



Update of Emergency Assistance Requirements & Implementation Options

(August to December 2003)

A joint Government – UN Appeal

August 2003

TABLE OF CONTENTS

1	EXECUTIVE SUMMARY	4
2	INTRODUCTION	5
2.1	BACKGROUND	5
2.2	OBJECTIVE OF APPEAL UPDATE 2003	6
3	OVERVIEW OF THE CURRENT SITUATION	6
4	ASSISTANCE REQUIREMENTS BY SECTOR	7
4.1	FOOD	7
4.1.1	<i>Major developments and constraints</i>	7
4.1.2	<i>Rapid assessment methodology applied for data collection</i>	8
4.1.3	<i>Summary of revised unmet food requirements August to December 2003</i>	8
4.2	HEALTH AND NUTRITION	10
4.2.1	<i>Major current developments and constraints</i>	10
4.2.2	<i>Rapid assessment methodology applied for data collection</i>	11
4.2.3	<i>Summary of revised unmet health and nutrition requirements August to December 2003</i>	11
4.3	WATER	12
4.3.1	<i>Major developments and constraints</i>	12
4.3.2	<i>Rapid assessment methodology applied for data collection</i>	13
4.3.3	<i>Summary of revised unmet water and sanitation requirements August to December 2003</i>	13
4.4	AGRICULTURE	14
4.4.1	<i>Major developments and constraints</i>	14
4.4.2	<i>Rapid assessment methodology applied for data collection</i>	15
4.4.3	<i>Summary of revised unmet agricultural requirements August to December 2003</i>	15
4.5	OTHER SECTORS	16
4.5.1	<i>HIV/AIDS, basic education, gender & child protection - major developments and constraints</i>	16
4.5.2	<i>Rapid assessment methodology applied for data collection</i>	17
4.5.3	<i>Summary of revised unmet requirements August to December 2003</i>	17
5	THE WAY FORWARD	17
5.1	RELIEF SYSTEM IMPROVEMENTS AND CONSTRAINTS	17
5.1.1	<i>Key health system constraints identified through rapid assessment</i>	17
5.1.2	<i>Proper food aid targeting essential to prevent acute malnutrition</i>	18
5.1.3	<i>Supplementary and therapeutic feeding need to be complementary to balanced general food ration</i>	18
5.1.4	<i>Emergency coordination platforms established and operational</i>	19
5.1.5	<i>Non-food sector efforts to structure approach and methodology</i>	19
5.1.6	<i>Continued attention to pastoralists</i>	19
5.1.7	<i>HIV/AIDS & humanitarian emergencies</i>	19
5.2	PROGRESS IN THE STRATEGIC FRAMEWORK FOR ADDRESSING THE CHRONIC FOOD PROBLEM	20
6	ANNEX	21

TABLES

Table 1: Summary table of additional assistance requirements August to December 2003.....	5
Table 2: Analysis of Needy Population from August to December 2003.....	9
Table 3: Affected population and food requirement August – December 2003.....	9
Table 4: Additional 2003 food requirements as reflected by the Government and UN system (totals may differ due to rounding)	10
Table 5: Additional 2003 health and nutrition requirements	12
Table 6: Targeted number of people by water intervention from August to December 2003.....	13
Table 7: Additional 2003 water requirements.....	14
Table 8: Additional 2003 agricultural input requirements	15
Table 9: Additional 2003 requirements for HIV/AIDS, basic education, gender, child protection & shelter	17

ABBREVIATIONS

DPPC	Disaster Prevention and Preparedness Commission
EC	European Commission
EFSR	Emergency Food Security Reserve
EGS	Employment Generation Schemes
EPI	Extended Programme of Immunisation
EU	European Union
FAO	Food and Agricultural Organisation
FFW	Food –For-Work programmes/projects
FSS	Food Security Strategy
GAM	Global Acute Malnutrition
GoE	Government of Ethiopia
ICRC	International Committee of the Red Cross
IDP	Internally Displaced Person
MoA	Ministry of Agriculture
MoH	Ministry of Health
MoRD	Ministry of Rural Development
NGO	Non-Governmental-Organisation
OCHA	Office for the Coordination of Humanitarian Affairs
OFDA	US Foreign Disaster Assistance
OXFAM	Oxford Committee for Famine Relief
PRSP	Poverty Reduction Strategy Paper
R2D	Relief To Development (USAID Assistance Relief Programme)
RHB	Regional Health Bureau
SAM	Severe Acute Malnutrition
SC-UK	Save the Children United Kingdom
SC-US	Save the Children United States
SNNPR	Southern Nations, Nationalities & People’s Region
SFC	Supplementary Feeding Centre
TAPS	Transitional Asset Protection System
TFC	Therapeutic Feeding Centre
UNCT	United Nations Country Team
UNCTSO	United Nations Country Team Support Office (in SNNPR)
UNDP	United Nations Development Programme
UNHCR	United Nations High Commissioner for Refugees
UNICEF	United Nations Children Fund
USAID	United States Aid for International Development
WFP	World Food Programme
WHO	World Health Organisation
ZHD	Zonal Health Department

Update of Emergency Assistance Requirements & Implementation Options for August to December 2003

A joint Government – UN Appeal

1 Executive Summary

This appeal updates emergency assistance requirements for Ethiopia in 2003. The humanitarian situation in Ethiopia is complex and multi-sectoral. In this update, special emphasis is given to health/nutrition, water/sanitation and agriculture.

Many stakeholders have been involved in the update process, which was based on mid-year sector assessments to identify additional requirements. A wide range of NGOs was included in the assessment teams. Crisis committees and partner coordination forums at various administrative levels enabled broad participation.

In terms of food, 1.8 million people, supposed to have graduated from relief food assistance in July, now need an extension from August to December and a further 600,000 people have been classified as new beneficiaries. This brings the total additional population needing assistance to 2.4 million, raising the total needy population from 12.6 million to 13.2 million requiring 617,647 tonnes of food between August and December. However, the unmet requirement is now only 37,458 tonnes (pulses & vegetable oil).

Total non-food assistance originally amounting to over US \$ 108 million, requires an additional US \$ 40 million. Particularly under-funded are water and sanitation and “other sectors” (HIV/AIDS, emergency education and child & women protection) with only 30% and 18% of requirements funded respectively.

For water and sanitation, the estimated needy population was reassessed and adjusted from 2.7 million to 4.2 million. Of these, 1.2 million received assistance through July and another 1.54 million will be assisted through December at a cost of US \$ 14.6 million. This leaves 1.46 million to be assisted in 2004 together with any new needs identified by assessments in October and November.

