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EMERGENCIES UNIT FOR
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Assessment field trip to East and West Hararghe zone (Oromiya Region)

Field Assessment Mission: 3 - 9 September 2002

By Francois Piguet, UN-Emergencies Unit for Ethiopia

1. Introduction and background

Report of low rainfall and deterioration in the food security situation in West and East Hararghe zones (Oromiya Region) and surrounding areas spurred the UN-EUE to organize an assessment mission in both zones that are prone to chronic food insecurity. Maize and sorghum crops and pasture in the lowlands (*kola*) are most affected. Present situation generates unexpected livestock and population movements, which create danger of clashes between the autochthonous agriculturists and the pastoralists. Already in early September large herds of camels moving to the highlands could be seen along the main road Jijiga – Babile – Harar. In the most affected pocket areas characterized by complete crop failure and emaciated livestock, cases of child malnutrition are observed.

2. General situation

The rains

2002 *Belg* and *Meher* rain performance was inadequate and ill timed with the *Belg* ending two weeks earlier than usual and the *Meher* starting a month later with uneven and erratic showers. Water stress is particularly acute in the low lands where most of the maize harvest is already lost. All over Hararghe, rain deficit has reduced moisture for rain-fed agriculture and slowed the flow of water in springs and rivers as well as the regeneration of sub-surface water storage.

Some woredas' rainfall data illustrates the 2002 situation comparing to previous years. Rain delays and even a slight shortage in average have already badly affected agriculture in fragile areas, especially in the *kola*:

Rainfall data East Hararaghe

Meteorological data		**Monthly rain in mm.**							
Grawa	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.
1999	13	47	31	14	14	46	75		
2000	…	23	242	22	53	92	104		
2001	26	90	112	137	62	159	262		
2002	42	64	136	110	35	101	334		
Kurfa Chele									
1999	3	39	242	11	25	59	37		
2000	nil	23	23	21	46	92	104		
2001	nil	44	65	53	36	110	135		
2002	39	29	68	41	101	130	351		
Meta									
1999	…	…	…	…	…	…	…		
2000	…	29	181	65	22	79	164		
2001	…	119	89	44	43	91	184		
2002	…	33	117	…	…	…	…		
NB. Dega above 2000 m., no measure for kola; source: WFP									
Babile									
2000	…	…	…	…	20.4	28	111.9		
2001	…	…	…	…	39.4	49.7	108		
2002	…	…	…	…	24.8	89.8	94.4		
source: Agricultural Office, Babile woreda									
Gursum									
2001	nil	69.1	61.8	89.2	51.5	138.6	102.6	36.4	13.2
2002	61.4	32.9	96	96.9	18	26.6	…	…	…
source: ERCS Gursum									

Crop situation and prospects

Failure or early growing stage crops in lowland areas of East Hararghe zone are obvious. In the visited woredas (Babile, Gursum. Girawa (East Hararghe), Dire Dawa Region and Mieso (West Hararghe)), only early growing stages of replanted crops, dry or non-matured crops with animal grazing in the fields have been observed. On the other hand, the crop situation in the mid-land (*weina dega*) and highland (*dega*) appears more contrasted. During the previous dry spell, which occurred before the 2000 emergency situation in Ethiopia, East Hararghe showed signs of a similar situation quoted from a 1999 report:

"The situation in East Hararghe is difficult to generalize about. The present nutritional condition of people living in the highlands appears to be relatively better than those in the

lower altitudes… There are pockets of extreme food insecurity, particularly in the lowlands and midlands, but it is difficult to know the extent of these problems since they are located in isolated areas… In ideal circumstances, it might be possible to expect a reduction in requirements by September, when the last Belg and first Meher crops would normally be expected. However, this scenario is unlikely this year. Some of those in the highlands of East Hararghe might be self-sufficient by December, if the Meher harvest is good. However, not only were the Belg rains (which usually also help loosen the soil for planting of Meher crops) a near total failure, but the Meher rains also began late in most areas, forcing farmers to plant their crops late or to plant short-cycle, lower-yielding crops" (Hammond, 1999).

