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Emergencies Unit for Ethiopia (EUE)

Hararghe & Shinille zone Food security assessment

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1 Introduction and background

Reports about a recent poor short (*belg*) rainy season and deterioration in the food security situation in East and West Hararghe Zones have spurred the OCHA-EUE to a follow-up assessment mission in early July.

Hararghe is characterized by steep slopes in high- and mid-highlands and by flat plains in lowland areas. The high- and mid-highlands are usually extensively cultivated and suffer from high pressure on land resulting in severe erosion. The lowlands are only partly cultivated and partly used for pasture (Klingele, Yesus, 1994). Both, West and East Hararghe zones are prone to chronic food insecurity, with maize and sorghum being the basic staple food crops. Shortage of seeds reportedly was a major problem this season.

Belg harvests in the East Hararghe highlands are expected to be poor. Unsatisfactory rain performance, characterised by late onset and interruption at different growing stages, reportedly accounts for 80 to 95% losses for certain crops. Crop failure was amplified by the use of the new composite maize seed *"Awassa 511"*, which did not perform under moisture stress and was not adapted to certain agro-ecological areas. Farmers interviewed in Kurfa Chale Woreda said that now they only expect fodder from the new maize breed. Crops in the western Hararghe lowlands of Chiro and Mieso Woredas are most affected by moisture stress.

Low world-market prices for coffee and a combination of pests and lack of moisture had a negative impact on income generated by cash crops. Khat (*catha edulis*), the major alternative cash crop, is suffering from declining prices on local markets, except for top quality, which is exported.

Malnutrition is reported from some woredas, particularly Alemayu, a cash crop dependant area, as well as Fedis and Kersa Woredas in East Hararghe and Tulo and Masala Woredas in West Hararghe.

Issa pastoralists from the lowlands of Shinille zone, who are in search of pasture in the Afar Region and in the Hararghe mid- and highlands, generate growing population movements, which create tensions and an increasing danger of clashes between indigenous people and Issa nomadic groups.

2 Mission Results

2.1 East Hararghe: Good harvest expected for lowlands, poor harvest for mid- and highlands

The lowlands of East Hararghe zone benefited from recent rains, pasture and crops are in good condition. All over the zone, rains were better in the lowlands (*kola*) and maize grows well there. In Golo Oda, Fedis, Babile and Meyu Woredas, the situation appears to be better than in 2002. Harvest potential is promising if rains continue. According to SC-UK, in Golo Oda lowlands, harvest prospects until recently were good. However rainfall interruptions in June have raised concern regarding crop maturation. In the southern part of the woreda, pastoralists have received good rains for pasture regeneration. Girawa Woreda (Garamuleta) received good rains in June, which stopped during maize flowering stage.

The highland kebeles[1] of Bedeno and Deder Woredas were affected by moisture stress. There, *belg* rains were erratic and delayed by one to one and half months. This forced late planting for short cycle crops, which adversely affected *belg* production. Although the rainfall has improved since mid-April, it came too late for *belg* crops. In May, an interruption in rains occurred at flowering stage. In June, moisture stress stunted plant growth. All in all, *belg* production in many woredas is expected to be better than in 2002, but still below the previous five year average, with a yield of less than 50% of the potential. Aside from that, only 70% of the normal *belg* area has been planted which further reduces overall yield expectations. In April long cycle crops like sorghum, maize and groundnuts were planted. Their performance so far seems fine.

Farmers lack seeds for wheat and haricot beans. Even if prices should go down in 2003, seed and fertiliser stocks are too low. Up to now most of the requests for supplies remain without reaction.

2.2 Malnutrition and structural deficiencies

UNICEF reports based on visual impressions only, stress the prevalence of malnutrition. Alemaya, Fedis and Kersa Woredas as well as Dire Dawa administrative council show concentrations of destitute people mostly in urban areas. But this time of the year is not expected to produce major migration, since farmers must tend to their fields now.

In East Hararghe zone, Kersa Woreda is a particularly fragile area, affected by long-standing structural deficiencies. According to Hararghe Catholic Secretariat (HCS), shortage of supplementary food led to a deterioration in the nutritional status in the woreda, where beneficiaries received supplementary food such as CSB (=Corn-Soya-Blend) only twice during

[1] Kurfa Chale, Alemayu, Kersa, Jarso, Meta, Goro Gotu, Girawa

six food aid distributions in 2003. Food aid targeting problems reportedly resulted in high rates of malnutrition mainly in Hahumera and Mulu kebeles.