For health and nutrition the emergency response has been very positive with 74% of needs covered until July. However, requirements remain substantial, especially in worst affected areas where malaria and a variety of infectious diseases are hitting the physically weak harder than usual. The most urgent requirements, amounting to US \$13.4 million, are the provision of more supplementary and therapeutic food, malaria prevention and control, the supply of more emergency health kits (EHK) and for nutritional surveillance, assessments and monitoring of interventions.

For agriculture, seed supply has been successful in terms of quantities provided (97% of requirements met). Nevertheless, additional requirements of US \$ 7.7 million remain for animal health, feed and fodder bank development as well as for the recovery of non-cereal crops, for early warning and coordination activities.

A number of issues described in Chapter 5, have already come to light during the current crisis that will need more rigorous study and reflection over time. This appeal update points to areas for improvement that were raised in the December 2002 appeal document, reports on progress and also describes new developments such as the “Coalition for Food Security”.

Table 1: Summary of additional assistance requirements: August to December 2003

	Food Assistance Requirements (Tonnes)	Health, Nutrition & Other Sectors Assistance Requirements (US \$)	Water Assistance Requirements (US \$)	Agricultural Assistance Requirements (US \$)	Other Sectors (HIV/AIDS, Education, Protection) Requirements (US \$)	Total Non-food Assistance (US \$)
Requirements (Revised Appeal March 2003)	¹1,184,542	28,877,033	40,200,000	32,624,937	6,609,897	108,311,867
Contributions as at July 31 2003	²1,042,836	21,379,461	12,000,000	17,189,869	1,162,134	51,731,464
% of requirements funded	88%	74%	30%	53%	18%	48%
Revised unmet requirements August to December 2003	37,458 (pulses and vegetable oil)	13,369,790	14,600,000	7,700,000	4,631,200	40,300,990

2 Introduction

2.1 Background

Successive and cumulative climatic shocks (aberrations within a long-term trend), combined with the effects of economic losses in agricultural and livestock markets, as well as the collapse of many livelihood systems and long-term cumulative vulnerabilities, have eroded the asset base and coping strategies of millions of Ethiopians and resulted in unsustainable coping strategies by the most affected. The processes of disposition of assets and impoverishment associated with repeated crises in Ethiopia and coupled with one of the most severe climatic shocks in twenty-years, resulted in a 21% reduction in national crop production over the last five year average, significant loss of cash crop, labour opportunities and livestock holdings in 2002.

The resulting crisis affected a broad area across Ethiopia. There were widespread reports of extreme hunger with accompanying social distress, high morbidity amongst the most vulnerable, and elevated levels of mortality in children under five. An appeal was made in late 2002 for massive humanitarian support to meet the basic requirements of more than 13 million people.

The overall response of government, donor, UN agencies and NGOs to the crisis has been considerable. Many immediate needs were met. A humanitarian disaster has been largely averted. Nevertheless, the longer-term impact of the crisis is not yet fully understood. The immediate humanitarian response could not address the underlying causes of the crisis. Nor did the response prevent further loss of assets and growth of a population that is destitute and vulnerable to even minor shocks.

¹ These are food requirements from January to July (revised in April 2003) only. The January-December requirements now total 1,802,189 tonnes. Against these aggregate needs, the contributions are 1,669,154 tonnes, a coverage of 93%.

² Allocated as of July (January – July 2003)

In order to promote recovery from this crisis, government and donors continue to work together to put multiple humanitarian and development initiatives in place. There must be concurrent efforts to address remaining immediate needs, assist households to rebuild their asset base, and address the long-term structural issues that underlie vulnerability in Ethiopia.

2.2 Objective of Appeal Update 2003

This Appeal Update focuses on remaining and additional emergency requirements up until the end of 2003.

It also reflects on the way forward, discussing improvements and constraints of the relief system linking to longer-term development. It is clear to all that annual relief assistance alone will never be enough to enable Ethiopia to escape from this cycle of crisis. Government and partners must make concurrent and robust efforts to protect and build assets over the longer-term.

In addition, methodologies and instruments are being developed to better assess non-food needs and identify appropriate emergency and longer-term responses. The methodologies have been discussed within the Emergency Sectoral Task Forces for food, agriculture, water & sanitation and health & nutrition. A summary of the methodology used is briefly presented under each sectoral section (Chapter 4).

3 Overview of the current situation

The donor response to the Joint Government-UN Appeal (December 2002) and subsequent Addendum (March 2003) has been unprecedented. For example, as at 31 July 2003, against the aggregate relief food requirements of 1.80 million tonnes, confirmed contributions reached 1.67 million tonnes, a coverage of 93%.

During June 2003, fourteen government-led multi-agency assessment teams visited all short season crop-producing areas of the country and pastoral areas in Afar and Somali Region. There has been considerable improvement since last year. Nevertheless, large geographic variation in *belg* rains has led to less promising assessments in a number of locations (see Chapter 4, sections 4.1.1 and 4.4.1 for more detail).

In terms of food, an additional 2.4 million people (over figures estimated in the March 2003 Appeal Addendum) have been identified as needing assistance from the period August to December 2003. Out of this overall figure, 1.8 million were already receiving food aid but were expected to come off beneficiary lists in July. As such, 600,000 people are *new* beneficiaries. This brings the 2003 total from 12.6 to 13.2 million beneficiaries.

The revised requirements from August to December 2003, based on beneficiary numbers established during the *Belg* crop assessment, have been fully resourced. However, an additional 200,000 tonnes of cereals have been requested as a contingency for any additional needs that may be identified by further reassessments from September to December, and as preposition stocks for anticipated needs in early 2004.

Non-food pledges amount to US \$ 75.9 million out of a requirement of US \$ 81.1 million, leaving a shortfall of 6% only. However, non-food requirements were originally understated, particularly in health and water but to some amount also in agriculture, and have been reassessed. Unpredictable and erratic rains led to an important shortage of seeds in some regions because farmers planted and replanted and therefore run out of seeds. However, shortfalls towards the end of the year are greatest in the water sector, where only 30% of the estimated people in need benefit from interventions given current funds. Based on the

various sectoral non-food assessments additional requirements towards the end of the year are US \$ 40.3 million.

