

Multi-Sectoral Meher Assessment Final Report Tigray Region, Food and Agriculture

ASSESSMENT PERIOD COMPLETED 20 Nov - 10 Dec 2023

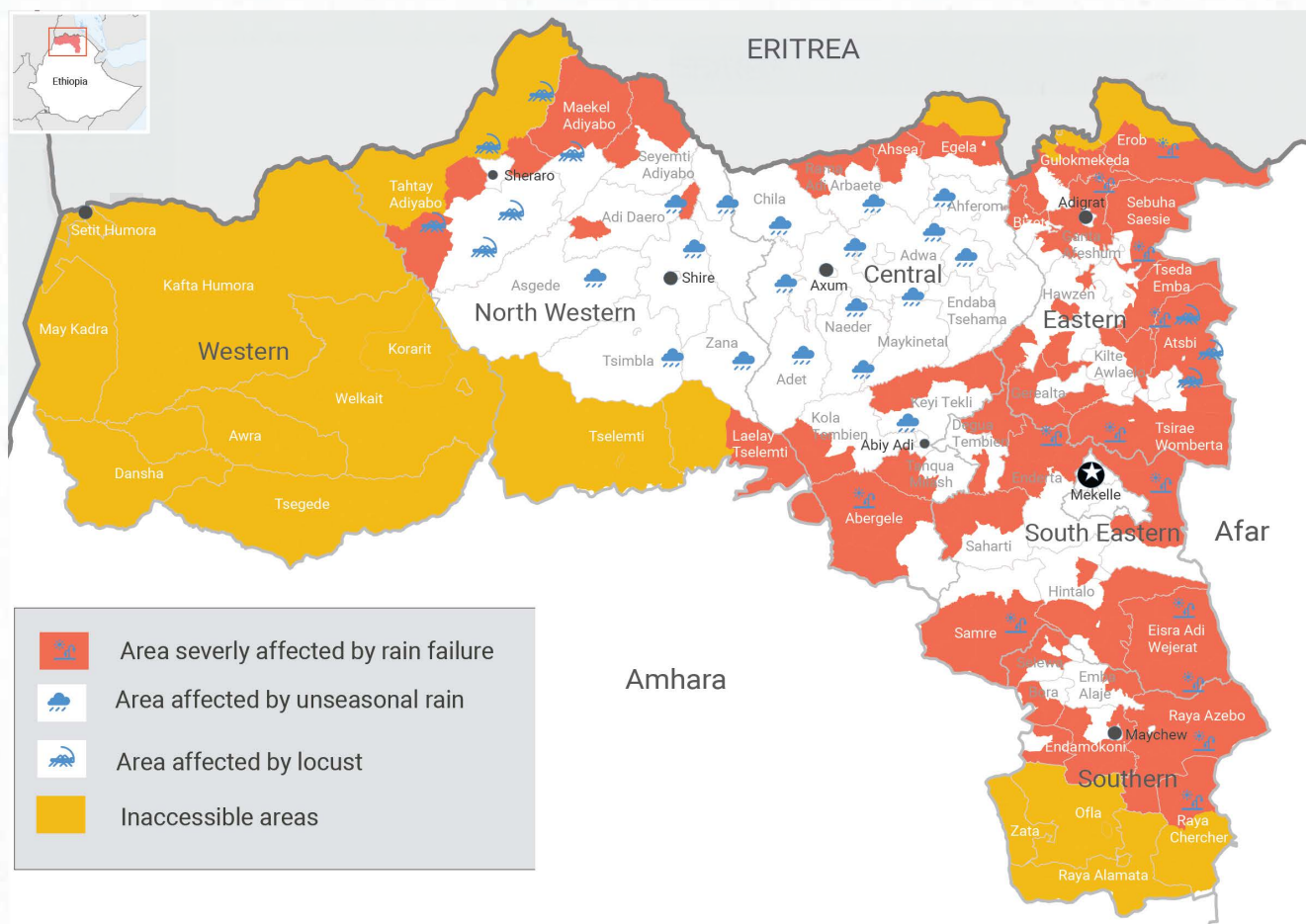


Figure 1: Map of Tigray region with severely affected woredas by the major hazards.



Region Name: Tigray

Date assessment started and completed: December 20 to 10, 2023.

List of organization participated:





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ACCRONYMS

HRP	Humanitarian Response Plan.
DTM	Displacement Tracking Matrix
IOM	International Organization for Migration
PSNP	Productive Safety net Program
EDRMC	Ethiopia Disaster Risk Management Commission
WFP	World Food Program
FAO	Food and Agriculture Organization
UNCHR	United Nations High Commission for Refugees
WHO	World Health Organization
OCHA	<i>Office for the Coordination of Humanitarian Affairs</i>
NGOs	Non-Government Organizations
CRS	Catholic Relief Service
WVI	World Vision International
REST	Relief Society of Tigray
CWW	Concern Worldwide
FHI	Food for the Hungry International
MWoR	Ministry of Water Resources
DRMC	Disaster Risk Management Commission
TBoANR	Tigray Buruea of Agriculture and Natural Resources.
TNMA	Tigray National Meteorology Agency
TRWDB	Tigray Regional Water Development Buruea
TBOE	Tigray Bureau of Education
WASH	Water Hygiene and Sanitation
IDP	Internally Displaced People
UN	United Nations
HEA	Household Economic Analysis
FGD	Focus Group Discussion
KII	Key Informant Interview
UCSB	
CHIRPS	
USSG	
UREA	
NPS	
ETB	Ethiopian Birr
USD	United Stats Dollar
CSA	Central Statistics Agency
TOR	Terms of Trade.
EDM	
RVL	
EP	
EM	
MTC	
TSC	
RVL	
TSC	
JEOP	Joint Emergency Operation Program
USAID	United States Agency for International Development
PWD	People with Disabilities
CSB	
GAM	Global Acute Malnutrition
SMART	
HRD	



VBT
LEAP
LIAS
DRM

Vulnerability Based Targeting

Disaster Risk Management



1. INTRODUCTION AND OBJECTIVES

1.1. Introduction

Agriculture remains the mainstay of the Tigray population with over 80% of its population dependent on agriculture for food and livelihood income and the region is divided into 16 livelihoods zone (HEA, 2016). However, the conflict which erupted in November 2020 has severely affected the agriculture livelihoods with major inflicts on infrastructure, loss of assets, mass livestock disease outbreak, and population displacement. Over 2.5 million of the people were displaced and still about one million of them remain displaced (IOM/DTM 34) while over 1.5 million returned with no support who live in precarious conditions.

The Tigray region is currently facing a complex humanitarian crisis, with an alarming increase in food insecurity and loss of livelihoods, because of the cumulative effects of the two years of armed conflict and the current effects of El Niño. There is current metrological, hydrological, and socioeconomic drought in the region.

The region had about 1.1 million people who have been part of the productive safety net (PSNP) beneficiaries. This number has increased exponentially to over 5.2 million following the conflict in 2020. The humanitarian needs have been increasing throughout for the past three years due to mix of hazards mainly the conflict, drought, and crop pests and disease. While humanitarian needs continue to increase, there were limited rounds of food support in terms of social SafetyNet and emergency relief supports. Many of the existing close to one million IDPs reside with the host community and collective sites in schools mainly in towns (Shire, Axum, Adwa, Adigrat, Abiy Adi and Mekelle) and other government institutes and camps in Sudan. Moreover, influx of new IDPs triggered by fear of conflicts and the drought has continued.

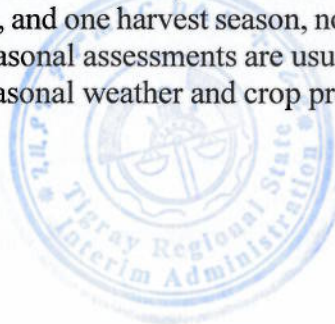
The two years of conflict have resulted in inadequate access to food and income sources due to their significant disruptions to basic services and the agriculture sector in terms of damage and disruption of assets, damage to the irrigation infrastructure, livestock loss (looting, slaughtering and killings), and abilities of farmers' production. In addition to the consequences of poor rain performance and input utilization, the impact of the war crisis has significantly affected seasonal production and disrupted access to seed, extension support and human capital, and asset limitations.

The coping mechanisms mainly sale of livestock assets, migration, social local and religious community support and remittance were largely sprinkled as main coping mechanisms throughout the region.

Since the signing of the peace agreement, recent political changes have encouraged the people to produce, access, and consume diversified nutritious food. Normal agricultural activities have been underway with the support of the government at all levels and humanitarian communities.

However, the current year's agriculture experienced weather with significant moisture stress, which was derived from the effects of El Niño in which the major rainfall season (Tsediya) was much below average. Rain was erratic, especially in most areas of the Southern, South Eastern, Eastern, and Tekeze livelihood areas of the region.

Tigray region used to have a bimodal rainfall season namely March to May (Azmera) and June to September (Tsediya), two planting seasons, and one harvest season, normally occurring from November to December. The multiagency seasonal assessments are usually conducted in these peak harvest periods and aim to assess the seasonal weather and crop production and the effect



of the weather on the overall sectors and incorporate the humanitarian requirements into the next harvest season.

The 2023/24 Multi-Agency Assessment led by EDRMC and involving partners was conducted between 21 November to 10 December 2023 in Central, Parts of Southern, Southeastern, and Eastern zones of the region. The Western zone and several woredas in Eastern, Southern, Central and North Western zones were not accessible for primary data collection due to security concerns. However, data from inaccessible areas has been included from alternative sources.

The assessment team was composed of regional and federal-level government sector bureaus, NGOs, and UN agencies. The participant organizations and bureaus has included UN agencies, NGOs, and federal ministries and regional and zonal bureaus (Anex 1).

The overarching objective of the assessment is to investigate the Impact of Multiple Shocks on Households' Lives and Livelihoods. To that end, four sub-teams were deployed to five zones which were able to cover selected 22 Meher growing woredas and 27 Tabias. Sample of 22 woredas and 27 Tabias were selected to evaluate the performance and distribution (spatial and temporal) of rains in terms of impact on crop and livestock production, livelihoods including health, education, protection, WASH to estimate need of food and nonfood humanitarian assistance.

This seasonal assessment report comprises findings that provide input for 2024 HRP on food and agricultural requirements. The assessment also aims to propose the needy population in terms of relief food and agricultural inputs.

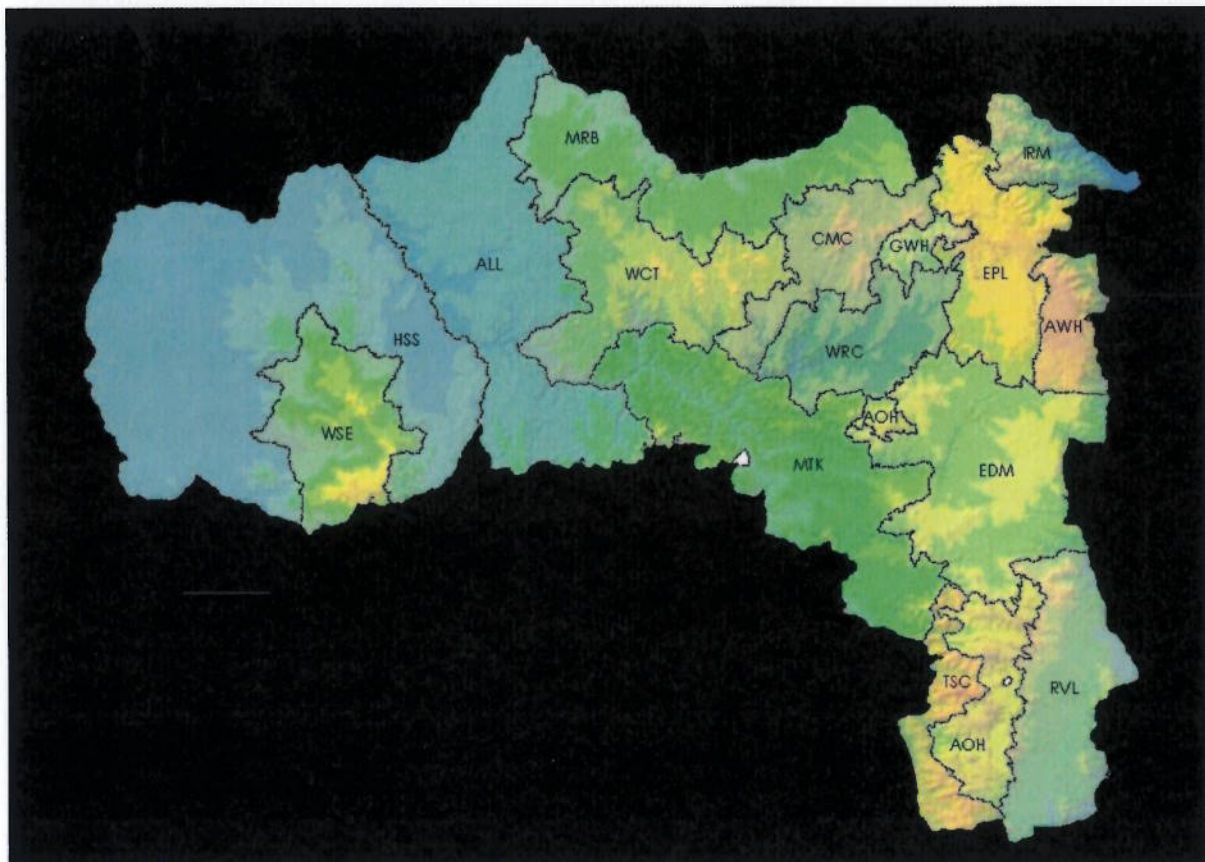


Figure 2: Tigray Map divided with 16 livelihoods (HEA 2016)



1.2. Objectives of the seasonal assessment

1.2.1. General objective

The seasonal assessment's objectives are to analyze Meher season production and its influence on food and nutrition security and livelihoods in the zone, as well as to offer input for HRP 2024.

1.2.2. The specific objectives.

- Identify woredas that will require relief help because of hazard-induced catastrophes and estimate the amount of the people in need and the period of support required in those woredas.
- To assess emergency agricultural interventions such as seeds, livestock feed, livestock medications and vaccines, commercial and slaughter destocking, as well as the type, magnitude, and duration of the intervention.
- To assess emergency and early recovery agricultural, health, and water interventions such as seeds, livestock vaccines, medicines, and feed support, as well as health and water needs - including the type, size, and length of intervention.
- To assess the Meher season's outcome and its impact on livelihood security.

1.3. Terms of reference

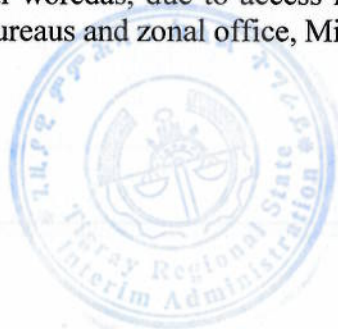
The assessment methods employed include:

- Collect Meher season crop data - planted area, replanted area, harvest levels compared to last year, and forecast harvest for crops remaining in the ground.
- Gather price data for prior years and current year price.
- Gather trend data on cattle productivity and health - unexpected disease outbreaks and death - as well as migration.
- Gather livestock price data (herd size, milk, meat, and livestock - compare plan, previous year, and reference)
- Gather current situation information (i.e., output indicators): results of recent nutrition status surveys, other indicators of malnutrition, unexpected disease outbreaks, mortality data, abnormal behavioral patterns (e.g., complete household movement)

2. METHODOLOGY AND SCOPE OF THE ASSESSMENT

The assessment employed qualitative and quantitative methods.

