Promising 2003 harvest in Arsi zone with the exception of some pocket areas


By François Piguet

1 Introduction and background

The mission’s major objectives were to assess the humanitarian situation in Arsi zone, Oromiya Region, following the first good rainy season after three years of rainfall deficit. The assessment focused on general agriculture situation, livestock condition and other humanitarian concerns like water and health issues linked to food insecurity at household level.

Arsi zone reputed as a surplus area had faced 2002 drought and long-run deterioration in the food security situation. Of 22 woreda in Arsi zone, 19 have been affected by the prolonged drought conditions. Woreda in the lowlands suffered greatest: Dodota Sire and Ziway Gugda woreda where it is estimated that last year farmers lost 95% of their harvest, Merti and Gololcha with 80% failure and Seru 70% failure (Piguet, 2002).

In 2003, keremt rain quantity and distribution have been good and all cultivated land is currently under crops. End of September, crop situation appears globally good, particularly in last year most affected low lands. However, problems are still affecting some pocket areas.

In addition to the past years low agriculture performances, water shortage, pasture stress and overgrazing occurred mostly in the lowlands (kola). In 2002 – 2003, malnutrition signs reported by health officers in the concerned woredas and a high number of schools drop out highlighted the level of food insecurity at household level.

Arsi zone has received some support from international NGOs, mostly with Meki Catholic Secretariat maintaining a long-term presence in Dodata Sire and Ziway Dugda, Medical Emergency Relief International (Merlin) a British NGO operating since four months in Dodata Sire, Gololcha, Merti and Ziway Dugda with an health and water programme and World Vision (WV) currently operating in Jeju. Also some indigenous organisations are working in the Arsi zone: Oromo Self Help Organisation (OSHO), supported by German Agro-Action (GAA), is currently working in Gololcha and Merti; Charity Development Association (CDA) and Oromo Development Association (ODA) have been involved in relief in several woreda together with local authorities.
2 Mission findings

2.1 Climatic conditions

In general, weather conditions from Belg time up to now are normal. If late Belg rain and extended dry period during that short rainy season have had a negative impact on Belg crops, Meher long rains conditions have been good. All over the zone, rains are expected up to October first decade to assure very good crop maturation. Some parts of the lowlands have reported rain onset delays, but conditions appear as good except excess of rain and hail storms having affected some crops mostly in the highlands.

Disaster Prevention and Preparedness Desk (DPPD) in Asela has received reports about local difficulties due to climatic excesses, mostly in the highlands: 25 ha of culture have been damaged by the hail in Peasant Association (PA) Siru Abadir (Etosa woreda); 95 ha of barley affected by hail in Karalincha and Ela Walkite PAs (Dicksis woreda). In Chole woreda, about 203 ha of wheat and barley have been affected in four PAs (Gersa, Nibo Aketera, Gambo Awa, Moye Garadima). According to Chole woreda rural development coordinator, these areas are well known for regular excess of rain leading to floods and land slides. Also in Seru woreda, 259 ha of maize and sorghum have been affected in Ganale Nage and Gobra Bah PAs.

In the lowlands, Ziway Dugda woreda rural development coordinator has reported that 2003 rain distribution has been good and all cultivated land is currently under crops. Only some floods have affected about 120 ha of maize in Genale and Bite PAs. In Merti woreda, same areas faced shortage of rain due to precipitation interruption. Shortage of rain in the lowlands during one week has compromised some crops at early growing or flowering stage.

Dry maize affecting by water stress, Merti Woreda (photo by F. Piguet OCHA, September 2003)  
Maize intercropped with indigenous cabbage, Ziway Dugda woreda (photo by F. Piguet OCHA, September 2003)
According to DPPD in Asela, maize and sorghum crops appear globally in very good condition despite excess of rain having destroyed locally cereals crops. However, problems are still affecting some pocket areas in Merti, Gololcha and Dodota Sire woredas, with maize mostly affected by interruption of rain during growing stage and some pest attacks. After failure of early maize crops in Timuga (Gololcha woreda), farmers shifted to sorghum planted in July. Agencies should get more worried about some parts of Merti woreda, where obviously crops have faced moister stress and will not mature.

Crop situation will be first assessed by DPPC during Meher pre-harvest crop assessment. Almost all interlocutors are insisting that for good crop maturation in the low lands, some additional rain up to early October will be welcomed; otherwise some crops actually at flowering stage might be affected. On the top of that, shut flies at larva stage have attacked teff crops in Dodota Sire and Merti woredas.

