

## **Assessment of Belg Cropping and Meher Planting Prospects in East/West Hararghe**

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### **Summary**

The 1995 Belg rainfall season, unlike the drought in 1994, began on time between mid- and late February in East and West Hararghe zones of Region 4 (Oromia). Since the start of the season, distribution of rainfall in area and time have so far been favourable for Belg cropping of 25,000 hectares in East Hararghe (a 50% increase over 1994), and 10,000 hectares in West Hararghe. Land preparation for Meher crops is also in full operation, even in the lowlands near Dire Dawa and Meiso.

Although cereal prices have decrease to 90-120 birr for maize and sorghum, they are still high compared to the pre-1994 drought period. Livestock prices are strong (800-1000 birr for oxen and 75-85 birr for sheep and goats) giving reasonable terms of trade for the producers (6.5-8.5 kg cereal/kg live animal). However, for those seriously affected by the 1994 Belg failure and/or the armyworm outbreak, prices may limit access to food as has been indicated by the downward trend of the nutritional status. In East Hararghe, especially the lowlands of Bedeno and Burka, the mean weight for length has dropped 2.2% in the last 5 months, to a significant level to 89.2%.

Although developmental Food for Work (FFW) programmes implemented by the NGOs and conservation FFW programmes implemented under the WFP/Ministry of Natural Resources project 2488 are ongoing, at this time most wereda officials report little farmer interest in remedial FFW programmes during the cropping season, even in weredas such as Fedis and Meiso, which were reported to be severely effected at the time of the FAO/WFP crop and food needs assessment. In these and other lowland weredas, armyworm damage although widespread, was scattered. It may be that household surveys would reveal some food shortages. RRC officials in Dire Dawa insist that as many as 215,000 persons in the lowland areas of East Hararghe are in serious need of food assistance until the next harvest. The lowland people are primarily agro-pastoral, grow short-season crops and live in less densely populated areas. As this is a time of good grazing, animal products should be able to supply the majority of food for these people, and house-to-house surveys may be necessary to identify the needy.

### **Belg Rainfall and Meher Cropping Prospects**

The Belg cropping season began at the normal expected time with good rainfall in mid- to late February even in the lowlands. Rainfall amount decreased in the third dekad of March but resumed a normal pattern in early April (Table 1). In the highlands, sweet potato vines almost cover the ridges and roots can soon be consumed. Wheat and barley crops are at the tillering stage while white potatoes are beginning to bloom. Both crops should be ready

to harvest from mid June to July. In the mid- to lowlands most maize and sorghum fields have been ploughed and farmers in some areas have already begun planting on the assumption that soil moisture levels will remain adequate to surplus.

Fertilizer supplies were found to be erratic. Farmer repayment of 1994 loans has been dishearteningly low, so distribution to farmers, even where there are supplies, have not taken place. Other areas have not yet received fertilizer or do not have active Peasant Associations (PAs) qualifying for purchase through loans. As a rule there was no fertilizer available for the Belg crops; DAP would have boosted cereal yields, retarded lodging (falling over) and hastened maturity. DAP is also useful for increasing potato growth and tuber yield. In some areas where fertilizer is not available, farmers are buying with cash and paying for transport costs. In others, farmers are wary of fertilizer use, remembering past droughts.

**Table 1. Belg Rainfall in East/West Hararghe in 1995.1**

City	March, 1995	Total, 1995	
Increase over 1994			
East Hararghe			
Kurfachelle	105	137	97
Grawa	232	271	234
Bedeno	171	188	176
Burka	139	160	160
Dogu	72	98	61
Gursum	73	77	67
Babile	96	101	101
Dire Dawa	132	149	-
West Hararghe			
Meiso	76	91	34
Hardim	104	104	90
Gelemso	78	100	65
Mechara	181	194	150
Bedessa	73	87	72

### **Food Prices and Food for Work Programmes**

Extensive surveys of cereal and livestock prices in East and West Hararghe have been conducted by CARE-CEFIS (Figure 1 and 2). Our spot checking during the assessment trip, confirms that cereal prices have decreased steadily since harvest but have not dropped drastically as they did in 1992. Armyworm inflicted yield reductions and improved market movement to retail outlets have resulted in prices remaining strong and probably levelling out at 90-120 birr for maize and sorghum and 150-175 birr for wheat and barley. Teff, oats, white and sweet potato are cash crops currently selling for 250 birr per quintal.