The assessment team kicked off the region's activities by explaining the objectives and techniques of the 2023 Multiagency seasonal assessment and identifying the sub-teams that would be sent to the zones. The Multi-Agency Sectoral Seasonal Assessment was carried out in the Tigray region from November 20 to December 10, 2023, in five zones of Tigray mainly central, northwest, eastern, southern, and southeastern zones. It was not possible to cover western Tigray and the southern and Northwest zone of Tigray, including Raya Alamata, Zata Ofla Tselemti and L/Tselemti woredas, due to access issues. The assessment team includes government regional sector bureaus and zonal office, Ministries, NGOs, and UN agencies (see details in Annex 1).



The woredas were chosen specifically for their portrayal of the geographical zone. The woreda chose each tabia based on their representation to the woreda.

Table 1: List of zones and woredas assessment

Team	Zone	# of Woredas	# tabia	List of woredas
1	South and southeast	6	6	Raya Azebo, Endamekoni, Emba Alaje, Selawa Wejerat and Enderta
2	East	6	11	Atsibi, Tsiraewenberta, Subha-Saesie, Geralta, Tsaeda Emba and Ganta-Afeshum
3	Central	6	6	Abergelle Yechila, Endabatsihma, Egella, Keyih Tekli, Adwa and Adet
4	Northwest	4	4	Tahtay Adiabo, Seyemti Adiabo, Tsimbla and Laelay koraro

2.1. Component of the assessment

The assessment components were mainly crop production, and livestock, Each team was represented by federal ministries and regional sector bureaus and commission, UN agencies and non-governmental organizations (NGOs), with team leaders from the government and UN agencies. The four teams inspected 22 woredas and and 27 Tabias over five zones (four in the south, six in the east, six in the centre, two in the southeast, and four in the northwest). The woredas were chosen specifically for their portrayal of the geographical zone. The woreda chose each tabia based on their representation to the woreda.

Please see the map below for the woredas and Tabias assessed by the team.



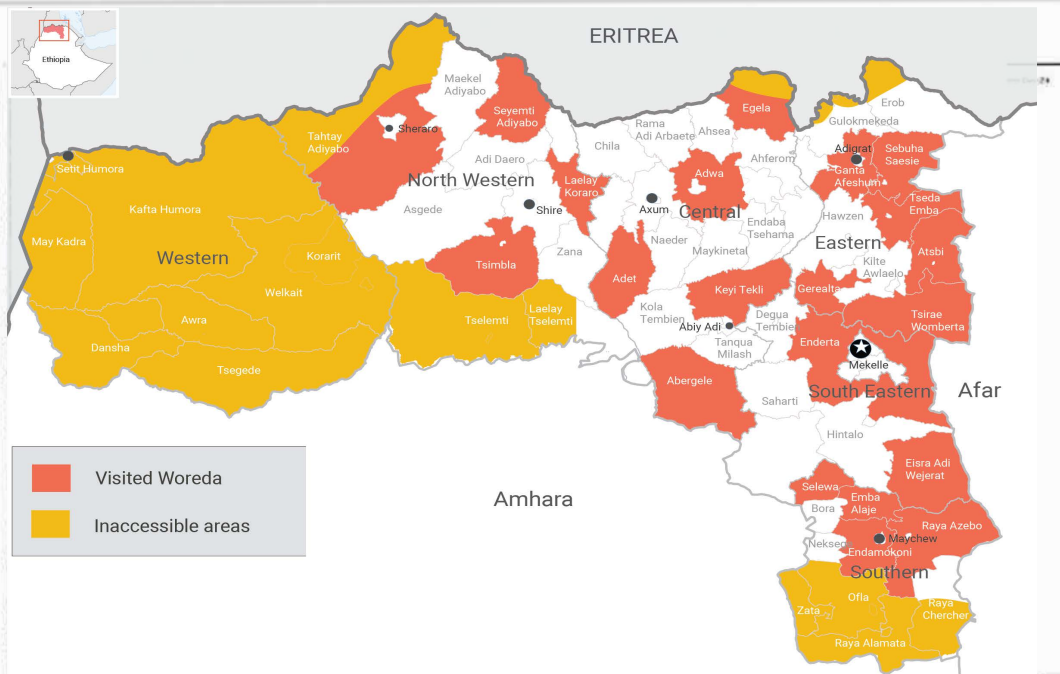


Figure 3: Map of woredas and Tabias visited for the Meher Season assessment

Secondary data review and collection from respective sectors and data gathered based on the seasonal assessment checklist in areas of crop production, price (including staple prices, livestock, and livestock products, cash crop, and labor), changes in livestock holdings, changes in labor availability and changes in other incomes sources using a structured checklists and reporting formats was employed.

The team has conducted key informant interviews in the visited woredas and kebeles and focus group discussions with the community representatives in kebeles to triangulate information gathered from available sources and respective sector reports.

Through the focus group discussions data on the overall weather, rainfall, food/agriculture, market situations and comparisons, production prospects, education, health, nutrition, coping mechanisms and income sources were triangulated.

The team made physical observations of standing crops, livestock condition, and water points while traveling from and to Tabias for focus group talks.

The figures gathered from the respective woredas on the needy population will be complemented with HEA-LIAS to determine the overall needy people, the livelihoods analysis to estimate the food gap, and food insecure and needy population estimates.

The team presented the summary of findings to the woreda and zonal officials including administration and cabinet members and emergency and number of needy people, type and amount of resources required, and number of months by quantifying the (food/cash) requirements.

Scope and limitation of the assessment

This assessment covers the rural area of the region accessible areas in Tigray. The assessment doesn't cover towns including Mekelle and Shire and IDPs living both in collective sites and host community. However, IDPs data has been collected from all towns as per the data from the respective woredas and zones. The assessment was conducted with certain limitations and challenges summarized in the table below (Table 2).

Table 2; Summary of the limitations during the Meher assessment in the zone

Data type	Limitations	Solutions
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Access to cover woredas	The western zone and several woredas in northwestern, southern, eastern, and central zones, which are the hardest hit by the rain failure and conflict, were not accessible due to security risks.	Data available at woreda and zone levels were used for the analysis.
Populations	Discrepancies in population figure CSA 16 years projection, woreda and zone, and current vulnerability study estimates.	Data available at woreda and zone levels were used.
Data quality of based line and over	Given the three years of conflict and administrative reorganization data for reference year and last year was missing.	The data collected from woreda, and zone sectors was updated using the regional data.
Crop data	A gap in estimating yield per ha for various crops by woreda experts; over and underestimation of overall production.	The production estimation was taken and cross checked by field visit and discussed with zonal and regional experts and using rapid assessment report.
Market price data	The price for all key parameters for reference year and last year was missing and inconsistent due to conflict.	Price for key parameters was used from woredas Key Informant Interviews and Focus Group Discussion with community members.
Data on other income sources	Missing data on labor, trees, and honey	Triangulation of data from different sources was used.
Limited time	The assessment was very tight to perform field visits and verification as required.	The assessment was finalized within the given time working day and night and collecting necessary data from assessed and not assessed woredas by the zone experts and the team.
Food security data analysis gaps	Tabias/geographical vulnerability rating is based on drought and Agriculture production and was not based on multi-hazard and coping capacity.	Follow-up geographic hazard impact, and livelihood-based analysis.



EXECUTIVE SUMMARY

- ✓ The multi-sectoral Meher assessment was conducted between 21 November and 10 December 2023. Four teams comprised of experts led by the federal and regional DRMC, participants from the federal ministries, all relevant regional sector bureaus, UN agencies and NGOs conducted the assessment. A sample of 22 woredas and 27 Tabias were visited for the primary data collection. Additionally, the team has conducted a desk review of data received from the remaining woredas with the support of the respective woreda and zone sectors and regional sector bureaus and DRMC.
- ✓ The seasonal assessment covers the rural areas of the region accessible from the Tigray side but IDPs both in collective centers and host community as well as town are not covered in the assessment. This assessment excludes the Western zone, the Southern (Zata, Ofla, and Alamata woredas), and the northwest (Tselemti and Laelay Tselemti woredas) due to access constraints.
- ✓ The overall Meher season of this year was characterized by very low or minimum in amount, extended periods of dry spells, where several Tabias were unable to plant their crops.
- ✓ The rainfall shortage was more severe in areas bordering the Afar escarpment (Eastern, Southeast, Southern, and pocket areas of the central zone such as Abergelle Yechila, Keyih Tekli, Egela and Ahsea). There is an evident drought in these areas, which has severely affected the overall agricultural production, the surface and groundwater resources, and other socio-economic conditions of the region. Crop loss has also been further worsened by unseasonal rains, which damaged crop piles and some field crops.
- ✓ Out of the region total arable land of over 1.3-million-hectare only 49.2% (696,610 ha) was planted during the Meher season. The main reason for this is 48% less arable land cultivation in the western zone, Northwest (Tselemti and Laelay Tselemti) and South (Raya Alamata, Ofla and Zata) due to security issues and uncultivated land.
- ✓ The production prospect from the planted areas in the five zones is estimated to be 37% with ranges from **2 to 60%** across woredas and **15 to 48%** across zones. Factors such as drought, pests, hailstorm, unseasonal rainfall, delayed supply of inputs, inadequate inputs, poor agricultural extension, and poor management support contribute to the overall production loss. Moreover, crop pests like armyworm, locust, and grasshoppers in the southern, Eastern and Northwest zones, along with limited supply and farm management practices due to conflict, impacted crop growth.
- ✓ According to the assessment, the body condition of livestock, 39%, 40% and 13% are emaciated, moderate, and better body condition respectively. And about 5 percent are reportedly migrated. In addition to that, because of drought about 3% of animals are sold. Among the physically emaciated 39% of the livestock 59, 46, 38, 30, and 20 percent of the livestock are in eastern, southeast, south, central, and northwest zones respectively.
- ✓ The price of staple food is increasing significantly with livestock prices slightly decreasing since April 2023. There is an increase in livestock supply and a drop in price in November 2023. Due to the unavailability of labor opportunities and the high price of food, food purchases dependent households are highly affected. The increase in food prices is associated with overall inflation and war effects, limited supply and low production in the current season, limited assistance, and the effects of the food aid pause.
- ✓ All hazards significantly reduced crop production and income sources, leading to increased food market prices and reduced livestock prices, affecting terms trade. There are also forecasts of a furtehr reduction in the price of livestock during the lean season that ultimately affects the terms of trade in getting food.

- ✓ Currently there are signs of late food insecurity indicators and negative coping mechanisms are prevalent in households in the Southeast, Southern, Eastern, and Central pocket areas. The common coping mechanisms include social support or remittance, increased migrations to towns in search of daily wages and food, sale of forest products (firewood and charcoal making), gathering wild fruits, and withdrawal of children from school. The consumption at the household level is inconsistent. There is evidence of increased malnutrition related to consuming cheaper food types, limited quantities, skipping meals, reducing meal frequency, and begging as common coping mechanisms.
- ✓ The main aggravating factors for the current food insecurity in the region are drought, accumulated effects of the last three years of conflict causing loss of all forms of assets. The deterioration of the overall coping mechanism is aggravated by the current drought and limited seasonal crop and overall livestock and water productivity. It is reported the war has highly affected the regular food and income sources and disrupted the overall market situation. Due to the lack of salary payments and overall staff demotivation, the extension workers' support to the overall productivity was very limited.
- ✓ According to the disaggregated data estimates the regional needy population starting from January 2024 will be over 4.5 million of which more than 940 thousand are IDPs living in collective sites and with host community.
- ✓ Moreover, there are agricultural requirements for seed, farm tools, and livestock requirements such as vaccination, feed, veterinary medicine, and restocking to support food security recovery with estimated cost of about USD 1.2 million.
- ✓ Tigray is experiencing an unusual early lean period from October and December 2023 with forecast that it will continue to worsen. Due to the different hazards, mainly drought and unseasonal rainfall with hotspot prioritization and follow-up during the coming January - September 2024 where the impact of hazards will become high to affected households.
- ✓ The assessment team recommends immediate lifesaving assistance from all humanitarian actors and the regional and federal authorities and concerned actors to declare the drought emergency levels. Besides, there is a need for strengthening the food and agricultural task forces and updating the mitigation plans.
- ✓ A taskforce needs to be established and existing coordination mechanisms strengthened to advocate for resource mobilizations from internal and global sources.



- ✓ The assessment team recommends immediate lifesaving assistance and resource mobilization from humanitarian actors, regional and federal authorities, and all concerned actors.

4. WEATHER CONDITIONS

Meher crop production season has two rainfall seasons: Azmera and Tsidiya (keremti), which normally commence at the beginning of March and 2nd decade of June, respectively. The later season of Tsidiya/Keremti normally ceases around 2nd decade of September. In the Azmera rainfall season, long-cycle crops such as maize sorghum and finger millet are planted and in the Keremti rainfall season, crops such as wheat, barley, teff, pulses, and oil seeds are planted. The rainfall from March to September determines the overall growth and productivity of crops, livestock conditions, and water availability for the next dry season for irrigation, potable watering, and related socioeconomic activities until the next kiremt season. Please refer to *Table 2. below for Meher seasonal rainfall performance summarized of the zones based on reports received from Woredas/FDGs*

Table 3. 2022/2023 Meher seasonal rainfall performance summarized by Zone (based on reports received from Woredas/FDGs)

Zone	Azmera		Azemera		Kiremt		Kiremt		Overall, kiremt season		Dry spell	Remark
	onset		Cessatiomn		onset		Cessation		Amount	and Disn		
	Normal	this yr	Normal	this year	Normal time	This year	Normal	this year	Normal time	This year		
South-eastern	Mar 2nd Wk	Mar 1st WK	May 4th WK	May 4th week	July 1st WK	July 3rd WK	Sep 2 nd WK	Aug 4 th WK	Good	Below normal/Erratic	2-3 W Ks	*Long dry spell *Flooding *hails storm *Unseasonal rainfall
Eastern	Mar 2nd WK	April 1st WKWK	May 2nd WK	May 3rd week	July 1st WK	July 1 st WK	Sep 1st WK	Aug 3 rd WK	Good	Below normal/Erratic	2-5 W Ks	
Southern	Mar 1st WK	April 1st WK	May 4th Wk	May 4 th week	July 1st WK	July 3rd WK	Sep 2 nd WK	Aug 4 th WK	Good	Below normal/Erratic	2-5 W Ks	
Central	Apr-2 nd WK	Apr-06	Mid-May	May 4 th WK	June 3rd WK	Jun 1st to 2nd WK	Sep 2 nd WK	Sep 2 nd wk	Good	Normal to Below Normal/Erratic	2-3 W Ks	
North-western	Apr 2nd WK	May 2 nd week	May 4th WK	May 4 week	June 2nd WK	Jun 1st to 2nd WK	Sep 3 rd WK	Sep 2 nd WK	Good	normal/Erratic	2-3 W Ks	

Source: Respective woreda and zone Agriculture and Food Security Offices.