In Dodota Sire woreda, 2003 situation is good with the exception of some pest affecting teff crop (25%) and maize over seeding will be used for livestock feed. With a total population of 141,000 people, Dodota Sire is currently facing a decreasing number of farmers, a movement due to destitution linked to bad weather and soil conditions. In 2002 around Dera, farmers got about no crop and 95% were lost in the woreda. Farmers are facing a shortage of draft animals, as last year, about 2,000 oxen used for ploughing died and many others have been sold to purchase food. Dodota Sire woreda is also suffering from high soil degradation, which has increased risks of desertification. Erratic rains and erosion are problematic and within the last years, wind erosion became a major problem during the dry season.

In Ziway Dugda Woreda maize late sowing in June has taken place in 8 kebeles (Doditcha, Aduto, Bore, Chefichila, Gulba, Abay Danaba, Kerishu and Aderidibo) due to delay for seed. Despite that fact, harvest will take place in time and rain should continue to the end of September in order to avoid yield reduction.

In Chole woreda, mostly located in the highlands, farmers have just finished harvesting belg crops. For the present Meher planting season, farmers used local seed or selected varieties and fertilizer but chemical fertiliser’s use has decreased for UREA necessary for wheat crops. Farmers are now using manure and even MoA extension service has promoted the use of manure, as chemical fertilisers are expensive. However, extension package credit payment back is quite good as not more than 3% of the farmers have payment difficulties, according to the woreda rural development office.

Traditional manuring technique in the highlands near Chole. Farmers are burning manure before displaying it over their plot (photo by F. Piguet, OCHA, April 2003)
Next to Chole, Gololcha woreda situated southeast of Mount Arba Gugu is currently divided into 36 kebeles with a total population of 137,845 inhabitants. 12 kebeles have been affected by the drought. Over a total of 50,000 vulnerable food insecure people, the most affected areas are Timuga kebele, bordering Micheta in West Hararghe. Beside the drought, Gololcha, a particularly remote area, is currently facing socio-economic problems. Marketing has been a strong limitation as early 2002; farmers sold their crops at 15 to 20 ETB for a quintal of maize.

In Timuga area, crop production reduction is expected due to dry spells. Rain occurs in April and farmers sowed maize in May. Crops suffered from dry spell in June and according to a report sent to DPPD Asela, farmers shift to sorghum in July. In same places, slight shortage of water has affected sorghum at seedling stage in the lowlands and might bring some yield reduction.

Merti woreda is currently divided into 28 kebeles (2 pastoralists, 1 agro-pastoralist and 25 agriculturists) with a total population of 91,405 inhabitants. The main crops are wheat in the mid- and highlands (weina dega and dega), and maize and sorghum in the lowlands (kola) with restricted intercropping opportunities due to poor soil composition (Piguet, 2002). In Merti, some reduction of yield and crop failure are expected in the kola (lowlands), where 90% of the farmers are growing sorghum mixed with teff, beans and maize, some wheat as well in the weina dega (midlands). Situation might appear particularly difficult for those lowlands farmers who have concluded crop-sharing agreements with midland and highlanders oxen owners.

2.2 Seed

In all visited woredas, farmers got support with seed distributions organised by Meki Catholic Secretariat (MCS), Food and Agriculture Organisation (FAO) and/or Ministry of Agriculture (MoA) through the extension package system. Moreover, for 2002 Oromiya Agriculture Bureau had decided to freeze extension package credits payback and land taxes.

Due to a long-term crop production decrease and the failure of 2002 Meher crops, all affected woredas have faced seed shortages. At 2003 planting season, only some composed seed and uncertified local seed were currently available. At this stage, Asela seed enterprise production remains expensive and is mostly offering unsuitable seed for subsistence farmers. Almost no sorghum seed and katumani maize were available in Awassa and in Asela, the two main seed multiplication centres in southeast Ethiopia. As an alternative strategy, farmers were borrowing seed to their neighbours for the planting season. This strategy is likely to be costly to the farmers as the borrower is accepting the obligation to pay back up to 50% of the resulting harvest.

According to the rural development coordinator in Asela, despite shortage of seed and fertiliser, when rains are normal like now, peasants plant local seed purchased or borrowed and at least they will get something. Shortage of fertiliser and higher prices has reduced

1 Timoga Wachota (3,710 inhabitants), Timuga Wella (10,160), Badaï (2,854), Lafto Rifensno (3,470), Konto Gogeti (3,422) Tulu Kararo (4,250), Chabi Kami (4,793) Gafi Tederba (2,528) Baima Choma (2,280) Todof Worda (6,900) Unke (1,344) and Berber Sakouni (3,643).
the utilisation rate, which might bring less viable seed, and so far a yield’s reduction is expected. As far as seed are concerned, there is currently a problem of quality and quantity of produced seed, as fields are infested with weeds. Keeping the purity of the stand in the field needs intensive weeding.