In order to predict humanitarian needs for 2004, it is important to draw and project humanitarian scenarios that are likely to happen. This exercise is also imperative for the relief operations to continue without interruptions. In past years, the early months of the year have been characterized by funding, supply and intervention breaks, often caused by the time taken to react to the new appeals issued in January. Since the process from appealing to receiving emergency aid can take up to six months, this Appeal Update attempts to ensure that the funding and supply is maintained and needs can be met in the first quarter of 2004 with continued and uninterrupted humanitarian interventions. There will be full assessments for each of the sectors in October and November to supply the 2004 Appeal with accurate estimates and need figures. If the response is delayed until the end of 2003, there will be gaps that could cause a further aggravation of the present humanitarian crisis.

4 Assistance requirements by sector³

This chapter reflects the most urgent additional requirements until the end of the year for each of the four sectors, food, health & nutrition, water & sanitation and agriculture as well as for emergency HIV/AIDS, basic education and gender & child protection. Capacity building requirements, unlike in the last Appeal 2003, are directly embedded within the respective sectoral sections. Further and crosscutting capacity building requirements such as for coordination efforts and DPPC's Information Centre remain the same with funding still required for the remainder of 2003 and further requirements will be included in the 2004 Appeal.

4.1 Food

4.1.1 Major developments and constraints

Crop growing areas

The short rains (called *Belg* in certain areas), occurring between February and May in crop dependent areas, contribute between 5% and 10% to overall national production. However, these rains are significant to maize and sorghum (which amount to nearly half of the national cereals produced in the country), flowering and seed setting of the coffee crop (which accounts for over 60% of national foreign exchange earnings), regeneration of chat and land preparation for the main agricultural growing season.

The overall performance of the 2003 *Belg* rains is considered better than last year though there were big differences between specific localities regarding the amount and distribution. During the season there were also occurrences of long and frequent dry spells and other adverse weather conditions. However, in most places the rains started and ceased close to their normal times.

Pastoral areas

Rains in pastoral areas during a similar time period (called by their local names of *Gu*, *Sugum* or *Ganna*) are also crucial for livestock to replenish pasture and water. In the absence of these rains, shortages of pasture and water significantly diminish the productive capacity of livestock, creating food shortages and high levels of vulnerability to malnutrition.

Sugum rains (March–April 2003) in Afar were rated as poor although in some woredas it was better than last year. Most woredas in Afar have remained under water rationing. Livestock are weak and the calving rate is low. Milk production is negligible. The terms of trade have

³ For detailed sector and/or agency specific funding and requirement proposals please refer to either the respective Sector Task Force for food, water, health & nutrition, agriculture and capacity building or respective agencies and organisations that deal and are responsible for interventions in the respective sector.

deteriorated, particularly for cattle and sheep. The performance of *Gu* rains in Somali Region were good in Fik, Afder and Liban zones, normal in parts of Gode, Jijiga and Warder, poor in parts of Korahe, Dagahabur and Warder, and very poor throughout Shinille zones. Shinille Zone is the most affected with serious water supply problems. Warder, parts of Jijiga, Korahe, parts of Fik and Gode zones also face water shortage. Livestock conditions in Shinille Zone deteriorated except for goats while the conditions improved in other zones. But milk production remains low except for Gode, Liban and Afder zones. In Oromiya Region, the *Ganna* rains were favourable in Bale, Borena and Guji zones. Pasture regenerated and water is sufficiently available. Livestock is in good condition and the breeding cycle is normal. Milk supply and terms of trade improved substantially.

4.1.2 *Rapid assessment methodology applied for data collection*

All short rain dependent areas, areas with *Meher* long-cycle crops and pastoral areas, were covered under the 2003 multi-agency *Belg* Harvest and Pastoral Area Assessment. A total of fourteen teams were deployed to six regions in the country to conduct the assessment. Team members were drawn from government, donors, NGOs and the UN system.

The assessment was predominantly qualitative. In order to substantiate information provided by zonal and woreda officials, teams used rapid rural assessment techniques such as interviews with key informants at various levels and on-the-spot inspection of crops, livestock, pests, pasture and market conditions wherever situations permitted.

Teams briefed and debriefed at the federal, regional and zonal level. Interviews were conducted at the woreda level with local officials, household and community level. Assessment teams evaluated the main food insecurity indicators during the assessment period. The following 9 indicators provided signs of food insecurity problems: (1) poor weather conditions; (2) the negative effect from 2002 *Meher* production and market conditions; (3) the absence of other income sources, lost wage labour opportunities and low purchasing power; (4) decreased production and loss of livestock; (5) decreased or total failure of income from cash crop production such as coffee and chat; (6) shortage or lack of water and pasture; (7) little or no livestock or milk production; (8) abnormal migration movements; and (9) absence of recession agriculture.

4.1.3 *Summary of revised unmet food requirements August to December 2003*

A summary of revised needs in both *Belg* cropping and pastoral areas is highlighted in the tables below (Table 2, Table 3 & Table 4). Overall, an addition of 1.8 million people need an extension of assistance from August to December and an additional 600,000 people are classified as new beneficiaries, bringing the total additional population needing assistance to 2.4 million (Table 2). This raises the total needy population in the country from 12.6 million to 13.2 million (Table 2).

The food requirement is estimated at a monthly full ration of 17 kg of cereal, pulses and oil, which will provide about 2000kcal/person/day. The composition of the ration is 15kg cereal, 1.5kg pulses and 0.5kg vegetable oil. Additional supplementary food is also considered for targeted distributions for most severely affected part of the population.

For cereals, requirements for August-December are covered. The robust and unprecedented response to the appeal this year has permitted a revision of the commodities in the food basket. To improve the quality of the general ration, pulses (as well as vegetable oil) have been added to the food basket. For pulses, contributions now cover 26% of the 50,015 tonnes required until the end of the year. Vegetable oil requirements of 15,182 tonnes to the end of the year are almost covered (98%). For blended food, the availability is 73,470 tonnes against the requirements of 46,391 tonnes to the end of the year (Table 4).

The logistics performance has been impressive, with port off-take and inland dispatch keeping up with demand for distributions. The Emergency Food Security Reserve (EFSR), though it has been close to or even below the normal minimum operational level of 100,000 tonnes, has been able to cope with the exceptional demands placed on it this year. This is also a reflection of considerable efforts made by donors and relief agencies to expedite repayments to the EFSR, as well as some advance deliveries.