The highland areas are facing a shortage of food due to last years' low meher production. Barley is ready for harvests now, but in many locations barley hasn't been planted. The situation appears to be similar in some kebeles of Alemaya Woreda, bordering Kersa and Kurfa Chale Woredas. Kurfa Chale reported difficulties particularly in the Gobele valley and in some highland kebeles near Dawe (Darmasheik and Nakawa). The NGO CARE warned about the situation already in March (Piguet, 2003).

Hararghe's food security problems are not only caused by the recent moisture stress. Soil erosion, high population density and small landholdings are root causes of the present crises. In the lowlands, farmers are fighting with infestations of *striga* and *parthenium* weeds, which are difficult to eradicate with current farm management practices. However, Hararghe has also a long tradition of terracing for soil protection and moisture retention. Adapted and sustainable water harvesting schemes might also help to harness and utilize the erratic rainfalls and improve food security.

The agricultural office administration is confronted with problems that vary from one woreda to another. Presently, some woredas have no agronomist and over the past months, 10 agricultural experts have left the East Hararghe zone. There are also kebeles without development agents.

Following recent multi-agency belg assessments, and inter-agency meetings called by the Disaster Prevention and Preparedness Department (DPPD), complementary assessments will be conducted in the following woredas: Jarso, Goro Gutu, Deder, Meta, Kersa, Alemaya, Kurfa Chale and Girawa in order to evaluate the additional number of beneficiaries.

2.3 Lack of seeds reduces food security prospect in Kurfa Chale Woreda

Kurfa Chale Woreda has 18 rural kebeles. 11 are situated in the lowlands, 5 in the highlands and 2 in the midlands. All agricultural production is rainfall-dependent and during the OCHA-EUE mission maize grown in the mid- and highland agro-ecological zones was under moisture stress. *Belg* crops wheat, barley and potatoes were affected as well.

In Kurfa Chale Woreda, rain came by mid-March almost 3-4 weeks late, causing delays in ploughing and sowing. The amount of rain was very small and its distribution not uniform. According to the woreda rural development coordinator, *belg* crops were damaged, mostly by moisture stress and not much production was expected. The expected loss in production compared to the long-term average is estimated at 75% for maize, 90% for wheat, and 95% for barley.

If the performance of the main *meher* rains (July – September) is satisfactory, and if funds and planting material are available, seeds are planned to be distributed to farmers, on the condition, that they will be repaid in kind.

Many people who are supported by food aid don't have seeds. In Kurfa Chale, CARE has provided 4 tonnes of *Katumani*-variety maize seeds for 4,000 households. Farmers with money or sellable assets could get seeds from local traders, but without guarantees regarding quality. Seeds are also available in Dire Dawa and East Showa markets but only on cash bases. Now it's time to sow wheat and teff and availability of seeds especially for the poorest is critical for their future food security.

Lack of fodder keeps emaciated livestock under stress. The Dawa livestock market has almost no supply and the few good conditioned animals available are very expensive.

No extraordinary human migration is recorded, as most of the farmers are busy preparing their plots. However, the price for daily labour in Kurfa Chale Woreda decreased dramatically from 7 ETB/day to 2 or 3 ETB/day. Off-farm opportunities include the sale of firewood, charcoal and household utensils like knives and axes.

In the highlands, two kebeles are facing water shortages and people have to walk up to 8 hours to get water. In Nakawa, CARE installed a good roof harvesting system in the school. But its tank, like the nearby shallow wells, is almost empty.

Nakawa - An example of how failed harvests increase the credit burden on poor farmers

In Nakawa only 70% of the planting potential for *belg*-crops has been utilized this season. Constraints were a lack of rain and shortage of seeds and oxen. In 2002, numerous farmers had to sell their draft animals in order to buy food. Now daily rent for plough-oxen costs the equivalent of 8 days of labour. Crops - mainly maize *Awassa 511* variety, but also wheat and barley - were adversely affected by moisture stress.