Grain price reduction in the lowlands preceded price changes in the highlands, probably due to an early harvest, early sell-off of grains and restocking of livestock. Falling grain prices in

the lowlands during that period should have provided income generating opportunities for farmer/trader activity in the highland markets.

While sheep and goat prices have remained fairly constant at 65-85 birr, oxen prices vary seasonally in accordance to cereal prices and increased demand during the draft season. Price increases of 200 birr from December 1994 to March 1995 were common, raising terms of trade back to the level of 6.0 to 8.5.

The Ministry of Natural Resources in East Hararghe reported on its cooperation in food for work programmes operated by CARE in five weredas, by the Relief and Rehabilitation Commission in six weredas and by Harar Catholic Secretariat in five weredas. They also have six small-scale irrigation projects in three weredas and 30 shallow wells in five weredas, 26 boreholes in three weredas and six well rehabilitations in Fedis wereda.

In addition the Zonal DPPC has helped eight weredas to develop Local Level Participatory Plans of Action (LLPA) for tree planting and farmland soil conservation for 100,000 beneficiaries in five or more PAs in each of the eight weredas. Payment of wheat and oil will be covered by the WFP 2488 project over an expected three year work period. The poorest PAs were targeted for these employment generating schemes. Wereda Disaster Prevention and Preparedness Committees, however, report that local farmers are not participating in the work during the crop planting time. The DPPC work plans were designed for only 3-5 work days per month in order to avoid taking farmers from their cropping activities. Considering the small amount of food they would get from DPPC work, it seems reasonable that only the desperate and unemployed would be interested. In the future, when food shortages are anticipated, it would seem that dry season work in return for a credit food coupon would be more appropriate to the farming community.

### **Nutritional Surveillance, Health and Relief Needs**

In their scheduled nutritional survey, Save the Children (UK) reported a significant geographical pattern of declining nutritional status in the lowlands, especially in East Hararghe. Of the 50 villages surveyed, 18 villages located mostly in the lowlands, were below the RRC standard of 90% WFL. This decline in nutritional status would not be unexpected prior to the harvest of green maize in July, but it is not understandable that it occurred during and immediately after the harvest period of November 1994 to March 1995. Among the factors that could explain this are strong cereal prices in East Hararghe, which limit access to even the cheaper grains. It is also possible that individuals, especially smaller land/livestock holders, may have lost all their crops to armyworms and therefore were not able to sustain their families on the remaining harvest. It was generally observed that damage was most serious in the mid- to lowland areas.

Although CARE and wereda administrators in East Hararghe had not yet prepared plans to initiate relief distributions, the SCF/UK report concludes that a number of weredas should receive food aid until the Meher is concluded at the end of November. It has to be noted that it would probably be difficult to organize FFW activities or even targeted free food distributions on short notice for the coming two months.

The East Hararghe RRB office maintains that its original request for food assistance for 675,000 beneficiaries was accurate at the time of the 1994 Meher crop assessment. The RRC national appeal for food assistance included only 198,900 persons to receive 245,240 quintals of food. The RRB is now requesting CARE to initiate employment generating schemes for 215,000 beneficiaries up to the 1995 Meher harvest in the CARE operating areas that cover six weredas. CARE has some unallocated food in its warehouse but the stock position of the RRB in East Hararghe is reported to be very low.