Table 2: Analysis of Needy Population from August to December 2003

Monthly Average Population needing assistance from August – December 2003 <ul style="list-style-type: none"> • As per April update • As per current estimate • Difference or additional population needing assistance ➤ Out of which population needing an extension of assistance from Aug-Dec ➤ New additional beneficiaries 	4.3 million 6.7 million 2.4 million 1.8 million 600,000
Total needy population in 2003 <ul style="list-style-type: none"> • As per April update • As per current estimate • Additional new needy population 	12.6 million 13.2 million 600,000
Food Requirement from Aug. to Dec. 2003 (Cereal, supplementary food, pulses and oil)⁴ <ul style="list-style-type: none"> • As per April 2003 update • As per current estimate • Additional need 	358,297 MT 617,647 MT 259,350 MT

Table 3: Affected population and food requirement August – December 2003

Region	Total Beneficiaries Jan-Dec 2003	Total Beneficiaries Aug-Dec 2003	Food Requirement (MT) Aug-Dec 2003				
			Cereal	Famix	Pulses	Oil	Total
Total	13,184,772	12,269,043	506,057	46,391	50,015	15,182	617,647

For most areas in the country, the distribution of general rations and supplementary ration has progressed well in 2003. However, targeting of food assistance has been problematic in some areas and much improvement is needed (see Chapter 5, section 5.1.2 on food aid targeting).

The 2003 food aid needs are currently largely met. In addition, out of the 13.2 million beneficiaries (see Table 3), 9 million people are expected to be self-supporting after September. The statement regarding full resourcing of current food needs assumes no distribution for the stated number of beneficiaries assuming that some crop will be harvested in October. However, with delays in planting and harvesting of green maize currently observed, the current relief supply may have to be maintained for a large portion of the beneficiaries in October and November. The additional 200,000 tonnes of cereals has been requested as a contingency for any additional needs until the end of the year. If it is not utilized, it can be carried over for anticipated needs in early 2004. A mid-meher season assessment will evaluate possible additional needs for 2003 and present scenarios for food requirements in 2004. It is imperative to anticipate the relief food needs of early 2004 because in previous years the relief food pipeline has been cut off in the first quarters, due to time taken to react to appeal requirements issued in January.

⁴ This does not include Targeted Supplementary Food as part of UNICEF supported programme for mothers and their severely or moderately malnourished children. These estimates are forthcoming (1st week of August) from additional ongoing non-food assessments.

Table 4: Additional 2003 food requirements as reflected by the Government and UN system (totals may differ due to rounding)

	Cereals (MT)	Blended Food (MT)	Pulses (MT)	Oil (MT)	Total (MT)
January - December					
Total Requirements (Revised Appeal March 2003)	1,581,842	150,091	50,015	20,239	1,802,189
Total allocated & available	1,505,495	131,018	12,869	19,772	1,669,154
% of requirement covered	95%	87%	26%	98%	93%
January - July					
Requirements Jan-July (Revised Appeal March 2003)	1,075,785	103,700	-	5,057	1,184,542
Allocated up to 31 July	980,386	57,548	-	4,902	1,042,836
% of requirement covered	91%	55%	-	96%	88%
August - December					
Requirements Aug-Dec	506,057	46,391	50,015	15,182	617,647
Available Aug-Dec	525,109	73,470	12,869	14,870	626,318
Shortfall	0	0	37,146	312	37,458
% of requirement covered	104%	158%	26%	98%	101%

4.2 Health and nutrition

4.2.1 Major current developments and constraints

An appeal for US \$ 28.8 million was made for health and nutrition in March 2003. This included supplementary and therapeutic feeding, capacity building of health workers, provision of essential drugs and insecticide treated nets, disease prevention and epidemic control measures. Pledges of US \$ 21.3 million have since been made through the UN system and more than US \$ 15 million has been channelled through NGOs. Requirements until the end of this year and well into 2004 will remain substantial.

The measles/Vitamin A campaigns in drought-affected areas were fully funded in 2003.

The therapeutic feeding component was also fully funded in terms of the therapeutic food required to rehabilitate the estimated 60,000 severely malnourished children. However, due to gaps in NGO and government capacity, feeding centres reach only around 3,000 children at present (i.e. around 5%).

There is also a shortfall of targeted supplementary feeding (mostly dry rations). UNICEF estimates that an additional 400,000 under-five children suffer from acute global malnutrition as a result of the current crisis. As such, an estimated 20,850 tonnes are needed between now and end-2003 but the UNICEF pipeline stands only at 4,000 tonnes (19%). A further 16,850 MT is still required. Besides the lack of financial resources, the major constraint is the lack of institutionalised delivery mechanisms. So far, NGOs have been mobilised in partnership with DPPC and UNICEF, but the operational capacity of this arrangement has reached its limit. In order to identify priority areas for selective feeding interventions, strengthening nutrition surveillance in severely affected zones is a priority.

Major malaria epidemics occur cyclically every 5 to 8 years in Ethiopia and there has been a four-year build up since the 1998 epidemic in which, according to the Ministry of Health, an

estimated 150,000 people died. Several malaria-prone areas have also been affected by drought and a high percentage of their population is malnourished and more vulnerable to malaria and other diseases. Amhara, Oromia and SNNP have reported numerous focal epidemics between March and June 2003 (with 64 woredas in 20 zones reporting high malaria rates). Epidemics have occurred in highland areas - a clear indication of higher temperature. Above normal rainfall is forecast for this major rainy season. All these facts point to a major epidemic this year.

Although more than US \$ 2 million has been received for malaria control in July and August 2003, more support is needed to address the anticipated epidemic (see Table 5). The three large regions, which have submitted proposals for malaria prevention and control, estimate the population at immediate risk in these three regions to be around 5 million⁵. These households are targeted for indoor residual spraying (the main epidemic prevention measure here). The proposed response in this Appeal Update includes essential anti-malarial drugs, laboratory supplies, insecticide-treated mosquito nets and insecticide for indoor residual spraying (IRS). It also includes the operational costs for IRS, training of health workers and CHWs on malaria prevention and control, supportive supervision for malaria prevention and control and social mobilisation. Technical support, emergency public health and emergency nutrition are emphasised.

To date, 993 of the 1,500 required drug kits have been procured for 2003. The remaining 507 kits (including distribution and monitoring) are requested in this Appeal Update.

The lack of a regular assessment mechanism to define priorities for emergency health and nutrition, enhance sectoral co-ordination and increase funding is a major constraint. It is therefore proposed to conduct an in-depth situation assessment from September to November 2003 under the leadership of an international expert, who would co-ordinate joint field assessment teams (Government, UN and NGO) deployed to all affected regions. The objective will be to gather detailed and representative data and thereafter create a structure for regular surveys (similar to DPPC crop assessments).