Generally, farmers have a lack of experience for seed multiplication activities on farmer’s fields. Some ongoing experiments in Etosa, Chole, Merti Jeju and Robe woredas should contribute to change the things. Farmers who have got experience to keep quality of seed might transmit their experience to neighbours but the majority did not. It is possible to keep improved seed, but possibility of high quality seed depend on intensive weeding to keep purity.

According to Dodota Sire woreda rural development coordinator, FAO has provided 200 MT and Catholic Relief Service (CRS) in Wonji 600 MT maize, teff, barley, wheat, haricot beans, horse beans and chickpea, but the quality of those seed remains questionable. FAO seed funds have been used to purchase 10 MT Awassa 511 improved seed and some 2.5 MT katumani maize. Farmers have purchased fertiliser from farmers cooperative, but no data are yet available. Land taxes for 2003 will be collected in January 2004 and extension credit will be paid back according to the harvests calendar, starting in October with haricot beans, he said. For 2002, extension credit as well as land taxes have been frozen by regional decision, but official at woreda level didn’t get any formal notification. Is it a cancellation or farmers will be requested after the harvest to pay back 2002 credits and taxes together with the 2003 one? Farmers' recovery will mostly depend on that question.

In Ziway Dugda woreda, maize seed provided through FAO support has reached a total of 93.6 MT with 32.1 improved seed and 61.5 MT local seed. Seed shortage was particularly acute in the western part of the woreda and in other places farmers got their own seed stock. At the time of the purchase, it was a shortage of improved seed and MoA woreda experts went to Awassa in order to purchase local seed by traders. Consignment has been purchased after proceeding germination tests and purifying process.

2.3 **Box 1 Emergency seed distribution programme in less than 90 days: it’s possible**

Wonji catholic parish together with CRS have been involved in seed distribution covering Dodota Sire woreda in Arsi and Adama woreda in East Shoa. Currently 4 millions ETB have been spent for providing seed in the two woredas. Those seed have been purchased on a private base and germination tests successful at 95% have been made prior distributing to the farmers. Programme responsible managed to shorter all administrative procedure initiated in May 2003 and distribution to the farmers has been achieved end of July.
According to Wonji Father, seed business is in the same time deeply linked with encouraging indigenous knowledge, one of the major points to be evaluated together with the seed fair programme. Seed fair with vouchers for the needy beneficiaries who can get access to the seed fair by lack of cash to buy the seed, remain a key component of any further programme supporting food insecure households. On the top of that, farmers can equally compete with traders in seed fair after teff, wheat, barley, maize and sorghum germination tests certifying the quality of the seed.

In Gololcha, DPPC has distributed some seed for long cycle crops, mostly 20.2 MT of 5 months maturation maize *katumani*, and some 2.3MT sorghum. Farmers have benefited from two types of extension package, the full one with selected seed, fertilizer and herbicide and a partial package with only local seed and fertilizer. Like in Dodota Sire, due to the drought, farmers in the low lands benefited from down payment, cancellation or delay according to households’ economical situation. All farmers have been entitled to get the next extension package in 2003 without consideration for previous credit payback.

In Merti woreda, according to the rural development coordinator, seed shortage remains despite some FAO distribution for wheat, teff and barley seed. Even some 30 MT beans seed should be distributed now. Facing shortage of maize *katumani*, some new seed varieties have been brought from Debre Zeit. Farmers sowed mostly maize and sorghum local varieties and maize *katumani*. For the improved seed, only wheat has been concerned. 83.2 MT of those seed has been distributed for free without fertilizer. Only a few farmers have used the extension package providing improving or hybrid seed. Wheat extension package concerns mostly the *weina dega*.