Farmers working in their fields told the OCHA-EUE mission that they had received 10 kg of *Awassa 511* seed from the International Committee of the Red Cross (ICRC). Some of them bought DAP, a chemical fertiliser, at 60 ETB per 50kg bag. Payment was made in cash with a credit of 112 ETB, which is to be paid back on 1st January. However, maize, which was planted at the beginning of April, is a failure and will be used only as fodder. Afterwards land is planted with the *meher* crops barley and wheat. Seeds can be purchased through the agricultural office. Farmers usually planted half of their one-hectare plots with khat and potatoes and on the village market women are now bartering khat for food. The five shops in Nakawa are selling items like salt and sugar, but are not involved in grain trading. To buy cereals people have to go to Dawe market on Wednesday.

Limited relief for indebted farmers without harvest comes from some kebele Employment Generation Schemes (EGS) activities. They include primarily the construction of feeder roads and digging of individual water ponds. Work norms are largely unknown to the people and payments in the form of food are not work norm related.

2.4 Alemaya Woreda: decreasing income from cash crops

Belg crops in Alemaya Woreda are mostly maize (*Awassa 511* and *katumani*) and potatoes, of which the production is expected to be fair. Alemaya is also well known for cash crop production (khat and horticulture), which was affected by lack of rain this *belg* season. Since 2001 the income of farmers and casual workers depending on khat and horticulture has decreased.

Indicator of current problems is a dramatic decrease in the use of chemical fertilisers. Destitution among migrant workers has increased.

2.5 Root crop and vegetable production suffering from structural problems

Alemaya and Kombolcha Woredas are major vegetable producers for Djibouti. With last years' drought, vegetable production has decreased and only exporters and middlemen still benefit from this export market. In Alemaya, producers are paid a week after supplying exporters. When market prices fall, farmers often don't get the price that was agreed upon. In the past, producers were organized in cooperatives. After 1991, cooperative-structures were dismantled and unions based on geographical areas took over. Unions collect seed-potatoes and sell them to the Ministry of Agriculture, which distributes them on credit bases. Farmers, who want to obtain an agricultural extension package for potatoes, have to make an advance cash payment of 65 ETB. Complete packages cost 730 ETB for 2.5-quintal of potato seed and chemical fertilisers (DAP +UREA). Packages are offered primarily to the most specialized, active and wealthy farmers. Their cultivations are mostly irrigated and most of them avail of credit packages since 8 years. However, the use of fertilizer has dramatically decreased over the past two years, indicating recent difficulties with root crop and vegetable production.

According to Dr. Desta Hamito, President of Alemaya University of Agriculture, vegetable and root crop production is currently suffering from a lack of seeds, marketing and other agricultural constraints. In the past, Alemaya University provided expertise for irrigation, production and marketing. On-farm trials and seed multiplication used to be conducted in the campus. However, since 1991, some land has been returned to the communities, which reduced on-farm trial possibilities. The farmers, who suffer from problems since five years, have approached the University to help them in marketing. However its support is strictly limited to technical expertise.

2.6 Malnutrition among many migrant families

Malnutrition has been reported mostly in Alemaya, Kersa and Fedis Woredas. In Fedis, and Alemaya, zonal DPPD is expecting UNICEF to start with supplementary feeding. The UN agency has recently agreed to finance two supplementary feeding centres in Alemaya town and Aumara. In the Alemaya health centre, half of all children with signs of malnutrition have migrant parents coming from neighbouring woredas. According to doctors from the Alemaya health centre, signs of malnutrition were first recorded in the second trimester of 2002 and have stayed on since. Most malnutrition cases are found at the outskirts of Alemaya town and along the Girawa road. Most likely, the nutrition problem is linked with recent difficulties with khat and other cash crops. According to NGOs active in the area, daily labour wages fell by about 50%[2].

2.7 Great concern about seed needs in Hararghe

Seed shortage appears to be a main problem both in East and West Hararghe. Seed distributions were conducted through CARE, HCS and ICRC. However, there remains a high risk that

[2] According to the woreda rural development coordinator, daily official wage rate in Alemaya and Aweday is currently fixed between 7 and 10 ETB, but on average wages dropped down to 5 ETB.

substantial amounts of inadequate seeds are planted, which hampers future harvests. Small traders have the habit of contaminating high quality seeds by mixing them with cheap stock. Cross-pollinated seeds are another problem. The research centre of the Alemaya University of Agriculture has only minimal means for multiplying seeds, according to the University president. Therefore, seed swapping in order to collect and preserve endangered local seeds as well as *"katumani"* maize seeds should be seriously considered for the next harvest. Shortages of *belg*-seeds were also reported from Dire Dawa and other lowlands areas.

