



JOINT GOVERNMENT AND HUMANITARIAN PARTNERS

FLASH APPEAL

FOR

THE 2006 FLOOD DISASTER IN ETHIOPIA

**August 2006
Addis Ababa
Ethiopia**

Acronyms

A.A.	Addis Ababa
CBPP	Contagious Bovine Pleuro-pneumonia
CCPP	Contagious Caprine Pleuro-pneumonia
DPPA	Disaster Prevention and Preparedness Agency
HNE	Health and Nutrition Emergency
LS	Lump Sum
MT	Metric Ton
NDPPC	National Disaster Prevention and Preparedness Committee
NFI	Non-food Item
NGO	Non Governmental Organization
NMA	National Metrological Agency
PA	Peasant Association
pcs	Pieces
SNNPR	Southern Nations, Nationalities and Peoples Region
UN	United Nations
USD	United States Dollar

EXECUTIVE SUMMARY

The 2006 Flash Appeal for Flooding seeks a total of US\$ 27,099,526 to meet the needs of emergency food, non-food, and rehabilitation requirements of the country.

Since late July 2006, unusually heavy rains resulted in flash floods and overflow of rivers and dams took the country by surprise, affecting 199,000 people in eight regions of Ethiopia, resulting in loss of life, damage to property, and destruction of livelihoods for tens of thousands of people. Private contributions, channeled through DPPA, have exceeded US\$ 1 million as of August 24th. In addition to these funds, citizens of the affected areas were the first responders in the emergency. Immediate support from the government, UN, and NGOs followed, providing substantial assistance and saving many lives already. Nonetheless, many people remain stranded or in shelters due to ongoing heavy rains, and are in dire need of search and rescue boats and life-vests, emergency non-food items, water and sanitation, and health services. In order to address these immediate needs in a timely and efficient manner, US\$13.8 million is urgently required over the next three months.

In addition to addressing the emergency multi-sector gaps, a total of 10,178 MT of emergency relief food assistance is required over the coming three months to assist 199,000 flood affected people as of August 2006.

The full extent of the damage caused by these devastating floods on infrastructure, private property, and livelihoods is still not fully known. With 50-60% above average rainfall for the months of June and July, and the outlook for the coming months still concerning, flooding across the country may continue. To mitigate the impact of these floods and assist people whose homes and livelihoods have been washed away, significant funds for rehabilitation and recovery will be required.

It is important to note that this Flash Appeal is a preliminary document, which will be updated with the progressing situation. It should be noted that the requirements and population affected could change due to the present fluid situation.

Emergency Relief Requirement		Rehabilitation Requirements	
Sector	USD	Sector	USD
Net Food Sub-total	5,184,673¹ (10,178 MT)	Housing	3,337,786
Health	5,292,834	Infrastructure	934,256
Water	1,307,170	Non-Food Items	922,722
Seed	1,177,854	Livelihood Support	603,977
temporary shelter and NFI ²	5,081,256	Water Supply and Water Schemes	1,893,465
livestock health	382,399	Agriculture	49,596
Search and Rescue	608,351	Health Services	155,709
Non-Food Relief Sub-Total	13,849,864	Education	167,478
		Rehabilitation Sub-Total	8,064,989

Total Food, Non-Food, and Rehabilitation: US\$ 27,099,526

¹ The net food requirement excludes requirements identified for Dire Dawa and West Shoa Zone in the Belg Assessment.

² The Food, NFI, and Temporary Shelter includes inland transport, storage, and handling.

I. BACKGROUND

Topographically, Ethiopia is both a highland/mountainous and lowland country. It is composed of some nine major river basins, the drainage systems of which originate from the centrally situated highlands and make their way down to the peripheral or outlying lowlands. Especially during they rainy season (June-September), the major perennial rivers as well as their numerous tributaries forming the country's drainage systems carry their peak discharges.

The country experiences two types of floods: flash floods and river floods. Flash floods are the ones formed from excess rains falling on upstream watersheds and gush downstream with massive concentration, speed and force. Often, they are sudden and appear unnoticed. Therefore, such floods often result in a considerable toll; and the damage becomes especially pronounced and devastating when they pass across or along human settlements and infrastructure concentration. The recent incident that the Dire Dawa City experienced is typical of flash flood.

On the other hand, much of the flood disasters in Ethiopia are attributed to rivers that overflow or burst their banks and inundate downstream plain lands. The flood that has recently assaulted Southern Omo Zone is a typical manifestation of river floods.

Therefore, owing to its topographic and altitudinal characteristics, flooding, as a natural phenomenon, is not new to Ethiopia. They have been occurring at different places and times with varying, but often at manageable or 'tolerable', magnitude. Some parts of the country do face major flooding. Most prominent ones include: areas in Oromia and Afar Regional States that constitute the mid and downstream plains of the Awash River; places in Somali Regional State that fall mainly along downstream of the Wabishebbelle, Genalle and Dawa Rivers; low-lying areas falling along Baro, Gilo and Akobo Rivers in Gambella Regional State; downstream areas of Omo River in the Southern Nations, Nationalities and Peoples Regional State; extensive plain fields surrounding Lake Tana and Gumara and Rib Rivers in Amhara Regional State.

Although flood events are not new to Ethiopia, the country, in its current main rainy season, has been threatened by quite unprecedented flooding of abnormal magnitude and damage. Apparently, this is, for the large part, due to torrential or heavy rains falling for long days on the upstream highlands. The rains have caused most rivers to swell and overflow or breach their courses, submerging the surrounding 'flat' fields or floodplains, which are mostly located in the outlying pastoralist regions of the country.

Presently, meteorological forecasts indicate that the rains will extend for some time ahead and the major dam reservoirs have already started spilling or releasing their excess waters. Therefore, the likelihood of further flood threat appears to be imminent.

III. EMERGENCY SITUATION REVIEW

3.1 General Description

Ethiopia has three major distinct seasons in a year, namely Bega, Belg and Kiremt. Bega is the dry season for most cropping areas of the country and the short rainy season for the pastoral areas in the east and southern parts of the country. The season extends from October to January. Belg season is the period from February to May and it is the short rainy season for some crop growing parts of the country and the main rainy season for the pastoral areas in the east and southern parts of the country. *Kiremt* (winter) on the other hand is the main and long rainy season for most parts of the country. It extends from June to September, during which the amount of rainfall is relatively high, particularly in the months of July and August.