In Western Hararghe, along the Addis Ababa road in the Chercher Mountains, the situation appears normal. One observes green fields where nothing shows except low yields. In fact, varying situations characterize the agriculture landscape with some promising fields in the proximity of others presenting growth delay or patchiness. Moreover, such differences in restricted areas highlight structural problems related to topography, soil fertility variations and more commonly, input market access difficulties. If rains continue up to early October, Hararghe farmers will at least benefit of a survival harvests. But in any case, farmers and pastoralists will face a very difficult situation until the end of 2002.

Presently, the situation is more alarming in the lowlands where Mieso woreda already appears as one of the most affected areas. Forced to sow their plots up to three times between May and August[1], farmers have exhausted what can be considered as their main drought coping mechanism. Up to now, fields remain dry and in better cases early-stage crops have nearly no chance to mature over the coming dry season.

Consequences of the rain failures

Almost everywhere, moisture stress provoked by the failure of the belg rains followed by late and erratic *Meher* rain has delayed the planting calendar with severe implications for crop yields and uncertainty about crop maturation[2].

Meta Woreda

Situated southwest of Harar along the road to Asbe Teferi, Meta woreda covers the three agro-ecological floors (*dega* 17 kebele, *weina dega* 15 kebele, *kola* 15 kebele). Despite its

[1] Planting season for the Hararghe agriculture: dega in March, weina dega in April and kola in May. Highlands presents areas up to 80% Belg dependant as the Kola areas are exclusivelyMeher dependant.

[2] According to the head of the ERCS Harar branch, in East Hararghe zone there is a need of food aid in Gursum, Jarso, Fedis, Karamile, Kombolcha and Kersa woreda.

topographic situation, several kebeles remain food insecure and HCS has currently registered 24,600 food aid beneficiaries. The mission composed of the assessor and the WFP food aid monitor focused on mid- and highlands around Chalenko and Weiber.

Meta woreda *Meher* crop surface covers in average 32,000 to 35,000 hectare and 2002 *Meher* rains are characterized by late onset and poor distribution. In addition, in August some crop destruction related to hailstorm and floods have been recorded.

Following two failures with maize and sorghum – sorghum needs at least one-month rain - farmers switched to sweet potatoes, a drought resistant crop with some varieties reaching maturity in three months. The extension of such crops as a coping mechanism constitutes a good indicator of increasing drought related difficulties. Moreover, intercropping represents an efficient planting technique but is often limited by poor soil composition. On the other hand, black cotton soils appear particularly suitable for intercropping cereals with chickpeas and flax. In the *dega* and *weina dega*, farmers currently intercrop wheat with haricot beans and flax. However, the best plots are not completely secured and infestations of stock bore have been reported in the woreda.

Cash crop prices are the other main concern in the woreda with the seasonal drop of khat prices at farm gate. This year the 1kg (?) bundle is currently paid between 2 and 2.5 ETB to the producer comparing to 5 ETB last year. Daily wages as well have dropped from 7 to 3 ETB.

Girawa woreda

Close to Meta woreda, Girawa, with a total population of 81,310 has already 42,900-food aid beneficiaries registered at woreda level, most of them located in the lowlands. With 46 kebeles (*dega* 8, *weina dega* 8, *kola* 30), the situation appears particularly vulnerable in the numerous *kola* kebeles, as well as in the adjacent Gola Odana Meyumuluke woreda bordering the Somali Region. CARE, currently implementing an agriculture development project in Girawa, is now monitoring the situation in Gola Odana Meyumuluke woreda, where alarming information related to crop failure and livestock condition suggests that drought effects are particularly severe in this woreda entirely situated in the *kola*.

