increase of 4.6 percent and the use of improved seeds also increased there from 4 842 qt to 12 806 qt during the 2009-cropping season.

Livestock prices have decreased in 2009 due to the lack of forage and because of lower market demand.

Nine woredas in North Shewa are considered as belg producing areas. However, for two consecutive years in 2008 and in 2009 cropping seasons belg rains were poor and little planting was done. Hence some farmers experienced food shortages and they were supported by food aid. Also due to failure of the belg rains, in some areas farmers faced difficulties in preparing their farm plots on time and planting of the meher season stalk crops (maize and sorghum). These weather conditions also created shortages of animal feed (forage) and water.

In North West Shewa, the normal onset of meher rainfall occurs in the second and third dekad of May and continues up to 2nd and 3rd weeks of September. The main season rains in 2009 were delayed by about one month and started in 3rd dekad of June which was very late for seedbed preparation and frequency of cultivation. After the rain started in the end of June, there were few problems in distribution or intensity but during flowering and grain filling stages, there was a break in September. The delay in rainfall hampered seedbed preparation, frequency of cultivation and planting, particularly the long cycle crops (maize, sorghum and potatoes). So farmers were forced to shift crops from high water consuming long cycle crops (maize, sorghum and Irish potatoes) to short cycle crops. Also because of the delay in the onset of rain, the necessary farm activities were jammed together in time and this reduced frequency of cultivation which

resulted in heavy weed infestations. The unseasonal rain in the end of September and October was advantageous for late sown crops in terms of enhancing flowering and grain filling.

<u>Amhara</u>

Amhara Region includes the normally high-producing zones of Gondar and Gojam and North Shewa and the drier areas of North and South Wollo, Oromiya and Waghamra.

There is no belg season in East Gojam, West Gojam, North and South Gondar or Awi Zones and the normal onset of meher rainfall in this zone occurs in the first and second dekad of May and continues up to 2nd and 3rd weeks of September. However, the main season rains in 2009 were delayed by about one month and only began in the third dekad of June, very late for seedbed preparation and frequency of cultivation and so reducing the planting of long cycle, high-yielding crops (maize and sorghum). The major food crops grown in western Amhara zones are teff, wheat, barley, sorghum, maize, finger millet, faba beans, chickpeas, lentils and noug. No significant damage was caused by crop pests, diseases or birds were reported. However, a certain quantity of production loss has been caused by weed infestation due to poor land preparation caused by the late occurrence of rains.

About 3050 diesel water pumps were distributed to farmers on long term credit. Some farmers were reported to have adopted the improved agricultural practice of row planting of maize and spot application of fertilizers. Also about 370 ha of acid soils were treated with lime at recommended rates based on soil analysis. The use of lime will improve efficiency of applied fertilizers.

Southern Nations Nationalities and Peoples' Regions (SNNPR)

The 2009 Belg rains which are very important in SNNPR started two weeks to three weeks late and were characterised by poor distribution and early cessation in the region. The Meher rains were late by one month and were highly erratic in the lowlands but satisfactory in the mid and high altitudes.

Two special woredas, Derashe and Konso were the hardest hit in amount and distribution of rainfall both during the belg and meher seasons, causing very high harvest losses. Amaro and Burji Special woredas had also poor belg harvest. Fertilizer use in the poorer rainfall areas of SNNPR has shown a marked increase, especially in Sidama, where the use of DAP rose from 45 000 quintals to 69 000 quintals, an increase of 52 percent, and that of urea increasing from 9761 to 17 456 quintals, up by 79 percent. Similar increases in fertilizer usage were reported in several other woredas. Altogether, 41 024 tonnes of DAP and 7 053 tonnes of urea were distributed to SNNPR region in 2009.

In SNNPR, especially in Sidama zone, an outbreak of sweet potato virus was observed. To reduce the spread of the virus, Awassa Research Centre has suspended research on sweet potato. Also, an unidentified army worm – like pest damaged some crops in 2009. No serious diseases or pests were reported on enset in 2009.

During the field visit, conditions of livestock were satisfactory due to the seasonal availability of crop residues. However, the area of land under pasture is dwindling because these areas are being taken over by farmers for the production of food grains. The remaining grazing lands are highly overgrazed due to overstocking. Water for livestock is now available in all areas. Livestock disease incidence is low in 2009 compared to previous years.

The prices of both grain and livestock were observed to be decreasing since June 2009 compared to the same period in 2008.

