WORLD VISION ETHIOPIA

GRANTS DIVISION, EARLY WARNING UNIT

FOOD SECURITY MONITORING REPORT OF MAY 2000

Rainfall, crop and livestock conditions
Market prices situations
Socio-economic conditions
Nutrition and human health

July 2000
Addis Ababa

ACRONYMS

ADPs	Area Development Programs
Belg	Short rainy season from February to April
BOA	Bureau of Agriculture
BOH	Bureau of Health
Kolla	Ecological zones less than 1500 m.a.s.l.
Weina-Dega	Ecological zone varying from 1500 to 2500 m.a.s.l.
Dega	Ecological zone varying from 2500 to 3500 m.a.s.l.
DPPC	Disaster Prevention and Preparedness Commission
EPI-INFO	Epidemiological Information- Computer program used for anthropometric data analysis
FFW	Food For Work
m.a.s.l.	Meter Above Sea Level
Meher	Long rainy season from June to September
Normal	Long-term average
PAs	Peasant Associations
Quintal	Local measurement equivalent to 100 kg
WAZ	Weight for height Z score (indices) used to calculate acute and chronic malnutrition
WHZ	Height for age Z Score (indices) used to calculate chronic malnutrition
WHZ	Weight for height Z score (indices) used to calculate acute malnutrition
Woreda	Administrative area similar to district
WVE	World Vision Ethiopia
Z-Score	Indices used to calculate Weight for height, weight for age and height for age.
Global Acute malnutrition	Wasting (Height for weight below –2SD)

ADPs with their respective Regions, Zones districts and distance from Addis Ababa

S. No	Project Sites	Region	Zone	Woredas/districts	Distance from Addis Ababa (Km)*
1.	Adama	Oromia	East Showa	Adama and Boset	118
2.	Adjibar	Amhara	South Wollo	Tenta	523
3.	Antsokia I	Amhara	North Showa	Antsokia Gemza	350
4.	Antsokia II	Amhara	Oromia zone	Arthume Jile & Dawa Cheffa	320
4.	Damota I	Southern Region	North Omo	Humbo	420
5.	Damota II	Southern Region	North Omo	Sodo Zuria	415
6.	Kilte Awlaelo	Tiray	East Tigray	Atsbi-Womberta and Saesie Tseda Amba	870
7.	Mehal Meda	Amhara	North Showa	Gera Keya	282
8.	Omo Sheleko	Southern Region	Kambata Alaba Timbaro	Omo Sheleko, Kachabira &Kedida Gamila	410
9.	Saatusa	Southern Region	North Omo	Boreda Abaya and Chencha	457
10.	Shenkola	Southern Region	Hadiya	Soro	250
11.	Shone	Southern Region	Hadiya	Badawacho	345
12.	Tiya	Oromia	West Showa	Kersa Kondaltiti	85

* Distance of the ADP sites from Addis Ababa

I. *SUMMARY*

The multi agency technical assessment in April 2000 confirmed the failure of *Belg* crops in Ethiopia this year. As a preliminary estimate (subject to revision after the *Belg* assessment is completed) the indications are that the total number of relief beneficiaries as of July 2000, will be 10.3 million people. As a result, the resources required will proportionally increase.(Source: DPPC)

The DPPC's estimate of January 2000 also put the food need of WVE operational areas at 73,613 MT for 617,177 affected people. However, the number of affected people and the corresponding food need is expected to grow as the total number of beneficiaries in the country increased.

In response to the drought situation that occurred in Ethiopia this year, WVE launched a relief program for Ethiopia code-named PEG. The program focused on the prevention of famine in WVE ADPs, Emergency Relief food provision for the drought-affected people in Gode Zone and giving Hope for those who have lost their livestock as the result of the drought and the subsequent failure of the *Belg* rains. WVE planned to distribute food amounting to 44,747 MT, out of which 7,125 MT of food has been distributed to 487,483 people as of June 28, 2000.

WVE is also supporting on a therapeutic-feeding center in a pediatric ward in Gode Hospital with an average in-take of 50 children at a time. So far over 250 children have been treated.

As part of its' overall food security monitoring, WVE conducts two surveys in a year, before and after harvest. WVE conducted its regular Food Security Monitoring Survey in May 2000. The survey covers nineteen districts in four regional states of the country (Tigray, Amhara, Oromia, & South Region).

The sample size was determined using sampling formula.[1] The survey was conducted in nineteen districts and 25% of the peasant associations in a district were included in the sample and over 700 children were measured using villages as sub cluster. In the seriously affected districts (Saesie Tseda Amba, Tenta, Gera keya, Sodo Zuria and Humbo) every peasant association was included in the survey and 50% of villages were randomly selected for the study. Information on crop, livestock and socio-economic conditions of the areas were collected from the same clusters in the sample peasant associations. Z scores were used to analyze the anthropometric indices.

A total of 16,999 children were sampled for measuring the status of wasting, stunting and underweight in the nineteen districts. Community members were also consulted as key informants in collecting socio-economic, livestock and crop performance information. Secondary data was also collected from line departments.

The levels of wasting in each district are as follows: The highest wasting was reported in Omo Sheleko (23.3%). Saesie Tseda Amba, Kachabira, Kedida Gamilla, Sodo Zuria and Tenta had very high wasting levels (>=15%)[2]. Gera Keya, Dawa chefa, Soro and Atsbi womberta had high wasting levels (10-14.9%)[3]. Districts like Antsokia Gemza, Arthuma Jille, Badawacho, Boreda Abaya, Chencha, Kersa Kondaltiti, Adama, Bosset and Humbo, had medium level of wasting (5.0-9.9%)[4]. No districts fall in low level of wasting (<5%) during this survey.

The nutritional status of children in Tenta, Arthuma Jille, Gera Keya, Boreda Abaya, Humbo, Atsbi Womberta, and Saesie Tseda

[1] $\mathbf{n} = Z^2 (P(1-P)D^2$

[2] Additional food to all children and vulnerable groups is recommended

[3] Selective supplementary feeding of the malnourished is of high priority.

[4] Supplementary feeding if possible.

Amba improved as compared to the previous survey results. This was mainly attributed to the relief intervention in the districts.

Other early warning indicators also showed effects similar to the anthropometric analysis. The *Belg* rain was late by over 8 weeks in WVE operational areas. In most parts of the operational areas it started in the second week of April. The rain was erratic, inadequate and poorly distributed during the season. In some districts it ceased earlier than the normal time.

Consequently, *Belg* production, which contributes about 40% to the annual crop production failed except for pocket areas in Boreda Abaya, Chencha, Omo Sheleko, Kachabira and Kedida Gamilla districts in Southern Regional State.

Due to late onset of *Belg* rain the physical condition of the livestock was poor in most of the operational areas except in Boreda Abaya, Atsbi womberta and Tenta districts, which was normal.

Flood disaster was reported in Boreda Abaya district that damaged over 140 hectares of land covered by *Belg* crops. There were also flood and hailstorm cases in some districts in the Southern Regional State.

Grain prices increased in all districts for the last six months while livestock prices declined as the farmers brought their livestock in great number to markets in order to purchase food grains. Nevertheless, in districts like Tseda Amba, and Atsbi Womberta grain prices declined after the relief food distribution.

Measles epidemic was reported in Dawa Cheffa, Adama and Boset districts. There were also malaria cases in Adama, Boset, Sodo Zuria and Omo Sheleko districts.

In general, consecutive crop failure, depletion of food stock, failure of sweet potato in Southern Regional State, inability of farmers to plant early maturing crops due to late onset of *Belg* rain, has put most of the operational areas in a critical food shortage situation. Omo sheleko, Kachabira, Kedida Gamilla, Saesie Tseda Amba, Tenta, and Sodo Zuria, districts faced severe food shortage during the survey. Though the degree varies, all other districts fall under transitory food shortage. The food shortage prevailing in the area is expected to continue up to *Belg* or *Meher* harvest in the operational areas.

II. SURVEY METHODOLOGY

2.1 Methods of data collection

Pre-tested and structured questionnaires were used to collect information on crop, livestock and socio-economic conditions. The information was collected from key informants, which mainly comprises elders, influential individuals and PA leaders. Secondary information was also collected from line offices (Agriculture development and health offices) during the survey.

Though all data collectors were experienced enumerators, Government and ADP staff, appropriate training was conducted on anthropometry/body measurement and other data collection methods prior to the survey.

2.2 Sampling design

About 25% of the peasant associations in a district were included in the sample and over 700 children were measured using villages as sub cluster in each district.

To ensure geographical spread across the survey area, the clusters were first distributed among the agro-ecological zones in proportion to the population size given by the number of households. A systematic random sampling was employed to select sample PAs from a list of all PAs in a district. After the PAs were identified, the list of all villages for each PA was prepared and two clusters were chosen by lottery where anthropometric measurements were taken.
The rest categories of information (crop, livestock and socio-economic conditions) were also collected from the same village/cluster.

The sample size was determined using the following sampling formula;
$\mathbf{n} = Z^2 (P(1-P)D^2$

Z = is the error risk and acceptable at 5% (transformed to values 1.96 or 2).

P = is predictive prevalence value depending on latest data. (20% was used)

D = is absolute precision (3% was used)
n = minimum sample size needed

Sampled children were distributed to each sample PA in proportion to their population size (PPS).

In districts such as Saesie Tseda Amba, Tenta, Gera keya, Sodo Zuria and Humbo, every PA was included in the survey and children were measured in about 50% of the PA villages/clusters. These were districts seriously affected by drought and the same method was applied in February 2000 rapid survey for targeting.

2.3 Materials used

A suspended scale of 25kg capacity, graduated by 0.1 kg was used for weighing children 6 to 59 months of age. The reading was taken to the nearest 0.1 kg. The scale was checked after every 10 measurements against 10 or 5Kg for precision. The length of all children was measured lying down on a wooden board having fixed and movable ends. The reading was taken to the nearest 0.5cm. Six to seven enumerators and a supervisor participated in the weight, age and length measurement of a child at a time. Enumerators developed *local calendars* to know ages of children, in areas where mothers could not tell the exact age of their kids like in Southern region.