The overall rainfall in the current harvest season aligns with the forecast and the El Niño induced weather in which below-normal rains were received in many of the woredas and especially areas bordering the Afar escarpment. According to the FGDs, there was very little or no rainfall in the Southern, Southeast, Eastern, and pocket areas of central zone such as

Abergelle Yechila, Keyh Tekli, Egela and Endaba Tsahima woredas where the overall agricultural productivity and water resources are affected, and close monitoring required. There are several kebeles that received little or no rain during the main rain season (June to September), which among the most affected are listed below (*Table 4*)

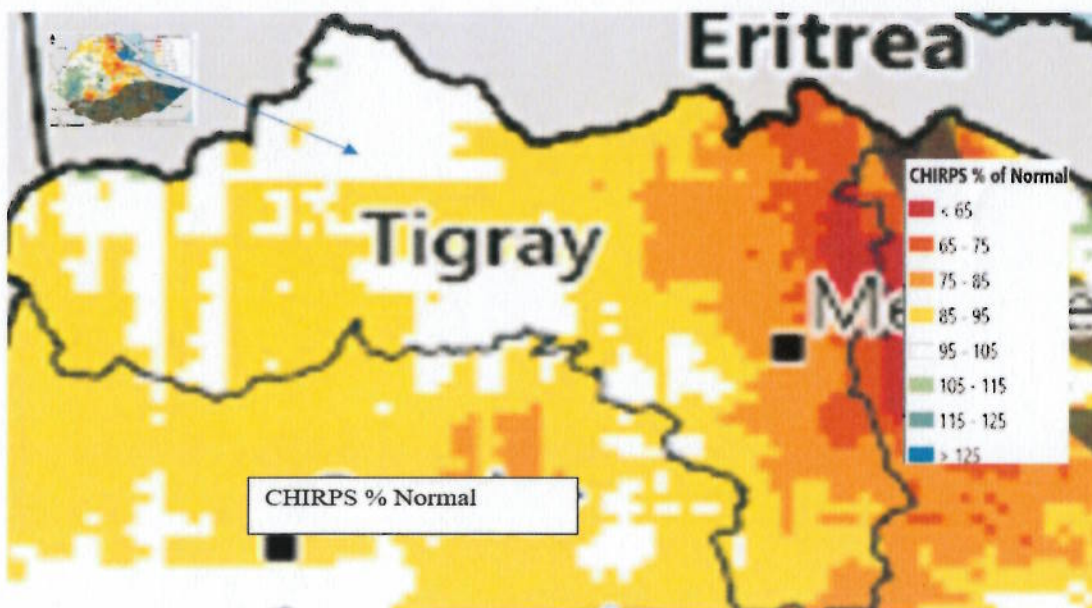
Table 4. Tabias with the lowest (< 10-day rainfall) in the main rain season (June-Sept 2023).

Zone	Woreda name	Kebeles received very limited (or less than 0-10 rain days) based on FGDs
Southern	Raya Aazebo	Mechare
Southern	Chercher	Hadealda,bage, Erba, Korme, Aulaga, Bala, Hadiskigni, Maru
South East	Wejerat	Gonka, Genti, Seneale
Eastern	Atsbi	Haresaw, G/kidan, Rubafeleg, Felegeweini, Golgol,Nael,Kal Amin, Hadinet, Zarema
Eastern	Subha Saesei	Marwa, Geblen, T/Ziban, Sewne, Welwalo, Meshul, Asmena, KomaSebha
Central	Abergelle Yechila	Seye,Feleg Hiwet, Tekle Wyeni
Central	Egela	Mai-Hamato, Hoya-Medeb, Semhal

Source: Respective woreda and zone food Tigray CDRMC and FGD.

The report based on cloud data estimations of UCSB climate hazards depicted below also considers the reports received from assessed woredas. The map shows Regionally the cloud cover from June to September was normal to below normal especially the red color shows from 65% up to 75% below normal in Eastern, Southeastern and South zones which are highly affected by the drought. Above 75% was normal cloud cover this match with central and Northwest zones. Please refer to Figures 3 and 4 for rainfall from 1 June to 30 September 2023, based on UCSB climate hazards. 2

Figure 3. Rainfall as a percent of normal from June 1 to September 30, 2023, based on CHIRPS % of normal, source UCSB Climate Hazards Center



4.1. Azmera rainfall:

In the current year, Azmera rain in the region was rated to be normal to above normal. This year there were average rains from January 2023 towards the end of May that was reported created conducive conditions for overall ploughing and land preparations for both Azmera and Tsediya/Kiremt crops in most zones of the region.

However, the Azmera raining was discontinued and erratic throughout May to June in many places. The early cessation of rain resulted crops wilting due to water shortage stress in most zones of the region, particularly in the Southern, South East, and Eastern zones. According to the FGD conducted in Central, Southern, Northwest, Eastern and Southeastern woredas the rainfall onset was Normal but with prolonged dry spell. Normally Onset of Azmera rainfall is 2nd week of April. This year the onset was normal and earlier in the South, Southeast and Eastern zones while in Northwest and Central zones it started on 3rd week of May with delay by one month or above. Except for the central zone that was erratic and low in amount, the rainfall distribution was normal to above normal in rest of the zones. In early May there was prolonged dry spell, around three weeks, in all zones and this slightly influenced the planting, germination and growth of long cycle crops but later it was improved. The Cessation of Azmera rainfall was late in all zones from the normal except wejerat, which ceased early by three weeks. *Please refer to the figure below for the current year's rainfall compared to the long-term average, based on CHIRIP (rainfall estimated from the cloud).*

4.2. Tsediya rainfall:

The Tsidiya rainy season was much below average this year. There was a metrological drought in which the onset was late, erratic and ceased early. The forecast on El Niño-induced weather matches with actual rainfall this year.

Normally the onset of Tsidiya rain was on 2nd week of June but this year (2023) the onset was early by one week in Northwest and Central zones. However, in South, Southeast, and Eastern zones it was late by 4 - 6 weeks. Especially woredas like Wejerat, Raya Azebo, Raya Chercher, Atsibi, Irob, Subha Saesie, Tsirae Wonberta, Abergele Yechila, didn't receive any rain till mid-August partially or totally and in Egela, Endaba Tsa hma, keyh Tekli, Tahtay Adiyabo, Seyemti Adiyabo and Maekel Adiyabo was very erratic distribution.

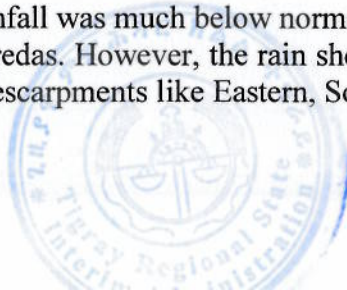
The distribution of rainfall was normal to above normal in Northwest and Central zones except some pocket woredas indicated above. But, in the eastern Afar escarpments the distribution was very erratic and low in amount. Consequently, it has negatively affected planting, germination, and growth of crops as well as feed development and water availability for livestock.

In addition, there were long dry spells ranging from 30-60 days in the critical crop growth stage and this has led to total crop failure.

In most woredas of the South, Southeast and Eastern zones the rainfall ceased early by two weeks. Whereas, in Central and Northwest zones rain continued until 2nd week of September which was normal.

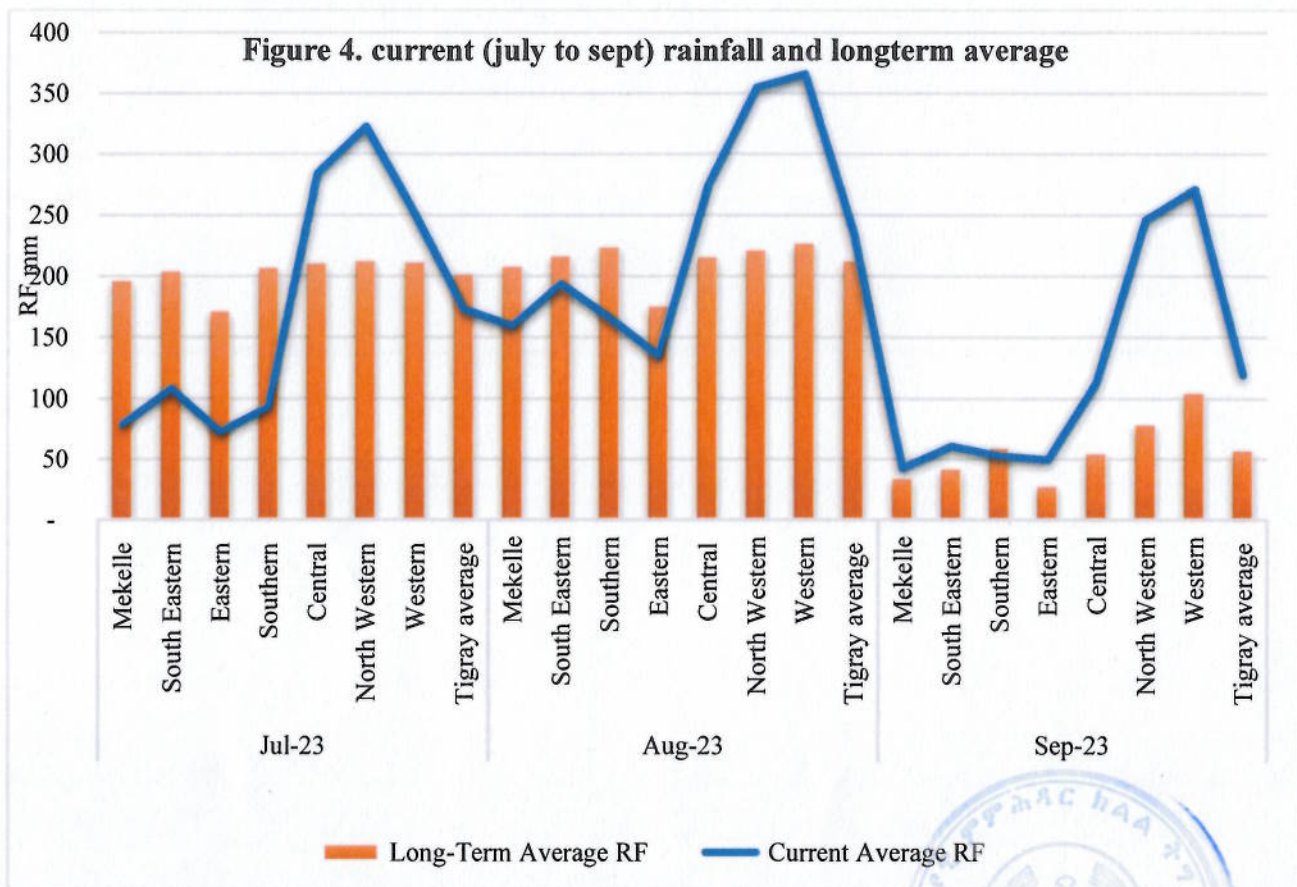
Largely, except for some pocket woredas the rainfall distribution and amount were near normal in Central and Northwest zones despite Azmera being delayed. However, the remaining zones have been severely affected by drought.

The overall Meher harvest season rainfall was much below normal compared to the long-term average and previous years in all woredas. However, the rain shortage was more pronounced in areas that are adjacent to the Afar escarpments like Eastern, South East, and Southern zone



areas. The erratic nature of the rainfall and prolonged dry spells were reported to be favorable conditions for Locust/Army worm, pests, and disease which contributed to yield losses. According to the FGD and site observations in sample kebeles of Atsbi, Subha Saesie, Gerealta, Abergele Yechila, etc. along the eastern escarpment some kebeles received only two days raining in the Azemera period with the longest eleven days intermittent light shower raining. However, there were reports of torrential rains associated with the hailstorm that caused flooding and damaged directly in many pocket areas especially in the Northwest and Central Zones.

The rainfall estimates based on the data from the Global USSG for the deviations for the peak and agricultural relevance months (July, August, and September) zone and regional average is summarised in the figure below (Figure 4).



4.3. Rainfall Adversities and unseasonal rains

There was abnormal rainfall in the months between the end of September and November that caused damage to the standing crops and especially contributed to damage in terms of the overall yield production and seed, and residual qualities. The unseasonal rainfall has covered most parts of Tigray, but major damage inflicted in Harvest was reported from Central and North Western Zones. Crops in the field and piles were affected causing significant damage.

There was unseasonal rainfall in the months between mid of October to 3rd week of November almost for one month that caused devastating damage to the standing matured crops during the harvest season and especially destroy the overall production in terms of amount and quality as well as crop residue in central and Northwest where farmers were expected high and quality production.

According to the FGDs, the rain received during Azmera was rated to be normal to above normal whereas the rains during Tsidiya were much below normal in terms of onset, distribution, amount, and cessation. The late onset shifted the planting timing causing late sowing and abnormal growths. The prolonged dry spells and early cessations of rain have resulted in moisture stress, poor growth, and productive performances. The erratic nature of the rainfall and prolonged dry spells were reported to be favorable conditions for Locust/Army worm, pests, and disease which contributed to yield losses.

In August, there were torrential rains associated with the hailstorm that caused direct damage and flooding in many pocket areas of the region especially in the Northwest and Central Zones.

Please refer to below figure 5 for January to December 2023 rainfall amounts compared to long-term averages for each of the zones visited.

Figure 5: for January to December 2023 rainfall amounts compared to long-term averages.



Due to the weather-related adversities, drought in about 213 Tabias of 36 woredas, unseasonal rainfall in Central and Northwest all woredas, hailstorm, pest, and diseases 472,910 ha of land has been affected and 8,701,395 qt of production has been lost.

Please refer to Table 5 for the production loss factors in the current season and the rating of Tabias regarding the current season's agricultural productivity performance.

Table 5. 2023 Meher, woredas affected by various weather-related hazards.

Zone	Hailstorm & flood	Pest & Disease	Rain failure	Un seasonal rain	Others	Affected in ha	Damage %	Loss in Qt
Southern	3,848.5	9,524	43,500.8	1,441.3	2,932	61,246.5	50-100	1,442,313.1

Central	30,383.5	34,380	30,469.6	57,866.97	5,939.5	159,039.3	49-97	2,079,902.3
Southeast	6,682.8	6,597	31,489	-	-	44,707.8	50-100	1,831,795.0
Eastern	3,355.7	10,124	64,534.5	-	9,492	87,506.2	52 to 91	1,556,750.0
North West	15,771.7	8,916.5	9,017.8	93,580	4,054	134,340	10 to 56	1,790,634.5
Total	59,981.2	69541	179,011.67	152,888.3	22,417.5	472,910	10-100	8,701,394.8

5. MEHER 2023 PLANTED AREA

5.1. Area Planted

The main crops planted in Tigray are wheat, barley, faba bean, and pea in highland areas, and sorghum, finger millet, maize, teff, and sesame in lowland areas. Other types of crops are also cultivated. The total arable land of the region is estimated to be 1,346,927 hectares of agriculture land. However, only 49% (663,789 ha) of it was accessible with the remaining not reachable due to security problems. From the total area of land accessible and planned for cultivation in the current season 95% (663,618 ha out of the accessible 696,610) hectares was covered with Tsidiya and Azmera crops. In the accessible planted areas, the reduction ranges from 2 to 16 percent between zones.

The main reason for less achievement this year is that inaccessible woredas in western zone, Northwest (Tselemti and Laelay Tselemti), South (Raya Alamat, Ofla and Zata) of the region, 48% of land was inaccessible to plant. Other contributing factors for less planted areas were the late onset of the rain in the Eastern, Southeastern, and Southern zones and the shortage of fertilizer and seed supply on time.

Please refer to Table 5 below for the Cultivated area of land in hectares by zone and refer to the annex for the detail by woreda.

Table 6. Cultivated area of land in hectares and zones

woreda	Azmera in Ha			Tsidiya In Ha			Total		%
	Planned	Planted	In%	Planned	Planted	In%	Planned	Planted	
Central	27766.5	28270.25	102%	86107	85001.85	99%	113873.5	113272.1	99%
Eastern	37,667	38,192	101%	47,465	44,949	95%	85,131	83,763	98%
Western			#DIV/0!	94924	87319	92%	94924	87319	92%
Total	119705.045	121505.925	102%	78799.43	73387.145	93%	198504.475	194893.07	98%
North West	153,363	141,177	92%	50,813	43,195	85%	204,177	184,372	90%
Eastern							57952.3	0	In access
North West							37,369	0	Inaccessi
Western							554996	0	In access
							650,317.30	-	Inaccessi
							696,610	663,619	95%
							1,346,927.13	663,618.89	49.27%

Source: Respective woreda and zone BoANR/DRMC

Table 7. Planted area comparison between reference year, last year and this year 2023.