4.2.2 Rapid assessment methodology applied for data collection

For the purpose of this Appeal Update, a rapid health and nutrition assessment was conducted in four drought-affected regions and zones during the last two weeks of July. Convenience sampling was used to select the Kalu Woreda of S. Wollo Zone (Amhara Region), Merti Woreda of Arsi Zone (Oromiya Region), Boricha Woreda of Sidama Zone (SNNPR) and Kebri Baya Woreda of Jijiga Zone (Somali Region). Quantitative data was collected from the Regional Health Bureaus (RHB), Zonal Health Departments (ZHD), health facilities and TFCs using questionnaires and qualitative data. Methods included focus group discussions and key informant interviews of local leaders, stakeholders such as local, national and international NGOs and UN agencies active in the locality.

4.2.3 Summary of revised unmet health and nutrition requirements August to December 2003

Not all contributions can be divided into the sub-sectors presented in the table below. The UN OCHA/DPPC contribution tracking system lists over 20 unspecified donor contributions to the health sector amounting to over US \$ 21 million. As requirements expressed in the revised appeal only reflect those known through government and UN, some sub-sectors are underestimated. (e.g. over US \$ 15 million channelled directly through NGOs is not reflected). The total figure listed in table below, which is US \$ 13.3 million, only reflects Government and UN requirements.

⁵ The national figure could in fact be much greater considering that other regions such as Somali and Afar did not hand in proposals on estimated numbers of people affected.

Table 5: Additional 2003 health and nutrition requirements

	Requirements (Revised Appeal March 2003) (US \$)	Contributions as of July 31 2003 (US \$)	% of requirements funded	Revised unmet requirements Aug-Dec 2003 (US \$)
Emergency health kits (EHK)	7,646,503	1,172,371 (UNICEF) for 512 EHK plus TFC drugs		2,392,150
Drug distribution, monitoring & super-vision (US \$)	382,052	94,943 (UNICEF)		70,750
Meningitis vaccine (US \$)	1,446,980			-
Measles & vitamin A Campaigns incl. cold chain equipment (US \$)	14,342,498	7,692,436 (UNICEF) 1,396,531 (WHO)		-
Training of Health Workers in health & nutritional emergencies & social mobilization incl HIV/AIDS (US \$)	899,000	100,000 (UNICEF)		-
Supplementary and Therapeutic Food & nutrition surveillance (US \$ & in kind contributions)	1,500,000 + in kind	7,797,016 (UNICEF including 808 MT therapeutic food & 8,428 MT Unimix)		6,016,000
Malaria prevention & control (ITNs, training, lab supplies etc) (US \$)	1,400,000	2,015,896 (UNICEF)		4,543,150
Monitoring technical support & project support costs (US \$)	1,260,000	1,561,506 (UNICEF)		211,540
Situation assessment for 2004 Appeal	-			136,200
Total (US \$)	28,877,033	21,379,461 20,434,168 (UNICEF)	74%	13,369,790

4.3 Water

4.3.1 Major developments and constraints

From March to August 2003, critical water shortages continued to increase and affected 4.2 million people across the country. Relief efforts have reached 1.25 million people since January - 1,060,000 people provided with rehabilitated or new water systems, 135,000 people with emergency tankering and 55,000 people with water purification. The *Kiremt* rains, which started in June, revived streams, lakes and the water table but not sufficiently to overcome the below-normal rainfall of the last two to five years. In addition, while increased availability of surface water brought some relief, it also brings a high risk of water-borne diseases. Rains also forced tanker trucks and drilling, construction and repair teams to interrupt activities as roads became impassable. Heavy rains also caused serious flooding, notably in the lower Wabe Shebelle River basin in Somali Region. In Afar, the lower Awash River also flooded, requiring new emergency interventions. Despite recent rains, the water supply situation remains critical with continuing severe water shortages in Tigray, Amhara, Oromiya, Afar, Somali, Dire Dawa, Harar and Benishangul Gumuz.

Funds received since December 2002 allowed provision of durable water supply to 1.2 million people, leaving 3 million people to be attended. In this appeal 1.5 million are targeted, while the remaining 1.5 million will be targeted in 2004 (see Table 6 & Table 7). Interventions will include rehabilitation of non-functional schemes, construction of new systems, provision of water through tankering and large-scale education and distribution of water purification tablets. Hygiene and environmental sanitation will be key elements and stepped up in order to prevent water-borne disease. Priority interventions will be targeted to worst affected communities, IDP camps and Therapeutic Feeding Centres (TFCs), health institutions and

schools and where access to drinking water is limited and the risk of faecal-oral transmission of disease is high. US \$ 14.6 million is required to reach these 1.5 million people (Table 7).

This water crisis and related exposure to disease highlights the underlying situation of extremely low water supply and sanitation coverage. Only 29 % of the rural population have access to safe water and 6 % to basic sanitation. Whilst the country has vast water resources, sufficient to meet all needs, reliable year-round resources require tapping of groundwater supplies, which in turn requires drilling in difficult terrain. A recent Master Plan for Water Supply & Sanitation developed by the Government plans to increase water supply and sanitation levels to 40 %. This target will only be achieved with sufficient investment and co-ordination. Constraints also relate to long supply lines, high staff turnover and lack of skilled personnel. Extremely high drilling costs also prevent a more rapid improvement - efforts to reduce costs are underway. Coordination of relief and rehabilitation efforts have improved through water task forces at federal, regional and zonal levels but still requires major attention. The recently completed drought impact assessment on the water supply situation will form the basis for better sectoral coordination. Furthermore, adoption and strict adherence to the key strategies and emergency activities defined last year at the start of this crisis will serve as a basis to improve effectiveness of interventions.

4.3.2 Rapid assessment methodology applied for data collection

Ministry of Water Resources, Regional Water and Health Bureaus of six affected regions, together with UNICEF and NGOs, have undertaken a detailed assessment of the impact of drought on water supply. Informal discussions were held with key informants such as zonal and woreda water and health department heads, NGOs, DPPC and communities. Field visits assessed the affected population figure and supervised rehabilitated schemes, fuel distribution for pumps and newly drilled wells. They also evaluated existing water sources, the number of dry ponds and non-functional schemes and the need for water tankering. Teams collected existing well data to determine the types of scheme required. All visited areas underwent geological and hydro-geological assessments. For all surveyed woredas and sites a sanitation plan has been designed. All water sources that showed serious quality problems have been quantified for rehabilitation.