2.4 Data processing and statistics

Data entry, editing and analysis were made using EPI INFO version 6.04b and ANTHRO computer software programs. Descriptive statistics like mean and frequency were computed to analyze the data.

Since the calculation of the percent of median doesn't take into account the distribution of the reference population around the median and not consistent across age and height levels, the distribution of indices was expressed in terms of Z-scores. Z-scores have the statistical property of being normally distributed, thus allowing a meaningful average and standard deviation

for a population to be calculated. Low Weight-for-Height is considered as an indicator of wasting and is generally associated with failure to gain weight or a loss of weight. Low Height for Age is considered, as an indicator of stunting which is frequently associated with poor overall economic conditions and/or repeated exposure to adverse circumstances. The third index Weight for Age is primarily a combination of Weight for Height and Height for Age and fails to distinguish tall, thin children from short, well-proportioned children. The Z-score cutoff point recommended by WHO to classify low anthropometric levels is 2SD units below the reference median for the three indices for children 6 to 59 months.
The result of this survey could be compared to the following standard prevalence of low anthropometric values (<-2SD). (See table 1). Anthropometric calculations described in this report are based on the growth reference curves recommended by the WHO for international use.

2.5. Limitations of the survey

In South region, majority of the mothers does not know the exact age of their children. Hence, extra time was deployed to develop *local calendars* with the community and enumerators were trained on how to know the exact ages using local calendars.

In some districts like Tenta, Gera Keya and Soro, data collection was laborious due to inaccessibility of the lowland areas.

Table 1- Prevalence of low Anthropometric Values

Relative Index	Low	Medium	High	Very high
Low WFH	<5.0%	5.0-9.9%	10.0-14.9%	≥15.0%
Low HFA	<20.0%	20.0- 29.9%	30.0-39.9%	≥40.0%
Low WFA	<10%	10.0-19.9%	20.0->29.9%	≥30.0%

N.B. The interpretation of anthropometric survey takes into account the following aggravating factors such as household food security, migration, mortality and major epidemic out breaks.

III. SURVEY FINDINGS

3.1 TIGRAY REGIONAL STATE

3.1 .1 Atsbi Womberta & Tseda Amba

Rainfall, crop & livestock conditions

The *Belg* rain commenced at the end of April, which should have started in the first week of March. After showering for three weeks, the rain deserted on May 12, 2000. It was low in amount and erratic in distribution. As a result *Belg* crop production that contributes 3-5% of the total annual production of the districts failed.

Though the rain was not favorable for *Belg* crop production, it supported the growth of grasses and availability of water for livestock in Atsbi womberta distirct. Land preparation for *Meher* season was also started in the two districts. However, the physical condition of livestock was below normal in Saesie Tseda Amba and normal in Atsbi womberta district.

Successive failure of crop production that ends in lack of food stock at household level coupled with the failure of *Belg* rain worsened the situation in the districts and extension of relief food distribution up to December 2000 would be indispensable. The total number of beneficiaries may exceed the present 107,300, as no alternative food sources would be available.

Market prices situation

Prices of grains increased starting from December 1999 to end of March 2000 because of low supply of food grains and high demand in the market. However, grain prices (especially wheat) declined after March due to relief food distribution.

Farmers received very low prices for their livestock up to March 2000. After March, however, livestock prices increased slowly because of improved physical condition and Increased demand for livestock especially oxen power. As a result, terms of trade improved after March 2000. (See Annex I)

Socio-economic conditions

Farmers sold their livestock, fuel wood and used farm tools, reduced food intake both in quantity and quality, borrowed cash from relatives, consumed un-preferred foods, participated in daily labor, migrated to adjacent areas and engaged in begging to cope with the disaster situation.

Nutrition and human health

A total of 685 children in Atsbi Womberta and 1412 in Seasie Tseda Amba districts were measured. About 10.9% of children in Atsbi Womberta and 20.1% in Saesie Tsede Amba districts were wasted (global acute malnutrition).

The level of malnutrition as compared to February 2000 survey was low in both districts. However, the malnutrition status is very high and needs prompt action in Saesie Tseda Amba district. On the other hand, Atsbi Womberta needs close monitoring, assistance of vulnerable groups and special attention to the malnourished.
(See table below and Fig. 25)

	Global Acute Malnutrition	
Districts	Feb-2000	May 2000
Atsbi-Womberta	13.1	10.9
Tseda Amba	22.3	20.1

3.2 AMHARA REGIONAL STATE

3.2.1 Arthuma jille & Dawa Cheffa

Rainfall, crop & livestock conditions

Except for very small amount in mid April (15.3mm) no rain was reported in the two districts during the season.
Due to shortage of pasture resulted from lack of rain, the physical condition of

livestock was poor. However, there were enough water sources for livestock because of the availability of rivers and streams in these districts. As a result, farmers from neighboring districts like *Bati* and *Afar* region migrated with their livestock to this area looking for water, which created high pressure on grazing lands.

Livestock diseases such as Anthrax, Black leg and internal parasites have been affecting over 14,000 livestock in eight peasant associations and death of 140 animals was reported. WVE (Kemissie ADP) in collaboration with districts' agricultural offices has organized vaccination and worm expelling campaigns to control and prevent the outbreaks.

Belg crop production that contributes 25% to the annual crop production in Dawa chefa and 7.4% in Arthuma Jille districts has completely failed except for pocket irrigation areas (800 in Arthuma Jille and 834 hectares in Dawa Chefa). Besides, a remarkable reduction in the last *Meher* production that resulted in depleted food stock was observed in both districts.

Hence, the two districts faced transitory food shortage and 72,917 community members were supported by relief food distribution, which would continue up to December 2000 (*Meher* harvest). Dawa Cheffa district was more affected by the current drought because of low volume of relief food distribution and failure of *Belg* crops that contributes about 25% of the annual crop production.

Market prices conditions

Increase in the prices of grains was observed from December to April 2000. After April, however, grain prices seems stabilized mainly because of the relief intervention.

On the other hand, the livestock prices have kept declining except for ox that increased after the onset of the rain because of the demand for plowing. Accordingly, terms of trade deteriorated through out the months. (See Annex I)

Socio-economic conditions

The major food sources during the survey were market purchase (55%), relief food distribution (28%), and own production (17%). Farmers drive their cash income from sale of livestock (53%), sale of firewood and charcoal (26%) and daily labor (21%). No unusual migration was reported during the last three months.

Nutrition and human health

A total of 1512 children aged 65 to 59 months in both districts (756 children in each) were measured during the survey.

The global acute malnutrition was 11% in Dawa Cheffa and 5.4% in Arhuma Jille. Compared to November 1999 survey result, the nutritional status of children deteriorated in Dawa Cheffa district. In Arhuma Jille however, nutritional status improved due to relief food distribution.
(See table below and Fig. 25)

Districts	Global acute malnutrition	
	Nov-99	May-2000
Arthuma Jille	7.4	5.4
Dawa Cheffa	8.4	11

Agroecologically the level of global acute malnutrition/wasting was 11.8% for midland and 7% for lowland areas. Among the 15 sample PAs the following had global acute malnutrition above the cut off points, Goda Gellana (10.9%), Goro Dindin (10.9%), Teref (12.7%) and Dodo (16.2%).

For intervention purpose priorities should be given to the PAs that are above the cut off point and the midland areas.

Measels epidemic was reported in Dawa chefa district and morbidity on over 325 children was reported.

3.2.2. Antsokia-Gemza district

Rainfall, crop & livestock conditions

The onset of *Belg* rain was late by over 8 weeks and the distribution was erratic in Antsokia Gemza district. The district received a total of 109.10 mm of rain during April and May 2000, which was not adequate for the growth and development of *Belg* crops.

As a result, *Belg* crop production was completely failed except for pocket (irrigation) areas that recently planted maize and vegetables. Consequently, there would be acute food shortage in the district till the *Meher* harvest (December 2000). About 9,718 beneficiaries were identified in Jan-00 appeal and being assisted.

Though the availability of water for human and livestock was similar to the normal times, forage in the form of crop residue and pasture during the season was low due to the extended dry spell. Thus, the physical condition of livestock was poor.

Anthrax outbreak was reported in some lowland peasant associations (H/wolde, Mekedesa & Teref). WVE (Antsokia Gemza ADP) procured medicines and provided to districts' agriculture office for the control of the outbreak.

Market prices situation

Grain prices increased slightly through out the period (Dec-99 to May-00). On the other hand, there was cutback in the prices of livestock during the same time that resulted in deteriorated terms of trade. (See Annex I)

Socio-economic conditions

Major sources of food during the survey were market purchase and relief food distribution followed by own production and loans from friends. Sources of income for market purchase was primarily obtained from sale of live animals (54%), sale of labor (28%) and sale of fuel wood (18%). Households have primarily reduced frequency, quality and quantity of meals, shared foods, and sold productive assets to cope with the acute food shortage.

Nutrition and human health

A total of 783 children aged 6 to59 months were measured in 5 randomly selected PAs of the district. The survey result revealed that 6.1% of children were wasted (global acute malnutrition) and 0.5% fell under severe acute malnutrition. Compared to previous surveys no significant change was observed. However, the vulnerable groups and malnourished children need attention and close monitoring.
(See table below and Fig. 25)

	Global Acute Malnutrition		
District	May-99	Nov-99	May-00
Antsokia Gemza	6.3	6.2	6.1

Agroecologically there were minor differences in global acute malnutrition among lowland, midland and highland areas.

3.2.3. Gera keya district

Rainfall, crop & livestock conditions

The onset of *Belg* rain was late by over six weeks in the district compared to normal. Eventhough there was showers of rain in April and May, it was low in amount and erratic in distribution.