The onset of the winter (*kiremt*) season this year in most parts of the country was timely (June) and even earlier in some cases and its amount was normal to above normal. According to National Meteorological Agency (NMA), the amount of rainfall **in June** was normal to above normal in Benshangul-Gumuz, Gambella, pocket areas of southeastern and parts of western Tigray, most parts of western and southwestern Amhara, much of Oromiya, SNNPR, pocket areas of Affar and parts of northern Somali. Unlike the previous years, the amount of rainfall from its onset was heavy and above normal in many areas. For example, western and central parts of the country received good amount of rainfall for 20-28 and 13-23 rainy days during the month, respectively. Especially some western parts of the country received total rainfall ranging from 300-500 mm in the month of June. According to NMA, some stations like Limu Genete (94 mm), Hosaina (74 mm), Bahirdar (69mm), Arbaminch (66mm), Metema (65 mm), Gimbi (58 mm), Chira (52 mm), and Bedelle and Alage (50 mm each) received heavy rainfall in one rainy day alone.

The seasonal rainfall continued in a normal to above normal manner over most parts of the country during the **month of July**. Some areas like northwestern and eastern as well as western Ethiopia have experienced heavy rainfall ranging from 300-500 mm during the month.

Furthermore, the season continued in most parts of the country with similar strength during the first ten days of August. Some areas continued receiving heavy rainfalls daily. To mention some: Jinka (75.4mm), Gonder (70.5mm), Dangla (61mm), Pawe (55mm), Maichew (53.6mm), Bahirdar (52.4mm), Alemaya (52.3mm), Gambella (46.2mm), Kibremengist (45mm) and Hosaina (44.8mm). More information is given on Table 1.

Table 1: Selected Weather Stations with Above-Normal Rainfall Performance during the Months of June and July 2006

Region	Station	June Rainfall (mm)			July Rainfall (mm)		
		Normal	Actual	% of Normal	Normal	Actual	% of Normal
Tigray	Mekele	27.7	38.1	137.7	-	-	-
	Michew	-	-	-	74.5	191.5	257.0
Amhara	Bahirdar	-	-	-	422.5	562.9	132.2
	D. Markos	157.1	210.6	134.1	-	-	-
	Chagni	-	-	-	342.8	467.2	136.3
	Combolcha	-	-	-	265.1	365.8	138.0
	Dangla	153.9	339.7	220.7	250.3	439.9	175.7
	D. Berhan	-	-	-	264.3	424.7	160.7
	Enwary	-	-	-	223.5	413.9	185.2
	Majete	-	-	-	189.0	349.7	185.0
Oromiya	Aira	190.4	305.9	160.7	301.9	419.5	139.0
	Ambo	-	-	-	161.3	221.9	137.6
	Alemaya	52.7	74	140.3	-	-	-
	Alge	292.7	387	132.2	-	-	-
	Bedelle	294.6	438.8	148.9	-	-	-
	Bui	34.1	73.0	214.1	-	-	-
	Chira	253.3	384.9	152.0	-	-	-
	D.Dollo	-	-	-	165.7	227.6	137.4
	D. Mena	28.7	64.7	225.6	-	-	-
	D.Zeit	-	-	-	219.1	284.5	129.8
	Fitche	-	-	-	326.1	486.5	149.2
	Gimbi	330.2	469.2	142.1	355.3	465.0	130.9
	Limugenet	260.3	435.5	167.3	294.0	426.2	145.0
	Jimma	-	-	-	208.8	318.7	152.6
	Ziway	85.9	137.9	160.5	-	-	-
	Kulumsa	-	-	-	124.2	163.4	131.6
SNNPR	A.Minch	62.2	130.5	209.9	-	-	-
-	Hosaina	125.3	169.8	135.5	-	-	-
-	Awassa	-	-	-	123.3	171.3	138.9
A.A	A.A Observatory	-	-	-	259.4	352.1	137.5
	A.A Bole	120.2	154.5	128.5	239.7	312.7	135.7
Harari	Harar	-	-	-	93.7	120.7	128.8

Source: National Meteorological Agency, June and July Monthly Agro Meteorological Bulletins

As a result of prolonged and intensive rainfall, the soil in most areas, particularly in the western, central highlands and northwestern parts of the country became saturated causing an overflow of rivers and flash floods in many areas including Dire Dawa, SNNPR, Amhara, Oromiya, Gambella, Tigray, Somali and Affar Regions. The flood situation resulted in considerable human death, displacement and suffering as well as loss of property and crop damage. The current problem is the worst that has been observed in recent years. The most affected areas are Dire Dawa, South Omo Zone of SNNPR, and parts of Amhara, Oromiya, Gambella, Somali and Tigray regions.

Dire Dawa: The heavy rains in the highlands of East Hararghe Zone of Oromiya Region caused flash flood from the overflow of Dechatu dry season stream that hit Dire Dawa

town in the middle of the night on the sixth of August, while residents were asleep. According to the Diredawa Administration, the flood affected over 9,000 people and killed 256 others. The death toll was largely due to the fact that the flooding took place at a time when people were in deep asleep. Currently, over 6,000 people have been temporarily sheltered in six sites, including schools and other compounds. It has also washed away houses and properties of many people living along the riverbank. Roads, bridges and other public properties were damaged and washed away. The estimate of overall loss or damage of properties of individuals and infrastructure is recently disclosed by the Administration to be about Birr 27 million.

SNNPR: The extraordinary overflow of Omo River in August severely affected about 8,000 people in Dasenech and Gngangatom woredas of South Omo Zone. It has also killed 364 people and swept away some 3,200 cattle and destroyed other properties, including 760 traditional grain stores. This area is one of the worst affected as compared to others in the country. Efforts have been underway to rescue and save the lives of those stranded and also find the bodies of those drowned by the flood. Furthermore, flashflood from Bilate River was reported to have affected 5370 households in Humbo Woreda of Wolayita Zone out of which 2,515 households were severely affected and require immediate emergency assistance. Moreover, landslides due to heavy rainfall were reported from Guraghe and Kefa zones although their impact was not as serious as that of the floods.

Amhara Region: Overflow of Rib and Gomara rivers and Lake Tana in Libo Kemekem and Fogera woredas of South Gonder, Bahirdar Zuria and Bahidar town of West Gojjam and flash floods in Dewchefa and Ansokiya woredas of Oromiya and North Shewa zones, respectively, displaced people from their residential places and forced them to stay under temporary shelter. Currently, there are a total of 13,362 people reported to be under temporary shelter in the region.