Most of the farmers in the 15 kebeles affected by the drought are currently facing income problems and cannot buy fertilizer. For those kebeles, credit back payment has been transferred to next year. On the top of that, a lot of draft animals died or have been sold and most of those farmers in the *kola* have been forced to enter in a crop sharing system with relatives and/or people from the mid and highlands. Such system intensively used is bringing sowing delays due to the fact that farmers are often waiting for borrowed ploughing oxen.
2.4 Crops market

Unless the government decides to regulate the market, farmers and officials all over Arsi zone fear depressive effect on prices consecutively to a good harvest. At this stage, risks are similar to 2001 – 2002 situation, following 2001 good harvest. With market prices way below production costs has initiated a vicious circle with market prices drop below production costs; the number of farmers unable to pay back credit received to buy extension packages increased steadily, making them more vulnerable and food aid dependent (Guinand 2002). Market regulation is obviously a policy issue through marketing intervention and implementing mechanism of stabilisation should lead to buy local surpluses. World Food Programme (WFP), who has no specific mandate about marketing intervention, can only initiate some local purchases as unique alternative. That question is 100% under the government responsibility. Nevertheless, no food aid distribution will take place before March, as the assumption is that people do have food at least for 3 months consumption. Some exception might occur for internally displaced people (IDPs), landless people as well as pocket areas.

Early 2002 in Gololcha for example, prices went down to some 20 ETB for a quintal of maize and such situation has had consequences on children school attendance and nutrition status due to a lack of income at household level. This is probably an extreme case as Gololcha is located in a remote area benefitting of poor infrastructure, only few traders are coming down to Chancho/Gololcha to buy food crops. Presently, most of the farmers will consume their own production, but officials are précising that the woreda shouldn’t be anymore considered as self-sufficient area.

2.5 Animal condition and animal health

In 2002, pastoralists from the lowlands have faced cattle high mortality due to a lack of pasture and scarce water. Also low lands farmers lost a lot of draft animals forcing them to enter in crop sharing, leading in some places to ploughing and sowing delays. Today, livestock market prices are mostly back to a pre-drought average, but activities on the main livestock market in Dera (Dodota Sire) remain at low scale and restricted to local transactions, comparing to previous long-range activities with livestock from Arsi, Bale and West Hararghe Zones.

In 2002 animals died in large number particularly in the low lands but also in some highlands areas, as most of the livestock has been weakened by feed shortage. Presently, there is no particular disease outbreak reported.

In Gololcha, a half pastoralists woreda, due to a lack of pasture and water, livestock didn’t get a good performance in 2002. Actually, most of the pastoralists are willing to restock their flocks and such situation drives them to market only few animals. As far as animal health is concerned, animals in the woreda are most commonly affected by black leg disease (Chermasaka, Tumto, Harow and Srebego kebele). Some cattle have been vaccinated on a cost recovery base and due to the 2002 drought; free vaccination for black leg has taken place depending on the herders’ situation.
In Merti woreda, pasture and livestock condition are presently normal and no particular animal disease outbreak has been reported. Nevertheless, some epizootics remain endemic in the woreda. Late September, animals from neighbouring weina dega and dega areas were on their way to go back to the highlands, according to traditional trans human system based on altitudinal differences.

2.6 Livestock market

Livestock market has recovered even if most of the transactions remain local due to communication difficulties restraining animal movements after the rain. Dera town, about 30 km south of Nazaret, is a well-known livestock market as well as a contact market with Bale and Hararghe. Actually Dera livestock market is not very active despite the coming Meskal weekend. With new pasture availability, herders are not anymore forced to sell their animals for low prices. Actually fewer cattle are currently marketed due to the consequences of 2002 drought and a high animal death rate in Dodota Sire woreda. However, low prices remain for poor condition animals. Further in Gololcha, a lot of middlemen traders used to come in 2002 to buy animals on local markets in Chancho, Timuga, Harow, Unke and Mine and Sole. Those animals used to be sent away, particularly to Dera market.

Presently, prices are reaching 1400 ETB for a draft ox, 1000 ETB for a good-looking cow and weak or poor condition animals are currently sold for 200 to 500 ETB. Like in Metahara, farmers are selling draft oxen to purchase younger animals to be trained and to benefit from price differential. Goats and sheep are currently sold for 80 to 150 ETB and those prices might decrease from 20 to 30% after religious festival. Of course, all prices quoted are indicative, as most of the transactions usually take place in the afternoon, in order to allow trader to bargain for prices discounts. A lot of shoats can be seen outside the market compound to avoid taxes paid at the entrance (0.4 ETB for a shoat, 2.2 ETB per cattle).