As a result, *Belg* crop production that contributes about 60% to annual crop production was completely failed. Repeated production shortfall coupled with the *Belg* failure has put the district in a critical food shortage. Gera keya was one of the severely affected WVE operational areas and a total of 108,016 people were identified as relief

beneficiaries and being assisted by WVE, Government and Medicine De Monde. The number of beneficiaries to be assisted up to Dec-2000 is expected to increase due to the complete failure of *Belg* crop production in the area.

The availability of pasture for livestock was poor because of the severe rain shortage, which resulted in weak physical condition of livestock. However, water for livestock was almost satisfactory for there were springs and half-dried rivers in the area.

Market prices situations

Regardless of the relief intervention in the area, grain prices did not decrease as expected. Slight increase in the livestock prices was observed throughout the period because the area is accessible to Addis. However, terms of trade declined as the increase in the prices of grains exceeds that of the livestock. (See Annex I)

Socio-economic conditions

The major sources of food during the survey were relief food distribution, purchased food, milk and milk products. The farmers sold livestock and firewood to earn cash income for the purchase of food.

To cope with the food crisis, farmers consumed low quality food, decrease frequency, and quantity of meals.

Nutrition and human health

A total of 1050 children aged 6 to 59 months were measured during the survey in 35 clusters of the district. The level of global acute malnutrition was 11.5%, which was above the cut of point (10%). And the level of severe acute malnutrition was 0.5%. Compared to February 2000 survey, the malnutrition status declined because of the supplementary feeding and dry ration distribution.

Agroecologically global acute malnutrition was 14.9% in highland, 8.9% in midland and 4.7% in lowland. Although the situation seems better, the area still needs assistance. Attention must be paid to the highland areas, the vulnerable groups and the malnourished.
(See table below and Fig. 25)

	Global Acute Malnutrition				
District	Nov 98	May 99	Nov 99	Feb. 2000	May 2000
Gera Keya	6.3	11.5	13.5	13.6	11.5

There were typhus and diarrhea outbreaks and accordingly, 162 adults and 101 children were infected by typhus in 7 peasant associations. Other 2 adults and 4 children were affected by diarrhea in another peasant association. Eight death cases were reported of typhus (4 male and 4 female).

3.2.4. Tenta district

Rainfall, crop & livestock conditions

The onset of *Belg* rain was late by over six weeks in Tenta district. The district received a total of 133.5mm of rain from end of March to May 2000.

Regardless of late onset of the rain, some highlanders planted *Belg* crops like Barley, Teff, Oats and Lentil. Lowlanders also planted Maize and Sorghum over a large area. Information from the district agricultural office revealed that a total of 11,038 hectares of land was prepared for *Belg* season and about 10,126 hectares (over 90%) of land planted. Due to shortage of seed the rest 10% of land was not sown and the seedling density was poor over the majority of the lands covered by *Belg* crops. Consecutive failure of *Belg* crops and over 60% failure of last *Meher* production has placed the district in the list of severely drought affected WVE operational areas. WVE and the Government have been assisting a total of 92,919 community members. These people also expect the food

distribution at least up to *Belg* harvest (end of September) provided that the *Belg* crops would perform good in the following months. Otherwise both the number of beneficiaries and duration of assistance might increase.

The rain after March was adequate for the growth of livestock feed and resulted in improved physical condition of livestock.

Market prices situation

The relief food distribution has contributed to the stability of grain prices in the area. However, Teff price has increased over time because people sell other crops to purchase Teff for home consumption.

Increase in the livestock prices was reported at the beginning of March 2000. Because farmers preferred fattening their cattle rather than taking to markets as livestock feed was available. Price of ox also increased due to oxen demand for traction. (See Annex I)

Socio-economic conditions

Major sources of food during the survey were relief food distribution and livestock products. The farmers earn cash income from the cash for work followed by sale of livestock and fuel wood.

Nutrition and human health

A total of 1182 children aged 6 to 59 months were measured in all PAs of the district except 4 PAs which were operational areas of other NGO. The result of the survey revealed that 16.5% of children were wasted (global acute malnutrition) and about 1.9% children were under severe acute malnutrition.

Compared to February 2000 survey result, the malnutrition status has declined significantly because of dry ration, supplementary food distribution, and cash for work. However, the malnutrition status is still very high and additional food to all children and vulnerable groups is recommended.

(See table below and Fig. 25)

	Global Acute Malnutrition				
District	Nov 98	May 99	Nov 99	Feb-00	May 2000
Tenta	18.7	24	23	21..5	16..5

3.3. OROMIA REGIONAL STATE

3.3.1. Adama and Boset districts

Rainfall crop and livestock conditions

Belg rain normally commences in early February in both districts. This year, however, it delayed for about eight weeks and started at the end of March. The districts have received a total amount of 175.70 mm of rain during the season.

However, the distribution and amount of the rain was below normal from last dekade of March to second dekade of April. This resulted in delay of land preparation and planting of long cycle *Meher* crop (maize). In addition, the area of land covered by maize was below normal due to moisture stress and delay of rain during planting. As a result, maize will be harvested eight weeks later than the normal harvesting period.

Maize plant was at the stage of germination and vegetative development, which should have been at grain filling stage. The plants have sown at a normal density and have green leaf color. However, in drought affected PAs the crop density was sparse due to shortage of seed.

The physical condition of livestock was poor, due to shortage of feed and water.

In both districts, there was production short fall by over 40% during *Meher*-99. Consequently, a total of 39,500 people in Adama (15,000) were identified as relief beneficiaries in January 2000 appeal and being assisted by WVE, Government and other NGOs. The assistance would continue

till *Mehe* harvest (December 2000) and the number of beneficiaries might increase due to complete failure of short maturing crops.

Market prices situations

Prices of food grains increased as of January 2000 due to short fall of *Meher 99* crop production and dread of *Belg* failure. On the other hand, livestock prices declined from February to April due to high supply of the livestock on market to purchase food grains. As a result, terms of trade declined across the months. (See Annex I)

Socio-economic conditions

Source of food has been changed from cereal production to purchased food in all sample peasant associations. Farmers earn cash income from sale of fuel wood, small animals, labor and loan from friends and relatives for the purchase of food grains.
Community members reduced frequency, quantity and quality of meals, sold livestock and fuel wood to cope with the drought situation.

Nutrition and human health

A total of 1117 children in Adama (619) and Boset (498) aged 6 to 59 months were measured. Accordingly, 9.5% of children were wasted (global acute malnutrition) and there were 1.3% children under severe acute malnutrition in Adama district. In Boset, 8.6% of children were wasted (global acute malnutrition) and 0.6% under severe acute malnutrition. Compared to November 1999 survey result, the global acute malnutrition level was high.

(See table below and Fig. 25)

Districts	Global acute malnutrition	
	Nov-99	May-00
Adama	6.5	9.5
Boset	6	8.6

Among the 15 sample PAs of the districts wasting level was above the cut off point in the following PAs, Wake Tiyo Mia (10.2%), Shenen Selassie (11.1%) and Kurfa Sloke (14.7%) in Adama district and Kachachule (10.5%), Bosie Dache (10.5%) and Boffa town (11%) in Bosset district

Malaria and measles epidemic were reported in both districts during the last three months.

3.3.2. Kersa kondaltiti district

Rainfall, crop and livestock conditions

Normally *Belg* rain commences at the beginning of February and ceases end of May. However, the *Belg* rain delayed by about eight weeks during the year. Actually it started on 30th of March and ceased in the first dekadee of May. The amount and distribution of rain received during the season was poor. A total of 136.2 mm of rain was received from April to May 2000.

Maize and sorghum were planted and not yet fully germinated. Land covered by maize and sorghum as compared to normal years was low. Farmers fear that these crops could wilt because of the prevailing moisture stress.

The physical condition of livestock was poor due to inadequate feed and water in the district. No livestock disease outbreak was reported during the survey.

Market prices situation

Grain prices slightly increased through out the period (Dec-99 to May-2000).
Livestock prices also increased during the same time due to the accessibility of the area to markets. As a result terms of trade increased up to March 2000 and then slowly declined due to higher increase in the prices of grains. (See Annex I)

Socio-economic conditions

The three major sources of food during the survey were own production, market purchases and loans from friends and relatives. Farmers earn cash income from

sale of firewood, labor, and brewing local drinks (*Areke* & *Tella*).

Nutrition and human health

A total of 685 children aged 6 to 59 months were measured in 13 sample PAs of the district. The level of global acute malnutrition was 6.1% and severe acute malnutrition was 0.7%. The nutritional status of the children has been constant since November 1998 with little variations.

(See table below and Fig. 25)

	Global Acute malnutrition			
District	Nov 98	May 99	Nov 99	May 2000
K/Kondaltiti	5.4	4.4	6.5	6.1

3.4 SOUTHERN NATIONAL STATE

3.4.1 Badawacho district

Rainfall, crop and livestock conditions

The onset of *Belg* rain was late almost by ten weeks as compared to the normal years and commenced in the third dekade of March. The amount and distribution of the rain was below normal throughout the season.

A total of 10,700 hectares of land was prepared for *Belg* 2000 and only 300 hectares (<3%) covered with Haricot bean. Complete failure of sweet potato (planted in Nov-99) and other short maturing crops, coupled with *Meher*-99 production shortfall, resulted in transitory food shortage in the dry mid highland parts of the district that covers over 28% of the PAs. Hence, the majority of the people living in this area need external assistance up to the *Meher* harvest (December 2000).

There was shortage of pasture in the area due to late onset of the *Belg* rain that resulted in weak physical condition of the livestock. No livestock disease outbreak was reported during the survey.

Market prices situation

Grain prices increased throughout the six months and that of livestock slightly declined. Therefore, terms of trade deteriorated. (See Annex I)

Socio-economic conditions

Market purchase (72.2%), own production (18.8) and loan from friends and relatives (9%) were the three major food sources during the survey. Farmers drive their cash income primarily from, sale of fire and construction wood (45.5%), sale of livestock (36%), petty trading and daily labor (18.5%).

The major food items in the district were Maize and Enset. The survey result also revealed that the frequency as well as the quantity and quality of food has deteriorated as compared to the normal years.