West Shewa Zone of Oromiya Region: Flooding of the upper basin of Awash River affected 14 peasant associations (PAs) in Illu, Sebeta Awaso and Ejere woredas of West Shewa Zone. The flood was reported to have affected a total of 14,790 people out of which 2052 people were displaced and forced to live in temporary shelters. On the other hand, heavy rainfall in the central highlands in the coming weeks is considered as a major threat around the major dams in the region (Koka, Gilgel Gibe and Melka Wakena). The dams are already full and contain excessive water. Some of them have already started to overflow.

Gambella Region: Reports of overflow of Baro River have been received from the Region. Areas affected by the flood are Gambella Zuria, Jikawo, Itang and Gillo woredas. So far, the impact of the flood on human beings is not yet serious. However, it has affected a large area of crop fields. Flooding in Gambella is normal but its occurrence at this time of the year is somewhat early. All rivers in the Region are full. High rainfall in the coming weeks in the western highlands could cause severe flooding. Generally, the situation in the Region is worrisome calling for close monitoring and follow-up.

Somali Region: According to recent information from the Region, as a result of overflow of Wabishebbelle River, 3,000 and 4,500 households have been affected from Mustahil and Kelafo woredas, respectively, and a total of 650 hectares of farmland damaged, which remains yet to be verified.

Tigray Region: Overflow of Tekeze River in Kafta Humera woreda of Western Tigray Zone has displaced 450 households, destroyed houses and damaged crops fields.

3.2 Affected/Exposed Areas and Population

As a result of the extended and widespread heavy rainfall as of the beginning of the season, many areas have already experienced devastating damage. According to available information, so far, altogether some 635 people have died (364 in South Omo, 256 in DireDawa and 19 in various other parts of the country). Thousands have lost their property and means of livelihood. The soil in most areas is saturated and rivers are full. The meteorological forecast for the coming weeks, on the other hand, is daunting. According to NMA, the seasonal rainfall activity in the coming weeks is expected to continue more or less in similar manner over many areas in the country. Western Tigray, much of Amhara, Benshangul-Gumuz, western and central Oromiya including Addis Ababa and its surrounding will continue getting normal to above normal rainfall. Some places will have heavy rainfalls accompanied with thunder and hailstorm. If the forecast holds true, the flood will further affect thousands of people and damage properties and infrastructures. The likelihood of an expanded flood disaster in the flood-prone areas of the country is very high. Consequently, a total of some 524,400 remain vulnerable to flood disaster through the country. Out of this population, 199,900 people are actually affected by flood disaster in various areas. (See Table 2 for details.)

Table 2: Areas and Population Affected/under Threat by Flood Disaster

No	Region	Vulnerable	Affected*
1	Afar	28,000	4,600
2	SNNP	106,300	44,000
3	Amhara	47,100	47,100
4	Oromia	61,300	21,900
5	Tigray	122,300	2,600
6	Dire Dawa	10,400	10,400
7	Somali	87,000	43,200
8	Gambella	62,000	26,100
	Total	524,400	199,900

* Note: The affected number of population includes 15% contingency.

3.3 Problems of the Victims

As can be seen from the above table, a total of about 199,900 people have actually been displaced or affected by the current massive floods and they are under dire emergency conditions. Needless to say, the aftermath or humanitarian consequence of

the situation and the measures needed to ameliorate the problem are immense. Even though efforts (section IV) are being made by all concerned from the advent of the crisis, many of the affected people are still under serious problems of shelter, health and sanitation, nutrition, and potable water supply. The overall problem is mounting day by day due largely to the increase in the number of displacements and precautionary evacuations triggered by increased flooding threats besetting different areas of the country.

IV. CURRENT EMERGENCY RESPONSE STATUS

Before directly going into estimating the future humanitarian requirements, it would be instructive to first highlight some of the ongoing emergency response interventions aimed at addressing the urgent needs of the victims by all concerned actors including: the Government, the general public, donors, UN agencies and NGOs.

4.1 Relief/Lifesaving Measures

In all the affected regions, emergency food and nonfood supplies as well as health care and potable water supply services are being provided to the victims in a coordinated fashion. In the case of Dire Dawa, the contribution of NGOs to the emergency interventions is encouraging. Especially, the deep sympathy and untold generosity of the City's residents, who have shared all the agonies of the victims, is indeed touching and exemplary.

Many of the displaced people in Dire Dawa city are currently sheltered in schools and other available halls while others are hosted by their relatives. As schools are to open soon, temporary sites have been selected and tents/shelters are being erected. But, the existing shortage of tents or shelter materials is likely to halt this particular activity soon, unless urgent actions are taken to boost the supply of the same.

The very challenging search and rescue operation in Dire Dawa ended earlier while it is just finished in South Omo Zone where the operation took longer time and was aided with helicopter and motorized boats that were deployed as of 15th August.

As more storms are predicted to occur in the coming days, the Federal Government and some Regional States including SNNP, Amhara, Afar and Gambella are already taking mitigation measures to minimize the risks of the further flood threats. Currently, they are busy with evacuating people residing in the flood-prone areas, constructing or reinforcing flood protective dykes, etc.

Table 3: In-kind Emergency Relief Assistances Supplied by the Government*

Region	Zone	Food Stuffs in MT					Nonfood Supplies in pieces												
		Cereals	Oil	Supl. Food	Pulse	Total	Cup	Plastic Plate	Jerry can	Ladle	Cooking Pot	P/Sheet 4x50 (Roll)	Tent	Blanket	Kettle	Jog	Mattress	Plastic Bag	
Oromia	W/ Shewa	30.8	1.00	3	0	34.8	7390	7390	800	0	363	25	115	1800					
Oromia Total		30.8	1.00	3	0	34.8	7390	7390	800	0	363	25	115	1800	0	0	0	0	
Derie Dewa	D/Dawa	50	1.50	9.6	0	61.1	10000	10000	2000	2000	2010	25	255	4000	150		1150		
Derie Dawa Total		50	1.50	9.6	0	61.1	10000	10000	2000	2000	2010	25	255	4000	150	0	1150	0	
SNNP	S/Omo	44.5	1.30	19.17	3.8	68.77	2500	2500	250	20	250	30		1000	250	250		78,000	
	Wolayta	37.7	1.10	4	3.8	46.6	0	0	0	0	0	0	0	0	0	0	0	0	
	Kefa	3.6	0.10	0.4	0.4	4.5	0	0	0	0	0	0	0	0	0	0	0	0	
SNNP Total		85.8	2.50	23.57	8	119.87	2500	2500	250	20	250	30	0	1000	250	250	0	78,000	
Amhara	S/Gondar	126.3	5.40	21.3	17.8	170.8	0	0	0	0	0	0	0	3732	0	0	0	0	
	B/Dar	0	0.00	2	0	2	0	0	250	0	0	50	0	0	0	0	0	0	
	Oromia	7.5	0.50	2.2	1.5	11.7	0	0	0	0	0	0	0	400	0	0	0	0	
Amhara Total		133.8	5.90	25.5	19.3	184.5	0	0	250	0	0	50	0	4132	0	0	0	0	
Afar	Three	33	1.10	0	3.3	37.4	0	0	0	0	0	0	0	0	0	0	0	0	
Afar Total		33	1.10	0	3.3	37.4	0	0	0	0	0	0	0	0	0	0	0	0	
Grand Total		333.4	12.00	61.67	30.6	437.67	19890	19890	3300	2020	2623	130	370	10932	400	250	1150	78,000	