2.7 Water

Water problem has worsened in the past three years as the traditional water sources such as rivers have fallen to despair and ponds dried-up due to the drought. Diarrhoeal diseases and others transmitted by faeco-oral route, caused primarily by poor hygiene practices, inadequate sanitation, and unsafe water are a major cause of illness especially among children in the Arsi Zone. The use of contaminated water supplies and the absence of sanitary facilities have resulted in high levels of infection among the vulnerable population and undermine the high emergency response in food aid (Merlin, 2003).
MERLIN is currently involved in health and water programme, particularly in Dodota Sire Woreda and has planned to extend water and sanitation activities to Gololcha and Merti woredas. In Dodota Sire, MERLIN is currently running a water tankering programme and the water and sanitation team has rehabilitated a spring catchments in Sire and a borehole in Derikiltu (Dodota Sire). Further interventions are planned in the other prioritised woredas due to the high prevalence of water borne diseases related to the lack of sanitation and health education. E. g. in Chancho and Timuga (Gololcha) should benefit from spring catchments protection work. Other priority concerns Merti woreda, where in 2002 most of the streams and even big rivers were dry. However, in 2003 due to renewal of water streams, water borne diseases prevalence has decreased in Merti woreda.

2.8 Human health

Malaria and water born diseases are health main concerns mostly related with poor water supply. In some locations, lack of safe water supply has influenced health and nutritional status, particularly among children. Nevertheless, MERLIN’s recent nutritional surveys in Dodota Sire (less than 5% GAM) and Merti (8% GAM) woredas have showed improvements. A quick assessment on humanitarian needs is actually covering Aseko woreda, where MERLIN has planned to screen about 1000 children.

MERLIN is also bringing support to health services mainly with malaria drug distribution in 5 woreda (Dodota Sire, Zway Dugda, Merti, Aseko and Gololcha), training supervision and health care.
In Gololcha, an area particularly affected by waterborne diseases in 2002 with typhus, typhoid, amoebae, “jardia” and even bilharziosis, has recently noticed a less acute prevalence of those diseases. However, 36 PAs are actually suffering from high malaria prevalence. On the contrary, in Merti Woreda, no particular malaria outbreak occurs. Medicines and mosquito nets as well as insecticide sprays are now among the main needs. As other preventive measures are concerned, despite well-known resistance to DDT (Dichlorodiphenyltrichloroethane), an internationally banned insecticide and other chemicals are presently not available at regional level. 2002 DDT budget for Oromiya Region hasn’t been renewed. Consequently, following the rainy season, situation around riversides, flooded areas and watering points is questionable.

2.9 Relief and Food aid

In the perspective of the next harvest, DPPC food distributions will be interrupted starting from October in the lowlands but in some locations, NGOs as well as officials at woreda level remain worried about CSB/fafa supplementary food distribution. As those distributions will be stopped as well, most of them are expressing fears about future children nutritional status after three or four months' interruption.

In Dodota Sire, an average of 1000 MT have been distributed in the woreda, mostly wheat, maize, some oil and CSB / fafa as supplementary food. In the woreda, MCS has been involved in relief with currently over 71,000 beneficiaries up to September. As harvests in the lowlands will start end of September, only 11320 beneficiaries, mostly highlanders, will get relief in October and November.

On another hand, MCS has pull out from Ziway Dugda woreda where they were involved in relief distribution. In the same time, MCS Rehabilitation Development Programme is ongoing focus on micro-irrigation, small-scale irrigation and horticulture. Cooperation groups are set up and these groups might benefit from credit and/or revolving funds.

This programme designed for two-years will cover 5 potential kebeles in Ziway Dugda as well as Dugda Bora woreda in East Shoa zone (Oromiya Region), providing notably oxen and seed. Together with OFDA funds provided through CRS, MCS want to set up an 18 months integrated recovery programme focus on approximately 10,000 households of drought beneficiaries in 20 PAs. MCS development activities are including formal and informal education, water and sanitation as well as supports provided to health posts and clinics.

In Gololcha woreda, food aid September allocation is getting by now and DPPC will jump two months in November and December. CSB/fafa distribution with OSHO is covering 12 kebeles with particularly Timuga and Unke have got supplementary distribution for September. Today the question of supplying supplementary food for the end of the year according to the weak nutritional status remains open. In Merti woreda as well, OSHO will stop distribution at the end of October for 3 months time, but CSB/fafa distribution will continue on the basis of one distribution every two months.
3 Conclusion and Recommendations

Comparing to 2002 drought condition, climatic conditions mostly appear favourable and all over Arsi zone good harvests are expected for 2003. However, local difficulties remain and pocket areas will request a close monitoring within the coming weeks. Particularly Merti woreda’s lowlands have faced short dry spells during rainy season, which has affected crops. Merti lowlands farmers who were among the most affected in 2002 will remain economically vulnerable. As they have lost most of their draft oxen, those farmers are increasingly involved in crop sharing to borrow ploughing animals. Even, if they are able to harvest crops, they might remain vulnerable by lack of food reserve notably due to the crop sharing system and lack of cash to pay back extension credit and land taxes. Such vulnerable condition will request further household assessment and follow up.