Nutrition and human health

A total of 996 children aged 6 to 59 months were measured in 11 sample PAs of the district. According to the result, 6.1% of the children were wasted (global acute malnutrition) while, 0.5% were under severe acute malnutrition. Compared to November 1999 result, the nutritional status of children was low, mainly because of the failure of sweet potato and Belg crop production.
(See table below and Fig. 25)

	Acute Global malnutrition			
district	Nov98	May 99	Nov 99	May 2000
Badawacho	6	11.6	3.9	6.1

Agroecologically, there was minor differences in global acute malnutrition level. In dry mid highland the wasting level was 7% while, it was 5.8 in moist mid highland. Two PAs from dry mid highland had global acute malnutrition above the cut off point.

No human epidemics were reported during the season except malaria cases in some dry mid highland PAs.

3.4.2. Soro district

Rainfall, crop and livestock conditions

The onset of *Belg* rain was late almost by nine weeks as compared to the normal years. It commenced in the first dekade of April and the amount of rain was also very low throughout the season.

Availability of water and pasture in the district was poor. As a result, the physical condition of livestock was weak. However, no livestock disease outbreak was reported during the survey.

Due to late onset of rain, *Belg* crop production that contributes about 30% of the annual production failed except for pocket areas that planted Irish potato in the highland parts of the district.

Low production during *Meher* 99 (20% decrease) failure of *Belg* crop production, and depleted food stock has resulted in acute food shortage in the district. The transitory food shortage could keep on up to *Meher* harvest (Dec-00). Hence, close monitoring of the area is of paramount importance.

Market prices situation

Grains price slightly increased through out the period (Dec-99 to May-2000). The price of ox also increased during the season. However, sheep prices fluctuated over months because of holidays. The terms of trade deteriorated through time.
(See Annex I)

Socio-economic conditions

Major sources of food items were, own production (37.5%), market purchase (35.4%), and others (27.1%).

Nutrition and human health

A total of 751 children aged 6 to 59 months were measured in 17 randomly selected PAs of the district. Accordingly, 11.9% of children were wasted (global acute malnutrition) and 0.7% severely malnourished. Compared to November 1999 survey result, there was an increase in malnutrition status due to the failure of *Belg* rain and depletion of food stock. The area needs regular surveillance to monitor the drought situation.
(See table below and Fig. 25)

district	Global Acute Malnutrition			
	Nov98	May 99	Nov 99	May 2000
Soro	8.6	17.7	4.7	11.9

No human epidemics were reported during the season.

3.4.3 Humbo and Sodo Zuria districts

Rainfall, crop &livestock conditions

The onset of *Belg* rain was late by about 7 weeks in all peasant associations of the two districts. It started in the first dekade of April. The amount and distribution of the rain was poor as compared to normal years. However, from April 26 to May 10 very high amount of rain was recorded in Humbo district that resulted in flood.

The *Belg* crop production has completely failed in both districts and farmers tried to cover the area by *Meher* crops. The area covered by major *Meher* crops was below normal because of inadequate rainfall during land preparation and planting. In addition lack of seed/planting materials, and weak physical condition of oxen severely affected the agricultural activities of the season. Maize was at vegetative stage instead of being in ripening stage.

Shortfall of *Meher*-99 production, failure of *Belg* 2000, and complete damage of sweet potato by insects during February 2000 placed the districts in the list of severely affected WVE operational areas. Besides, deterioration of *Enset* plants' (staple food) density in the area will seriously affect the food security of Sodo Zuria district in the future.

A total of 80,700 community members were identified as relief beneficiaries in January 2000 appeal. WVE and the Government have been assisting the beneficiaries. However, due to failure of sweet potato and other short maturing *Belg* crops, the number of relief beneficiaries will be much higher in both districts. The duration of assistance could extend up to *Meher* harvest (Dec-2000) as there will be no *Belg* harvest in the middle.

Late onset of *Belg* rain also resulted in shortage of pasture and water for livestock. Consequently, the physical condition of livestock was poor in both districts as compared to normal years.

The herd size of livestock has declined in all peasant associations as they were sold for the purchase of food grains. During the survey, livestock diseases such as trypanosomiasis Anthrax, Black leg and pastrolosis were reported in sodo zuria district.

Market prices situation

Grain prices increased during the last six months while that of livestock declined. Consequently, terms of trade deteriorated. (See Annex I)

Socio-economic conditions

The primary sources of food in the area during the survey were market purchase, *Enset* and relief food distribution. But in normal years, food crop production, milk and milk products and market purchases were major sources of food.

As copping mechanisms, farmers gathered wild plants, shared foods, borrowed money from friends and relatives, migrated to urban areas and relatives in other districts. The farmers earn cash income from sale of firewood, charcoal, grasses, live animals, labor and petty trading.

Nutrition and human health

A total of 3,117 children in Humbo (1506) and Sodo Zuria (1611) aged 6 to 59 months were measured in all PAs of the districts.

Accordingly, 8.2% of children were wasted (global acute malnutrition) and 1.3% were severely malnourished in Humbo district. In Sodo Zuria 16.4% of children were wasted out of which 2.5% were severely malnourished.

(See table below and Fig. 25)

	Global Acute Malnutrition				
Districts	Nov 98	May 99	No v99	Feb. 00	May 00
Humbo	8	19.5	8.2	9.6	8.2
Sodo Zuria	4	9.5	6.7	16.7	16.4

Epidemic diseases like malaria, dysentery and relapsing fever were reported during the survey in Sodo Zuria district.

3.4.4.Omosheleko, Kachabira & Kedida Gamela districts

Rainfall, crop & livestock conditions

The onset of *Belg* rain was late by over 9 weeks in the three districts. It commenced in the third dekadee of March. The amount and distribution of *Belg* rain was poor and uneven during the season.

Regardless of the late onset, poor amount and distribution of the *Belg* rain, farmers planted over 87% of the land planned for *Belg* crops. Maize, sweet potato, sorghum, barley and haricot beans were the major *Belg* crops grown in the three districts. *Belg* production contributes about 40% of the annual crop production in the area.

Belg crops performance was very poor as compared to normal years. The density of crops was sparse and 88% of sweet potato plant failed. Hence, the prospect of *Belg* crop production in the three districts was very low.

Meher-99 Production shortfall, lack of food stock, failure of sweet potato both planted in Nov–99 and *Belg* 2000, deteriorated terms of trade, and very low contribution of livestock products to family food sources because of weak physical conditions has placed the area in a critical food shortage.

January 2000 appeal estimated the number of beneficiaries in the two districts (Omo Sheleko and Kachabira) at 21,200 people.
The current situation in the three districts is entirely different from January 2000. Therefore, the number of people who need assistance for the coming months will be much higher than the Januarys' appeal.

Market prices situation

Grain price increased in the last six months due to depleted food stock. On the other hand, livestock prices declined through out the period. Hence, terms of trade deteriorated indicating low purchasing power of the farmers. (See Annex I)

Socio-economic conditions

Farmers sold their livestock, fuel wood and used tools, reduced food intake both in quantity and quality, borrowed cash from relatives, consumed un-preferred foods, participated in daily labor, migrated to adjacent areas and engaged in begging to cope with the disaster situation.

Wage rate was as low as two Birr per person per day. In 50% of the PAs surveyed, there was no on and off-farm employment.

Nutrition and human health

A total of 2223 children in Omosheleko (742), Kachabira (708), and Kadida Gamela (773) districts aged 6 to 59 months were measured in 22 randomly selected PAs. Accordingly, 23.3% of children in Omosheleko were wasted while the wasting levels were 17.4% and 17.2 in Kachabira and Kadida Gamela districts respectively.

The malnutrition level in the districts was very high compared to Nov-99 survey result. (See table below and Fig. 25)

District	Globa acute malnutrition	
	Nov 99	May 2000
Omo sheleko	15.3	23.3
Kachabira	10.2	17.4
K/Gamilla		17.2

District health office reported that the malaria outbreak in Le-zembera and Osheto PAs (Omo sheleko district) resulted in 11 death in Le-zembara PA.

3.4.5. Boreda Abaya & Chencha districts

Rainfall, crop & livestock conditions

Onset of the *Belg* rain was late by over 6 weeks in both districts, whereas its cessation was 2 weeks ahead of the normal time. The rain was inadequate and poorly distributed.

Belg crop production contributes 40-60% of the total annual production in the districts. Though 70% of the area prepared for *Belg* season was covered by different *Belg* crops, the development stage of the crops was below normal.
Flood disaster was reported in Boreda Abaya district that damaged over 140 hectares of land covered by *Belg* crops

Meher–99 production shortfall (by over 24%), failure of sweet potato, late *Belg* rain that resulted in late planting of early maturing crops, and flood disaster has placed the districts in a transitory food shortage. A total of 31,400 people were identified as relief beneficiaries during the January appeal. WVE and the government have been assisting the community members through relief food distribution in Boreda Abaya and Chencha districts.

As the lake Abaya is the major sources of water for livestock, there was no water problem in Boreda Abaya district. However, in some highland areas there was significant

shortage of water for livestock till the onset of the *Belg* rain. Availability of pasture was similar to the normal time and physical condition of the livestock was normal.

Nevertheless, in some PAs of Chencha district the physical condition of livestock was below normal due to delayed *Belg* rain. No livestock epidemic was observed in the area during the survey.

Market prices situation

Grain prices significantly increased over the last five months (January to May). This was largely attributed to the production shortfall of *Belg* & *Meher-99* and depletion of food stock.

On the other hand, price of ox kept decreasing up to March 2000 and increased after April because of the high demand for traction. However, terms of trade declined due to higher increase in the prices of grains than that of livestock. (See Annex I)

Socio-economic conditions

Relief food distribution, market purchases and own production (in PAs where there was irrigation) were the major food sources during the survey in Boreda Abaya district. Non-irrigation users drive their cash income from sale of firewood, labor, and livestock whereas the irrigation users still had chance to sell their banana in Boreda Abaya district.