In Ethiopia, the annual total seed requirement is estimated to be 480,000 MT of which 96% is met with seeds saved from previous crops. The Ethiopian Seed Enterprise annually produces and distributes only about 15,000 MT of seeds (ICARDA, 2001) and is not able to cover countrywide needs. To fill the huge gap, Farmer-Based Seed Production and Marketing Schemes (FBSPMS) are encouraging farmer-to-farmer seed exchanges and varietal diffusion through the informal sector. About 45,000 farmers have participated in the programme during the crop seasons from 1997/98 – 2000/01 and about 24,670 MT of various crop seeds were produced over that period (ICARDA, 2001).

Seed production and marketing are currently facing various constraints. The seed sector is mostly suffering under a shortage of improved varieties and inadequate supply of good quality breeder seeds. Currently, there are no specialized seed farms producing planting materials for pulses, oilseed, vegetables and fibre crops. The result is inadequate coverage by these economically important crops. Participation of the private sector remains low, particularly within the distribution sector, as there are currently only few sales centres and no retail dealers. Low quality of seeds offered for sale is frequent, mainly for teff and hybrid maize. The previously very low prices paid to farmers for their grain, has also depressed the seed market.

HCS, supported by USAID, has recently channelled different types of seeds to Kersa, Meta and Golo Gotu Woredas in East Hararghe. This *belg* planting season, 3,000 beneficiaries have received local sorghum seeds tested by the woreda agronomist. As farmers are deeply concerned by seed type and quality, they have been associated with the testing process. For maize, haricot beans and barley, a technical team, involving farmer representatives, MoA and HCS experts, is in charge of seed collection and testing.

For *meher* crops, some organisations, supported by USAID, conduct a seed distribution program based on seed fairs, whereby farmers will exchange seeds among themselves or buy seeds with USAID funds from traders. However, program officers are worried that a lack of seeds could put a damper on the seed distribution program. Registration of beneficiary farmers is currently in progress, but there is a worry that shortages might be transferred from one kebele to another if no outside seed supply is available.

One reason for the current seed shortage is repeated re-sowing of the same plots in response to erratic rainfall and intermittent dry spells last year. In the mid- and highlands of Hararghe, failed germination last year forced many farmers to shift from cereals to potatoes and sweet potatoes. The same farmers therefore have only very limited quantities of cereal seeds.

Alemaya Woreda has suffered from serious seed shortages for the past three years. Wheat is very scarce; sorghum and maize are available in small quantities only. Farmers are forced to buy seeds from local traders without any quality-guarantee. A local long cycle variety of sorghum, which reaches maturation in six months under normal conditions, is the predominant crop in Hararghe. As performance of sorghum has been relatively good in the 2002 drought, compared to other cereals, the traditional seed lending system from farmer to farmer still works up to a certain extent. However, Alemaya University has developed new short cycle sorghum varieties, with good drought tolerance and similar yield like the local variety. These new varieties reach maturity in only 3 to 4 months, which makes them less vulnerable erratic rainfall.

So far, farmers prefer the long cycle types, which produces a larger amount of biomass for use as fodder, fuel and for construction. Maize seed is currently supplied by the MoA; mostly PHb 3253 hybrid and *Awassa 511* composite, which are considered as most suitable. Moisture stress, which affects most of the eastern part of the country, however, is a problem. So far no *katumani* maize is available. Alemaya University has developed a *katumani* composite variety adapted to Hararghe conditions. But seeds still need multiplication, possibly with the help of incentives given to farmers.

Seed multiplication projects initiated by HCS benefit farmers who grow the seed-crops on their fields. HCS pays them 40% more than the crops would fetch on the market. In collaboration with other agencies, including FAO, Alemaya University is experimenting with many seed crops. According to the University, Alemaya farmers are open to agricultural innovation. But to reduce apprehensions grown out of the recent difficulties, more training, research and experts are needed.