*Much of the food and non-food items were drawn from the existing stocks donated through WFP and UNICEF.

In addition to the above, the following food and nonfood items have been delivered by NGOs and other agencies to the flood victims in Dire Dawa and Omorate, South Omo.

Table 4: Emergency Relief Assistances Supplied by UN and NGOs

S.No	Description	Unit	Quantity	Remarks
	Food Items			
1	Biscuit	cartoon	5,066	For victims in Dire Dawa
2	CSB	MT	12.8	
3	Faffa	"	47	
4	Milk (Nido)	Tin	30	
5	Sugar	MT	2	
6	Rice	"	15	
7	Wheat flour	"	10	
	Nonfood Items			
8	Blanket	pcs	7,984	
9	Mattress	"	5,459	
10	Bed sheet	pairs	1,792	
11	Soap	pcs	4,000	
12	Water bladder	"	8	
13	Cooking pot	"	600	
14	Kettle	"	2,600	
15	Family size tent	"	60	
16	Plastic basin	"	3,000	
17	Bucket	"	2,000	
18	Stove	"	12	
19	Jerry can	"	2,337	
20	Plastic plate	"	4,800	
21	Plastic cup	"	4,500	
22	Plastic sheet	roll	40	
23	Blanket	pcs	2,100	For victims in S. Omo
24	Mosquito net	"	1,000	
25	Jerry can	"	1,050	
26	Jog	"	1,,000	
27	Plastic sheet	"	137	
28	Cereals	MT	5	
29	Wheat flour	"	50	
30	Supplementary food	"	10	

4.2 Resource Mobilization

Beginning from the first day flooding was reported, the entire public was shocked and started responding both in kind and in cash. The first generosity came from the people of Dire Dawa who organized themselves immediately, established shelters and provided cooked food to all the displaced until the necessary support was delivered.

The Ethiopian public from all walks of life started contributing beginning the next day. An account (Number 0171806845300) for channeling contributions for all flood victims in the country was opened on August 7th with the Commercial Bank of Ethiopia, Finfine

Branch. Because of desperate situation, another account was also opened at Dire Dawa level the same day. In addition to cash, in-kind contributions, including food, shelter materials, blankets, medicines and medical supplies were provided both from the public and some donors, UN agencies and NGOs.

To date, a total of Birr 9,567,757, including Birr 5,645,620 channeled through the DPPA, is contributed in cash by various donors locally. The in-kind contribution so far received by the DPPA is estimated to worth Birr 378,280. Donor Governments, through their embassies, have also contributed/pledged resources, as well as the UN.

Because the flood emergency is expected to continue hitting other areas in the country and the scale could increase in some of the already affected areas, additional support for relief operations is necessary. Beyond the life saving support, the considerable recovery and rehabilitation needs also need domestic as well as international humanitarian contributions.

V. ASSISTANCE REQUIREMENTS

5.1 Emergency Relief/Lifesaving

5.1.1 Food and non-food items

Food Need: As shown on Table 5 below, a total of 199,900 people are estimated to be in need of emergency food aid for a period of three months as of August 2006. This is in addition to the requirements identified in the Joint Humanitarian Appeal of January 2006. The duration of food assistance may be even longer in the case of the displaced people in Dire Dawa as they will be forced to stay under emergency relief environment until they get houses reconstructed. The emergency food requirement by region is presented below.

Additional 32,900 people from public agro-industry enterprises residing along the Awash River are expected to be at risk. The need of these people is, however, not included in the emergency requirement as it is expected to be covered by the enterprises themselves.

Table 5: Food Requirement by Region in Metric Tone (MT)

S.No	Region	Beneficiary Number	Cereal	Edible Oil	Blended Food	Biscuits	Pulse	Total
1	Afar	4,600	207.0	6.2	21.7	3.5	20.7	259.1
2	SNNP	44,000	1,980.0	59.4	207.9	33.0	198.0	2,478.3
3	Amhara	47,100	2,119.5	63.6	222.5	35.3	212.0	2,652.9
4	Oromia	21,900	985.5	29.6	103.5	16.4	98.6	1,233.6
5	Tigray	2,600	117.0	3.5	12.3	2.0	11.7	146.5
6	Dire Dawa	10,400	468.0	14.0	49.1	7.8	46.8	585.7
7	Somali	43,200	1,944.0	58.3	204.1	32.4	194.4	2,433.2
8	Gambella	26,100	1,174.5	35.2	123.3	19.6	117.5	1,470.1
	Total	199,900	899.5	269.9	944.5	149.9	899.6	11,259.4³

³ This figure includes West Shoa and Dire Dawa, which are part of the Belg requirement.

Non-Food Item Needs: The overall objective of nonfood relief provision is to minimize human suffering resulted from the tragic displacements. Unlike the evacuees who have been moved out as a precautionary measure, the displaced mainly in Dire Dawa and South Omo lost their household belongings and assets to the floods.

The most basic nonfood relief items sought include, among others: plastic sheets and tents for sheltering, lifesaving jackets, plastic boats, blankets, and household utensils, such as cooking pots, ladles, jerry cans, jogs, plastic plates, cups, bowls, etc adequate for an estimated 39,980 households (199,900 population). The type and quantity of the items along with their prices is summarized as follows. Note that the items listed here do not include health and water needs, which are shown separately in the next sections.