Nutrition and human health

A total of 1486 children aged 6 to 59 months were measured in Boreda Abaya and Chencha districts. The analysis showed that 5.3% of children were wasted (global acute malnutrition) and 0.5% were severely malnourished in Boreda Abaya. In Chencha, 7% of children were wasted and 0.8% were severely malnourished. The nutritional status of children improved as compared to Nov-99 in Boreda Abaya district due to relief food distribution.

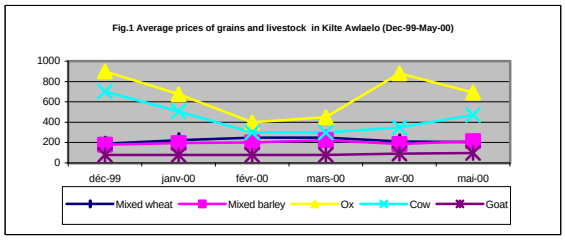
(See table below and Fig. 25)

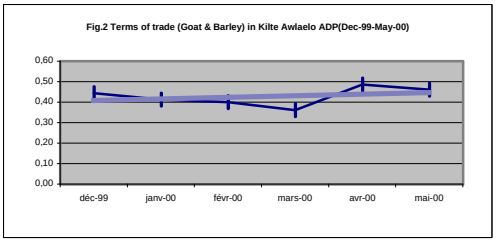
Districts	Global acute malnutrition	
	Nov-99	May-2000
Boreda Abaya	7.9	5.3
Chencha	5.7	7

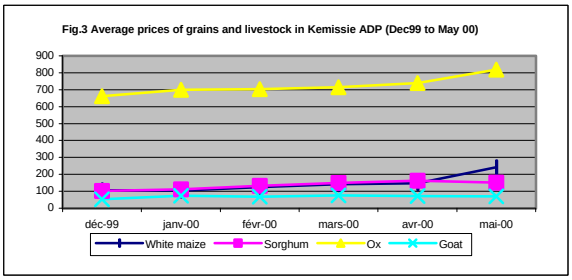
Agro-ecologically, the level of malnutrition seems better in the lowland areas.

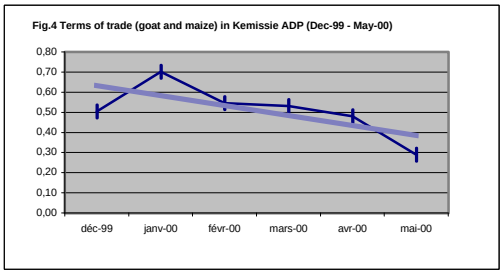
No human epidemic was reported during the survey.

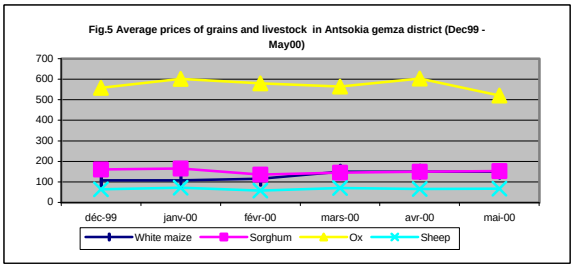
Annex I Average prices of major grains & livestock and Terms of trade by ADP

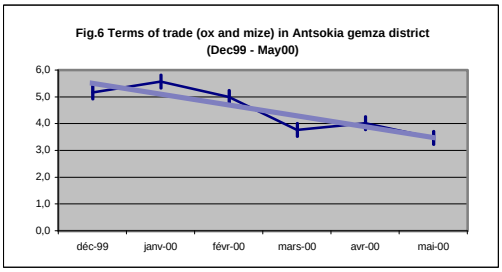


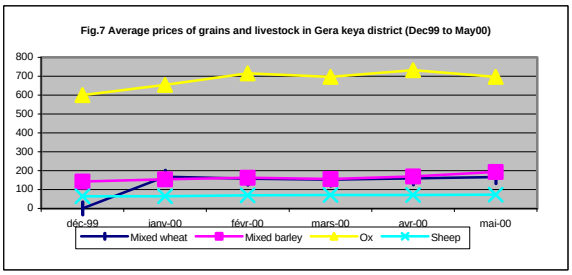


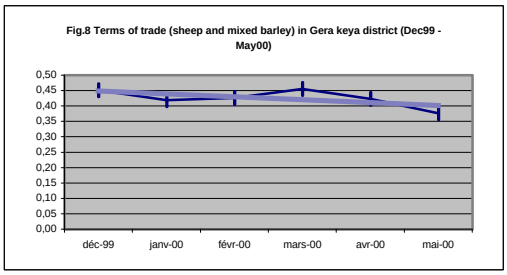


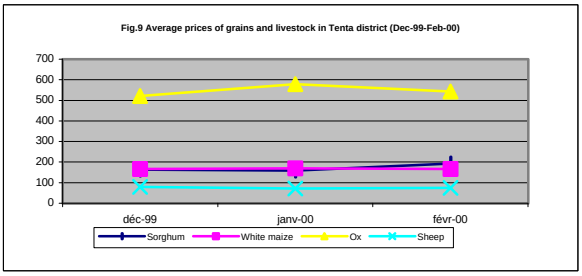


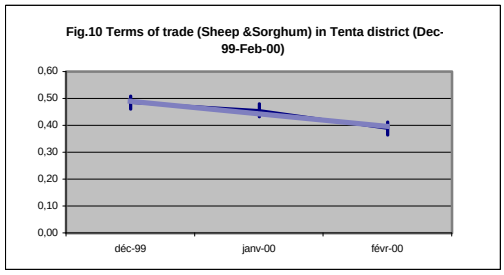


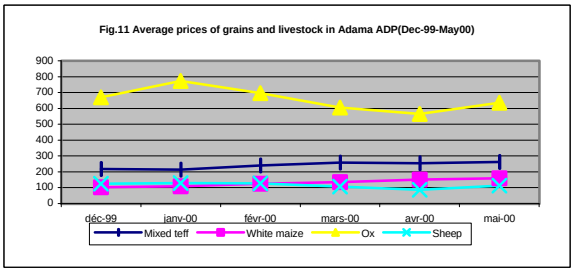


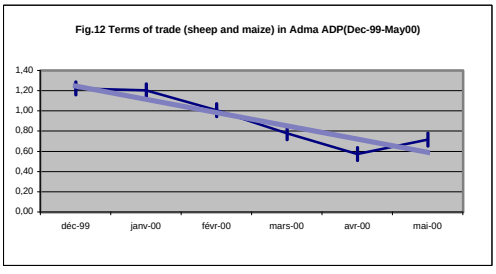












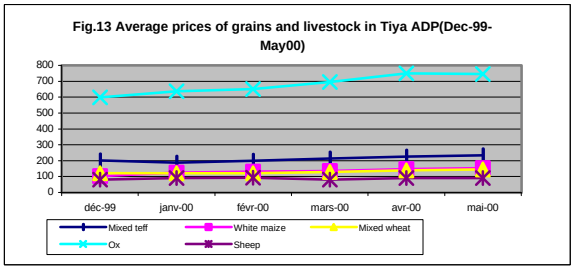


Fig.13 Average prices of grains and livestock in Tiya ADP(Dec-99-May00)
800
700
600
500
400
300
200
100
0
déc-99
janv-00
févr-00
mars-00
avr-00
mai-00
Mixed teff
White maize
Mixed wheat
Ox
Sheep

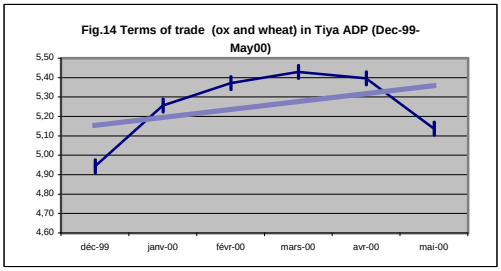


Fig.14 Terms of trade (ox and wheat) in Tiya ADP (Dec-99-May00)
5,50
5,40
5,30
5,20
5,10
5,00
4,90
4,80
4,70
4,60
déc-99
janv-00
févr-00
mars-00
avr-00
mai-00

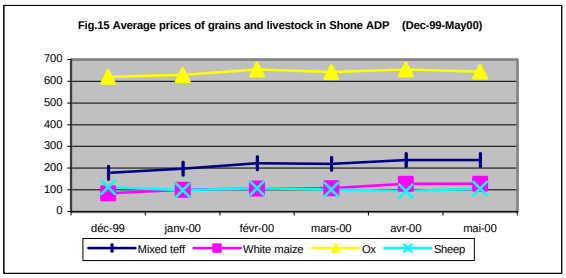


Fig.15 Average prices of grains and livestock in Shone ADP (Dec-99-May00)
700
600
500
400
300
200
100
0
déc-99
janv-00
févr-00
mars-00
avr-00
mai-00
Mixed teff
White maize
Ox
Sheep

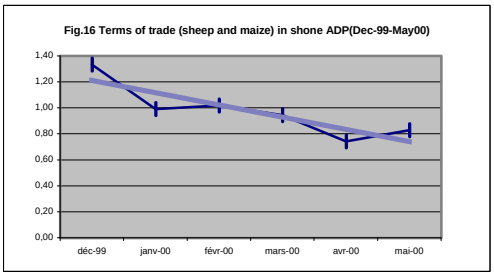


Fig.16 Terms of trade (sheep and maize) in shone ADP(Dec-99-May00)
1,40
1,20
1,00
0,80
0,60
0,40
0,20
0,00
déc-99
janv-00
févr-00
mars-00
avr-00
mai-00

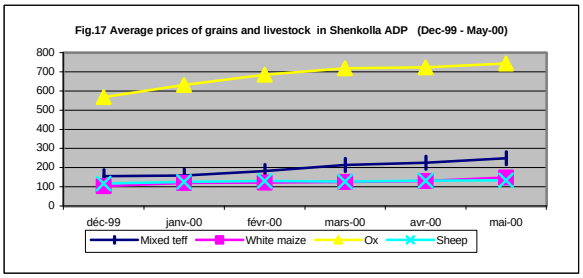


Fig.17 Average prices of grains and livestock in Shenkolla ADP (Dec-99 - May-00)
800
700
600
500
400
300
200
100
0
déc-99
janv-00
févr-00
mars-00
avr-00
mai-00
Mixed teff
White maize
Ox
Sheep