Zone	Area Planned (Ha) this year 2022/2023	Area Planted the reference year 2014/2015	Planted last year 2021/2022	Area Planted (ha)- This year (2022/2023)	% Against this year's plan	% Against last year	% Against the last reference year
Southeast	113873.5	NA	106780.4	113272.1	99%	106%	
Southern	85,131	102831.632	85545.8	83,763	98%	78%	64%
Central	94924	124071	NA	87319	92%		
Northwest	198504.475	NA	210,065.00	194893.07	98%	88%	
Central	204,177	NA		184,372	90%		
Total	696,610	226902.632	402391.2	663,619	95%		

Source: Respective woreda and zone BoANR/DRMC

5.2 Timelessness of planting.

In the Azemera season, the rainfall was on time and its distribution and amount were better in South, Southeast and Eastern zones which long cycle crops was planted on time but failed due to prolonged dry spell. In Tsediya season, the rainfall in Central and Northwest was on time except pocket woredas which planting was performed on time. In contrast, in lowland areas of the central zone like Abergele, Keyihkli, Egela, and Northwest woredas of Tahtay Adiyabo, and Seyemti Adiyabo, the rainfall was very late with minimal amount, and hence planting of sorghum and finger millet was late.

Nevertheless, in the Tsediya season in the three zones of the region namely the Southern, South Eastern, and Eastern zones the rainfall was below normal, with late onset and early cessation. Consequently, the plantation was delayed by more than one month in the three zones. In addition, moisture was inadequate for germination therefore significant area of land has failed and forced to replant two to three times in woredas such as Wejerat, Raya Azebo, Raya Chercher, Atsbi, etc. In general, in most areas of the region, the planting time especially for short-cycle crops was late due shortage of rainfall during the planting period.

5.3. Crop Stage

During the assessment time, in almost all zones of the region, crops were harvested and threshed or being threshed. In addition, there were some crops in the field ready for harvesting. However, the assessment team has observed large swaths of agriculture land with no harvest or wilted seedlings that animals were grazing on. Farmers in the eastern zone were observed trying to harvest the unseasonal rainfall for supplementary irrigation and livestock feed production although it has stopped raining. Some ponds have collected limited amount of water from the unseasonal rain, but most have dried. The assessment team has also observed a limited amount of crop residue piled for livestock feed but in the majority of instances there was no animal feed from grass or crop residues.

5.4 Crop pests and diseases:

In the region, crop pests like armyworm and locust on sorghum, and grasshopper on teff were the main pests that damaged the proper growth of crops. Crop diseases like rust and chocolate spot affected wheat, barley, pea, and fava-bean crops and this disease covered most areas of the region. Weed infestation was also one of the factors that affected the crop performance. In general, the main factors that affected crop production during the current Meher season (ordered according to the amount of area they damaged) are rainfailure (moisture stress), unseasonal rainfall, crop pests and diseases, hailstorm/flood and finally weed and lack of

extension activities on farm management. In addition, the lack of Agro-chemicals aggravated the impact of pest damage.

5.5. Agricultural Input Utilization

It is known that the soil fertility of most farms is below standard and degraded because of several years of plowing and its landscape, and it requires additional use of artificial fertilizer to increase its productivity. Agricultural production increases when combined the application of fertilizer with an improved variety of seeds and the required amount of moisture. It was planned to provide **747,375 quintals** of fertilizer, mainly UREA and NPS. However, **351,021 Qt** was delivered to woredas which is 47% of the planned of which 90% of it (235,401.7 quintals) was utilized.

Although, good amount of fertilizer was distributed, utilization due to different adversities like moisture stress, late delivery, and delay on distribution the utilization of fertilizer was very low. According to the FGD conducted in the assessed woreda, interview with key informants, discussion with woreda officials it was reported that fertilizer utilization was low. This has also contributed to the yield reduction.

Table 8: Agriculture inputs -fertilizer (planned, supplied, and distributed).

Zone	Plan in Qt			Supplied in Qt			Distributed in Qt			% from Supplied	% from plan
	NPS	Urea	Sum	NPS	Urea	Sum	NPS	Urea	Sum		
South	19650	19650	46800	11107	20630.7 5	37586	0	0	31663	84	68
Southeast	0	0	108809	0	0	52280	0	0	52280	100	48
Eastern	0	0	137975	0	0	55085	0	0	34173	62	25
Central	127878	131920	259798	55382. 5	71604.5	126987	53713. 5	6357 2	117285. 5	92	45
Northwest	124258	69735	193993	56699	22385	79084	56699	2238 5	79084	100	41
total	271,786	221,305	747,375	123,18 8.5	114,620. 5	351,022.5	110,41 2.5	85,95 7	314,485. 5	90	42

Improved seed

The plan was to provide **83,419.69** quintals of improved seed, but the supplied amount was 46% (**59,630 qt**) of which 96% (**57,095 qt**) of the supplied has been utilized. The utilization against the plan in all woredas was low due to the limitedness of the supply, late delivery, and moisture stress. The seed supply and utilization by zones is summarized in the table below (Table 9).

Table 9. Agricultural input (seed planned, supplied, and distributed)

Zone	Planned	Supplied in Qt	Distributed in Qt	%from Supplied	%from plan
Southern	10580	9913	9232	93%	87%
Southeast	37195	24283.3	24283.3	100%	65%
Eastern	25972.75	15134.8	15134.8	100%	58%
Central	9671.935	7168.31	5578	78%	58%

Northwest	39721	3131	2867	92%	7%
	123,141	59,630	57,095	96%	46%

6. CROP PRODUCTION PROSPECTS

In the current Meher season, it was planned to produce **15,561,783 quintals** of harvest at a regional level from the accessible land. But because of the main factors described above, the actual production has reduced to **5,772,628** quintals or 37% of the plan. The worst loss is recorded in the Southern zone with 15% production from the plan, followed by the Eastern zone with 22% production from the plan. The production in quintals and percentage by zone is summarized in the table below (Table 10).

Table 10: 2022/23 Meher, production estimated by plan, last year, and reference year.

Zone	Last Year Production (quintals)	This year's production Plan (Qt)	This year's production (Qt)	% Against plan	% Against last year's Plan
Southern	1,239,181	2,267,110	341,319	15	
Southeast	1,587,894	2,468,223	740,430	30	
Eastern	NA	1,994,030	437,282	22	
Central		3,977,548	1,895,917	48	
Northwest		4,854,872	2,357,680	49	
Total		15,561,783	5,772,628	37	

6.1. Crop production or yield loss factor.

The major cause for loss of production is moisture stress (38%), followed by unseasonal rainfall with 31%. Crop pests, hailstorms, and weeds are the third, fourth, and fifth factors that caused loss of production with 15%, 12%, and 5% respectively.

Please refer to Figures 6 and 7 and tables 11 and 12 below for the factors that caused damaged and loss of production.

Table 11. Comparison of factors that caused damaged land and loss of production.

Type of Hazards	Damaged land (ha)	% in area
Drought/Shortage of Rain Fall	179,012	38%
Hailstorm & flood	56,731	12%
Pest & Disease	68,791	15%
Un seasonal rain	145,958	31%
Others	22,418	5%
Grand Total	472,910	100%



Figure 6 Factors that caused damaged land and loss of production in percent

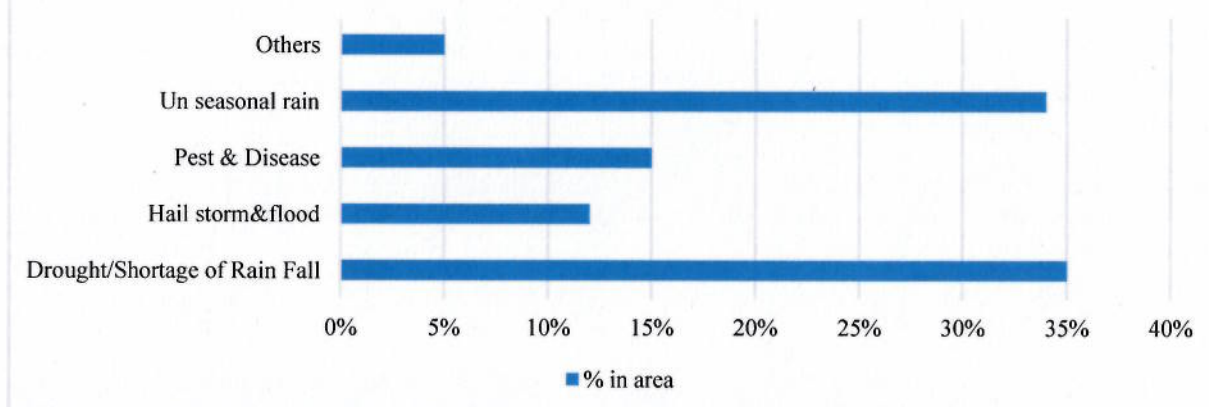
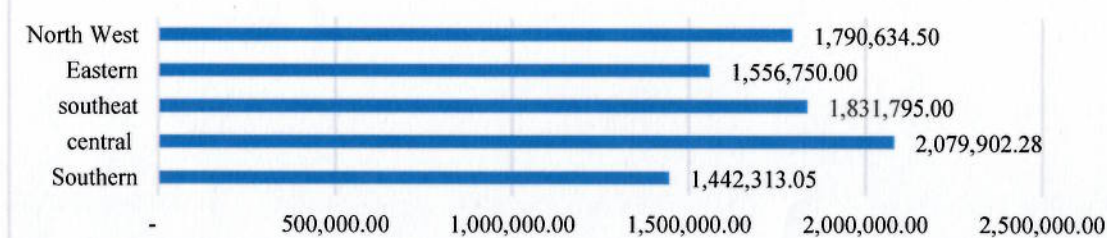


Table 12. Affected areas and crop production loss.

Item	Zone	Affected in ha	Loss in Qt	% In ha lost	% in Qt lost
1	Southern	61,246	1,442,313	35%	17%
2	Central	148,109	2,079,902	12%	24%
3	southeast	44,708	1,831,795	15%	21%
4	Eastern	87,506	1,556,750	34%	18%
5	Northwest	131,340	1,790,635	5%	21%
		472,910	8701395	100%	100%

figure 7: Yield loss due to all hazards (Qt) by zone



Source: Respective woreda and zone BoANR/DRMC

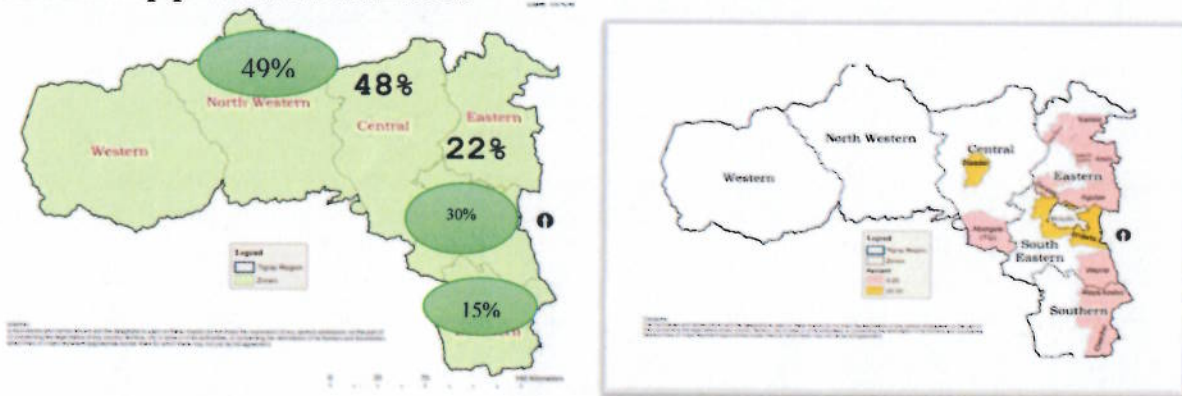
6.2 Production prospect of woredas and lowest production

The impact of the drought on crop production is pronounced in Southern, Southeast, Eastern, and pocket areas of Central zones. Among others, Raya Chercher, Raya Azebo, Emba Alaje and Selewa woredas in Southern, Enderta, Wejerat, Hintalo and Samre of South East and Irob, Tserae Wonberta, Atsbi, Tsaeda Emba, Ganta Afeshum and Subaha Saese in Eastern zone and pocket areas in Central zone like Abregelle Yeschila, Tanqua Melash, Kolla Tembien and Egela are among the lowest producing areas in the region. Please refer to the annex of the report for detailed data by Woreda

The region has planned to produce 23,652,878 qt from the over 1.3 million ha of arable land to continue to the self-reliance and food security of the region. But, due to inaccessibility of the majority arable land in Western zone and parts of Northwest, Eastern and Southern zones it was not able to cultivate and harvest better production. Thus, the region's potential for food security is negatively impacted.

Relatively most areas of the Central and North West zones have produced better compared to other zones of the region. Drought, unseasonal rainfall, shortage of inputs, crop diseases, weed infestation, and lack of agricultural extension and management support were the main factors for crop production loss. *The zonal percentages and the woredas that are with the lowest production prospect in the 2022/23 Meher compared with the plan is summarised in the figure below (Figure 8).*

Figure 8: January to December 2023 percentage production and woredas with the lowest crop production estimated.



6.3. Emergency Agricultural requirement for the upcoming season

To recover from the effects of drought the region requires **101,250 Qt** of seed inputs for **489,014 households** worth estimated ETB 773,649,332 equivalent to **USD14,380,099** for 37 woredas in the five zones. *The agriculture input needs by zone are summarised in the table below (table 13) and refer to annexes of the report for the details by woreda.*

Table 13. Seed requirement, in five zones of the region

Zone/Woreda	Total # of HH	Seed amount in Qt	Requirement	
			In ETB	In USD
South	49,095	31,374	222,282,497	4,131,644.93
Southeast	65,653	25,280	144,455,373	2,685,044.11
Central	218,918	31,015	262,117,075	4,872,064.59
Central	218,918	31,015	262,117,075	4,872,064.59
Northwest	155,348	13,581	144,794,387	2,691,345.48
Grand Total	489,014	101,250	773,649,332	14,380,099.11

Likewise, a total of **ETB 261,421,030** or equivalent to **USD 4,770,456.75** is requested to support farm tools to **272,684 households** in 26 kebeles of the five zones of the region affected by drought. *Please see the farm requirements by the household and the total cost required for farm tools (table 14).*

Table 14. Farm tools requirement, in five zones of the region

Zone	Total # of HHs	Farm tool amount in #	Requirement	
			In ETB	In USD
Southeast	65,653	25,280	144,455,373.00	2,636,046.95
Southeast	52,055	157,695	134,006,550.00	2,445,375.00

Eastern	120,477	99,954	14,993,100.00	273,596.72
Central	88,019	260,738	93,008,580.00	1,697,236.86
Northwest	124,765	133,432	64,348,060.00	1,174,234.67
Grand Total	272,684	566,919	261,421,030.00	4,770,456.75

7. LIVESTOCK CONDITIONS

Livestock resources in Tigray have been contributing considerably to the economy of the region. In total the region livestock holding is estimated to have more than 18 million livestock populations and 331, 407 Bee colonies (CSA 2018/19). Livestock are sources of draft power, organic fertilizer, livestock products, and by-products such as skin and hides, etc. Moreover, they confer a certain degree of security in times of crop failure financial savings (source of cash), and social prestige. However, the current drought combined with the last three years of conflict has resulted in major reduction of livestock asset holdings there by reducing people livelihoods asset and income streams.

7.1. Water and pasture availability for livestock

The current feed and water availability in many areas of the South East, Southern, Eastern, and pocket areas of the Central zones is much below normal. The available feed in most areas of these zones is reported to be partially enough until December 2023. Due to the negative impact of the Meher rainfall on the overall crop and grazing land conditions, the current livestock feed and water conditions in the eastern zone are in the worst status in all the Meher benefiting areas.