Babile woreda

Located east of Harar, Babile woreda is mainly situated in the *kola*. Rain seasons have been delayed with serious implications for the planting season. Normally, farmers plant first in April both long cycle maize and sorghum intercropped with groundnuts. The second cropping season takes place in June with a second sowing of short cycle varieties maize and sorghum. Already long cycle maize has been destroyed by the prolonged dry spell and sorghum has not reach flowering stage. The last shower took place on 25 August and additional rains are essential to assure maturation.

According to MoA experts in Babile, expected production might only reach 17 % for sorghum, 67% for maize and 22% for groundnuts comparing to agriculture plans. According to them, it is a disaster because of inadequate rain to assure sorghum and maize maturation.

Production 1993 and expected production 1994 (Ethiopian calendar)

Babile	Ha 1993	Q 1993	Ha 1994	Q 1994
sorghum	6,933	20150	7545	3425
maize	4,536	6648.5	4587	4455
groundnuts	7,264	22522	5494	4955

Source: Agricultural Office, Babile woreda

Farmers' constraints are essentially linked to a lack of agriculture tools and oxen, as they have been forced to sell part of their assets. In 2002, the extension package was provided without seeds and farmers have faced a lack of inputs[3]. As all over Hararghe, farmers have difficulties paying back their extension package credit as well as the MfM revolving fund. Globally, most of the farmers are facing cash difficulties, a situation confirmed by HCS who is active all over the zone. Prison for payment default is not a solution, according to MoA woreda experts, but credit interests are still added, putting a lot of farmers in further difficulties as they are automatically excluded from any new "distribution" of agriculture inputs. Such situation already shows perverse effects on crop yields.

On the other hand, Babile farmers are consuming khat in less quantity than in urban areas. Economically, it has also fewer implications as they usually do not buy it and rely mostly on their garden production. In addition, some khat is sold in Jijiga at low prices (1 to 2 ETB for a plastic bag) due to the poor quality. At these prices farmers will on average generate an annual income of about 100 ETB.

Box 1 Mohamed Ashur, farmer in Babile along Fik road (7 km from Babile town)

For ploughing his fields, Mohamed Ashur has been compelled to rent oxen and will pay the rent to the owner by giving two quintals of grain. Oxen rent will be paid back next year if he is not able to harvest this year. The sorghum planted in May has only reached a one-meter height and most of that crop might be used exclusively as fodder. At this stage, the sorghum crop needs half of its normal water needs in September to assure maturity.

Mohamed Ashur has currently two fields one with half a hectare, which did not give any result, and a hectare field with poor soil, which does not allow intercropping. Beside his two plots, he only owns one cow, two calves and a few goats.

[3] Seed provided by Menschen für Menschen: sorghum 12.5 MT, maize 43.4 MT, pulses 33.5 MT.

Gursum woreda

Next to Babile, Gursum is situated half way between Harar and Jijiga with a total population of 204,000 (61% Agro-pastoralists, 39% Pastoralists) mostly from the Aba Yunis community (Oromo). The woreda has 49 kebeles, 4 Belg cropping dependent and 45 Meher covering the three agro-ecological floors (3 *dega*, 15 *weina dega*, 24 *kola*).

According to a recent ERCS assessment, 13 kebeles are particularly vulnerable to drought and woreda officials are stressing that the climatic changes are affecting the woreda and all surrounding areas. The *kola* and *weina dega* kebele are facing crop failure and people are in need of relief, according to woreda authorities.

Like in the other woreda facing a shortage of rainfall, sowing seasons have been delayed and the early-planted crops have aborted. Considering the rain would stop seasonally, more difficulties are expected[4]. Farmers are in further difficulties as they also experience lack of tools and seed availability. The last sowing took place in May, and on August 15 the Oromiya Region MoA tried to fill the gap by providing 93 quintals of teff seeds free of charge.

If Babile relief distributions are currently supervised by *Menschen für Menschen* (MfM) and Concern, in Gursum, DPPC is alone in charge of relief covering 10 kebele[5].