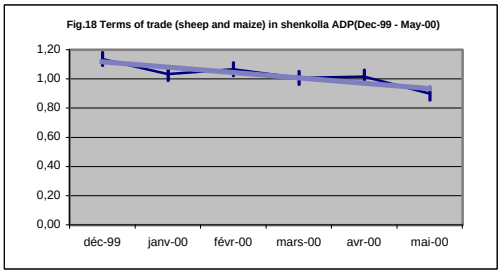


Fig.18 Terms of trade (sheep and maize) in shenkolla ADP(Dec-99 - May-00)
1,20
1,00
0,80
0,60
0,40
0,20
0,00
déc-99
janv-00
févr-00
mars-00
avr-00
mai-00

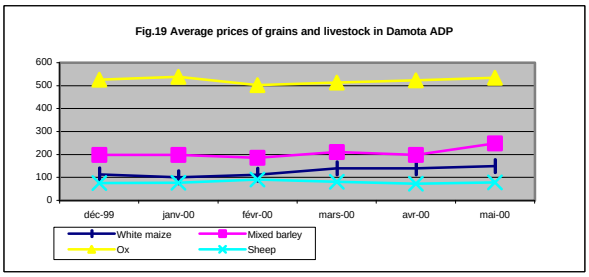


Fig.19 Average prices of grains and livestock in Damota ADP
600
500
400
300
200
100
0
déc-99
janv-00
févr-00
mars-00
avr-00
mai-00
White maize
Mixed barley
Ox
Sheep

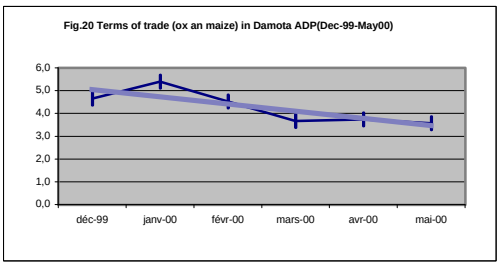


Fig.20 Terms of trade (ox an maize) in Damota ADP(Dec-99-May00)
6,0
5,0
4,0
3,0
2,0
1,0
0,0
déc-99
janv-00
févr-00
mars-00
avr-00
mai-00

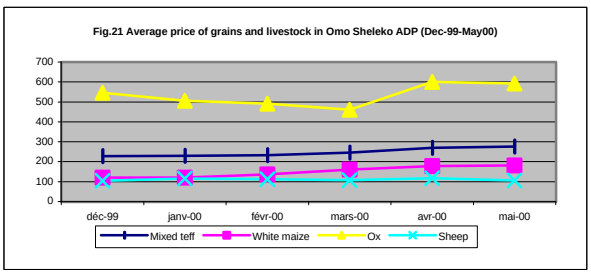


Fig.21 Average price of grains and livestock in Omo Sheleko ADP (Dec-99-May00)
700
600
500
400
300
200
100
0
déc-99
janv-00
févr-00
mars-00
avr-00
mai-00
Mixed teff
White maize
Ox
Sheep

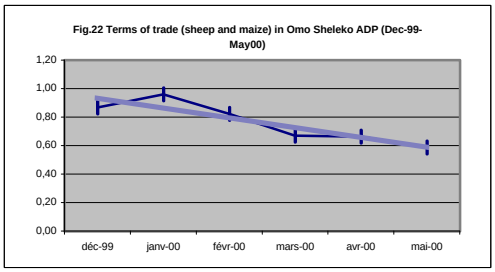


Fig.22 Terms of trade (sheep and maize) in Omo Sheleko ADP (Dec-99-May00)
1,20
1,00
0,80
0,60
0,40
0,20
0,00
déc-99
janv-00
févr-00
mars-00
avr-00
mai-00

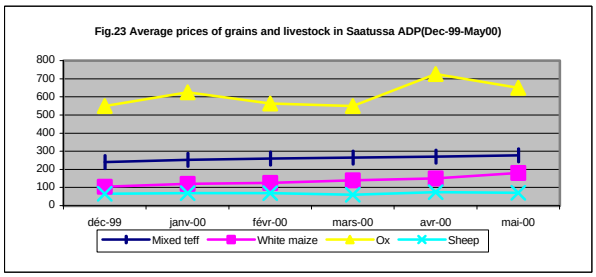


Fig.23 Average prices of grains and livestock in Saatussa ADP(Dec-99-May00)
800
700
600
500
400
300
200
100
0
déc-99
janv-00
févr-00
mars-00
avr-00
mai-00
Mixed teff
White maize
Ox
Sheep

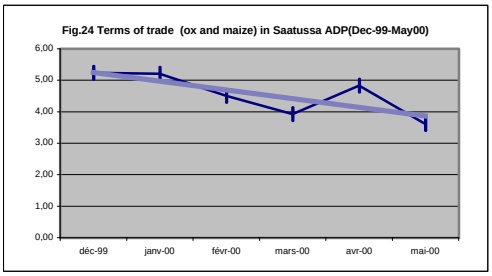


Fig.24 Terms of trade (ox and maize) in Saatussa ADP(Dec-99-May00)
6,00
5,00
4,00
3,00
2,00
1,00
0,00
déc-99
janv-00
févr-00
mars-00
avr-00
mai-00

Annex II Summarry of May 2000 weight for height Z score as compared to Previouse survey results

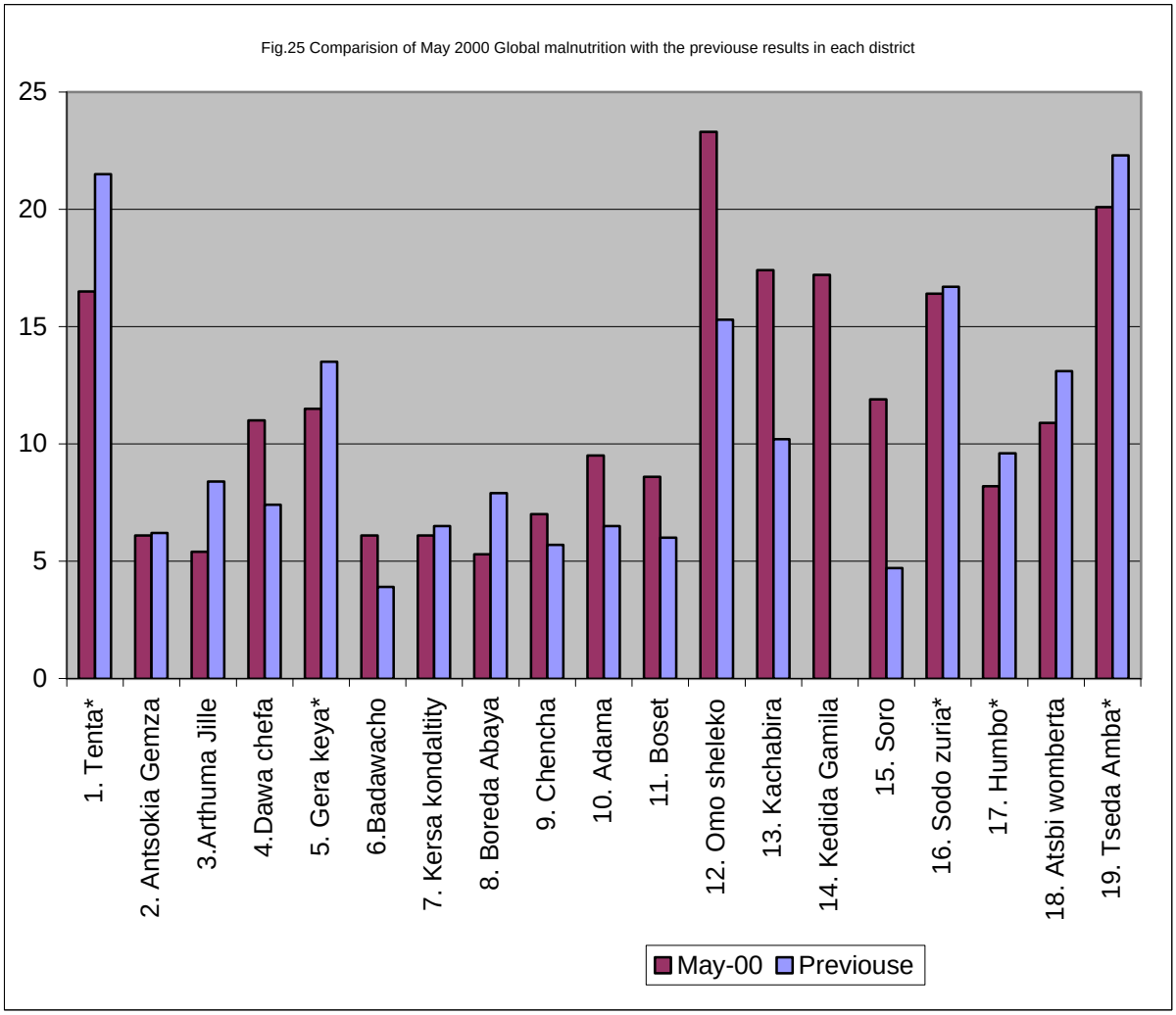
Woreda/District	ADPs (Project Sites)	Severely malnurished =<-3.01 SD		Moderately malnurished		Global malnutrition <'-2.00	
		Previouse	mai-00	Previouse	mai-00	Previouse	mai-00
1. Tenta*	Adjibar	2,9	1,9	18,6	14,6	21,5	16,5
2. Antsokia Gemza	Antsokia I	NA	0,5	NA	5,6	6,2	6,1
3.Arthuma Jille	Antsokia II	0,9	0,4	7,5	5	8,4	5,4
4.Dawa chefa	Antsokia II	1,2	1,1	6,2	9,9	7,4	11
5. Gera keya*	Mehal Meda	1,7	0,5	11,8	11	13,5	11,5
6.Badawacho	Shone	0,6	0,5	3,3	5,6	3,9	6,1
7. Kersa kondaltity	Tiya	0,5	0,7	6	5,4	6,5	6,1
8. Boreda Abaya	Saatussa	1,9	0,5	6,1	4,7	7,9	5,3
9. Chencha	Saatussa	0,3	0,8	5,4	6,2	5,7	7
10. Adama	Adama	1,6	1,3	4,9	8,2	6,5	9,5
11. Boset	Adama	0	0,6	6	8	6	8,6
12. Omo sheleko	Omo sheleko	1,1	2,96	14,3	20,35	15,3	23,3
13. Kachabira	Omo sheleko	0,8	2,78	9,4	14,78	10,2	17,4
14. Kedida Gamila	Omo sheleko	New	1,3	New	15,9	New	17,2
15. Soro	Shenkolla	1,1	0,7	3,6	11,2	4,7	11,9
16. Sodo zuria*	Damota II	NA	2,5	NA	13,9	16,7	16,4
17. Humbo*	Damota I	NA	1,3	NA	6,9	9,6	8,2
18. Atsbi womberta	Kilte Awlaelo	NA	2,6	NA	8,3	13,1	10,9
19. Tseda Amba*	Kilte Awlaelo	3,7	4,4	18,6	15,7	22,3	20,1