Table 6: Summary of Requirements for Non-Food Items

S.No	Nonfood Items	Unit	Total Quantity			Cost for the purchase of the Gap		Transport , loading & unloading cost in '000 Birr	Total Cost in '000 Birr	Remark
			Requirement	Available	Gap	Unit Cost (Birr)	Total Cost in '000 Birr			
1	Blanket	pieces	79,960	50,000	29,960	65	1,947.4	209.7	2,157.1	2/family size of 5
2	Plastic Sheet (4x50)	roll	2,999	135	28,63.5	4,000	11,454.0	300.7	11,754.7	1 for 50 persons for 75% of the affected population
3	Tent (4x4)	Pieces	9,995	300	9,695	2,500	24,237.5	509.0	24,746.5	1/family for 25% of the affected population
4	Mattress	pieces	9,995	0	9,995	180	1,799.1	104.9	1,904.0	1/person for 5 % of the affected population
5	Plastic plate	pieces	199,900	9,000	190,900	2.80	534.0	-	534.5	1/person
6	Plastic cup	pieces	199,900	12,138	187,762	1	187.8	-	187.8	1/person
7	Jerry can	pieces	39,980	25,765	14,215	24	341.2	18.7	359.8	1/family
8	Ladle	pieces	39,980	8,313	31,667	4.0	126.7	-	126.7	1/family
9	Jog	pieces	39,980	0	39,980	6.50	259.9	84.0	343.8	1/family
10	Bucket/pail	pieces	39,980	2,880	37,100	12	445.2	194.8	640.0	1/family
11	Cooking pot	pieces	39,980	5,780	34,200	31	1,060.2	239.4	1,299.6	1/family
	Total	-	-	-	-	-	42,393.4	1,662.2	44,054.5	

5.1.2 Emergency healthcare

The adverse human health consequences of flooding are complex, far-reaching and difficult to attribute to the flood event itself. There is very limited quantitative information the health impacts of floods. But, obviously, the main health impacts are deaths, injuries, and mental health illnesses during the flood event itself, during the restoration process, or from knock-on effects brought about by damage to major infrastructure including displacement of populations. The risk of communicable disease outbreaks and malnutrition following flooding are greatly increased. Of the communicable diseases, diarrhea, malaria, acute respiratory illnesses, measles, and relapsing fever are the outstanding ones the occurrences of which are enhanced following floods. Any endeavor meant to minimize the consequences of flood associated health problems should, therefore, consider the above situations.

The type and scale of occurrence of health and nutrition emergencies (HNEs) and the consequence arising thereof following the current flooding has surpassed the capacity of the existing regular services. This has, therefore, necessitated additional resources to save the lives of many Ethiopians seriously threatened by HNEs. The requirement is summarized below on Table 7 while the detail is shown in the attached Annex.

Table 7: Emergency Health and Nutrition Requirements

Emergency Health Requirements (USD)		
1	Emergency Health Interventions for Under Five Children	223,794
2	Other Communicable Diseases (Diarrhoeal, RF, etc)	1,383,071
3	Hygiene and Environmental Health	1,805,515
4	Management of Malnutrition	1,000,000
5	Operational Costs	880,454
	Total	5,292,834

5.1.3 Emergency water supply

Critical water supply interventions that include water tankering, provision of water bladders and tanks, and reinforcement of flood protection dykes are envisaged for three months (September through November 2006) in SNNP, Amhara, Oromia Tigray, Afar Regions and Dire Dawa Administration. The cost estimate is shown on Table 8 below.

Table 8: Emergency Potable Water Supply Requirement

No	Region	No of Beneficiaries	Activities	Unit	Qty	Total Cost (Birr)
1	SNNP	14,000	Collapsible water bladders 5,000 lt capacity	No.	15	225,000
			Water Treatment Units to treat 4,000 lt/hr	No	2	44,000
2	Aafar	4,000	Water bladders 5,000 lt capacity	No.	4	60,000
			Water purification chemicals of 150ml	bottle	3,000	6,000
			Water tankering service charge	truck	1	91,500
3	Amhara	33,000	Water bladders 5,000 lt capacity	No.	9	135,000
			Roto tanks 5,000 lt capacity	No	20	130,000
			Roto tanks 10,000 lt capacity	No	7	87,500
			Water purification chemicals of 125ml	bottle	25,458	50,916
			Water tankering service charge	truck	2	183,000
4	Oromia	15,000	Water tankering service charge	truck	1	91,500
5	Tigray	4,000	Water tankering service charge	truck	1	91,500
			Water purification chemicals agar sachets	bottle	375	750
			Roto tanks of 5,000 lt capacity	No	1	6,500
6	Somali	25,000	Water tunneling	LS.	LS	200,000
		95,000	Sub Total for Emergency Water Supply			1,433,166
7	Sub Total for Reinforcement of flood protection dykes			km		9,700,000
	Total for Emergency Water					11,333,166

5.1.4 Emergency Agriculture

Emergency seed requirement: Around 58,600 affected farmers in Amhara, Oromiya, Tigray, SNNPR, Somali (Shinile zone) and Diredawa are targeted for emergency seed intervention. The intervention focuses on the provision of short season varieties of different crops for replanting of damaged fields during the remainder rainy season as well as on residual moisture following cessation of rainfall and also when the floods recede. Vegetable seeds and seedlings of different fruits will also be distributed for planting during the Bega season using available irrigation schemes. The total budget requirement of emergency seed intervention is estimated at USD 1,177, 854 (Table 9). The impact of the recent flooding in different parts of the country particularly on the agricultural activities is shown in the attached Annex.

Emergency animal support: Livestock are the main means of crop production and livelihood in the affected areas. The high occurrence of high flooding and eventually bringing and concentrating the livestock from different areas in once place so as to get them away from otherwise imminent risk, often induce stress and aggravate livestock diseases (anthrax, pastorellosis, CBPP, CCPP), parasitic infestations and also favor the outbreak of transboundary and vector-born animal diseases. Therefore, it is very important to prevent these risks through vaccination and treatment. To this effect, emergency animal health intervention is envisaged to save the livestock assets in the disaster affected areas. Therefore, a total of 742,000 livestock are targeted for the intervention in SNNP, Somali, Oromiya, Afar, and Amhara Regions and Diredawa Administration. The total budget requirement for vaccination and treatment is estimated at USD 382,399 (Table 10). Detailed

animal health intervention by type and amount of drugs and vaccines for targeted Regions are presented in Table 10 as well as the Annex.