Economic conditions reinforce bad consequences of the rain failures

With the exception of the *kola*, where crop failure is averred, situation appears to be extremely contrasted. In the highlands (*dega* and *weina dega*), a promising field could be adjacent to a poor one. Such situation is related to multifactor reasons: late and erratic rains, unequal gravitation irrigation water potential, type of soil, seed and fertilizer availability and cash constraints. In the areas with less khat production - the main cash crop in Haraghe since coffee prices are not remunerative - farmer's strategies are to take any rain opportunity for sowing. All farmers interviewed have indicated two or three sowing attempts and highlighted high seed costs comparing to low production prices offered since two years ago. Therefore, for the past three

[4] Grain production:
- Belg 2001 -/-, Meher 2001 79,779 quintals
- Relief: 2002 55600 beneficiaries for two months

[5] DPPC distributions cover Borale kebele, Ijeber Wensa, Iwanjera, Sakare and Santale.

years, farmers have not been able to pay back extension package credits and have been automatically excluded from seed and fertilizer supply by the MoA.

Consequently, more and more farmers have adopted an outsider strategy. Without the introduction of guarantee mechanisms such as production prices minima, or insurance systems linking credit and natural disasters, such non-market strategies remain essential in terms of food security. Beside sowing two or three times to get advantage of any substantial shower, in the *weina dega* and *dega*, they use sweet potatoes production as a last option.

In terms of agriculture assessment, another factor should be considered; presently Highlanders are more concerned by khat production difficulties rather than the situation in the low lands. During our visit to the concerned woredas, it was difficult to let our interlocutors understand that lowland crop failure should be the first priority.

The difficulties in the cash crop sectors should not be neglected after the low prices for coffee have affected the Hararghe and the recent shift to khat production, requesting less inputs and time, is also being endangered by recent price fluctuations. In one month's time, khat prices dropped from 60 to 20 ETB a bundle[6] on the Aweday market. Following the rains, such seasonal price movement always takes place in September – October due to an enlarged offer (Dechassa, 2001). Even in an urban area like Dire Dawa, the retail price for a plastic bag of khat dropped to 5 ETB when two months ago prices were at 10 – 12 ETB. Meanwhile, in 2002 price movements seem to be more accentuated. Production is actually paid between 1.5 and 2.5 ETB per kg, whereas in May it could rise to 40 ETB per kg. All over Hararghe's main production area, traders are buying khat at farm door and a lot of conditioned or bulk bags were standing along the road, ready for delivery and transport. On another hand, export prices for the best quality khat are more stable and the kg remains at 150 – 200 ETB

Midland kebele example

2000 families living currently in Gafra Gonda kebele (Gursum woreda) are facing structural problems exacerbated by the current rain shortage. According to Gursum authorities, overpopulation in the kebele requires a programme of resettlement. Already Gafra Gonda people are migrating for casual labour as far as Hartisheik, Jijiga and Djibouti. Locally, cash from khat has diminished since three years ago as the irrigation system by gravitation is dry, highlighting the question of water management together with neighbouring Jarso woreda upstream.

Gafra Gonda kebele has set up some EGS essentially with terracing, seedling and road maintenance; unfortunately no work was visible at the time of our visit. According to Osman Abas, Development Officer in charge of Gafra Gonda, current food distribution is shared by 20% in free distribution and 80% in EGS. On another hand, local authorities deplore the lack of a

[6] There are different types of khat bundles available on the market: Hadaraa Dalacha, Urrata Dalacha, Hafera Dimaa, Urata Dimaa and the average weight reach 2.1 to 2.5 kg a bundle (Dechassa field notes).

school-feeding programme. Gafra Gonda Primary School has only grade 1 – 4 with 320 pupils. Grade 5 - 8, pupils have to go to Fujubar, and grade 9 – 12 to Funyan Bira. Officials request food support for those children forced to leave the kebele to attend school.