There have been some cases of Acute Diarrhoea Disease (ADD) reported in neighbouring zones, however, no cases were reported in the East and West Hararghe. Drugs are available and will be sufficient for the expected malaria season between the Belg and Meher rainfalls. Although a large number of cases are normally reported each year, immunity and recovery seem to be related to the occurrence of food shortages and other complicating illnesses. A programme of AIDS-HIV education has been employed using an infected volunteer and a video of a deceased AIDS patient to reach schools, sports gatherings, bars and civic events. Sixty percent of TB cases in the West Hararghe Zonal hospital are reported to be HIV positive. The formation of support clubs to encourage other-than-sexual activities has also begun.

### **Agricultural Development Prospects**

Coping mechanisms in Hararghe, especially the Eastern part, are many, with lucrative-coffee and chat growing being among the most suitable. Coffee seedlings are provided to the farmers by the Ministry of Tea/Coffee Development (MTCDD) and take three years to bear fruit. During this time and throughout production, 1/2 quintal of DAP/ha/year is recommended as well as spraying with both Roundup herbicide @34.50 birr/ha and Coffee Berry Disease fungicide six to seven times in a 28 day cycles. The fungicide is provided by the MTCDD and the herbicide is subsidized. The total cost for the farmer is 111.50 birr/year, whereas the expected income from a full producing plantation of coffee is 7 quintals/ha X 1600 birr/qt or 11,200 birr. This compares to last years price of 910 birr/qt and does not include the intensive labour costs of hoeing three to four times and picking one to three times in addition to fertilizing and spraying.

Nevertheless, farmer interest in chat growing is overwhelming efforts to promote coffee development. Chat seedlings are started by the farmer from twigs. Chat is planted in the valley of soil bunds to maximize production during the dry season, when prices are highest and quality for chewing is most desirable. Weeding prevents competition and manure or fertilizer is normally applied. There are no diseases or pests prevalent although a common variety of spider spins webs in the shoot tip, the part most prized for chewing. When the climate is favourable, three harvests per year can yield up to 1000 kg @ 5 birr/kg. Intercropping is not practiced when the plants are minimally spaced but alley cropping is becoming popular between soil/water conserving bunds. Since the highlands are increasingly being tilled by hand, the distance between bunds does not require space for oxen and plough to rotate. In spite of farmer acceptance of the practice of bund construction, soil erosion is still a major threat to cropland, especially as forests have been cut on slopes and mountain tops. Farmers have begun to grow sweet potato on their bunds, but they remain unprotected through the non-cropping part of the year. The International Fund for Agricultural Development (IFAD) and the Ministry of Natural Resources have two soil conservation project areas in East Hararghe, one at Karamile (Goro Guto wereda) and the other near Deder

(Wobera wereda). The Karamile FFW project is growing grass (Setaria, Phlaris and Gatumpanic) and legume (alfalfa and pigeon pea) seedlings to plant a zig zag row of bund stabilizing vegetation on newly constructed bunds. Four hundred hectares of bund planting have been made and farmers are encouraged to allow growth during the cropping season and to use cut-and-carry feeding for cattle. The Deder project is called CONBAT (Conservation-Based Agronomic Trials) and tests alley cropping with grass and leguminous shrub stabilized bunds. Although farmers are reluctant to give up farmland, they are beginning to acknowledge the problems of soil erosion since there is no more virgin land available.

## **Visited Weredas in East Hararghe Zone**

### **Jarso**

Jarso wereda is located at the eastern tip of the southern Rift mountains with four of its 30 Peasant Associations being highland and Belg-dependant, although many others also grow Belg crops. According to the wereda Ministry of Agriculture, the onset of the 1995 Belg rainfall occurred during the second dekad of February and has been satisfactory both in amount and distribution. From the 1,897 hectares cropped during the Belg season this year, 13,279 quintals of wheat and barley (7-10 qt/ha) are expected as well as 12,500 quintals of white potato (20 qt/ha), if the current rainfall situation continues.

The requested 2,000 quintal fertilizer supply for the wereda must be individually purchased by cash in Kombolcha with an additional 10 birr charge for transport to the wereda.