According to the regional bureau of agriculture and natural resource led pre-Meher assessment reports there was a 50% shortage of animal feed in the assessed woredas. Moreover, 8.3% of the animals in the woredas were sick and 31% of the sick animals have died. According to the same data around 3%, animals have migrated and sold due to the drought. And the physical and productive status of the animals is now in the worst condition. Even though, in some kebeles of the Eastern zone the unseasonal rains were beneficial in replenishing water resources and helped pasture growth in the past few weeks, livestock water and feed sources are not available in most areas. According to the assessment, in most of the woredas that have been visited, there is a shortage of drinking water and animal feed starting from September 2023.

As the information collected from the assessed Central zone woredas show most of the areas, the Azmera rain season came late but Tsidia started in time but there was a long dry spell in most woredas. The rain was erratic in distribution and ceased early. Due to this, the pasture was not more productive in October. There was already exceptional feed shortage in the visited woredas such as Abergele Yechila, Subha Saesi and Atsbi where livestock body condition has deteriorated.

In the North West and Central zones the Kiremet/Tsidiya season rainfall was good, and water and feed for livestock were available during the time of the assessment. In some woredas of the zones, the onset of the rainfall was late but at the same time, its cessation was early. As a result, crop performance in these areas was poor and hence very low crop residue for livestock feed in the coming dry season. In addition, there was unseasonal rainfall and snow for long periods, which affected the quality of the pasture and the quantity of hay that had been collected from the pasture. Not only this, in most of the woredas the available resource of feed for

livestock is the crop residue. This resource also greatly deteriorated the quality and quantity of the unseasonal rainfall and snow.

In addition to that due to the war, most of the area closures are reportedly being grazed and there is no proper management. Hence, the hay that used to be harvested from the area closure could not be harvested in this season.

It was also reported that many of the water points for humans and livestock were not functional due to lack of maintenance and that compromises water availability both for humans and livestock. Therefore, maintenance of the water points to save life for humans and livestock will be crucial. From January up to June 2024, about 17 billion liters of water is required for livestock in the drought affected areas for 6 months. To fill this requirement construction and maintenance of 284 water schemes like hand dug wells, shallow well in 142 Tabias will be required or water access supported by trucking will be needed. The total estimated budget for construction of water point structures for livestock will be **ETB227,200,000**. *The number of Tabias reported to be highly affected by drought and with concern for livestock pasture and water crisis is summarized in the table below (Table 15).*

Table 15. Drought, hailstorm and unseasonal rain affected kebeles.

Sno	Zone	woredas	Total Tabias	Drought, hailstorms & and unseasonal rain affected tabias	%	Duration of water access in Month
1	Northwest	3	23	11	48%	
2	Central zone	7	66	34	52%	Until Feb
3	Eastern zone	7	78	49	63%	01-Mar
4	Southeast	2	60	43	72%	Until Feb
5	South	3	31	26	84%	
6	Western					NA
	Total		258	142	63%	

Source – Woreda Agricultural office

Livestock in the assessed woredas (Southern, South East and Eastern) that are bordering Afar areas are in worst condition due to lack of water. Animals are traveling with unusually long-distance to access water and having access to water every 2 to 3 days. For example, in these Afar bordering Eastern, South Eastern and Southern zones and Central zone pocket areas like Abergele Yechila, Egela, and Keyih Tekli water sources will only last for a limited number of months. The surface and groundwater sources are reported to be minimal and don't last longer. In Atsbi, Subha Saesi, Grealta and Tsirae Wemberta woredas of the Eastern zone FGS members and KII expressed that most water schemes will dry out in January after which livestock and people will be at risk.

In most assessed woredas farmers travel for 3-5 hours to reach the nearest water sources for their animals. This is within a 1 to 5 Kilometers radius distance, and on average the drinking water access gap is more than 63%. In addition, villages with considerable coverage were affected by hailstorm hazards, which necessary attention and support should be taken by the government, donors, and beneficiaries. *The feed gaps forecasted in Metric tons by zone is summarized in the table below (Table 10).*

According to the survey, there is a critical shortage of animal feed in 22 woredas and 142 Tabias are identified and listed sequentially for feed and other livestock emergency support, at the end of this livestock section of the report. The problem of fodder shortage is more than the gap, from which each woreda has explained. The survey indicates that some farmers have started buying straws at expensive prices from distant areas. In some areas livestock and people

have already started to migrate in search of feed and water with reportedly 216 people and over 800 livestock in Atsbi already reported migrated.

Accordingly, almost all areas of the visited woredas have faced shortage of pasture and as a result, they require support with emergency feed (Hay/Straw and/or concentrate) that is already indicated in the livestock requirement part of the report. Generally, there are concerns about animal feed and water shortages starting January 2023.

7.2. Livestock disease

Livestock diseases are the major challenges in the Tigray region leading to many losses such as animal morbidity, mortality, economic loss, and social crises. This is caused mainly by lack of veterinary services, and a shortage of veterinary drugs and vaccines for the prevention and treatment of different diseases that prevail in the region. Trans-boundary Diseases (Lumpy skin disease, Pest deposits ruminant, Sheep and Goat pox, African horse sickness, new castle Diseases, Foot and Mouth Disease, fowl pox; Gumboro), Zoonotic Diseases (Rabies and Anthrax), Stress borne diseases (Ovine and Bovine pasteurellosis) parasites and mal-nutritional diseases are among the most occurred in the assessed woredas which so far has affected large number of households in the past four months. *Please refer to Table 16 below for the disease prevalence of woredas summarized by zone.*

Table 16. Animal diseases prevalence in assessed zones (July – Oct 2023)

Zone	Number of Tabias	Diseases	sick	%	death	%	PAR	%	Affected HHs
South	2	3	13		2	15.38			NA
Southeast	3	8	1984	4.66	881	44.41	42547		NA
Eastern	49	10	7641	7.61	1255	16.42	100359	> 41	13495
Central	61	9	5364		851	15.86	NA	NA	NA
Northwest	14	8	1058		180	17.01	NA	NA	NA
Western	NA	NA	NA	NA	NA		NA	NA	NA
Zone	129		14076		2288	21.82	NA	NA	NA

NA: data is not available

As depicted in the table above (Table 16) from the livestock population at risk an average of 7.6% and 4.66% have become sick in Eastern and South East zones respectively. From the total sick animals in the region 21.82% have died in the previous four months. There was poor vaccination and treatment service given in the outbreak areas due to the shortage of drugs, vaccines, vet equipment, operational costs, and human resources. It can thus be concluded that the diseases have had a significant negative impact on animal production and productivity.

The survey data indicates the diseases are likely to occur more widely in the future with the current level of feed and water shortages decreasing animal immunity. Thus, all woredas that have been assessed have a concern about the possible outbreak of some diseases and hence require vaccines, drugs, veterinary equipment, operational costs, and maintenance of vet clinics to prevent expected disease outbreaks and associated livestock deaths.

7.3. Animal Physical condition

The physical condition of livestock during the assessment was below normal in almost all Meher growing woredas owing to the relatively poor availability of water and animal feed. In addition, the

overall supply and accessibility of livestock health services has deteriorated, which remains challenging and livestock diseases were observed during the assessment field work massively. The wide coverage and prevalence of the diseases have affected more animals compared to normal years.

The impact of the conflict and previous drought seasons as well as the lack of access to veterinary services affected the productivity of the livestock. Moreover, it was reported by the community that a disease called “*different parasites*” is posing danger in most areas of the woredas since the livestock are drinking water from open-source ponds. These parasites negatively impact animal body condition and productivity.

As highlighted in the availability of pasture and water section of this report of Northwest and Central zones, animal feed and water were good during this Meher season, and hence in most woredas the body condition of animals during this time is normal.

The physical and productive condition of livestock in many of the drought-affected areas is reportedly moderate to emaciating. The body condition of 39, 42 and 14% of animals are emaciated, moderate, and in better body situations respectively. According to the assessment data about 59, 46, 38, 30, and 20 percent of the livestock, in the Eastern, South East, South, Central, and North West are reportedly emaciated, respectively. About 6 percent of animals have reportedly migrated. In addition to that because of drought about 4% animals are reported sold.

There are reports of an increase in the supply of livestock to the market accounting for about 4% of the livestock and mass migration in search of feed and water within the region from woreda to woreda in Enderta, Wajerate, Atsbi, and Abergele Yechilla areas. The overall physical condition of animals and mass migration is expected to worsen in the coming dry seasons. *Please refer to Table 17 for the animal body condition in the assessed zone and refer annex for details by Woreda.*

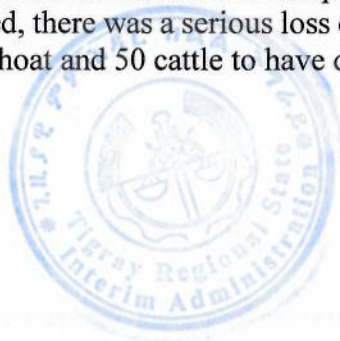
Table 17. Animal body condition in the assessed areas by zone (Cattel and Shoats)

Zone	# pop. n	emaciated		moderate		better		migrated		Due to drought-sold	
		Head	%	Head	%	Head	%	Head	%	Head	%
Southern	2688454	1021613	38	1156035	43	295730	11	215076	8	107538	4
Southeast	1549235	712648	46	604202	39	154924	10	77462	5	46477	3
Eastern	2203251	1299918	59	506748	23	198293	9	198293	9	132195	6
Central	3339427	1001828	30	1669714	50	500914	15	166971	5	233760	7
Northwest	4457428	891486	20	2407011	54	1025208	23	133723	3	89149	2
Western	1693581	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total	15931376	4927492	39	6343709	42	2175069	14	791525	6	609119	4

7.4. Livestock mortality

As shown in Table 17 Livestock mortality due to disease with the lack of access to health service and interruption of animal vaccination for the past three years has caused a high rate of mortality in animals.

However, all woredas communities have reported a nearly total loss of chickens and other different animals with sudden death due to suspected different diseases. In addition to that, due to the shortage of feed, there was a serious loss of livestock where in central zone woredas like Egela reported 200 shoat and 50 cattle to have died.



7.5. Herd size

The impact of the conflict, previous drought season, lack of access to veterinary services, enough feed supply, and collapse of the agriculture extension services has affected the herd size of livestock. The assessment report indicated that intensive and extensive animal breeders, growers, and egg-hatching plants are not functional at present, which affected animal production. Large animal and poultry diseases in most woredas are affecting the population of animals. Besides, a marked high price for livestock hinders poor farmers from owning livestock in almost all woredas. Moreover, the lack of food assistance in the region has triggered large size livestock sales to buy food and cover other household needs. Moreover, over the past two years animals were traded to neighboring regional markets with attractive prices that have contributed to a reduction in herd size.

Therefore, this situation is expected to have a negative implication on the income, food, and nutrition of farmers unless intervention for re-stocking of livestock and poultry is done in those areas.

7.6. Herd movement

Currently, in the Southeast zone, there are signs of unusual livestock movement in search of pasture and water within and to adjacent woredas from Atsbi, Tsirae and Wemberta in Eastern zone and Enderta and Wajerat woredas in South Eastern zone. In the visited five woredas of Eastern zone a reported 3,2742 (9.05%) animals have out-migrated from kebeles and woredas.

The fact that the majority of the woredas reported poor water availability, vegetation, and pasture conditions of the Meher rainfall months, means that there was out-migration of animals from those TAbias and woredas. For example, in the visited woredas reported (6%) of animals have out-migrated from Tabias and woredas.

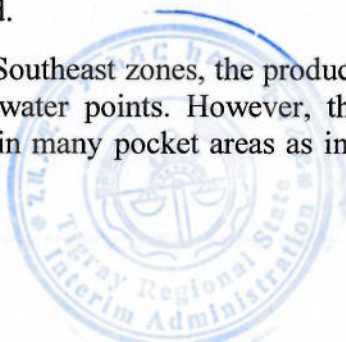
Whereas, in the central zone, there are no livestock migrations from Woreda to other woreda but, there was movement inside the woreda from one kebele to another kebele like in Abergele Yechila, Egela, and Keyh Tekli in search of pasture and water. Similarly, in the Northwest zone, there was no livestock movement from their origin due to the current availability of water and pasture. But, in the coming dry season, animals in drought-affected pocket areas will move within the zone where pasture is available.

7.7. Livestock productivity

During the pre-meher assessment, the physical conditions of livestock in the Eastern zone were reported to be below normal due to the lack of feed and water in most of the Meher rainfall-receiving woredas. Currently, livestock in those areas are affected severely. Hence, currently, the production and productivity performance of livestock is very poor, and overall household consumption and income from livestock are critically declining. Therefore, this requires closer follow-up and an urgent adequate supply of feed, water, vaccination, and treatment services for livestock as well as restoration of the extension system to maintain productivity.

Whereas, in most woredas of North West and Central zones, the availability of water and pasture for livestock was good and their body condition was too. Therefore, the expected milk and meat from the existing livestock are good. However, most farming community members do not have the required number of livestock and some of the households do not have livestock at all to get milk for consumption or sale and to sell their animals to purchase food as the animals were looted and died.

Currently, in the South and Southeast zones, the productivity of livestock is normal owing to the residues and available water points. However, there are concerns about productivity declining owing to drought in many pocket areas as indicated above. This is also proved in



focus group discussions. It is understood that the moisture deficit or drought will affect the physical condition of livestock compared to last year.

7.8. Emergency Livestock requirement and priority areas

There is huge livestock emergency support need for the upcoming dry season from all woredas of the zone for a vaccine, drug veterinary equipment, feed, and restocking activities. And the assessment team has prioritized woreda and kebeles that required livestock lifesaving emergency requirements for the five rural zones amounting ETB8,105,917,991.5 equivalent to USD 148,859,130. Please refer to Table 18 below for the emergency livestock requirement in the prioritized woredas and kebeles summarized by zone.

Table 18. Emergency livestock requirement by type of requirement summarized by Zone.

Requirement type	South	Southeast	Eastern	Central	Northwest west	total
Vaccine	3,380,863.66	2,253,909.11	8,139,116.21	8,013,899.04	3,255,646.49	25,043,434.50
Drugs	42,503,662.71	28,335,775.14	102,323,632.45	100,749,422.72	40,929,452.98	314,841,946.00
Equipment	3,139,517.07	2,093,011.38	7,558,096.65	7,441,818.24	3,023,238.66	23,255,682.00
Feed	68,1104,352	454015401	1,613392262	1,613011012	654,834747	5,016,357,774
Restocking	368,066,585.93	245,377,723.95	886,086,225.38	872,454,129.60	354,434,490.15	2,726,419,155.00
Total	1,096,838,732.25	731,225,821.50	2,640,537,688.75	2,599,914,032.00	1,056,215,075.50	8,105,917,991.5

Table 19. Emergency /Recovery and Resilience Forage Seed and other planting requirement for the period Jan – Dec 2024

S / N	Forage Seed	Number of Households (HHs) in need			Area to be planted (ha)	Amount (qt)/No.	Unit Price (Birr)	Total Cost (Birr)
		Male headed	Female Headed	Total				
1	Alfalfa	661	357	1018	254.5	25.45	250000	6362500
2	Cowpea	753	380	1133	283.25	42.4875	15000	617062.5
3	Oat	323	168	491	122.75	122.75	10000	1227500
4	Sudan grass	329	179	508	127	15.24	8500	129540
5	Elephant grass	661	357	1018	127.25	2545000	1	2545000
6	Desho grass	332	176	508	63.5	12700000	0.5	6350000
Total		3059	1617	4676	978.25			17,231,603

Table 20. Summarized livestock requirements in different measurements.