In 2002, authorities have registered 535 migrants comparing to 300 last year, said Ato Moukhar, head of the kebele administration. He connects these record departures in relation with land tenure issues. Most of these migrants left temporarily for a period between a month up to one-year. Main destinations are Harar, Kombolcha, Jijiga, as well as Djibouti where they get jobs as shepherds, daily workers in agriculture or housekeepers.

Along the main road to Funyan Bira (Gursum woreda), Bombase (a trading center situated at the crossroad to Jijiga) is experiencing water shortage that is expected to worsen over the coming months. A 20 liter jerry can currently costs one ETB. In terms of disaster prevention, water development projects are needed. Already two hand-dug wells have been recently dug in Funyan Bira, but maintenance remains the main concern since CISP phased out its presence. For example, in Funyan Bira (Gursum), from seven water points dug, only three are still functioning.

Particular concern about Mieso woreda (West Hararghe)

Within Mieso woreda bordering Shinile zone and Afar Region (Awash Fentale), the population of 164,365, include Oromo Kotou (with 6 tribes from which some are Itu pastoralists as well as Amhara), as well as Somali Hawiye and Issa (established 2 km east of Mieso station). Mieso woreda is currently divided into 41 kebeles (20 agro-pastoralists, 16 Pastoralists and 5 considered as urban).

West Hararghe
Mieso woreda

	Pas	Needy pop
Mieso	15	26047
Asabot	11	16237
Mulu	4	Nil
Kora	7	19024
Bordode	5	4745

The assessment took place near Gumbi railway station (Gumbi mountain), some 25 km east of Awash station. According to the Agricultural Office (Mieso), Gumbi has been the most affected area in Mieso woreda. The settlements concerned are located in Bordode kebele, particularly Bello and Sirba situated along the road to Anchar woreda and the town of Chorora, where CARE has initiated food aid distributions.

Bello Settlement

The settlement's chairman, Said Mohamed Burkah, has indicated that his community has been facing problems for three years and the last eleven months have been the worst. Climatic problems have brought only erratic rains followed by an exceptional long dry spell. The last good crops were harvested was 3 years ago and since that time farmers have experienced crop infestation (bomby). For him, the actual difficulties appear to be similar to 1984 and at that time we got food and animal drugs through the government. For the last 3 years, cattle have become weaker and already a large number of animals died. The last cattle marketed by settlers have been sold in June for 200 ETB. There is no animal medicine and many endemic epizootic (internal and external parasites, CBPP and CCPP, pasteurellosis, and anthrax). At this stage, already some 70 families left for Daro Loho, Anchar, Metahara and Arsi.

During our visit to the settlement, settlers and the elders had a bitter debate with the Agricultural Office representatives about the number of inhabitants as they were currently claiming 587 households at kebele level. Finally, settlers complained about recent numerous visits by officials (five governmental delegations, two NGOs and the UN) without any follow up.

1.1.1 Box 2 Bello settlement's farmers

Abdo Oumar Shabo agro-pastoralist, has been obliged to sow his plot three times. The first was in April with short cycle sorghum. At that time he found local seed without any problem. In June, he sowed short cycle maize with local seed bought on the market at 100 ETB for 60 kg. Finally, early September he again sowed short cycle maize and bought 15kg local seeds for 30 ETB. For lack of cash, he did not sow the entire plot and he indicated having sold eight goats for 20 ETB each. As he owns only one ox, he ploughed his field with a second ox borrowed from a neighbour, in accordance with the oxen sharing system common in the area.

A second farmer was busy with similar land preparation on the adjacent plot. He also bought seed three times: in April sorghum (50 ETB for 22 tins); in June sorghum and maize (75 ETB for 36 tins) and in September sorghum and maize (25 ETB for 12 tins). Therefore, his second plot will remain fallow, as he does not have seed to sow it.