2.8 The lowlands of West Hararghe face difficulties

While the Western Hararghe lowlands of Chiro and Mieso Woredas are affected by drought, heavy rains in Anchar, Boke and Daro Lebu Woredas recently led to landslides, which devastated crops. CARE experts fear worse to come triggered by changes in the rainfall pattern and subsequent impact on the local ecosystem. Farmers cannot rely on traditional calendars anymore for land preparation and sowing.

In West Hararghe four woredas grow belg crops Chiro, Doba, Goba Koricha and Masala. Late onset of rain reduced crops yields. However, farmers are hopeful for a good meher season, if rains continue. In all woredas additional beneficiaries started to get relief food from July 2003[3].

Several agencies were involved in seed distributions. CARE provided 50 MT maize *katumani* maize seed each to Chiro, Anchar, Goba Koricha, Mieso and Kuni Woredas. ICRC distributed maize, sorghum and haricot bean seeds in Darolebu and Boke Woredas. DPPD in Asbe Teferi would like to distribute seeds, but still waits for a response from Oromiya Regional Government.

[3] Additional beneficiaries per woreda, according to zonal DPPD: Chiro 13,500; Goba Koricha 12,400; Masala 11,000, Doba 5000, total 41,000. Assistance will be provided from July to October. 9,600 people in Daro Lebu are under close monitoring.

Signs of malnutrition have been reported in Masala and Tulo, two woredas where no NGOs are currently active. Authorities believe they are the impact of a two months delay in relief deliveries. Also no supplementary food and oil are currently available. Following a recent agreement with Goal and IMC to distribute supplementary food for 4,000 children in six woredas, CARE will provide food and logistics. Like in East Hararghe, most of the malnutrition is linked to destitution, even in urban areas. Root causes are structural deficiencies, lack of family planning, unsafe drinking water, waterborne diseases and low level of education. The number of beneficiaries in West Hararghe stood at 896,100 people in March, and has been increased an additional 225,252 beneficiaries after the March reassessment.

Seed voucher programme

CARE, funded by USAID, has initiated a seed voucher programme for this *meher*-planting season. The first stage is an awareness building exercise whereby all stakeholders are familiarised with the main components of the programme and beneficiaries get voucher coupons. Meetings are held with zonal administration, MoA, DPPD, Office for Trade Affairs, Rural Development Office, DPP committees at zonal and woreda level, traders, kebele representatives, woreda Development Agents and CARE community agents.

Kebele representatives inform peasants on how to use the coupons, how to select the right seed and how to purchase seed from traders with the coupons. Traders who participate in the program received specific training about their rights and obligations and on how to exchange coupons. Traders with 1,000 ETB performance bonds get the right to trade in local markets of two woredas and move their seeds with rented trucks. Those with 5,000 ETB performance bonds get the right to trade in more than three woredas.

CARE assigns monitors to check on the effectiveness of the free market and peasants' access to the product. They are also instructed to control the purity of sold seeds in order to stop the practice of mixing. The programme is based on the assumption that farmers have enough indigenous know-how to select the most suitable seeds. Risk was evaluated as minimal in West Hararghe, even if traders manage seed stocks without certification, nor germination test. The seed voucher programme is currently targeting 61,766 households within the zone. Program performance evaluation will take place in November or December 2003, expecting an improvement in CARE intervention areas, covering 600,000 people, 50% of them mostly dependent on CARE food aid.

In the past belg-planting season, the local market in Assabot was the main supply point for farmers, but seed germination rate, purity checks, restocking and storage conditions were problematic. Grain mixture practiced among local traders is another problem.

2.9 Pasture and water stress in some parts of Shinille zone

Over the past weeks, pastoral areas in Shinille zone have faced pasture and water stress. Early livestock movements up to Babile (Dakatta valley), Fafen valley and Fik were registered. Livestock moving along the Dire Dawa – Harar road were in poor condition. The woredas of the Southern zone, Mieso and Afdem, are facing similar conditions and most of the livestock are presently concentrated near Gadamaitou and Adaitou, two areas where the Afar - Issa conflict is ongoing. If rain does not soon improve grazing availability, clashes between the two pastoralist groups might again affect the whole area.