Table 9: Emergency Seed Requirements by Region

Region	No of Woredas	No of Beneficiary Households	Total Seed Quantity (Tones)	Area (ha)	Total Cost (USD)	Planting Season	Remark
Amhara	4	2,500	1,000	12,500	461,361	Meher	
Oromiya	9	12,262	490	6,131	226,067	Meher	
SNNPR	10	10,000	400	5,000	184,544	Meher	
Tigray	18	28,600	600	6,000	290,657	Meher	
Diredawa	1	726	0.1034	35	9,083	Bega	The seed distribution includes 3,200 mango seedlings.
Somali	2	4,595	25.2	1,594	6,142	Bega	
Total	44	58,683	2515.3	31,260	1,177,854		

Table 10: Emergency Livestock Health Requirements by Region

Region	Number of Woredas	Number of Targeted Livestock	Total Cost (USD)		
			Vaccine	Drug	Total
SNNP	2	160,000	10,381	73,795	84,175
Amhara	4	182,000	12,527	77,670	90,197
Oromiya	3	50,000	3,460	21,337	24,797
Somali	4	160,000	10,381	73,795	84,175
Afar	5	160,000	10,381	73,795	84,175
Dire Dawa	1	30,000	2,076	12,803	14,879
TOTAL	19	742,000	49,205	333,194	382,399

5.1.5 Search and rescue

For understandable reason, unlike drought-induced food shortage crises, there is less experience and poor preparedness in the country against fast-onset disasters, including flooding. Admittedly, the current incidence has given us a good shock and lesson in that we need to do a lot so as to be prepared for future fast-onset eventualities as much as possible. Therefore, for the immediate purpose as well as for preparation for the likely flooding threats to come ahead, the need for having in place essential emergency items, such as search and rescue equipment, is unquestionably enormous.

To this effect, the following lifesaving equipment are crucially needed both for immediate use and for future contingency stock:

- Plastic boats.....100 sets estimated at Birr 25,000/set totaling US\$ 33,258
- Life jackets.....10,000 pieces @ \$32/piece totaling US\$ 320,000

The total cost of the equipment stands at **US\$ 608,350**.

5.2 Rehabilitation Requirement

As explained above, as a large number of households in many parts of the country lost their means of living to the catastrophic floods, it is imperative that they need reasonable level of rehabilitation support. To this effect, the following components have been envisaged as priority rehabilitative measures.

5.2.1 Housing

For now, the construction of low-cost houses is envisaged for 1,600 flood-afflicted households in Dire Dawa. The total outlay is estimated at **Birr 28,938,608** (at a unit cost of Birr18,086 per house). Related to the construction work, a sum of Birr 457,500 is also needed for land clearing and supply of water and electricity for the houses, adding up the requirement to Birr 29,396,108.

5.2.2 Basic household items

Upon the completion and handing over of the houses to the displaced in Dire Dawa, it is also necessary to provide them with a set of some basic and decent household items for each of the **1,600 families** who completely lost same through the flooding. The actual need or quantity is not yet established due to time constraint but will be worked out soon by the Dire Dawa Administration in cooperation with DPPA and other interested partners. However, for planning purpose, a lump sum of Birr 5,000 is taken per household, totaling **Birr 8 million**. As affected populations in the South Omo are pastoral communities, construction of low cost housing is not envisaged.

5.2.3 Livelihood support

The current floods, especially in Dire Dawa and South Omo, robbed the victims off their properties and assets that they built over years; and eventually, most of them are left barehanded. Therefore, if these people are to stand by their own in a gradual mode, they deserve to be enabled to have some kind of start-up resource or input, as they have to begin from scratch.

In this respect, in the case of Dire Dawa, about 500 youth members of the flood victims are proposed to be provided with vocational training, hand tools, equipments and materials. The vocational training will involve basic skills in woodwork, metalwork, urban agriculture and the like. The total cost of this particular intervention is estimated at **Birr 700,000**. The need for livelihood support for the many other victims in Dire Dawa needs to be further scrutinized and eventually appropriate rehabilitation arrangements designed through joint assessment and cooperation of all concerned. Therefore, our humanitarian partners are kindly encouraged to show interest and take part in this highly regarded area in due consultation with the Dire Dawa Administration and the DPPA.

Likewise, the situation of the flood victims in South Omo is indeed unbearable and agonizing. Many of these pastoralists have surrendered their animals to the flood havoc. Their lives and livelihoods are exclusively tied up with livestock - the single most precious and versatile asset they ever possess. Therefore, as these people are left virtually with no any other means of survival, we urge our partners to render every possible humanitarian support so that they can restart life and see a glimmer of hope.

To this effect, the SNNP Regional State has proposed the following package of rehabilitation assistance that mainly involves restocking and provision of basic hand-tools for the Gngangaten and Dascenech flood disaster survivors.

Table 11: Livelihood Support for the South Omo Victims

The restocking assistance is envisaged for 1,200 households.

	Restocking (TLU/person)	Unit	Qty	Unit Cost (Birr)	Total Cost (Birr)
	Cows (2 cows/hh) for 220 HHs	No	24400	1,200	528,000
	Shoats (5/hh)	“	6,000	250	1,500,000
	Oxen (1/ hh)	No	1,200	1,500	1,800,000
	Donkey (1/hh)	No	1,200	450	540,000
	Sub-Total		131,000		4,368, 000
	Supply of hand tools				
	Hoe	No	1,200	10.4	12,480
	Three fingered hoe	“	1,200	40	48,000
	Shovel	“	1,200	30	36,000
	Digging hoe	“	1,200	40	48,000
	Gesso	No	1,200	20	24,000
	Sub-Total		15,000		168,480
	Total				4,536,480

5.2.4 Water supply rehabilitation

Table 12: Requirement for Potable Water Supply Rehabilitation

S. No	Region	No of Beneficiaries	Activities	Unit	Qty	Total Cost (Birr)	Remark
1	SNNP	14,000	Drilling two shallow wells fitted with pumps/windmills along with construction of 12 cattle troughs	set	2	4,800,000	
			Rehabilitation of damaged water supply schemes	LS	LS	800,000	
2	Dire Dawa		Rehabilitation of damaged well with generator house, water pipes and irrigation schemes	LS	LS	2,665,000	
3	Aafar	4,000	Rehabilitation of damaged water supply schemes	LS	LS	500,000	
			Construction of a motorized shallow well	No	1	400,000	
4	Amhara	33,000	Drilling of three motorized deep and four shallow wells	No.	7	3,651,340	
5	Oromia	15,000	Drilling of one deep and two shallow wells	No	2	2,600,000	
6	Tigray	4,000	Drilling of one deep motorized and one shallow wells	No	2	500,000	
7	Somali	25,000	Rehabilitation of damaged water supply schemes	LS.	LS	500,000	
Total		95,000	Total for Water Supply Rehabilitation			16,416,340	

5.2.5 Agricultural rehabilitation

Although planning and implementation of agricultural recovery interventions is as almost equally important as the emergency interventions in order to help restore the agricultural activities of the affected farmers, it could not be managed for this appeal due to severe time constraint. Therefore, the agricultural rehabilitation need will be soon assessed and established at a later stage.