<u>Tigray</u>

Tigray Region is overwhelmingly dependent on the Meher season for its annual crop production. Locally the Meher season is divided into Azmera and Tsidya portions, with Azmera rains normally beginning in mid-March allowing the planting of long-season, high yielding crops of maize, sorghum and finger millet. Tsidya rains, which provide the moisture for short-season crops such as teff, wheat, barley and hamfes (a mixture of wheat and barley) normally begin in early June. In 2009, the Azmera rains were very poor in both Southern and Eastern Tigray, preventing the growth of maize and sorghum, the most high-yielding crops. The Tsidya rains were of short duration, beginning on 22nd June and ending prematurely on 22nd August and erratic especially in the lowlands of Eastern and Southern Tigray.

Fertilizer utilization was slightly higher at 15 824 tonnes than in the previous year despite the unfavourable and unpredictable rainfall throughout the season.

Grain prices were lower than last year despite the expected poor harvest, with traders reporting a lack of demand. Livestock prices were also much lower than usual because farmers were rushing to sell them before the crop residues on which they depend, in the absence of good pasture, are all gone, and animals begin to lose weight and condition. Cattle were quoted at ETB 1 100 now, compared to ETB 3 800 one year ago, while goats and sheep were quoted at ETB 180 and ETB 212 compared to ETB 300 and ETB 350/head in 2008.

Pasture and water supplies are expected to get worse in at the beginning of 2010 because of the lower than usual 2009 rainfall and the consequent shortage of crop residues.

No outbreaks of crop pests and diseases were reported, apart from normal levels of stalk borer and the increasingly important parasitic weed, Striga, which mainly affects sorghum crops.

<u>Afar</u>

Afar is a marginal crop producing region, depending more on pastoralism than crop production. The population depends on sales of animals to highland farmers for the funds to buy grain and pulses. In 2009, the Karma rains (Jul - Sep) were below normal for the third year in succession. The rains arrived later than usual and ceased earlier than normal. This left pasture in poor condition and caused a significant reduction in crop production.

Livestock in the north of Afar were reported to be emaciated, infertile and with little or no milk, which is a major source of nutrition in this region. High livestock mortality was reported from Zone 2, in the northern part of the region along the southeastern border with Eritrea. Camels and goats are in relatively better condition than cattle as they are better adapted to this harsh environment.

A total crop failure was reported in Abala, Argoba and other crop producing woredas. Due to a reduction in the flow of the Awash River, it was feared that there would be a substantial decline in crop production in the woredas of Zones 1 and 3 that normally practice some irrigation farming. The Famine Early Warning System (FEWS) reported unusual livestock movements towards the Awash River, due to lack of water and grazing.

The major crops grown in this region are maize and sorghum and teff, which are also grown in some parts of the region planted during the cropping season that begins in July under both rainfed conditions and with supplementary irrigation. Irrigated cotton is grown for commercial purposes. In general the meher (Karma) rainfall was said to be very poor in 2009.

In the region credit facilities were made available for the purchase of inputs and small farm tools but only 400qt of fertilizers and 1072 qt of improved seeds were distributed in Afar this season.

<u>Somali</u>

The Somali region is divided into 9 zones and 52 woredas with an estimated population of about 4 million people. The region is considered as a moisture deficit area. Irrigation is practised in three zones (Gode, Libon and Afder) of the region to supplement the available rainfall. The major crops usually produced by farmers include maize, sorghum, haricot bean and sesame. Some wheat and barley crops are also grown in some parts of Jigjiga zone. Ploughing of the land is mainly carried out by hand digging.

The main rains (Gu) starts in April and extends up to May in Afder, Liben, Gode, Korahe, Warder, Fik and Deahabur zones whereas the meher (Deyr) season rainfall starts in September and extends up to November mainly in Fik, Degahabour, Warder, and Korahe, Gode, Afder and Liben zones. In 2009, the onset of (Gu) main season rainfall was low in amount and erratic in distribution. Consequently, some livestock deaths were reported due to lack of drinking water in some areas of the region. Nevertheless, it was in Jijiga zone where most woredas received relatively good rainfall and so better harvest is expected in this area. Fertilizer usage is very low, with 133.5 tonnes of DAP and 86.8 tonnes of Urea distributed during the cropping season. The amount of improved seeds used during this cropping season is reported to have increased.