In April and May, Aisha, Erer and Shinille Woredas received mostly erratic rains. Livestock is concentrated in some favourable grazing areas. Intra-zonal movements as well as major movements out of Shinille zone are currently taking place. Anticipation is a normal movement among pastoralists groups. A first movement up to the hills was recorded on June 20 to Babile area. Further movements are expected to Fafen valley and Jijiga (Somali Region). Fafen valley is considered having good pasture and Dembel pastoralists have already moved there. They might continue in the direction of Jijiga and Dege Habur in Somali Region. In Dakatta valley, near Babile, about 400 persons who arrived with their livestock came mostly from Aisha Woreda. They might proceed from Dakatta valley to the Fik area. Large livestock movements are imminent. However not the entire pastoralist families are moving. Usually women and children remain behind to benefit from food aid distributions.

In Mieso and Afdem Woredas, most of the livestock moved west to Gadamaitou and Adaitou (Afar Region) and close to Assabot Mountain in Oromiya Region. Afdem pasture is in critical condition due to poor and erratic rainfall. The pastoral population in those two woredas are used to cope with frequent dry spells and are particularly mobile. Water and health programmes planned in these two woredas are particularly difficult to implement due to periodic and constant nomadic population movements.

In Mieso on July 4, most of the Somali leaders left for Asebe Teferi to settle tensions with Oromo people in Assabot. Afdem was not accessible due to flooding. Most livestock has moved to Assabot and Allidegi plain and up to Gadamaitou. The dislocation of animals started 9 months ago, during the 2002 drought. Movement involves mainly men and camel boys. Six months ago an unknown disease has affected Mieso cattle. Now lung problems are related to wide variations in temperature. In Mieso market, goats are sold at 50 to 70 ETB average, a sign of animal recovery. Some camel milk is also available, less than normal, an after effect of the drought. However in 2002, most of the pastoralists were surviving on it.

3 Conclusions and Recommendations

Agricultural seasons are becoming more and more unpredictable. This highlights the necessity for accurate meteorological forecasting, which helps farmers to make the right decisions regarding agriculture, throughout the year.

Everywhere, seeds have become one of the major problems with great risks of shortage during coming planting seasons. Major agriculture researchers are recommending (1) agricultural research centres should be strengthened for development of better varieties and for the supply of breeder seeds of strategic crops. (2) Specialized seed farms should be established and seed production should be decentralized into the major crop production zones with an active participation of both public and private sectors. (3) Local seed supply should be organized using both local and improved varieties through secondary seed multiplication schemes. (4) Seed production does not cover economically important crops, such as cotton, sorghum, groundnut and sesame. This should be changed. (5) Independent quality control systems for certification of seeds produced by the public and private sector should be established in order to control and regulate the seed market and to build farmers' confidence. (6) Seed distribution through farmers'

service cooperatives should be encouraged at grass root levels. (7) Promotion of use of improved seeds, especially for newly released varieties, should be improved. The seeds on sale are often inferior to farmers' own seeds in terms of physical and physiological quality. (8) A mechanism should be devised to implement the floor grain prices as indicated in the national seed policy, whereby farmers can sell their products at reasonable prices (ICARDA, 2001).

In pastoral areas, some significant livestock movements are expected in the coming weeks and the situation might result in local conflicts involving rival pastoralists groups (the Afar) or pastoralists and sedentary agro-pastoralists (Oromo in Hararghe). Preventive mediation efforts should be undertaken.

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4 Annexes

Abbreviations

AIDS	Acquired Immune Deficiency Syndrome
CAHW	Community Animal Health Worker
CARE	Cooperatives for Assistance and Relief Everywhere
CBPP	Contagious Bovine Pleuropneumonia
CCPP	Contagious Caprine Pleuropneumonia
CSB	Corn Soya Blend
DAP	Diammonium phosphate
DPPC	Disaster Prevention and Preparedness Commission (Federal Government level)
DPPB	Disaster Prevention and Preparedness Bureau (Regional level)
DPPD	Disaster Prevention and Preparedness Department (Zonal level)
ETB	Ethiopian Birr
EGS	Employment Generation Schemes
FAO	Food and Agricultural Organisation
FBSPMS	Farmer-based Seed Production and Marketing Scheme
FEWS	Famine Early Warning System
GAM	Global Acute Malnutrition
GISP	Global Invasive Species Programme
Ha	Hectare
HCS	Hararghe Catholic Secretariat
ICRC	International Committee of the Red Cross
MoA	Ministry of Agriculture
MT	Metric Ton
NGO	Non-Governmental-Organisation
PAs	Peasants Associations
PA	Peasant association
SC-UK	Save the Children Fund United Kingdom
SF	Supplementary Feeding
SNRS	Somali National Regional State
TF	Therapeutic Feeding
ToT	Terms of Trade
UNDP	United Nations Development Programme
UN-EUE	United Nations Emergencies Unit for Ethiopia
UNICEF	United Nations Children Fund
USAID	United States Aid for International Development
WFP	World Food Programme