Table 13: Veterinary Rehabilitation Support

	Veterinary Service	Unit	Qty	Unit Cost (Birr)	Total Cost (Birr)
	Building veterinary posts	No	3	25,000	75,000
	Furniture	set	3	5,000	15,000
	Veterinary equipment	set	3	50,000	150,000
	Motor bicycle	No	4	25,000	100,000
	Agricultural Extension				
	Building DA house	No	3	25,000	75,000
	Furniture for DA office	set	3	5,000	15,000
	Total				430,000

5.2.6 Educational rehabilitation

As a result of the current floods, most schools in the affected woredas of South Omo Zone were damaged; furniture and educational materials were lost. Students experienced the death of friends and relatives, loss of homes, the trauma and danger of the floods themselves, and a disruption of their daily lives.

In South Omo, the objectives are to return children to school, adequately resourced with school supplies and to reduce the negative psychological impacts of the disaster on children. The requirement for educational rehabilitation for South Omo Zone is shown on Table 14.

Table 14: Educational Rehabilitation Support for South Omo Zone

	Education Activities	Unit	Qty	Unit Cost (Birr)	Total Cost (Birr)
	Building 1st cycle schools (1-4)	No	3	175,000	525,000
	Student Desk	No	800	210	168,000
	Black Board	No	35	210	7,350
	Student Uniform	No	6000	60	360,000
	Type writer for 3 schools	No	3	6,000	18,000
	Motor bicycles	No	2	25,000	50,000
	Teachers residence	No	5	20,000	100,000
	Total				1,228,350

For Dire Dawa, the immediate priority is to help school-going children resume attending their classes. The requirement is shown on Table 15 below.

Table 15: Educational Rehabilitation Support for Dire Dawa

	Education Activities	USD Total
	Provision of school materials to flood affected children	13,852
	Provision of ABE* and pre schooling	4,451
	Rehabilitation of school that were temporary shelters	7,497
	Total	25,800

*ABE: Alternative Basic Education

5.2.7 Health services rehabilitation

In many woredas across the country, flooding has adversely affected already weakened health facilities and washed away medical supplies. The flood has also damaged many water schemes and water sources, reducing the already limited amount of potable water. Outbreak of water-borne disease and diarrhea is expected to escalate. The flood created extremely favorable conditions for breeding of mosquitoes and other communicable diseases. Coupled with over-crowding as the result of displacement, the infection rate of malaria is also anticipated to increase.

Table 16: Health Service rehabilitation requirement for South Omo Zone

Health Activities	Unit	Qty	Unit Cost (Birr)	Total Cost (Birr)
Construction of health posts	No	3	300,000	900,000
Purchase of furniture for HP	“	3	50,000	150,000
Medical equipment for HP	“	3	100,000	300,000
Total				1,350,000

5.2.8 Infrastructural rehabilitation

The extensive flooding in the Omo Delta has destroyed many hectares of land and washed away roads. Rehabilitating land, roads, and transport routes damaged by the flooding is an essential component of restoring livelihoods.

Table 17: Infrastructural Rehabilitation Support for South Omo

Infrastructure	Unit	Qty	Unit Cost (Birr)	Total Cost (Birr)
Construction and maintenance of rural Roads	km	75	100,000	7,500,000
Construction of grain stores	No	3	200,000	600,000
Total				8,100,000

VI. IMPLEMENTATION ARRANGEMENT

The current flood disaster in Ethiopia so far resulted in the death of over 600 citizens and considerable damage to property. A large number of the survivors have lost their livelihood. The needs are enormous, ranging from emergency relief to sustainable recovery and rehabilitation, and multi-sectoral. Implementation of this proposal necessitates the concerted efforts and commitments of all concerned bodies.

As it has always been the case in Ethiopia, the overall leadership will be that of the Government at all levels: federal, regional, zonal and wereda, with full participation of donors, UN agencies, NGOs and communities at large. Therefore, the following arrangements are envisaged in the implementation process.

6.1 Federal Level

- a) National Disaster Prevention and Preparedness Committee (NDPPC), being the highest body in the humanitarian arena, will provide guidance, allocate the necessary resources and oversee the progress of agreed upon tasks.
- b) Disaster Prevention and Preparedness Agency (DPPA) will:
 - Assess, jointly with concerned regional, zonal, wereda bodies, donors, NGOs, UN agencies, the existing situations and extent of damage;

- Monitor the emergency situation and the response progress through the Crisis Management and Early Warning Working Groups, and through different Task Forces where the international community participates;
 - Mobilize the resources required for the successful implementation of the project;
 - Coordinate the humanitarian response initiated by concerned line ministries and NGOs;
 - Receive and consolidate project proposals;
 - Allocate resources on priority basis;
 - Monitor/cause to be monitored implementation of same;
 - Provide regular progress and terminal reports to the NDPPC and donor community.
- c) Line ministries will:
- Assess, in consultation with the concerned regional authorities and in collaboration with relevant donors, UN agencies and NGOs, the specific situations and establish needs, compile them and submit to the DPPA for resource mobilization purpose;
 - Ensure that the necessary support is provided in time;
 - Provide technical support in the implementation process;
 - Monitor progress and report on progress to the NDPPC and the DPPA.
- d) United Nations Agencies:
- The United Nations Humanitarian Coordinator supported by United Nations Office for the Coordination of Humanitarian Affairs (UNOCHA) and other UN humanitarian agencies will coordinate UN agencies' response in close consultation with DPPA and line ministries. The Humanitarian Coordinator will collaborate with DPPA in ensuring the flow of information to donors, NGOs, and other international bodies and assist DPPA in tracking of humanitarian contributions.