4.3.3 Summary of revised unmet water and sanitation requirements August to December 2003

Please note for Table 7 below that sector specific contributions could not be established because donor contributions could not be separated and are sometimes mixed with other commodities. In addition to the US \$ 5 million contributions made through the Government and UN system, an additional US \$ 7 million was received for water and environmental sanitation through other channels such as bilateral cooperation and NGOs.

Table 6: Targeted number of people by water intervention from August to December 2003

	Water Tankering	Water Scheme Maintenance and Rehabilitation	New Water Schemes Development	Sanitation and Hygiene Education	Total Number of People
Total Number of People	116,820	545,820	459,800	421,420	1,543,860

Table 7: Additional 2003 water requirements

	No of people to be assisted in millions	Water Tankering (US\$)	Water Scheme Maintenance & Rehabilitation (US\$)	Capacity Building & Community Mobilization (US\$)	New Water Schemes Development (US\$)	Sanitation & Hygiene Education (US\$)	Water Quality assessment & improvement (US\$)	Total (US\$)
Requirements (Revised Appeal March 2003)	4.2	5,596,000	13,804,000	3,829,000	10,074,000	4,140,000	2,757,000	40,200,000
Contributions as of July 31 2003⁶	1.2 (people assisted)							12,000,000
% of requirements funded	28% (people assisted)							30%
Total shortfall (US\$)	3.0 (not assisted)	1,850,000	7,780,000	3,760,000	11,020,000	2,760,000	1,000,000	28,200,000
Revised unmet requirements Aug-Dec 2003	⁷ 1.54 (to be assisted Aug – Dec)	1,835,000	4,469,000	1,880,000	4,865,000	1,017,000	500,000	14,600,000

4.4 Agriculture

4.4.1 Major developments and constraints

Livestock

Despite some improvement, rainfall and its impact on pasture regeneration is not very promising, particularly in parts of Afar and Somali region. Livestock diseases are spreading in SNNPR and there is also a threat of livestock disease in other parts of the country. Moreover, available fodder cannot be fully exploited by pastoralists and agro-pastoralists because of their previous displacement, large losses of reproductive stock, increased parasitic load and prevalence of vector-borne diseases. Livestock emergency interventions so far were mainly for animal health and water trucking. Funding for livestock emergency feed, although crucial in many areas, has been insignificant.

Efforts until end-2003 should focus on disease control, supplementary feed and support to fodder production (most efficiently through fodder bank development). Distribution of vaccines, drugs and equipment will not have an impact without strengthening veterinary services. Training veterinary staff to plan and execute emergency interventions and strengthening surveillance capacity in pastoral areas is therefore crucial.

Crops

Though the 2003 *belg* has been reasonable, some areas have experienced serious shortage of rain. Despite seed distribution nearly meeting estimated requirements, farmers in some areas still lack seed. Following the December 2002 and March 2003 appeals as well as the Ministry of Agriculture sectoral appeal in June, FAO and other agencies received sufficient

⁷ The balance of the remaining 1.46 million beneficiaries to be assisted with water interventions estimated at a cost of US \$ 13.6 million is to be implemented in 2004 together with additional requirements that may come up after assessments in October and November.

donor support to mostly cover cereal seed requirements for the *meher* planting season. The Ministry of Agriculture estimated total seed requirements of 9,296 tonnes (*Belg*) and 34,980 tonnes (*Meher*). FAO and Government were able to cover 86% and 99.5% of these needs respectively.

As of September 2003, distribution of cereals and pulses will be out of season. Whatever shortfall remains will be met through the provision of sweet potato cuttings and vegetable seeds that will be planted starting from October. These crops will contribute much to food security at household level. In addition, FAO and several NGOs are supporting micro-irrigation, especially for horticultural production in drought-affected regions. This is a crucial livelihood rehabilitation activity.

The food security situation in SNNPR seriously deteriorated in 2003. Poor availability of inputs is one problem and many farmers are forced to plant without fertilizer. A low *Belg* harvest is anticipated in some areas, causing the situation to deteriorate further. Support for root crop production will therefore be vital. Since the production season is well underway, relief agencies should now focus on monitoring and coordinating ongoing activities, and support water management practices to ensure a better harvest than last year. At the same time, diversified crop production should be supported. Depending on the region, there is potential for vegetables, enset (false banana), fruits and honey production. Diversification reduces the risk of crop failure, contributing to improvement of the health and food security situation of farmers and allowing for marketing of some production.

4.4.2 Rapid assessment methodology applied for data collection

Needs assessments for seed and livestock will be developed further for 2004. For this appeal update, a desk study provided information. The Agricultural Task Force made a critical review of reports from the Ministry of Agriculture, NGOs and donors. A review was also undertaken of results and recommendations of technical team reports delegated to drought-affected areas at various times since January. It is only through an efficient and effective monitoring system that reliable data could be generated. The early warning and needs assessment system for crop production and livestock therefore needs to be strengthened from the federal to the local level.

4.4.3 Summary of revised unmet agricultural requirements August to December 2003

Table 8: Additional 2003 agricultural input requirements

	Seed supply (US \$)	Animal health (US\$)	Animal feed and fodder bank development (US\$)	Breeding stock survival and supply of draft animals (US\$)	Recovery of non cereal crops SNNPR (US\$)	Early warning, preparedness, needs assessments and coordination (US\$)	TOTAL US\$
Requirements (Appeal 2003)	15,213,717	3,092,231	12,479,106	301,000	-	-	32,624,937
Contribution as of 31 July 2003	14,757,305	2,112,091	320,473	-	-	-	17,189,869
Percentage of requirements funded	97%	68%	3%	0%	-	-	53%
Revised unmet requirements Aug-Dec 2003	-	1,200,000	3,000,000	-	1,000,000	2,500,000	7,700,000

4.5 Other sectors

4.5.1 HIV/AIDS, basic education, gender & child protection - major developments and constraints

The emergency situation increased a number of risks for children, youth and women. Drought and concomitant breakdown in family structure, social values and norms places children, youth and women at greater risk of all kind of violations of human rights and amplifies child abuse, sexual violence, exploitation and discrimination. Crisis also strains the already weak social service such as basic health services, education and HIV/AIDS prevention as attention is diverted to provision of food and water. Social capital of the future can be eroded due to psychological trauma related to abuse, neglect and exploitation. The spread of HIV challenges the future productive assets of the country. It is therefore imperative to holistically address the emergency rather than focus only on food, health and water.