Literature list of referred papers and previous UN-EUE Hararghe mission reports

Ahmed Ali, Hugo Rämi, (2002) *Massive migration of livestock, displacement of people in Shinile zone: rapid intervention necessary*, UN-EUE Assessement in Shinille and Jijiga zone, 15 to 23 December.

Ahrens J D (1997) *Poor Belg Season in West and East Hararghe*, UN-EUE Field Mission Report, 16 to 21 June, Addis Ababa

Ahrens J D (1998a) *West and East Hararghe After the Meher Harvest: Significant Yield Reductions*, UN-EUE Field Mission Report, 20 to 25 January, Addis Ababa

Ahrens J D (1998b) *Food Shortages Force Oromo of East Hararghe into Migration*, UN-EUE Field Mission Report, 19 to 27 October, Addis Ababa

Alex G (1993) *West and East Hararghe Field Trip Report*, UN-EUE, 31 August – 10 September, Addis Ababa.

Fikre N (2003) *Quarterly Food and Livelihood Security Bulletin*, March – May, Early Warning and Emergency Preparedness Team, CARE Ethiopia's Food & Livelihood Security Bulletin, June.

Guinand Y F (1999) *Mission Report – East and West Hararghe*, UN-EUE Field Mission Report, 20 – 28 April, Addis Ababa

Guinand Y (2000), *Hararghe Agro-pastoralists Face an Uncertain Future; focus on livelihoods in selected belg dependant areas of East and West Hararghe*, UN-EUE Field Mission Report, 14 to 21 March, Addis Ababa

Hammond L (1999b) *Localized areas of extreme vulnerability and targeting problems persist in East Hararghe*, UN-EUE Field Mission Report, 25 – 29 July, Addis Ababa

ICARDA (2001) *Focus on Seed Programs The Ethiopian Seed*, Ethiopia.

Kisekka N (2003) *Malnutrition in Alemaya and Fadis Woredas of Oromia Region, Eastern Hararghe*, Assessment mission 6 – 11 June, UNICEF, (APO Oromia).

Klingele R (1998a) *West & East Hararghe Zones at the End of the Belg Season*, UN-EUE Field Mission Report, 18 – 23 May, Addis Ababa

Klingele R (1998b) *Hararghe Farmers on the Crossroads between Subsistence & Cash Economy*, UN-EUE Study, Addis Ababa

Klingele R, Yesus A H, (1994) *Field Trip Report East and West Hararghe zones Region 4 (Oromia),* UN-EUE, 22 – 31 August, Addis Ababa.

Lemessa D (2001) *Khat (Catha edulis): Botany, Distribution, cultivation, Usage and Economics in Ethiopia,* UN-EUE Study, Addis Ababa.

Mulugeta G, Zelalem B, Minilik T (1996) *Adele Keke, Kersa Woreda, Hararghe, Ethiopian village Studies*, Addis Ababa University, June.

Piguet F (2003), *Hararghe Food Security hampered by long-term drought conditions and economic constraints*, UN-Emergencies Unit for Ethiopia, Assessment Mission: 2 - 13 March.

Piguet F (2002), *Assessment field trip to East and West Hararghe zone (Oromiya Region),* UN-EUE Assessment Mission: 3 - 9 September.

Raymakers B (2002*) Despite a promising belg season, relief assistance is still required in pocket lowland areas of Hararghe*, UN-EUE Field Mission Report, 9 - 17 April, Addis Ababa.

Shank R, Yesus A H (1995) *Assessment of belg cropping and Meher Planting Prospects in East/West Hararghe*, UN-EUE Field Mission Report, 4 – 14 April, Addis Ababa.

Yesus A H (1996) *Field Trip Report to East and West Hararghe Zones of the Oromiya Region (Region 4)*, UN-EUE Field Mission Report, April, Addis Ababa.