Requirement type	Unit	South	Southeast	Eastern	Central	Northwest west	total
Vaccine	Dose	2,513,783	1,330,082	5972090	9279827	3,805,617	22,901,399
Drugs	Diff	2,016,199	1,373,261	2018559	5730882	2,539,839	13,678,740
Equipment	Diff	8,017	2,224	5205	16341		31,787
Feed - concentrate	Qu	86,378	276,155	182,091	230,739	425,070	1,200,433
- Hay / straw	Bale	434,972	561,527	382,527	140,053		1,519,079
Restocking	No	231,238	204,680	338290	622034	58,719	1,454,961
Total							

Due to the huge demand from several woredas the technical team has prioritized 22 Woredas and 142 Tabias for immediate emergency livestock intervention starting January 2024, listed sequentially by Woreda and Tabias. *Please refer to Table 15 below for the list of Tabias in need of Livestock interventions*

Table 21. List Woreda and Tabias affected and prioritized for livestock emergency interventions.

Zone	Number of woredas	Woreda name	Number of kebele	Name of kebeles
southern	1	R/azebo	10	MechareHoreda, Waregeba, Kara, Tsegea, Werbaya, Hawlite, Aibo, Gentie, and Biru
southern	2	Chercher	8	hadealda,bage, Erba, korme,Aulaga, bala, hadiskigni, maru
Southeast	3	E/mehoni	12	Meswetie, Hezab, T/haya, k/kanefa, Senay, Jema, Wehedat, E/Hasetie and MekaneTsebat,Smerat,Gelawasa and Simeta
		subtotal	30	
Southeast	4	Hintalo	10	TahtayWeyane, Betmra, Ara, Mesanu, Freweyne, Hewan, Waza, MayNebri, Muja,HAgreSelam, Hentalo
Southeast	5	Wejerat	8	Sebera, Bahertsba, Tshafti, Adeqyeche, Ademseno, Gonka, Genti, Seneale
		subtotal	18	
Eastern	1	Tsrawweb erta	9	Kihen, Hadinet, Eira, Kelisha,Michael emba, Barka Adisebha,Debrebrihan,
Eastern	2	Atsbi	9	Haresaw, G/kidan, Rubafeleg, Felegeweni, Golgol,Nael,KalAmin,Hadinet,Zarema
Eastern	3	Gerealta	4	Adilal,Alal,Arebay,Adiwalka
Eastern	4	Tsemba	5	Raele,Hawle,Mariam agamot,Gulabena
Eastern	5	SubaSaes ei	8	Marwa, Geblen, T/Ziban, Sewine, Welwalo, Meshul, Asmena, KomaSebha
Eastern	6	Gullomek eda	6	sobeya, KiliAt, Marta, Firedashum, Hayelom,Haben,
Eastern	7	Erob	7	Endalgeda,Weraetle,Alitena,Harezesebata,Arac,AgereloKma,Endamos a
	7	subtotal	48	
Central	1	Abergelle yechila	6	Seye,FelegHiwet,TekleWyeni,Girure,Geara,Tsykeme
Central	2	TanquaMila sh	4	H/Tekeli,Lemaet,Selame,A.Weyne
Central	3	KeyehTek li	6	santaGelbeda,Wuhdet,dabano,Selam,TaweteGeworges,werka-amba
Central	4	EndabaTs ahima	6	eda-arbi,hibret,maekelawi,arena, matchekemte,edagahamus
Central	5	Egela	3	Mai-Hamato,Hoya-Medeb,Semhal
Central	6	RamaAdi Arbaete	4	maywediamberay,muhukan,beriha,brshuwa,
Central	7	Chila	6	terawur,adigebat,tsaedalaka,ketmachilla,shame,adishumbruh,
	7	subtotal	35	
Northwest ern	1	Seeyemti Adiabo	3	deguale, godifay, adikilte,
North-western	2	MAekela diabo	3	mayabay, adiwala, aditesfom

Northwestern	3	Dimatsele meti	5	meyda, midrehamos, gedebay, chachere, maygumera
		subtotal	11	
	22		142	

8. MARKET CONDITIONS

8.1. Staple crops

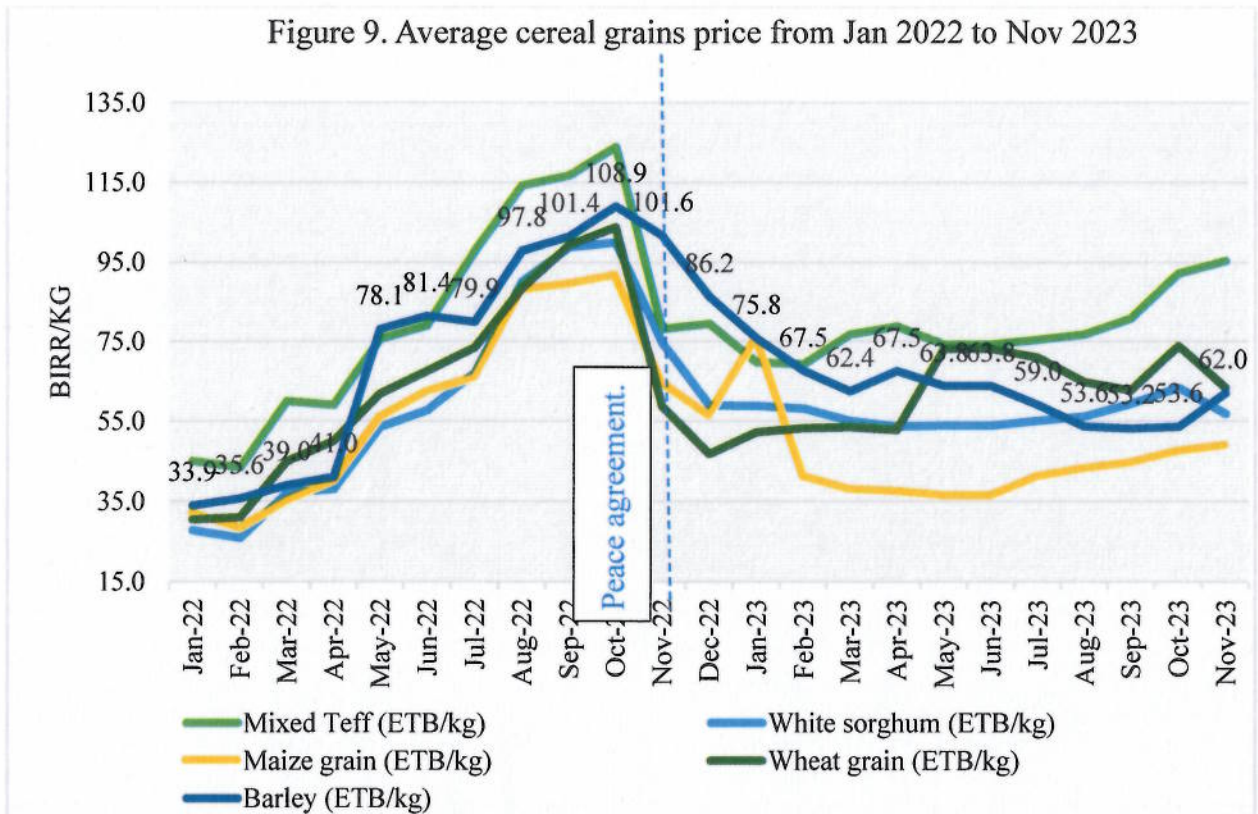
Overall, despite the inflation the market functionality has improved across the region since the signing of the peace agreements in November 2022. According to the woreda key informants and FGDs compared to the previous months (lean season) it is reported there is a below-normal supply of cereal grains and a sharp increase in the market prices of staple food. In normal times, there is a high supply of cereal grains and pulse from the previous year's harvest, of the surplus-producing households and harvests. However, it is reported that currently there is limited or no supply from locally produced and coming from the main supply routes for cereals such as (Teff, Maize, and Sorghum) from Amhara and Humera areas.

The staple foods for the region are Teff, sorghum, wheat, barley, and maize sequentially. Moreover, other cereals such as Pulses and barley are the main sources of cash income and food.

The price of staple food (cereal and pulses) as of November 2023 increased significantly throughout the region as compared to previous months and years. The price of cereal grains has shown an increasing trend since January 2023 to date. The significant price increase is associated with the impact of the drought and unpromising production prospects, limited supply from better-off households, fear of the upcoming increase in price and high demand, and limited food assistance in general. *Please refer to Figures 9 and 10 below for market price of cereal and wheat flour.*



Figure 9. Average cereal grains price from Jan 2022 to Nov 2023

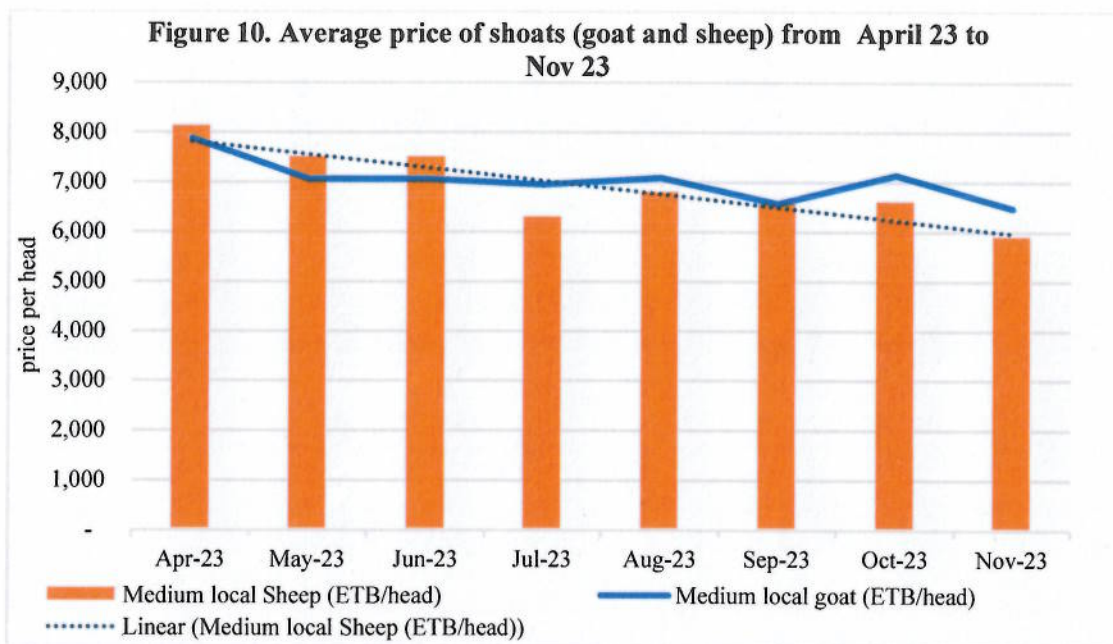


The prices of cereal and processed food are projected to increase in the upcoming months due to the failure of production and in surplus production areas like Raya Valley and throughout the zone.

8.2 Livestock

According to the KII and FGDs, there are limited livestock holdings especially for middle, poor, and very poor wealth category households. There is limited herd ownership and there is a slight increase in the supply of livestock to the market with a fear of losing the livestock. The price of livestock has reportedly increased up to April 2023, which is associated with an increase in demand from central Ethiopia and cross-border trading. But there have been slight to moderate reductions since recent months April to date. Based on the FGDs a sharp decline in livestock price was reported in November 2023 due to an increased supply of livestock to the market. Please refer to Figure 10 below for livestock prices (represented by shoats) from April to Nov 2023.





The FDGs also revealed a sharp decline of livestock prices especially cattle prices in October from 50 to 100%, which they associated it with the drought and fear of feed and water problems. In the Southeast, Southern, Eastern, and middle Tekeze catchment livelihood zone areas of the central zone there is a significant price reduction of livestock related to increased supply to purchase food and stocking. Owing to the drought conditions triggered feed and water shortages and deteriorating conditions in many areas of the zone, livestock prices mainly shoats and cattle are expected to decline in the upcoming dry months.

The cattle and shoat prices remain higher mainly associated with the overall inflation. However there has been a decline since April 2023 to date and abnormally significant decline is reported in the current season November 2023 associated with drought and concerns.

8.3. Wage labor

The casual and agricultural wage opportunities for the people in the region in normal times were in lowland areas of Raya and Western zone, construction in towns, and traditional mining in Northwest and Central areas. These agricultural and casual labor opportunities are affected due to the conflict and the current drought.

FGDs revealed that there are no or very limited wage labor opportunities despite the migration of most youths and able bodies mainly to towns like Mekelle and small towns seeking labor wage employment. Although there are limited opportunities in all zones compared to the before crisis time the average wage-price has shown a slight increment associated with inflations.

According to the FGD price estimates for November 2023 and November 2020, there is an increase of 20%. The agricultural wage price was 250 birr/p/d and currently it is about 340 birr/p/d with no or limited availability. The increase in agricultural labor in the current month in most areas was also associated with the unseasonal rainfall and increase in demand for a short period. Despite the increased labor migrations to the towns FGD and KIIs reported the availability of casual labor employment opportunity is very limited.

The overall opportunity and income from the wage labor are expected to further decrease in the lean months of the year provided the harvest completion while the wage rate may continue

steadily increasing for inflation reasons. Please refer to Figure 11 for the average casual wage labor price trends in the region in 2022 and 2023

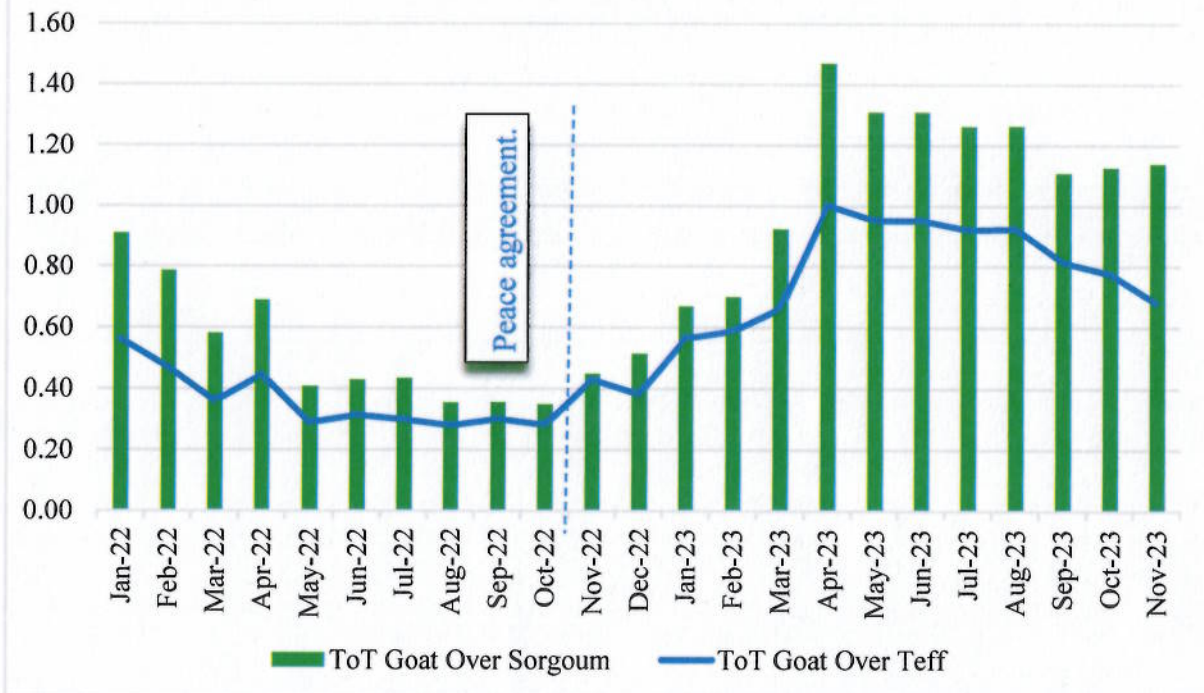


8.4. Term of Trade

The livestock dependent (represented by goat price) shows improvement due to the increase in the price of livestock since November toward April 2023. But there has been a decline since April 2023 due to a decrease in the price of livestock and the increased price of cereals (sorghum and Mixed Teff). This has therefore negatively affected the terms of trade between livestock and staple food cereals which has continued to widen since April 2023. Please refer to Figure 12 below for the price of goat over the price of cereal (sorghum and Mixed teff)