To date, HIV/AIDS has been addressed on a very limited scale as part of the drought response (at several food distribution sites). It is known that HIV/AIDS spreads fastest in conditions of social instability, conflict and poverty. Much more effort needs to be placed on addressing HIV/AIDS as part of all emergency and development efforts. The HIV/AIDS prevalence rate in Ethiopia is 6.6 % among the adult population⁸. HIV/AIDS programmes have primarily targeted urban people due to the relatively high prevalence in urban centres. However, it is increasingly evident that the pandemic is spreading to rural sites – rural prevalence is now around 4%⁹. The drought is aggravating the problem, mainly due to increased movement of people in search of food and services. Currently a number of HIV/AIDS-related educational activities are underway at several food distribution sites in Amhara, Somali and SNNP Regions through targeted information and education materials. Furthermore, referral for voluntary counselling and testing and treatments for sexually transmitted infections is provided. HIV/AIDS information, education and communication material are being provided in various local languages. US \$ 600,000 is proposed for agricultural activities such as poultry and horticulture development for families affected by HIV/AIDS.

The number of primary school students affected by the drought is now estimated to be over 600,000¹⁰. The total national dropout rate of 16.2% (from grade 1 to grade 8) will probably substantially increase in drought-affected areas. Since only 4.6% of the total requirements required for Emergency Education were received, regions have requested that funds from regular resources be reallocated to the emergency response in order to procure shelter and education materials as well as classroom furniture. The objective is to ensure the rights of 250,000 children in the drought-affected areas of the six regions to primary education.

The Gender and Child Protection issue is not well realized by society and children and women remain vulnerable. Documented instances of sexual exploitation of women and children, streetism and child labour occur among Internally Displaced People (IDPs). Within this displaced population children and women need protection. However, protection issues

⁸ Ministry of Health (2002) AIDS in Ethiopia, October, Addis Ababa

⁹ Ministry of Health (2002) AIDS in Ethiopia, October, Addis Ababa

¹⁰ Out of 12.6 million affected people, around 10% are primary school age children of which at national level 60% are attending primary school.

are not being properly addressed and support should be provided to facilitate delivery of essential services directly to affected communities to prevent displacement. The objective is to prevent the exposure of children and women to sexual abuse, exploitation, discrimination and child labour in drought-affected areas.

4.5.2 *Rapid assessment methodology applied for data collection*

For the sectors mentioned above no field assessments have been carried out. The figures have been calculated with currently available secondary data and information sources.

4.5.3 *Summary of revised unmet requirements August to December 2003*

Table 9: Additional 2003 requirements for HIV/AIDS, basic education, gender, child protection & shelter

	HIV/AIDS (US \$)	Basic education (US \$)	Gender, child protection & shelter (US \$)	Total (US \$)
Requirements (Revised Appeal March 2003)	3,795,900	1,702,000	1,111,997	6,609,897
Contributions as of July 31 2003	68,249	78,748	1,015,137	1,162,134
% of requirements funded	1.8 %	4.6%	91%	18%
Revised unmet require- ments Aug-Dec 2003	1,069,200	1,662,000	1,900,000	4,631,200

5 The way forward

A number of lessons have already come to light during the 2003 humanitarian crisis and response. These will need more rigorous study and reflection over time. However, some of the issues are raised below to help stimulate further discussion.

In addition, several areas for improvement were raised in the December 2002 appeal document. The section below reports on where progress has been made and also describes new developments such as the Coalition for Food Security.

5.1 *Relief system improvements and constraints*

5.1.1 *Key health system constraints identified through rapid assessment*

Some of the key health system constraints that hamper the delivery of emergency health and nutrition services include the following: (1) weak disease surveillance and epidemic response systems; (2) inadequate coverage and utilisation of health services due to physical and economic reasons; (3) poor logistics and supply management; (4) high staff turnover and lack of skilled personnel, especially in rural areas; (5) poor infrastructure; and (6) poor capacity to deal with health and nutrition emergencies.

The major constraints to effective emergency response to the drought in the regions not only are shortage of adequate drugs, medical materials and manpower but also their lack of capacity to properly manage the resources available and effectively co-ordinate emergency response activities. In some areas, general food ration distributions have largely failed not due to inadequate quantity of food available but due to poor distribution mechanisms. The impact of the supplementary and therapeutic feeding programs has been affected by weaknesses in general food ration targeting and by the lack of alternative sources of livelihood.

Likewise improper drug stock management, distribution and usage cause shortage of essential drugs. Epidemic management and disease surveillance system remain weak due to poor epidemic management skills. It is therefore imperative to focus on technical support and on capacity building at federal and regional level and the regions. It is essential to technically support and build capacity in nutrition, epidemic preparedness and response, stock management and appropriate drug use. In addition more NGO involvement is needed to fill gaps in critical areas that have not yet received adequate attention.

5.1.2 Proper food aid targeting essential to prevent acute malnutrition

There is widespread agreement that the overall food response to the emergency was impressive in terms of resourcing and delivery. However, as noted in previous years, targeting remains an issue. New national Food Aid Targeting Guidelines were released in late 2000. However, there are wide variations in practice. In some regions, such as Amhara and Tigray, targeting appears to be effective. However, in regions such as SNNPR, poor targeting has contributed to alarming levels of malnutrition.

Another well-recognised targeting issue relates to excessive dilution of resources. There were numerous recorded cases during 2003, where needy individuals were receiving only a fraction of the standard food ration. In many cases, this was due to local level officials seeking to spread their available resources over more and more beneficiaries. This may have been necessary in some cases but will also have been exacerbated by provision of some food to less needy people. Federal guidelines for targeting are valuable instruments, but there is a need to improve local-level implementation and oversight.

Training of trainers (ToT), including some NGO staff, on the National Food Aid Targeting Guidelines has been undertaken in 4 regions (Amhara, Tigray, Oromiya and SNNPR). Efforts are now focused on officials at woreda and kebele level. In addition to training, agencies have been deploying more monitors to identify targeting problems and propose solutions. For example, WFP will undertake a Food Aid Use and Impact Study that will encompass targeting. It is clear that solutions will require more than technical inputs.

5.1.3 Supplementary and therapeutic feeding need to be complementary to balanced general food ration

A supplementary feeding programme is defined as a safety net with the general objective to reduce the prevalence of malnutrition and mortality among vulnerable groups. It is not designed to “compensate” on a long-term basis for a general ration that is inadequate and should be improved¹¹. Both blanket and targeted supplementary feeding strategies need to be seen as complementary to a more balanced general ration and should be considered within a set of comprehensive and inter-related targeting criteria.