- Gashaw T (2003) Field Visit Report to Dire Dawa Zone, WFP internal Situation Report, June 20.
- Getachew H (2003) Field Visit Report to Chiro Woreda, WFP internal Situation Report, June 30.
- Getachew H (2003) Field Visit Report to Alemaya Woreda, WFP internal Situation Report, June 16.
- Getachew H (2003) Field Visit Report to Kersa Woreda, WFP internal Situation Report, June 23.
- Getachew H (2003) Field Visit Report to Fedis Woreda, WFP internal Situation Report , June 16.
- Getachew H (2003) Field Visit Report to Babile Woreda, WFP internal Situation Report , June 23.
- Mowlid A (2003) Field Visit Report to Mieso Woreda, WFP internal Situation Report , June 18.
- Mowlid A (2003) Field Visit Report to Afdem Woreda, WFP internal Situation Report , May 26.
- Mowlid A (2003) Field Visit Report to Erer Woreda, WFP internal Situation Report , June 9.
- Mowlid A (2003) Field Visit Report to Shinile Woreda, WFP internal Situation Report , June 9.
- Mowlid A (2003) Field Visit Report to Dembal Woreda, WFP internal Situation Report , June 2.

Glossary

belg	Expression for the agricultural season in the short rainy season in parts of Ethiopia.
dega	Expression for one of the altitudinal agroecological belts in Ethiopia. In Wollo between 2500 to > 3000 msl.
Fafa	Local name to designate Corn Soya Blend, a supplementary food largely distributed and currently marketed for truck drivers
kebele	Smallest administrative unit in Ethiopia (communal level)
kola	Expression for one of the altitudinal agroecological belts in Ethiopia. In Wollo between ~1200 to ~1600 msl.
meher	Expression for the long rainy season in parts of Ethiopia
woreda	Local administrative unit (district level), next to zone
weyna dega	Expression for one of the altitudinal agroecological belts in Ethiopia . In Wollo between ~1600 to ~2600 msl.

Glossary of important meteorological and seasonal terms used for Ethiopian highland areas

Meteorological Drought Defined

Drought is a period of insufficient water initiated by reduced precipitation. The impacts of drought on crops and society are critical but not easily quantified. The result is that "drought" does not have a universal definition. "Meteorological drought" is defined as a sustained period of deficient precipitation with a low frequency of occurrence. While crops may be damaged by lack of precipitation and high temperatures in just a few days, such short periods are not considered to be meteorological droughts. A three-month period is defined by the American Meteorological Society to be the shortest period that can be defined as a drought. (Source: *The American Meteorological Society*)

Ethiopia's 'Keremt' or 'Meher' Rains Defined

Since Ethiopia and Eritrea are in the tropics, physical conditions and variations in altitude have resulted in a great diversity of climate, soil, and vegetation. Rainfall is seasonal, varying in amount, space, and time. There is a long and heavy summer rain, normally called the big rain or *keremt*, which falls from June-September. It is followed by the *baga* hot, dry period from October through February (see below for definition). In some areas there are short and moderate spring rains in March and April known as the little rains or *belg*. These rainy periods correspond to Ethiopia's primary and secondary agricultural seasons, known as the *meher* and *belg*. (Source: *FEWS*)

Ethiopia's 'Belg' Rains Defined

In spring, a strong cyclonic centre develops over Ethiopia and Sudan. Winds from the Gulf of Aden and the Indian Ocean highs are drawn towards this centre and blow across central and southern Ethiopia. These moist, easterly and south-easterly winds produce the main rain in south-eastern Ethiopia and the little spring rains to the east central part of the north-western highlands. The little rains of the highlands are known as *belg* rains, referring to the second most important sowing season of the region. (Source: *FEWS*)

Ethiopia's 'Baga' Season Defined

Since Ethiopia is in the tropics, physical conditions and variations in altitude have resulted in a great diversity of climate, soil, and vegetation. Rainfall is seasonal, varying in amount, space, and time. There is a long and heavy summer rain, normally called the big rain or *keremt*, which falls from June-September. It is followed by the *baga* hot, dry period from October through February. In some areas there are short and moderate spring rains in March and April known as the little rains or *belg*. These rainy periods correspond to Ethiopia's primary and secondary agricultural seasons, known as the *meher* and *belg*. (Source: *FEWS*)