The deyr rains improved water availability in major water sources but there are several pocket areas with severe water shortages and require emergency water rationing. Although rains in October and November have had a positive effect on pasture and browse growth, pasture availability has declined in most areas in the last few weeks due to poor regeneration of pasture in most areas and overgrazing due to heavy

concentration of livestock in areas with relatively better pasture.. Livestock body condition was observed to be generally good to very good.

Livestock prices have increased following the favourable Deyr rains, due to improved expectations of farmers that there will be sufficient browse and grazing. Demand for livestock by Middle Eastern traders is also pushing up livestock prices, which will help improve the local economy of Somali Region.

FAO in Gode reported that the Deyr rain has been received in 19 districts of the Southern Zone in October, 2009, breaking a long drought which had left livestock in poor condition because of severe water and forage shortages (See Rainfall graph of Gode). This rain has been well distributed over most woredas, though Mustahil, Kelafo and Ferfer did not receive sufficient rain. The rains have improved water availability and the production of pasture for livestock and so far the Deyr rainfall has been better than for the previous three years. Some temporary flooding has occurred and water trucking has been suspended.

The Government has been supplying small irrigation pumps to provide water to crops along the banks of the Wabi Shabelle, Weyb, Dawa and Genale rivers and some farmers have pumps of their own for irrigation.

<u>Harari</u>

Harari region has a total area of 34 800 ha with a total population of 153 556 of which 81,949 live in the rural areas. The major crops cultivated in the region are: maize, sorghum, and some wheat. Groundnuts and sesame are also grown.

Under normal conditions, the on set of belg season rainfall occurs in the 3rd week of March, but this cropping season it started one month later, in the 3rd week of April. From 2nd week of June to 2nd week of July there was no rain. The rainfall in August was good for most of the crops. In the region small scale traditionally operated irrigation schemes are used to produce fruits and vegetables. No major pest or disease problem was reported apart from the usual stalk borer on sorghum and maize. Striga infestation on sorghum crops is a major problem in Harari, reducing the productivity of this important cereal. Production of wheat, maize and sorghum in 2009 in Harari is estimated at 7 436 tonnes, a decrease of 56.8 percent below last year's total of 13 903 tonnes.

Fertilizer consumption has increased by about 21 percent from last year in spite of the current unreliable rainfall conditions. A total of 9.4 tonnes of urea and 57 tonnes of DAP were distributed by AISE in Harari this season. The most important fertilizer type used by farmers is Urea to be applied on chat for better vegetative growth of the plant. The use of improved seed has also increased although most farmers used their own left over seeds from the previous harvest.

Water and pasture conditions are reported to be good with very good livestock body condition. No major diseases of livestock and no livestock migration were reported.

Dire Dawa

The Dire Dawa Administrative Council covers a total area of 128 802ha with a total rural population of 122 778 having 23 799 households organized into 26 rural based Peasant Associations (PAs) which largely depend on agriculture and related activities. Spate irrigation using water from the hillsides could not be used in 2009 due to low rainfall.

Total cultivated area in the region in 2009 was about 12 516 ha in which sorghum (95 percent) and maize are the major crops grown. Currently the area under cereals is 12 024ha predominantly used for the production of sorghum (90 percent) and other crops cover only 10 percent of the area. About 1 467 ha of land is cultivated under irrigated conditions. The most important meher crops in order of area coverage are sorghum and maize.

The onset of belg rain for the 2009 cropping season was in the 2nd and 3rd weeks of April, a month late from normal. This delayed land preparation and planting of crops up to May and June. Furthermore, this rainfall was erratic in its distribution and less in amount and again there was a break in June. Because of replanting that was carried out a number of times as a result of erratic rainfall distribution, various stages of plant growth was observed. The Mission estimates total cereal production at only 1 450 tonnes, compared to 10 048 tonnes in the previous year, a decrease of 86 percent. Pulse crop production has decreased from 318 tonnes in 2008 to 67 tonnes in 2009. Twenty tonnes of fertilizer (DAP and Urea) were distributed to Dire Dawa. A total of 29 tonnes of improved seed of various crops were distributed.

Addis Ababa

This region comprises the urban and peri-urban areas of the capital city. The area planted to cereals and pulses rose from 8 760 to 9 564 ha, an increase of 9.2 percent. Production of cereals and pulses is estimated at 14 845 tonnes, similar to last year's harvest of 14 672 tonnes.

<u>Gambella</u>

Gambella is divided into four zones and eleven woredas. It has a total area of 25 802 sq.km and a population in 2007 of 307 000, giving a population density of 11.8 per sq.km.