As a principle, targeted delivery of supplementary food should be pursued whenever possible. However, provision of blanket general rations and supplementary food have not always been well coordinated – leading, for example, to attempts by households to substitute for a lack of grain by splitting supplementary food between a number of individuals. This reduces its impact. Implementing agencies should ensure coordination between delivery of blanket rations and targeted supplementary food.

The lack of capacity for nutrition assessments, analysis and action is of particular concern. The assessments currently carried out are limited to simplified surveys of acute wasting and used to trigger food aid support. More detailed assessment of specific forms of malnutrition, and analysis of health factors, care and feeding practices as well as basic causes are not pursued. As a consequence, it is difficult to organise appropriate responses besides

¹¹ WHO (2000) The Management of Malnutrition in Major Emergencies. WHO Publication, Geneva

providing immediate relief through therapeutic feeding and additional food rations. However, even with these constraints, emerging experiences demonstrate that accelerated, targeted supplementary feeding would go a long way towards avoiding that additional moderately malnourished children become severely malnourished with dramatically increased mortality risk. Existing capacity for such targeted supplementary feeding is also low but could be significantly expanded during the latter part of the year if sufficient support was made available.

The need to open therapeutic feeding centres during 2003 was an indication of the scale and depth of crisis in some areas. There is no doubt that such centres saved many lives. But coordination between distribution of general rations, supplementary and therapeutic feeding was sometimes weak. For example, there were cases where children receiving therapeutic feeding were released back to households *not* receiving general rations, despite agreement that all families with children in TFCs would be included on beneficiary lists. This led to unnecessarily high rates of repeated therapeutic feeding.

5.1.4 Emergency coordination platforms established and operational

Effective coordination platforms have been established at federal level. However, as described in the sections above, emergency activities have lacked proper coordination and information exchange forums at regional and lower administrative levels. This situation has changed considerably over the course of 2003 in SNNPR. In this worst affected area of southern Ethiopia, coordination and information exchange forums have now been established down to woreda level. Sectoral Technical Task Forces and working groups have been established at regional and zonal levels. The UNCT - in cooperation with the Federal and Regional Governments – has also established an effective emergency support structure to help the SNNPR government to cope with the immensity of the crisis.

5.1.5 Non-food sector efforts to structure approach and methodology

The current crisis has demonstrated once again that impact on food availability is only one part of the overall crisis. A wide range of factors determines the welfare, survival and recovery capacity of individuals, families and communities. These 'multiple vulnerabilities' vary greatly from one community to another and between different parts of the country. It is therefore important to strengthen the emergency assessment, analysis and response to 'non-food' issues. Efforts have been made during 2003. However, a striking gap remains between our relatively sophisticated methods for assessing food needs and those available for non-food emergency requirements. Further work will be undertaken in preparation for 2004.

5.1.6 Continued attention to pastoralists

Continued attention will be required for enhanced responses to the crisis in pastoralist areas; this includes support for the on-going early warning project in Somali Region and the new initiative of base-line studies and early warning in Afar region; watching and responding to these indicators in pastoral areas currently reported to have suffered from poor rains in the recent *gu/sugum* season; supporting water tankering where appropriate; further attention to asset protection in pastoralist areas; and international interventions to encourage the lifting of the Saudi Arabian/Gulf State livestock ban on the import of live animals from the Horn, which has had a very serious impact on livestock marketing and thus livelihoods, in Somali Region.

5.1.7 HIV/AIDS & humanitarian emergencies

HIV/AIDS is related to humanitarian emergencies in terms of both cause and effect. For example, HIV/AIDS increases the vulnerability of individuals and communities. But humanitarian emergencies can also impact on the risk and impact of HIV/AIDS, for example, by encouraging movement of people or unsafe behaviour. For these reasons, in addition to focused HIV/AIDS projects, there is growing recognition that *all* humanitarian activities should take HIV/AIDS into account as a cross-sectoral issue from the earliest stage possible.

There is a need to develop guidelines and the government with its partners will be drafting guidelines for all humanitarian responses in Ethiopia.

5.2 Progress in the strategic framework for addressing the chronic food problem

The existence of predictable chronic and unpredictable transitory food insecurity has long been recognised as discussed for example in both 2002 and 2003 annual appeal documents. However, in the absence of an alternative approach, both predictable and unpredictable needs have been addressed through the same annual emergency appeal system. This has succeeded in saving lives but has not been sufficient to protect assets and livelihoods. Based on this reality, there has been a growing body of opinion over recent years that predictable needs could in fact be better addressed through a transitional multi-year mechanism.

Multi-year programs, based on predictable resource flows, would provide more scope than a year-by-year appeal for careful planning and implementation of activities that would protect and build assets. This longer time frame would also permit more diverse utilization of 'relief' resources, for example, building human assets such as education and health as well as more traditional physical assets. Such approaches are consistent with the National Food Security Strategy and should be considered within that framework. Lessons will be learned from programs that are now being implemented that may lead in future to broader institutionalization within the overall relief system.

The government and partners are addressing the chronic food security issues through a newly formed "Coalition for Food Security in Ethiopia". A technical working group has been established and a package of priority interventions is being elaborated.

6 Annex

Glossary of important seasonal terms used for Ethiopia

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 in most parts of the country. In some western and north-western parts, the *Keremt* rain starts earlier in April and extends up to October/November. It is followed by the *Baga* hot, dry period from October through February (see below for definition).

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 rain, known as the *Belg* short season rains in most crop growing areas of the east central part of the north-western highlands and it is also producing the main (*Gu*) rains in south-eastern Ethiopia. This rain extends from February to May.

Ethiopia's Baga Season Defined

The *Keremt* rains or the *Meher* season (see above for definition) is followed by the predominantly hot and dry *Baga* season from October through January in the highland cropping areas.

Ethiopia's Somali Region's Gu' Rainy Season Defined

Rainfall in southern Somalia is bimodal, that is, there are two rainy seasons. Rainfall from March through early June is called the *Gu* rains. Sometimes these are also referred to as the "long rains."

Ethiopia's Somali Region Deyr Season Defined

Rainfall in southern Somalia is bimodal, that is, there are two rainy seasons. Rainfall from late September through to early December is called the *Deyr* rains. Sometimes these are also called the "short rains". A fair amount of the *Deyr* crop is recessional or irrigated.

Ethiopia's Somali Region Haggaa Season Defined

The time between late June and early September, which is dry and windy with clouds in the sky but rarely with rain. In southern Somalia light coastal showers may fall after the *gu'* and before the *deyr* from July through October.

Ethiopia's Somali Region Jilal Season Defined

Jilal is the hottest and driest season in the Somali Region between late December and early March.