Halima Aliye Ismael gave indications related to food allocation at household level. In order to get some cash, people are proceeding to sell charcoal[7] and market some small animals. During the last market day, she bought three tins of maize. At household level, they have not used sugar and tea

[7] Charcoal along the road Mieso – Awash 20 ETB per bag.

since April. No milk is available since May as in her family 8 cattle and a donkey[8] died… In reality no animal remains as even goats died from diseases such as internal parasites and CCPP. Women are currently preparing portulacaceae (adeh), a wild plant common in the area, to feed their children.

Recommendations

- According to the harvest results, food aid will be a necessity in the lowlands as well as for vulnerable households in the *weina dega* and *dega* agro-ecological zones, where only a survival harvest can be expected.
- A close monitoring of the situation all over the area should be set up in order to be able to adjust indicators as well as the number of registered vulnerable people.
- Additional nutritional assessments should be conducted in order to estimate supplementary food allocation and/or the opportunity to open feeding centres in Mieso, Boke and Daro Lebu woreda.
- Immediate action should be taken in regard to animal health as to prevent over-mortality, which could occur in November, and to preserve the essential livestock like lactating and breeding animals.
- Action should be taken in order to release enough seed for the next planting season starting in March 2003. Sufficient stocks should be scheduled so as to enable possible re-sowing in case of necessity and opportunity.
- Debate and decision should be initiated over suitable seed – preferably the local type - and other farm inputs to be released to the farmers and agro-pastoralists.
- Advocacy for a decision of moratorium or cancellation related to the pending extension credits, in order to comfort farmers' future income and to avoid assets depletion. Such measure might be the only solution to accelerate recovery by boosting next cropping season.
- Decentralization conducted with a deadline on July 1st for technical staff to be based in the woreda instead of zonal level has brought some confusion and information gaps. Clear advertised instructions should be given in order to restore comprehensive reporting lines for larger areas than the woreda.

- [8] According to Agricultural Office in Mieso, there is currently an epizootic of camel pasteurellosis at woreda level and the most common diseases: camel and bovine pasteurellosis, CBPP, anthrax, black leg, internal and external parasites

UN-EUE
PO Box 60252
Addis Ababa
Ethiopia
eue/

Tel.: (251) (1) 51-10-28/29
Fax: (251) (1) 51-12-92
E-mail: undp-eue@telecom.net.et
www.telecom.net.et/~undp-

1.1.2 Glossary of important meteorological and seasonal terms used for Ethiopia

1.2 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*)

1.3 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*)

1.4 Ethiopia's Belg *Rains Defined*

In spring, a strong cyclonic center develops over Ethiopia and Sudan. Winds from the Gulf of Aden and the Indian Ocean highs are drawn towards this center 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*)

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.
kebele	Smallest administrative unit in Ethiopia
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
weyna dega	Expression for one of the altitudinal agroecological belts in Ethiopia. In Wollo between ~1600 to ~2600 msl.

Acronyms

CARE	Cooperatives for Assistance and Relief Everywhere
CISP	Comitato Internazionale per lo Sviluppo dei Popoli (International Committee for the development of peoples)
DPPC	Disaster Prevention and Preparedness Commission (Federal)
DPPB	Disaster Prevention and Preparedness Bureau (Region)
EGS	Employment Generation Scheme
ERCS	Ethiopian Red Cross Society
ETB	Ethiopian birr
EWS	Early Warning System
FEWS	Famine Early Warning System
Ha	Hectare
HCS	Hararghe Catholic Secretariat (Caritas)
MfM	Menschen für Menschen
MoA	Ministry of Agriculture
MT	Metric Ton
NGO	Non-Governmental Organisation
ORS	Oral Rehydratation Salt
UNDP	United Nations Development Programme
UN-EUE	United Nations Emergencies Unit for Ethiopia
WFP	World Food Programme

List of related reports and papers

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.

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

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.

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.