Rainfall in Gambella was below normal and there were extended dry spells which adversely affected the maize crop, the main staple food. Considerable planting is done in river valleys after flooding, but in 2009 no flooding occurred, preventing this type of recession cultivation. This area normally receives adequate rainfall to grow two crops per year, but in 2009 the rains were good in March and April and facilitated the land preparation and planting of maize. Between May and July there were long dry spells and rains afterwards were erratic. The regional Government provided sorghum seed for replanting of failed crops in July, but subsequent rains were insufficient for good crop growth. Hail and wind was reported to have damaged crops in two kebeles of Godere woreda. (See Graph, Annex 1).

Cereal and pulse production is expected to amount to 14 435 tonnes, a decrease of 39.4 percent on last year's production of 23 435 tonnes. In addition, cattle raiding by Murle tribesmen from Sudan during the year heightened insecurity and caused serious loss to livestock owners.

Benshangul-Gumuz.

Benshangul-Gumuz is situated along the border with Sudan, south of Tigray and north of Western Wellega in Amhara Region. It includes Asosa, Metekel and Kemeshi Zones along with Pawe and Mao Komo Special Woredas, with a total area of 49 289 square kilometres, with a 2007 population of 671 000.

In normal years, the rain begins in March and ends in October. In 2009, in most of the region, the onset of rain was delayed by one month and from April onwards there was sufficient rain for land preparation and planting of long-cycle crops of maize and sorghum. There was a break in the rains and this adversely affected crop establishment in parts of Asosa Zone and Mao Komo Special woreda. The Meher rains restarted in July and extended to early October, allowing most crops to finish their growth cycle.

Few of the local farmers, who practice shifting cultivation, use fertilizers. No credit was available to provide working capital. Army worm affected crops in Asosa zone but the outbreak was controlled. Stalk borer, sorghum shoot fly and Striga affected sorghum crops, but the infestation was not above normal levels. Livestock were in good condition with adequate grazing and water availability. It is heavily forested which provides a habitat for the Trypanosomiasis parasite which is the main livestock disease. Livestock prices declined compared to the previous year, due to a ban on cross-border trade.

Observations from Field Work – Recommendations

- 1. Fertilizer use is still low and means must be found to ensure that farmers have the credit facilities they need to buy and use it on time. The use of lime on acid soils in high rainfall areas such as Gojam has begun and this is a welcome step as it will improve the efficiency of applied fertilizers. Other types of fertilizer need to be considered depending on the soil types and fertilizer usage should be based on soil tests. These soil tests should also look for trace element deficiencies that may be reducing yield and quality of crops. Appropriate advice on counteracting trace element deficiencies should be made available to extension staff.
- 2. It is estimated that over 90 percent of soil erosion can be prevented by adopting Conservation Agriculture (CA) techniques. CA has three principles; maintenance of soil cover, minimal soil disturbance and the use of appropriate rotations. CA is, now used in about 100 million ha of farmland worldwide. This is about one fifteenth of the 1.5 billion ha of arable land globally. CA can also improve water use by crops by about 30 percent, ensuring that crops are produced in dry years that would fail under conventional agriculture. By reducing soil temperatures, CA also assists in the maintenance of necessary soil fungi, bacteria and other beneficial organisms that would not survive under the bare soil of traditional farming methods.

3. The supply of hybrid maize seed and other improved seeds is failing to meet the demand of farmers. Every effort needs to be made to increase the availability and affordability of improved seed, so as to take full advantage of improved extension services and the expanding use of fertilizers. One way to increase the availability of seed would be to expand the use of the System of Rice Intensification (SRI), developed in the 1980s in Madagascar.

"SRI practices lead to healthier, more productive soil and plants by supporting greater root growth and by nurturing the abundance and diversity of soil organisms. The agro-ecological principles that contribute to SRI effectiveness have good scientific bases. SRI concepts and methods have been successfully adapted to upland unirrigated rice, and they are now being extrapolated to other crops like millet, wheat and sugar cane²² This technique, already being tested in Ethiopia on rice, allows seeding rates to be cut by 75 percent, while yields can be increased by 100 percent or more.

²² The Sustainable Rice Systems Programme, Cornell International Institute for Food, Agriculture and Development (<u>CIIFAD</u>). For more information, contact: <u>The SRI Group</u>: <u>http://ciifad.cornell.edu/sri/index.html</u> last updated: 6 January 2010 © 2010 Cornell University.