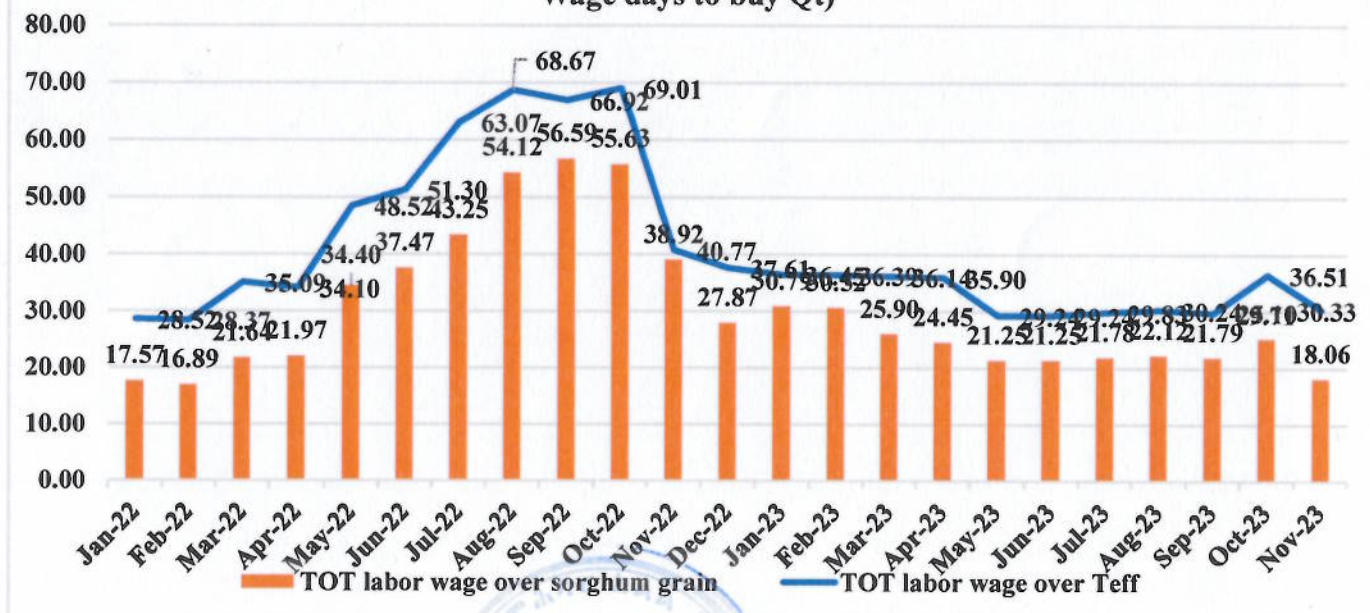
Figure 12 : TOT Goat price over Sorghum and Mixed-Teff cereal grain (1head/Qt)



Despite the availability of wage labor, the price has increased slightly. However, the price

Despite the availability of wage labor, the price has increased slightly. However, the price increases in the wage income-dependent households' ability to buy food grains with the current wage rate is getting smaller due to the significant increments in the staple food prices as represented by sorghum and Mixed Teff. Please refer to Figure 13 for the term of trade of the labor wage needed to buy staple food (sorghum and Mixed Teff)

Figure 13. TOR of labor wage over Sorghum and Mixed Cereal grains (No Wage days to buy Qt)



9. INCOME SOURCES and COPING MECHANISMS

Based on the information gathered from FGDs and KIIs there are reports of negative coping practices from many of the households in the zone, especially in many areas of Southeast, Southern, Eastern, and Central pocket areas in livelihood zones (EDM, RVL, EP, EM, MTC, TSC, RVL, TSC). The livelihood map is annexed to this report (Annex XYZ) for reference. The major income sources and coping mechanisms as described by the FGD and KIIs are,

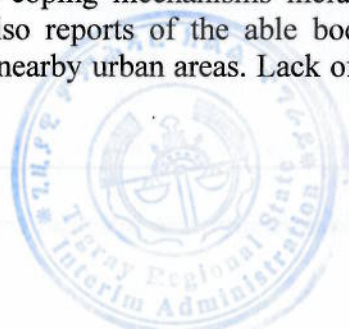
- Although reportedly currently exhausted the main income and coping mechanisms is social support.
- North West and South WFP woredas food for two rounds and one round of cash for PNSP for unbaled people in JEOP woredas was a source for food.
- Borrowing and remittance from relatives.
- Labor and migration mainly in Mekelle areas, and abroad to Sudi especially from Southern, South East, and Eastern areas.
- Sale of livestock assets but increasing supply and reducing prices.
- Gathering and sale of wild fruits in the South, South East, and Central areas (TSC)
- Sale of forest products (firewood, charcoal making, and wood sales).
- Withdraw children from school and engage as house servants in towns to support the family.
- Consuming limited quantities, adults skipping meals, and reduced meals per day,
- Less preferred purchase and cheaper food consumption

There are unverified reports on malnutrition and the death of six people related to a lack food, including an elder women found dead in her house few days before the assessment reported in Gerealta woreda. For the upcoming months, in most woredas of the zone, most of the farming households will depend on abnormal or negative coping mechanisms including increasing sale of last assets (productive livestock and household asset), and reducing expenditures on education, health, and agriculture unless assistance is provided that might aggravating the prevailing food insecurity.

10. HUMANITERIAN SUPPROT SITUATIONS

According to the Woreda early warning and food security reports, it has been revealed that there has been no food assistance program since April 2022 after USAID officially declared a pause in Tigray. While an intensely complex environment, the humanitarian food entering the region was interrupted after the conflict ended with a peace deal in early Nov 2022. The JEOP food assistance that covers 54 woredas has been paused since 21st April 2023 for over eight months following the reports on allegations of humanitarian food aid diversion, which has not yet started. The last food assistance reported in the woredas of Eastern zone was reported in February 2023 after which they lived with various coping mechanisms listed in the section above. However, some preparatory work was underway during the assessment by the humanitarian community to resume food assistance distribution.

Following the poor harvest of this season, abnormal increment of staple crops and limited supply of crops to the market affected the purchasing power of the drought-affected people. Households' food insecurity levels and hunger status were significantly high, and they faced large food consumption gaps. During the assessment period, the food-insecure people are observed to practice negative coping mechanisms including begging on the streets at an increasing trend. There are also reports of the able bodied and youth migrating to Arab countries, another region, and nearby urban areas. Lack of food assistance disproportionately



has affected IDPs, children, women, and people with disabilities (PWD), exposing them to increased protection risks and psychosocial distress.

The populations of highest concern include IDPs, people continuing to reside in areas along the Eritrean border, and very poor households with a limited asset base are likely to engage in begging and migrating to urban areas to access food. This would be exacerbated, as the production of the main cropping season is threatened by drought and becomes below the anticipated average; leading to the depletion of stocks in early 2024, which needs the due attention of humanitarian food actors. After the suspension of food aid on April 2023 there is no food transferred to the region *except some amount of commodity by EDRMC for IDPs and PSNP in Northwestern and Southern zones. Please refer to tables 22 and 23 below for the beneficiaries and amount assisted in recent months (last six to eight months)*

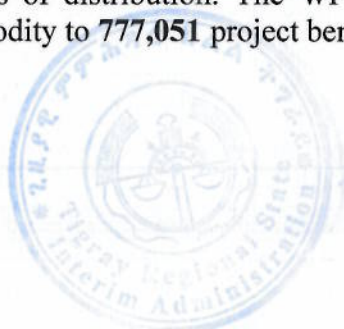
Table 22. Detailed food dispatch and distribution response (IDP response by two rounds).

S/No	Zone	Beneficiaries	Delivered (Qt)	Distributed (Qt)	%
1	Eastern	125,291	25,704.93	15,881.52	61.8
2	Central	283,748	51,962.83	42,230.35	81.3
3	Northwestern	187,651	36,174.35	35,848.19	99.1
4	Southeastern	20,418	5,367.30	3,633.38	67.7
5	Southern	Mohoni town			Registration 787 HHs
	Grand Total	617,108	119,209.41	97,593.44	81.9

Table 23. Detailed food dispatch and distribution response (WFP/partner assurance project)

S.N.	Woreda	Rounds	Benefic	Dispatched	Distributed	%	Remark
1	LaelayQoraro	Two Round	112964	2727.98	2727.98	86.4	
2	Zana	Two Round	93926	2270.37	2270.37	99.8	
3	TahtayQoraro	Two Round	11297	2561.47	2561.47	89	
4	Tsimbla	Two Round	90130	2543.23	2543.23	99.5	
5	Asgede	Two Round	148699	2697.02	2697.02	99	
6	AdiDaero	Two Round	79663	1912.08	1912.08	99.5	
7	MaekelAdyabo	Two Round	90411	1819.69	1819.69	99.5	
8	TahtayAdyabo	Two Round	149961	2946	2946	98.4	
	Sub Total		777,051.00	19,477.84	19,477.84	95.8	
1	RayaAzebo	1 st round	115325	172.9875	1721.13	0%	
2	RayaAzebo	2 nd round	136854	205.281	1129.0455	0%	
3	Chercher	1 st round	41503	62.2545	5416.14	0%	Ongoing
4	Mohini town	One round	53548	80.322	80.322	0%	Ongoing
5	Mohoni IDP			0			registration
			347230	520.845			
			1,124,281.00	19,998.69	19,477.84	97%	

A total of **119,209.41** Quintal commodities were dispatched and **97,593.44** Quintal of partial emergency food commodities (wheat, flour, CSB, rice, and oil) to about **617,108** IDP beneficiaries reached in two rounds of distribution. The WFP assurance project has also distributed **19,998.69** Quintal commodity to **777,051** project beneficiaries.



10. FOOD SECURITY PROSPECT UNTIL THE NEXT HARVEST SEASON

There is drought like conditions in Tigray mainly in Southern, South Eastern, Eastern and parts of Central zone with high risk of region wide food insecurity. Food security in 2024 will remain a concern because of below-normal crop production, inflation, and price escalation of staple food, galloping nationwide inflation, and the limited delivery of Emergency food aid. Indications of the complications of food insecurity are manifested by high malnutrition on Children under five, which the GAM rate in Tigray according to the SMART survey report in September 2023 has reached about 16% with the highest in IDPs (26.5%) and reported deaths.

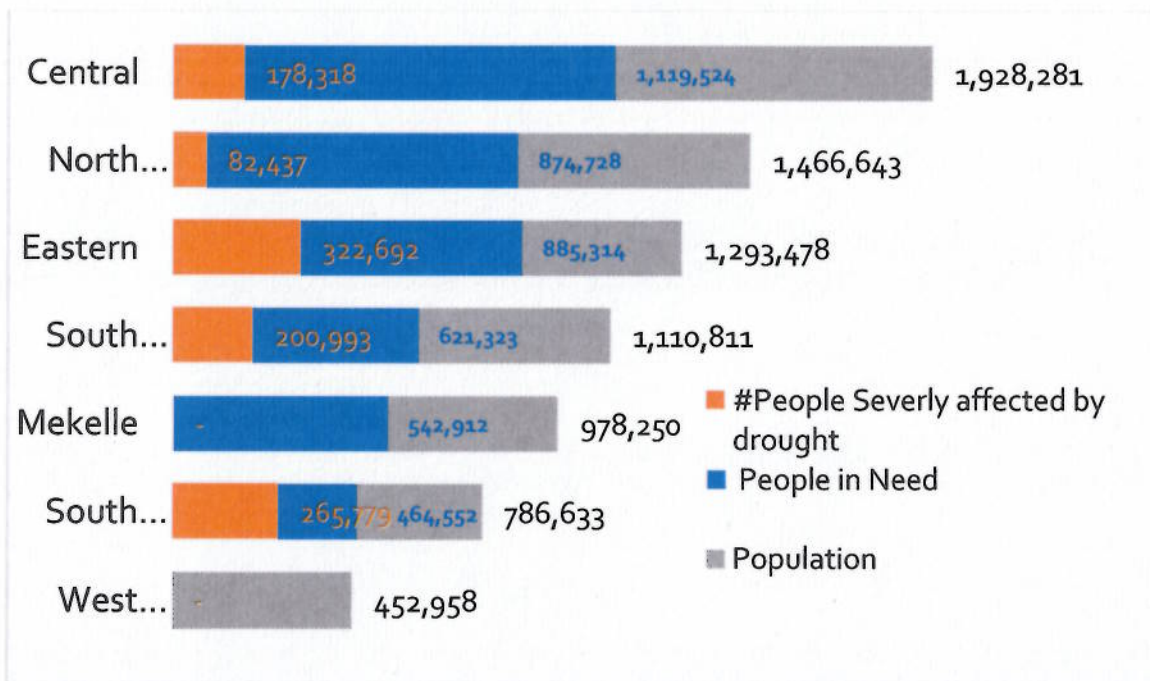
Table 24. The severely affected woredas by the current drought and unseasonal rainfall.

Southeast	Southern	Eastern	Central	Northwest	Western
Wajerate, Enderta, Hintalo, Samre, saharti, Deguatembion	Raya Azeb, Chercher, Embalaje, Selawa, Bora, Neksege, Zata, Offla, Alamata	Atsbi, Erob, Atsbiwonberta, Subha Saese, Tsaeda Emba, Geralta, Gant Afeshum, Kilte Alwlaelo, Gulommekeda Hawzien, Bizet	Abergelle, Yechila, Tanqua, Milash, Egella, Keyh, Tekli, Chila, Rama, Adi, Arbaete	Laealy, Tselamti, Seyemti, Adiyabo, Laelay Koraro. Zana, Maekelay, Adiyabo, Tahtay Koraro, Adidaero	

The Meher crop production performance is much below normal, and it is estimated to be only 37% (5,772,628 Qt) of the plan. It ranges from 16 to 48% across woredas and ranges from 8 to 65 percent across zones of the region (Figure 14). The huge yield loss is associated to drought and related rainfall adversities (unseasonal rainfall, rain hailstorms, flooding), pests and disease (locust, Armyworm) and damage, delayed input supply, inadequate inputs (fertilizer and seed), poor agricultural extension, and management support. Heavy rainfall associated with hailstorms has damaged overall crop growth and productivity in many pocket areas found in midland and highland areas.



Table 2. Needy population proportion by zone by hazards.



Due to the drought water in streams, springs, and other surface reservoirs is seen reduced which possibly would affect the food and income source from irrigation in the coming dry months. Abnormally there is a reduction in the supply of crops from local produce which is expected to further deteriorate and cause high market prices.

The physical and productive condition of cattle and shoats is normal but there is a serious concern about a shortage of pasture and water availability forthcoming in the coming dry months in many woredas, which will dent the food and income sources.

Supply and market price of staple food is increasing significantly and although livestock price is high there has been a noticeable decrease in the price of cattle and shoa since June 2023. The livestock supply to the market is expected to increase, and prices might sharply decrease due to sales to purchase food and lack or fear of shortage of feed.

The price of staple food has significantly increased and the purchasing power of the labor and other food purchases dependent on food sources could be highly affected especially in the until the next harvest season. The casual and agricultural labor opportunities are reportedly limited and people who depend on labor income are expected to be affected in getting their normal income.

Because of the drought, which significantly decreased overall crop production and income sources a sharp increase in the market price of staple food is forecasted with sharp reduction in the price of livestock that ultimately affects the term of trade in getting food.