Definitions:

1. Global malnutrition: moderate malnutrition +severe malnutrition : Z- score <-2.00 SD
2. Moderate malnutrition :Z score -3.00 to -2.01 SD
3. Severe Malnutrition: Z-score <=-3.01 SD
4. Normal children: Z-score >=-2.00 SD

* February 2,000 results were taken as previouse results, for other previouse results are Nov-99
For other districts November 1999 result was taken as previouse results
NA = data not available
NEW = Districts newley included in WVE operational areas.

Fig.25 Comparision of May 2000 Global malnutrition with the previouse results in each district



Annex IV Wasting /Global acute malnutrition, Stunting and Underweight by District Compared to preeviouse surveys

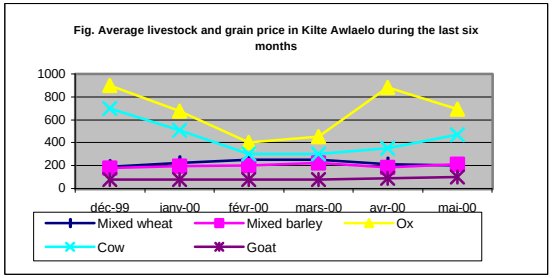
			# of children	Z-Score <-2SD Global Acute Malnutrition/wasting			Z-Score <-2SD Stunting		Z-score <-2SD Underweight	
No	ADP Name	Woreda Name	May 2000	Nov.99	Feb*. 2000	May 2000	Nov.99	May 200	Nov.99	May 2000
1	K. Awlaelo	Atsbi Womberta	685		13.1	10.9		68.3		59.1
		Tsede Amba	1412		22.3	20.1		45.3		55.2
2	Ajibar	Tenta	1182	23	21.5	16.5	33.7	39.2	46.5	47.8
3	Mehal Meda	Gera Keya	1050	13.5	13.5	11.5	42.9	65.7	47.9	64.8
4	Antsokia I	Antskia Gemza	783	6.2		6.1	54.6	49.6	41.1	41.5
5	Antsokia II	Dawa Cheffa	756	7,4		11	36.3	39.0	35.7	41.8
		Arthuma Jille	756	8,4		5.4	40.3	39.7	36	27.9
6	Tiya	Kersa Kondaltiti	685	6.5		6.1	48.4	45.0	44	42.8
7	Adama	Adama	619	6.5		9.5	40.5	40.7	37.5	42.8
		Boset	498	6.0		8.6	47.5	43.8	41.5	38.6
8	Shone	Bada Wacho	996	3.9		6.1	44	44.9	32.1	38.5
9	Damota	Humbo	1506	8.2	9.6	8.2	22.1	26.9	26.8	27.0
		Sodo Zuria	1611	6.7	16.7	16.4	38.7	34.5	30.1	40.3
10	Saatusa	Boreda Abeya	739	7.9		5.3	44.1	43.9	32.0	32.8
		Chencha	747	5.7		7.0	71.2	55.2	53.2	43.7
11	Omosheleko	Omosheleko	742	15.3		23.3	30.4	33,6	34.7	47,8
		Kachabira	708	10.2		17.4	25.4	38	29.3	42,9
		**Kadida Gamella	773			17.2		35,7		43,7
12	Shenkolla	Soro	751	4.7		11.9	41	60.2	33,4	57.9
	Total		16999							

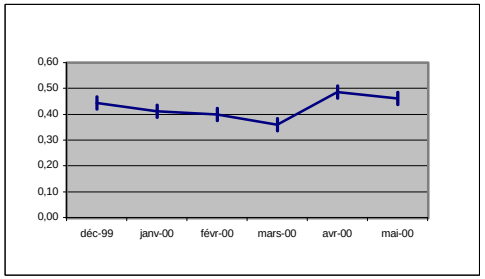
* Only six Woredas with critical malnutrition had nutrition survey in Febuary

* * New Woredas with phase in program

Kilte Awlaelo

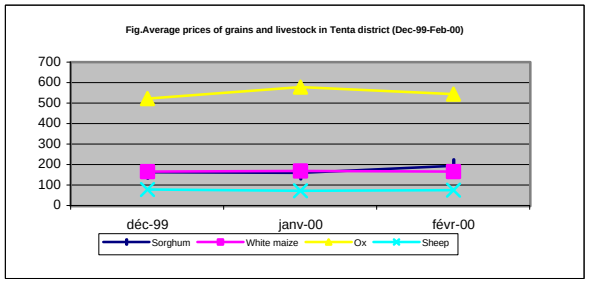
	Grain Price				Livestock Pricce		
	Mixed whea	Mixed barley	Ox	Cow	Sheep	Goat	
déc-99	188	180	900	700		80	0,44
janv-00	223	194	675	506		80	0,41
févr-00	250	200	400	300		80	0,40
mars-00	250	222	450	300		80	0,36
avr-00	210	185	880	350	100	90	0,49
mai-00	203	215	691	472	101	99	0,46

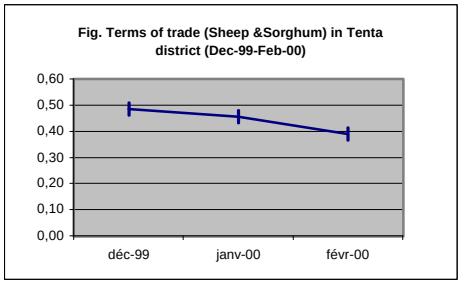




Ajibar

	Sorghum	White maize	Mixed wheat	Mixed barley	Ox	Cow	Sheep	Goat	Terms of trade
déc-99	163	166	206	192	521	234	79	69	0,48
janv-00	158	169	184	169	579	246	72	62	0,46
févr-00	193	167	181	169	543	221	75	65	0,39

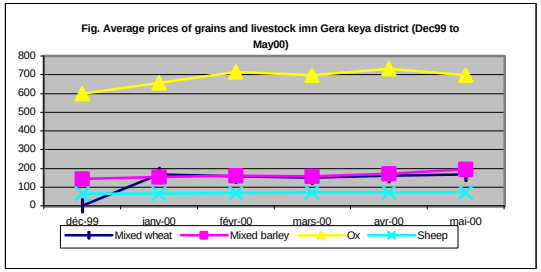


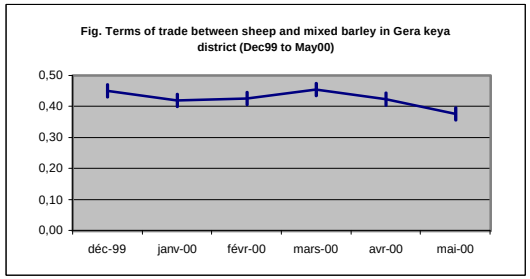


Mehal Meda

oct-99	200		177	180	615	462	65		
nov-99	191			163	613	419	65		
déc-99	198		####	142	600	419	64		
janv-00	213		168	155	655	482	65		
févr-00	214		158	162	716	526	69		
mars-00	207		152	156	697	528	71		
avr-00	218		160	170	732	525	72		
mai-00	216		166	194	696	479	73	56	
juin-00									
juil-00									
août-00									
sept-00									
oct-00									
nov-00									
déc-00									

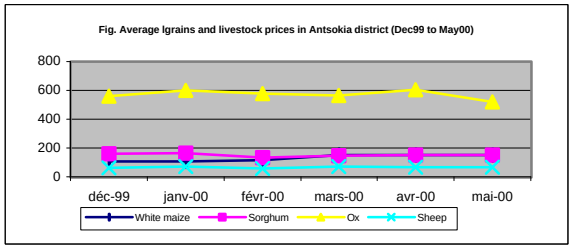
	Grain Price				Livestock Pricce			
	Mixed tef	White maiz	Mixed whea	Mixed barle	Ox	Cow	Sheep	
déc-99	198		#REF!	142	600	419	64	0,45
#####	213		168	155	655	482	65	0,42
févr-00	214		158	162	716	526	69	0,43
#####	207		152	156	697	528	71	0,46
avr-00	218		160	170	732	525	72	0,42
mai-00	216		166	194	696	479	73	0,38