One scout has been hired (150 birr/month) to walk the lowland adjacent to Dire Dawa watching for expected hatches of locust, but fears were expressed as there is only a supply of 50 litres of insecticide in the wereda.

With the screening of the wereda, 12,838 Heads of Family (HOF) are now participating in food for work activities started by the Disaster Prevention and Preparedness Committee at the beginning of April. The programmes ongoing at this time are coffee seedling growing and construction of compost pits. The Harar Catholic Secretariat (HCS) is assisting in these activities, which will be conducted up to September 1995, by providing technical input and food a payment to workers.

### **Girawa (Gara Muleta)**

Topping the escarpment southwest of Harar, it was observed that 70-80% of the wereda highland Belg crops of wheat, barley, teff and potato had been planted. Rainfall, which began toward the end of February, was adequate to surplus but had hampered ploughing in the basin areas. Of the 6,000 quintals of fertilizer asked by the wereda farmers only 1,000 quintals was available. Distribution of fertilizer was delayed while the remaining 1/3 of 1994 loan repayments were being collected.

Daconyl fungicide for protection against Coffee Berry Disease, which should have been made available to the farmers for spraying at the beginning of April (4-6 weeks post-flowering), had not yet arrived. Farmers are increasingly willing to purchase Roundup

(Glyphosate) herbicide with cash, not only for their coffee plants, but also to control cushgrass (*Digiteria*, a rhizome spreading grass similar to bermudagrass) in the croplands. They had discovered that coffee plantations and fields free of cushgrass were not attractive to armyworm moths laying eggs last year.

Although 395 quintals of wheat, along with teff, sorghum and chickpea was distributed by CARE last year, only 55 quintals have been collected on repayment. In addition to its regular development programme, CARE-Girawa is running urban food for work activities, constructing a road and drainage system in the town, employing about 100 ex-soldiers. A coffee seedling nursery site managed by the wereda MoA is also funded by CARE food for work.

### **Chelenko**

The wereda consists of 81 Peasant Associations out of which 20 are highland and Belg-dependant. Although the Belg cropping for the past three years was 3,000 hectares, the early start of Belg rainfall in February as well as the amount and distribution, has resulted in increased cropping up to 5,000 hectares, the additional 2,000 hectares being located in half of the 35 Weyna Dega (mid-highland) PAs. The main Belg crops in the wereda are barley and wheat (6-8 qt/ha expected yield, current price 150 and 175 birr/qt), oats (5 qt/ha expected and selling for 250 birr/qt) and white potato (also selling for 250 birr/qt). This year the wereda requested 3,920 quintals of DAP and 2,000 urea, an increase from the 1994 use of 1,725 and 521 quintals respectively. However, so far only 660 quintals of urea have been received at the distribution point and farmer repayment for 1994 fertilizer has been small. The bank (not specified) reportedly will allow repayment in 1995 when yields will hopefully be better, but some farmers currently seeking fertilizer are willing to purchase fertilizer with cash payment.

According to the wereda MoA, SCF/UK has promised to donate 360 quintals of seed of the improved varieties of barley, wheat, sorghum and maize to be distributed to farmers by the Ministry. The Oromo Relief Association (ORA) is also operating integrated development programmes of pond construction, hill side terracing, spring development and road construction in four PAs through food for work, with the cereal and pulses being purchased from the local market by ORA and the oil donated by the European Union.

### **Deder**

Of the 54 PAs in the wereda, 10 are in the Dega highlands and Belg dependant whereas five mid-highland PAs also plant crops during the Meher season. Rainfall here also started in early February and was sufficient. Although the wereda has maintained a five year average of 7,000 hectares of Belg plantings, cropping had fallen to 2,330 in 1994 giving an estimated production of 23,000 quintals. The 1995 planting of 2,170 hectares of barley and 1,605 of wheat, both expected to yield 10 qt/ha and 149 hectares of oats yielding 8 qt/ha would bring the total production to 38,942 quintals from 3,924 hectares or 6% of the total cropland.