6.2 Regions at Different Levels

Ultimately, the project will be implemented in the affected regions. Thus, the regions are expected to:

- a) Establish a coordination body, led by the government and composed of relevant stakeholders;
- b) Prepare action oriented plan of action with achievable time frame;
- c) Screen and determine the genuine/eligible beneficiaries and provide them with special Identification Cards;
- d) Determine short, medium and long term needs and establish recovery and rehabilitation packages;
- e) Design implementation modality and workable arrangements and provide the necessary support;

- f) Make regular monitoring and take/suggest on the necessary corrective measures;
- g) Prepare and submit regular progress reports to the federal bodies.

6.3 Community and Beneficiary Level

- a) Expected to provide the necessary support in the identification of the eligible beneficiaries;
- b) Assist the concerned bodies in the identification and establishment of the recovery/ rehabilitation packages to be destined to individual beneficiary families;
- c) Provide the necessary technical (if available) support in the implementation of the project;
- d) Take part in the actual project implementation.

Annexes:

The Impact of Different Disasters on Agriculture by Woreda

Region	Zone	Woreda	Type of disaster	Consequences of the disaster	Remarks
SNNPR	South Omo	Dasenech and Gngangato	River flood	3,200 livestock have been killed	Livestock disease outbreaks are anticipated
				2,280 quintals of stored grains from this year's harvest have been washed away.	
	Siltie Zone	Lanfro, Dalocha, and Alichoworiro	Hailstorm	1,500 ha of different crops have been damaged	
	Alaba S.Woreda	Alaba S.Woreda	Hailstorm	1,500 ha of different crops has been damaged	
	Guraghe zone	Abeshghe and Kebena	Hailstorm	1,500 ha of different crops has been damaged	
	Sidama	Dale	River flood	900 ha of different crops has been damaged	
	Hadiya	Shashigo	River flood	5,066ha of different crops has been damaged	
	G/gofa	Dawro	River flood	100ha of different crops has been damaged	
Dire Dawa		Dire Dawa	River flood	248 ha of different crops have been damaged	Livestock disease outbreaks are anticipated
				1,036 livestock have been killed	
				Different irrigation, soil and water conservations and water harvesting structures have been damaged	
				147 tones of stored export quality coffee have been damaged and 2 coffee processing machines were affected.	
Amhara	West Gojam	Bahirdar Zuria	River flood	941ha of different crops have been damaged	Livestock disease outbreaks are anticipated
				122 beehives damaged	
	South Gondar	Fogera	River flood	6319 ha of different crops have been affected	70-100% crop damage and Livestock disease outbreaks are anticipated
		Libokemekem	River flood	6,319 ha of different crops have been affected	70-100% crop damage and Livestock disease outbreaks are anticipated
North Gondar	Dembia	River flood	444 ha of different crops have been affected	70-100% crop damage and Livestock disease outbreaks are anticipated	
Oromiya	South West Shoa	Sebeta Awas	River flood	1117ha of different crops have been damaged	Livestock disease outbreaks are anticipated
		Illu	River flood	404 ha of different crops have been affected	Livestock disease outbreaks are anticipated

	West Shoa	Ejere	River flood	2980 of different crops have been damaged	Livestock disease outbreaks are anticipated
		Wolmera	River flood	300 ha of different crops have been damaged	
	West Hararghe	Kuni	Hailstorm	344 ha of different crops have been damaged	
		Tulo	Hailstorm	300 ha of different crops have been damaged	
	Bale	Agerfa	River flood	220 ha of different crops have been damaged	
Sinana		River flood	31 ha of different crops have been damaged		
Tigray	Western	Kafta Humera	Hailstorms	500 ha of different crops have been damaged	
	Central	Adwa	Hailstorms	245 ha of different crops have been affected	45-90% damage
		Deguatemben	Hailstorms	120 ha of different crops have been affected	50-60% damage
		Mereblehe	Hailstorms	450 ha of different crops have been affected	20-50% damage
		Ahferom	Hailstorms	150 ha of different crops have been damaged	
		Werelekhe	Hailstorms	450 ha of different crops have been damaged	
		T/Maychew	Hailstorms	100 ha of different crops have been damaged	
		N/Adet	Hailstorms	350 ha of different crops have been damaged	
	N/West	T/Adiyabo	Hailstorms	150 ha of different crops have been damaged	
		M/Zana	Hailstorms	220 ha of different crops have been damaged	
		T/Koraro	Hailstorms	200 ha of different crops have been damaged	
	East	Hawzen	Hailstorms	300 ha of different crops have been damaged	
	Southern	Alamata	Hailstorms	1200 ha of different crops have been damaged	
		Raya Azebo	Dry spell	500 ha of different crops have been damaged	
		Hintalo Wajirat	Dry spell	400 ha of different crops have been damaged	
		Enderta	Hailstorms	165 ha of different crops have been damaged	
		S/Samre	Hailstorms	100 ha of different crops have been damaged	
Alaje		Hailstorms	400 ha of different crops have been damaged		
Somali	Shinile	Shinile	River flood	No significant damages	Livestock disease outbreaks are anticipated in flood affected areas
		Erer	River flood	286ha of different crops have been damaged	
				Irrigation structures have been damaged	
Afar				Livestock disease outbreaks are anticipated in flood affected areas	

Annex: Emergency Livestock Drug and Budget Requirement by Regions for 2006

Region	No of Woradas	No of Livestock	Type of Drug	Amount of Drug	Cost of Drug in Birr
SNNPR	2	160,000	Anthelmintics	160000 boli	240000
			Antibiotics	10660 vila	319800
			Acaricide	800 litre	80000
AMHARA	4	182000	Anthelmintics	182000 boli	218400
			Antibiotics	12133 vial	364000
			Acaricide	910 litre	91000
OROMIYA	3	50000	Anthelmintics	50000 boli	60000
			Antibiotics	3333 vial	99990
			Acaricide	250 litre	25000
SOMAIL	4	160000	Anthelmintics	160000 boli	240000
			Antibiotics	10660 vila	319800
			Acaricide	800 litre	80000
AFAR	5	160,000	Anthelmintics	160000 boli	240000
			Antibiotics	10660 vila	319800
			Acaricide	800 litre	80000
Dire Dawa	1	30000	Anthelmintics	30000 boli	36000
			Antibiotics	2000 litre	60000
			Acaricide	150 litre	15000
TOTAL	19	742 000	Anthelmintics	742000	890400
			Antibiotics	49446	1483380
			Acaricide	3710	371000
TOTAL COST					2,888,790