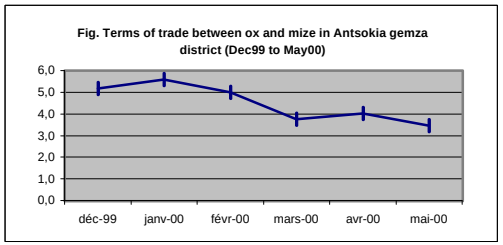




Antsokia I

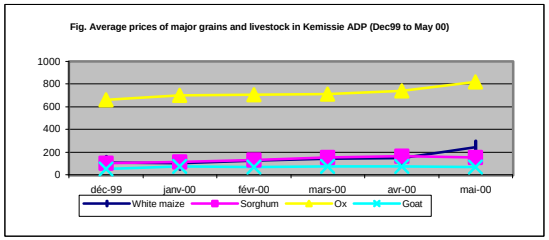
	Grain Price				Livestock Pricce			Terms of trade
	Mixed teff	White maize	Mixed wheat	Sorghum	Ox	Cow	Sheep	TOT/Ox - maize
déc-99	192	108	183	161	558	350	64	5,2
janv-00	216	108	184	166	602	369	72	5,6
févr-00	220	116	117	135	580	380	58	5,0
mars-00	246	150	201	145	565	347	70	3,8
avr-00	248	150	196	150	603	353	66	4,0
mai-00	244	150	209	153	520	350	67	3,5

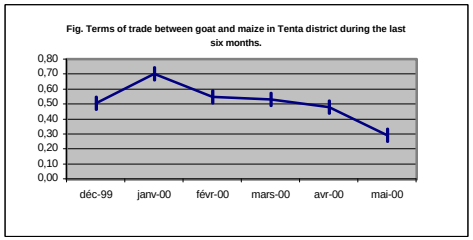




Antsokia II

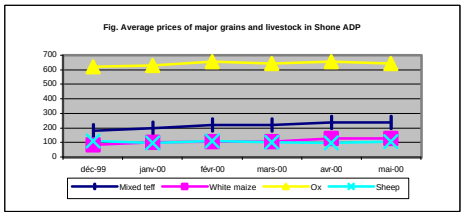
	Grain Price				Livestock Pricce				Terms of tr Goat/maize
	Mixed teff	White maize	Sorghum	Mixed barley	Ox	Cow	Sheep	Goat	
déc-99	200	105	103		662	375	48	53	0,50
janv-00	206	104	111		700	460	77	73	0,70
févr-00	225	125	132	0	704	485	69	68	0,55
mars-00	253	141	150		714	606	78	75	0,53
avr-00	240	148	163		740	500	74	71	0,48
mai-00	242	242	151		818	500	69	70	0,29

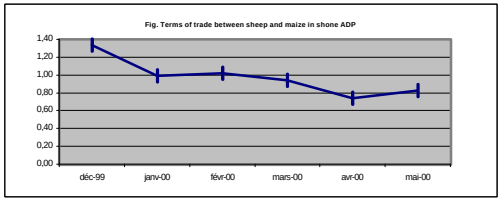




Shone

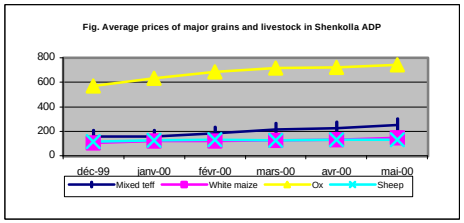
	Grain Price				Livestock Pricce				Terms of trade Sheep/white maize
	Mixed teff	White maize	Mixed wheat	Mixed barley	Ox	Cow	Sheep	Goat	
déc-99	179	84	162	192	620	338	112	104	1,33
janv-00	197	100	155	201	630	331	99	101	0,99
févr-00	222	106	150	194	655	339	108	111	1,02
mars-00	220	107	169	193	643	346	101	105	0,94
avr-00	238	128	167	189	655	342	95	99	0,74
mai-00	237	128	171	232	644	329	106	114	0,83

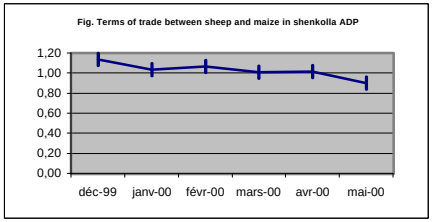




Shenkolla

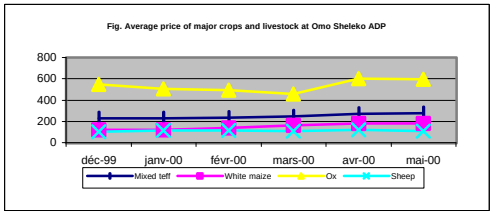
	Grain Price				Livestock Pricce				Terms of trade/shep/maize
	Mixed teff	White maize	Mixed wheat	Mixed barley	Ox	Cow	Sheep	Goat	
déc-99	155	103	116		568	295	117	101	1,14
janv-00	158	121	120		631	353	125	104	1,03
févr-00	182	122	136		685	472	130	130	1,07
mars-00	213	126	162		718	450	127	113	1,01
avr-00	225	130	184		724	430	132	117	1,02
mai-00	249	148	175		743	430	133	116	0,90

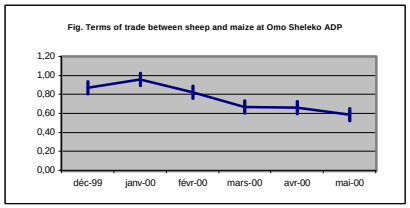




Omo

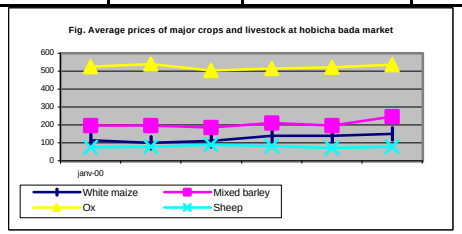
	Grain Price				Livestock Pricce			Terms of trade
	Mixed teff	White maize	Mixed wheat	Mixed barley	Ox	Cow	Sheep	Sheep/maize
déc-99	228	120	167	192	546	414	104	0,87
janv-00	229	121	164		506	343	116	0,96
févr-00	232	136	196	181	491	326	112	0,82
mars-00	245	160	217		460	314	107	0,67
avr-00	270	178	210		600	328	118	0,66
mai-00	276	181	234		593	329	106	0,59

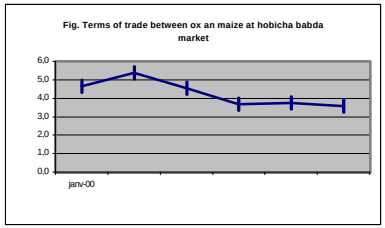




Damota I

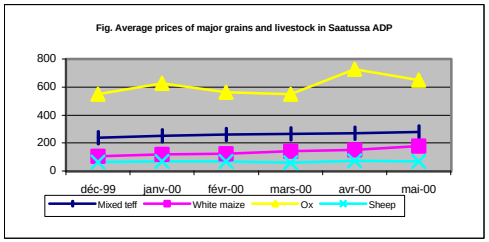
Grain Price				Livestock Pricce				Terms of trade
Mixed teff	White maiz	Mixed wheat	Mixed barley	Ox	Cow	Sheep	Goat	
191	113	191	198	526	406	76	66	4,7
217	100	185	198	539	405	77	68	5,4
197	111	180	186	503	375	91	62	4,5
224	140		211	513	378	81	66	3,7
215	140	160	198	523	358	72	64	3,7
242	150		248	535	310	78	73	3,6

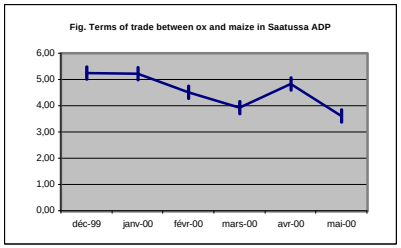




Saatussa

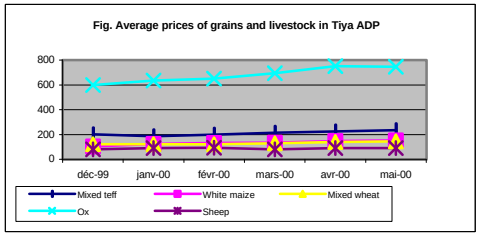
	Grain Price				Livestock Pricce				TOT/Ox/maize
	Mixed teff	White maize	Mixed wheat	Mixed barley	Ox	Cow	Sheep	Goat	
déc-99	240	105	178	105	550	400	65	60	5,24
janv-00	253	120	180	115	625	390	68	60	5,21
févr-00	260	125	183	125	563	425	68	63	4,50
mars-00	265	140	175	130	550	340	60	60	3,93
avr-00	270	150	191	140	725	375	75	73	4,83
mai-00	278	180	205	148	650	325	70	65	3,61

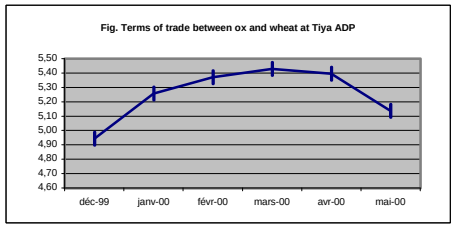




Tiya

	Grain Price				Livestock Pricce				ToT/ox/wheat
	Mixed teff	White maize	Mixed wheat	Mixed barley	Ox	Cow	Sheep	Goat	
déc-99	202	103	121		598	400	80	73	4,94
janv-00	187	125	121		636	403	91	73	5,26
févr-00	199	131	121		650	428	92	77	5,37
mars-00	213	135	128		695	433	80		5,43
avr-00	225	147	139		750	435	91	78	5,40
mai-00	234	153	145		745	430	90		5,14





Adama

	Grain Price				Livestock Pricce				TOT/Sheep/maize
	Mixed teff	White maize	Mixed wheat	Mixed barley	Ox	Cow	Sheep	Goat	
déc-99	218	103	174	147	670	543	126	98	1,22
janv-00	214	108	170	142	772	616	130	103	1,20
févr-00	241	126	178	155	697	634	127	104	1,01
mars-00	259	136	185	156	606	495	106	91	0,78
avr-00	255	152	194	170	565	425	87	73	0,57
mai-00	263	159	228	187	636	513	114	90	0,72