Service Cooperatives are not well organized and operating in the wereda but cash purchase of 35 qt of DAP and 111 of urea in 1994 is expected to rise this year with 500 qt of DAP and 300 qt of urea available presently.

OXFAM/UK is running a food for work programme in six PAs, growing tree seedlings while the RRC food for work involves soil conservation and road construction.

### **Kara Mile (Goro Guto)**

Out of 60 PAs, 34 which are in the highland and mid-highland are Belg-dependant. This year the Belg rainfall started towards the end of January and was reported to have been 24 mm in February and 137 mm in March. The 6,000 hectares of planted wheat, barley and oats are estimated to yield 10 qt per hectare.

Although 100 qt of DAP and 125 qt of urea were given to the farmers in 1994 through the Safety-net programme, AISCO has not yet delivered any fertilizer in 1995. The MoA has available only 256 qt of DAP and 240 qt of urea allocated by the Zonal MoA and is trying to initiate private traders to provide additional amounts.

A seven month programme of food for work for 3,820 beneficiaries has been undertaken by the Wereda Disaster Prevention and Preparedness Committee and involves road construction and maintenance, soil and stone bund erection, micro-basin check dam and pond construction, tree nursery planting and school maintenance. Catholic Relief Services (CRS) is providing wheat and oil as payment for work.

### **Weredas visited in West Hararghe**

Of the five Belg dependant weredas in the zone, Tulu-Hearne, Chiro and Doba are under the Ministry of Agriculture while Kuni-Bedessa and Habro are under the Ministry of Tea and Coffee Development (MTCDD). According to both ministries, Belg rainfall in the five weredas started in January and has been reported to have been good in amount and distribution in the catchment areas. A total of 5,128 ha of barley, 2,820 ha of wheat, 193 ha of Bukre green maize and 2,125 ha of haricot bean have been planted in a total of 10,276 hectares or 4% of the cropland. The cereal yield is expected to be 10 to 15 qt/ha.

Fertilizer use in 1994 was very low, MoA reporting use of 908 qt of DAP and 361 qt of urea while MTCDD reported about 2000 qt or 1 qt for 235 ha of field crops and coffee. Although 2385 qt of DAP and 2601 qt of urea have been requested by the MTCDD, only 750 qt of DAP and 285 qt of urea have thus far been received.

### **Hirna**

The wereda MoA was not visited but it was reported that Belg crops were in good condition and planting of long season crops had begun.

### **Habro**

Plantings of Belg crops are in good condition and long season crop seedbed preparation is ongoing. Although coffee is a popular cash crop in the area, chat is also increasing in popularity due to the high price and unavailability of chemicals used in coffee production. Profit margins of 5-10 birr/kg taken by the merchant-truckers could be tightened to compensate for increasing chemical costs. Although 4,500 qt of fertilizer was requested by the wereda, so far 1100 qt of DAP and 540 qt of urea have been received.

CARE-Habro reports an extensive programme of community development but is not involved in relief distributions. Large amounts of seed were distributed in 1994 and are expected again this year to improve the farmers crop diversity and reliability of yield during seasons of less than normal rainfall periods. The MTCD has allocated resources to conduct 200 on-farm demonstrations in each of three target weredas; the demonstrations will be of the technology utilized by the SG 2000 approach.

### **Kuni-Bidessa**

All the wereda officials to be visited were unavailable but it was perceived that roadside crops were in excellent condition.

### **Chiro-Asebe Teferi**

Belg production in this wereda is relatively minor but cropping prospects for the main cropping season look good.

The Zonal RRC reports that they expect to receive Employment Generating Scheme (EGS) work plans from the wereda DPPC soon to cover 62,200 beneficiaries in a total of 11 weredas. CARE has submitted tentative food-for-work plans and along with the RRC will provide the required food. Zonal technical committees have been sent to the weredas to select activities including road, pond and terrace construction, hand dug wells, stream development and tree nurseries. It was acknowledged that work schedules would have to be adjusted around the farmers activities.

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