The main aggravating factor for the current food insecurity in the assessed areas is drought and accumulated effects of the last three years of conflict. The deterioration of the overall coping mechanism is aggravated by the current drought and overall livestock and water productivity. The war has highly affected the regular food and income sources and market situation is disturbed due to functionality of the market and inflations. Due to the lack of salary payments

to extension workers and overall staff motivation support to the agriculture extension system and overall productivity was very limited. There was a direct impact of the war on the basic infrastructures such as irrigation schemes, market systems, schools, health, and electric power system that affected the overall productivity of human capital and socioeconomic assets.

In Tigray, recent population estimates based on woredas enumeration are about 8.2 million of which 5.8 million are rural population. Likewise, woreda estimates of IDPs in the region are 1,363,237. The population figures reported by the woreda authorities and reportedly from the ongoing VBT and 14 years old CSA forecast have a significant variation. However, based on data gathered from the woredas the food insecure population that wopudl require food assistance in effective January 2024 are **4,508,354**. The needy population will account **56%** of the population in the five zones covered in this assessment and the IDPs.

Tigray is experiencing an unusual early lean period from October and December 2023 with forecast that it will continue to worsen. Due to different hazards, mainly drought and unseasonal rainfall with hotspot prioritization and follow-up during the coming January - September 2024 where the impact of hazards will become high to affected households. The food security team need to undertake hotspot prioritization and follow up. The population that needs assistance from January 2024 is summarized in the table below (Table 25) by zone and details is Annexed to this report.

Table 25: Estimate of needy population for 2024 by zone.

Zone	IDP	PSNP	Relief	Total caseloads	Severely drought affected	Severely drought affected Tabias
Central	211,083	258,093	650,348	1,119,524	178,318	28
Eastern	102,780	323,406	459,128	885,314	322,692	85
Mekelle	224,548	-	318,364	542,912	-	-
North Western	324,497	86,552	463,679	874,728	82,437	15
South Eastern	37,599	143,115	283,838	464,552	265,779	41
Southern	48,864	199,586	372,873	621,323	200,993	44
Western	-	-	-	-	-	-
Region Total	949,371	1,010,752	2,548,230	4,508,353	1,050,219	213

11. RECOMMENDATIONS

The assessment team based on the observations from the visited woredas, focus group discussion with community and local authorities and key informant interview it recommends to,

- ✓ Urgently call for all stakeholders including the donors and local community for an urgent humanitarian response to the most affected woredas prioritized in the report for life saving response before large scale crisis emanates.
- ✓ Urgently mobilize humanitarian partners and local community for water schemes maintenance for human and animal consumption prioritizing economic and strategic priorities in life saving.
- ✓ Establish emergency mitigation and resource mobilization task force to mobilize required resources from internal and other sources. Strengthen the zonal and regional emergency response coordination forms to accommodate the drought response activities.
- ✓ HRD preparation should be facilitated for immediate implementations of responses for people living in areas identified to require food assistance.

- ✓ Immediate emergency response is required for people in the pocket areas to most areas of the zone, especially in the kebeles identified by the assessment team.
- ✓ Immediate intervention for vulnerable households due to chronic food insecurity especially those in the PSNP.
- ✓ The population size need discussions with local authority and higher levels to reach consensus on agreeable figures (considering the variations on the population figure with CSA projection, VBT, and woreda/zone estimation).
- ✓ Urban vulnerability study to be conducted soon to cover the urgent needs mainly in towns currently hosting large IDP size (Shire, Abiy Adi, Adigrat and Mekelle).
- ✓ Establish verification and response team at all levels to support woreda in areas of emergency response prioritization and save lives.
- ✓ Further verification of mortality and morbidity reported due to lack of food. The high number of reported deaths in woredas due to lack of food are not reflected in the report subject to verification.
- ✓ Update livelihood profiles of the region given the major changes in livelihood situations due to the conflict and keep it UpToDate,
- ✓ Emergency seed support and irrigation schemes maintenance for the highly affected woredas to support food and feed production during the elan season.
- ✓ Close follow-up and actions on feed and livestock requirements starting March 2024 in all the lowlands of the zone (mentioned in the body and annex of the report). Veterinary requirements (vaccination and medicine), restocking, and stocking response based on the woreda/Kebele situation.
- ✓ Given the woredas reorganization and changes in the population the LEAP/LIAS or HEA base data and results need to be discussed and verified.
- ✓ Affordability of fertilizer or subsidies and timelines of supply need to be disused well in advance for the upcoming seasons.
- ✓ Urgent school meals to ensure nutritional and food security enrollment and retention. Advocacy, assessment planning and prioritization teams could be established by the education and food sectors.
- ✓ Emergency response activities mainly food assistance in the long-term need to be weather risk reduction and mitigation through cash/food for work or PNSP in the long-term to enhance the resilience of the households.
 - Newly established woredas have less capacity in terms of resources especially human capital and overall ability DRM and in containing the current drought. Hence, special focus and support are required.
 - Enhance harvesting water from rain, surface, and groundwater for livestock and irrigation.
 - High possibility of the market price of cattle and shoats in many marketplaces of the zone. Therefore, the government proactively plans livestock marketing activities or destocking and restocking activities.
 - Extension support is required on feed management and livestock feed palatability in the drought in the affected areas.
 - Locusts and armyworms regeneration in the upcoming seasons need measures to mitigate this in the upcoming season.
- ✓ The overall data, production estimation and data inconsistency mainly remain challenges in the food security and vulnerability analysis activities in the zone. Hence, capacity-building support is required to woreda DRMC, at all levels on integrated food security classification, mapping, vulnerability analysis, and hotspot prioritization and related early warning, production estimation, market assessment, and forecasting training.

12. Annexs of food and Agriuture Meher assessmet 2023



Annex 1. List of woreda and tabia severely affected by drought.

Zone	Woreda	#people severely affected by drought	# of Tabia (Kebele)	Name of Tabias in each woredas
Central	Abergele (TG)	45,911	8	Felegehiwet, Giera, Grwre, Jijiqe, Smret, Sye, Tekleweyni, Tseykeme
	Ahsea	21,893	3	Adi Ftaw, Debre Harmaz, Haftemariam
	Egela	23,119	3	Hoya Medeb, May Hamato, Semhal
	Keyih Tekli	39,525	5	Dabanow, Santa Gelebeda, Selam, Tabote Giorgis, Wuhdet
	Rama Adi Arbaete	7,793	1	maywediamberay,
	Kola Tembien	15,963	4	Yaker, - Arena, Zelaqme, Shulum emni
	Tanqua Milash	24,114	4	Hadush Tekeli, Lemat, Selam, Amdi-Woyane
North Western	Adi Daero	3,278	2	Adi Million, Selam
	Laelay Tselemti	36,358	5	Chachere, Enda Gebray, Fiyel Wuha, Maida, Midri Hamsho
	Maekel Adiyabo	14,063	2	Adi Awuala, May abay
	Seyemti Adiyabo	17,118	3	Adi Kilte, Doguali, Godefey
	Tahtay Adiyabo	11,620	3	Ademeyti, Adi Aser, Shimblina
Eastern	Atsbi	36,654	10	Adi Mesanu, Dera, Felege Weyni, Gebrekidan, Golgol Naele, Hadnet, Haresaw, Kalamini, Ruba Feleg, Zarema
	Bizet	9,515	3	Adekney, Simret, Wuhdet
	Erob	21,587	8	Agerelekoma, Alitena, Arae, Dewhan Town, Enda Mosa, Endalgeda, Hareze Sebaeta, Weraetle
	Ganta Afeshum	36,166	12	Beati May Mesanu, Buket Nihibi, Golea Genahiti, Hadnet, Hagereselam, Kokeb Tsibah, May Tsaeda, Mergahya, Mugulat, Sindadya, Sasun bete hawariat, Debla sieat
	Gerealta	16,384	4	Adi Lal, Alal, Arebay, Adi Walka
	Gulo Mekeda	30,107	12	Adis Alem, Adis Tesfa, Ambesete Fikada, Fireda Shum, Haben, Hayelom, Kilat, Marta, Mereta, Mezabir, Sebeya, Shewit lemlem
	Hawzen	33,883	6	Adi Belew, Degamba, Fre Weyni, Koraro, May Kado, Megab
	Kilte Awulaelo	32,751	5	Debre Tsion, Hayelom, Laelay Adi Kisandid, Saze, Tahtay Adi Kisandid
	Sebuha Saesie	29,063	11	Asmena, Geblen, Hadush Adi, Kuma Sebha, Marwa, Meshul, Mezewule, Saesie, Sewne, Tahtay Zban, Welwalo
	Tsaeda Emba	38,869	6	Guemse, Gula Abenea, Hawile, Maryam Agamet, Raele, Sendeda
	Tsirae Wenberta	37,713	9	Barka Adi Sebha, Debre Birhan, Era, Hadnet, Kelesha Emni, Kihen, Mahbere Weyni, Mesanu, Micheal Emba
	South Eastern	Degua Tembien	30,939	5
Eisra Adi Wejerat		29,018	8	Adi Keyih, Adi Mesno, Bahre Tsaba, Genti, Gonka, Sebebera, Seneal, Tsehafti
Enderta		87,600	12	Adi Azmera, Arato, Debre Qibie, Derga Ajen, Emni Ankelalu, Felege Mayat, Mahbere Genet, Mesebo, Lemlem, Menbere Kedusan, Mai-Alem, kedamay Woyane.

	Hintalo	53,236	6	Ara Alemsegeda, Bet Mera, Freweini, Mesanu, Muja, Waza
	Saharti	35,267	5	Adi Shishay, Banba, Eseret, Mariam Meko, May Kana
	Samre	29,719	5	Berezeba, Hadush Lemlem, Lemlem Arena, Nebar Hadnet, Woyin
Southern	Bora (TG)	8,023	3	Kilma, Mebal, Amedwuha
	Emba Alaje	17,584	2	Atsela, Sesat
	Enda Mekoni	43,990	10	Hizba Teklehaymanot, Kerya qanfa, simret, Mesawti, Senay, Tahtay Haya, Jema, Wuhedet, Emba-hasti, Mekan
	Raya Azebo	51,211	11	Beru, Abo, Genete, Hawelti, Horda, Kara Adishaho, Kukufto, Mechare, Tsigea, Wargiba, Werebaye
	Raya Chercher	42,478	9	Adis Kigni, Bala, Begea Delwo, Erba, Hade Alga, Korme, Maru, Ulaga, Weyra Wuha
	Selewa	25,791	4	Fire Woyane, Semret, Fana, seret
	Neqsege	11,916	4	Arena, Embega, Dum, Hadenet,
	Total	36	1,050,219	213



Annex 2. Estimation of category of needy population by zone and woreda.

Zone	Woreda	IDPs	PSNP	Relief	#Total caseloads
Central	Abergele (TG)	1,919	22,322	45,911	70,152
	Abyi Adi Town	53,310	-	16,553	69,863
	Adet	15,517	19,395	44,321	79,233
	Adwa	9,289	22,989	35,791	68,069
	Adwa town	27,788	-	37,786	65,574
	Ahferom	4,734	23,285	33,077	61,096
	Ahsea	2,051	9,970	29,797	41,818
	Axum town	22,781	-	40,906	63,687
	Chila	6,246	13,267	29,993	49,506
	Egela	2,927	9,349	25,234	37,510
	Emba Sieneti	4,903	10,043	19,578	34,524
	Endaba Tsahma	12,562	11,749	26,226	50,537
	Enticho town	6,116	-	13,063	19,179
	Hahayle	3,954	12,800	21,112	37,866
	Keyih Tekli	3,181	14,171	39,525	56,877
	Kola Tembien	11,198	14,071	39,022	64,291
	Laelay Maychew	5,978	10,916	30,231	47,125
	May Knetal	4,554	10,181	23,287	38,022
	Naeder	3,733	12,780	24,436	40,949
	Rama Adi Arbaete	3,134	11,915	19,725	34,774
Tahtay Maychew	3,726	16,319	28,071	48,116	
Tanqua Milash	1,482	12,571	26,703	40,756	
Central Total		211,083	258,093	650,348	1,119,524
Eastern	Adigrat town	52,218	-	63,799	116,017
	Atsbi	1,055	30,377	36,654	68,086

	Atsbi town	1,631	-	8,988	10,619
	Bizet	4,241	17,267	13,887	35,395
	Edaga Hamus town	3,600	-	7,013	10,613
	Erob	-	25,175	21,587	46,762
	Freweyni town	1,173	-	4,644	5,817
	Ganta Afeshum	2,958	52,353	36,166	91,477
	Gerealta	919	10,474	16,384	27,777
	Gulo Mekeda	8,937	50,692	30,107	89,736
	Hawzen	4,006	36,568	40,917	81,491
	Hawzen town	2,029	-	12,921	14,950
	Kilte Awulaelo	1,399	27,286	37,036	65,721
	Sebuha Saesie	2,776	25,608	29,063	57,447
	Tsaeda Emba	2,633	21,559	38,869	63,061
	Tsirae Wenberta	2,065	26,047	37,713	65,825
	Wukro town	11,140	-	15,536	26,676
	Zala Anbesa town	-	-	7,844	7,844
Eastern Total		102,780	323,406	459,128	885,314
Mekelle	Mekelle	224,548	-	318,364	542,912
Mekelle Total		224,548	-	318,364	542,912
North Western	Adi Daero	10,975	5,308	29,268	45,551
	Asgede	39,596	1,326	32,266	73,188
	Endabaguna town	28,623	-	9,378	38,001
	Laelay Koraro	7,626	8,797	32,594	49,017
	Laelay Tselemti	-	22,974	46,311	69,285
	Maekel Adiyabo	3,887	4,783	23,578	32,248
	May Tsebri town	-	-	7,109	7,109
	Seyemti Adiyabo	4,185	4,965	24,535	33,685

	Sheraro town	33,964	-	13,716	47,680
	Shire Endaslasie town	167,006	-	75,931	242,937
	Tahtay Adiyabo	9,095	5,950	46,621	61,666
	Tahtay Koraro	2,672	11,888	32,086	46,646
	Tselemti	-	5,850	28,396	34,246
	Tsimbla	2,102	6,693	32,151	40,946
	Zana	14,766	8,018	29,739	52,523
North Western Total		324,497	86,552	463,679	874,728
South Eastern	Adi Gudom Town	4,338	-	10,151	14,489
	Degua Tembien	2,438	16,901	30,939	50,278
	Eisra Adi Wejerat	1,629	18,966	29,018	49,613
	Enderta	13,915	48,025	87,600	149,540
	Hagere Selam town	2,420	-	7,908	10,328
	Hintalo	7,148	23,892	53,236	84,276
	Saharti	1,265	17,038	35,267	53,570
	Samre	4,446	18,293	29,719	52,458
South Eastern Total		37,599	143,115	283,838	464,552
Southern	Alamata town	-	-	16,967	16,967
	Bora (TG)	883	7,029	26,753	34,665
	Emba Alaje	3,117	12,958	31,177	47,252
	Enda Mekoni	1,782	22,955	43,990	68,727
	Korem town	-	-	9,280	9,280
	May Chew Town	11,575	-	20,119	31,694
	Mekoni Town	24,249	-	10,017	34,266
	Neqsege	488	8,579	11,916	20,983
	Ofla	-	28,888	36,729	65,617
	Raya Alamata	-	31,980	37,872	69,852

	Raya Azebo	5,895	42,182	51,211	99,288
	Raya Chercher	-	17,666	42,478	60,144
	Selewa	875	10,569	25,791	37,235
	Zata	-	16,780	8,573	25,353
Southern Total		48,864	199,586	372,873	621,323
Western	Awra (TG)	-	-	-	-
	Dansha town	-	-	-	-
	Kafta Humera	-	-	-	-
	Korarit	-	-	-	-
	May Gaba	-	-	-	-
	May Kadra	-	-	-	-
	Setit Humera town	-	-	-	-
	Tsegede (TG)	-	-	-	-
	Welkait	-	-	-	-
Western Total		-	-	-	-
Grand Total		949,371	1,010,752	2,548,230	4,508,353