Like other parts of the country, Arsi Zone, which used to be a surplus grain area, might be affected by crop prices depression, especially if no particular step is taken by the Federal Government to regulate crop markets. It appears rather important to assure farm gate’s prices covering at least farmers’ production costs.

For other concerned humanitarian, water and sanitation and all related diseases remain a challenge for the health and water desks supported by some NGOs. Health education linked to water use and sanitation appear as a top priority contributing to step down high prevalence of waterborne diseases. Seasonal malaria outbreak occurs in some woreda, particularly in lowlands nearby water facilities and flooded areas. Already support in terms of medicine and mosquito nets reached the zone but any step to eradicate vectoral mosquito are actually in danger due to lack of insecticide and specific budget to purchase it.

DISCLAIMER

The designations employed and the presentation of material in this document do not imply the expression of any opinion whatsoever of the UN concerning the legal status of any country, territory, city or area of its authorities, or concerning the delimitation of its frontiers or boundaries.

9 October 2003
Annex

Abbreviations

CDA   Charity Development Association
CBPP  Contagious Bovine Pleuro Pneumonia
CRS   Catholic Relief Service
CSB   Corn Soya Blended
DAP   Di-Amonium Phosphate fertiliser
DDT   Dichlorodiphenyltrichloroethane
DPPD  Disaster Prevention and Preparedness Desk (DPPC structure at zonal level)
EGS   Employment generating scheme
ETB   Ethiopian Birr
FEWS  Famine Early Warning System
GAA   German Agro-Action
GAM   Global Acute Malnutrition
IDPs  internally displaced people
MCS   Meki Catholic Secretariat
MERLIN Medical Emergency Relief International
Mls   meter over the sea level
MoA   Ministry of Agriculture
MT    Metric Tonne
NGO   Non-Governmental Organisation
ODA   Oromo development Association
OSHO  Oromo Self Help Organisation
PA    Peasant Association
WFP   World Food Programme
WVI   World Vision International

Glossary

Belg  Expression for the agricultural season in the short rainy season in parts of Ethiopia. *Belg* Rains definition: In spring, a strong cyclonic centre develops over Ethiopia and Sudan. Winds from the Gulf of Aden and the Indian Ocean highs are drawn towards this centre and blow across central and southern Ethiopia. These moist, easterly and southeasterly winds produce the main rain in southeastern Ethiopia and the little rains to the east central part of the northwestern highlands. The little rains of the highlands are known as *belg* rains, referring to the second most important sowing season of the region. (Source: FEWS)

Dega  Expression for one of the altitudinal agro ecological belts in Ethiopia. In Wollo between 2500 to > 3000 msl.

Drought  Drought is a period of insufficient water initiated by reduced precipitation. The impacts of drought on crops and society are critical but not easily quantified. The result is that "drought" does not have a universal definition. "Meteorological drought" is defined as a sustained period of deficient precipitation with a low frequency of occurrence. While crops may be damaged by lack of precipitation and high temperatures in just a few days, such short periods are not considered to be meteorological droughts. A three-month period is defined by the American Meteorological Society to be the shortest period that can be defined as a drought. (Source: The American Meteorological Society)

Kebele  Smallest administrative unit in Ethiopia

Kola  Expression for one of the altitudinal agro ecological belts in Ethiopia. In Wollo between ~1200 to ~1600 msl.
Meher  Expression for the long rainy season in parts of Ethiopia. Keremt or Meher Rains
Definition: Since Ethiopia and Eritrea are in the tropics; physical conditions and
variations in altitude have resulted in a great diversity of climate, soil, and
vegetation. Rainfall is seasonal, varying in amount, space, and time. There is a
long and heavy summer rain, normally called the big rain or keremt, which falls
from June-September. It is followed by the baga hot, dry period from October
through February (see below for definition). In some areas there are short and
moderate spring rains in March and April known as the little rains or belg. These
rainy periods correspond to Ethiopia's primary and secondary agricultural seasons,
known as the meher and belg. (Source: FEWS)

Woreda  Local administrative unit for a district

Weina dega  Expression for one of the altitudinal agro ecological belts in Ethiopia. In Wollo
between ~1600 to ~2600 msl.

**NGOs in Arsi**

Charity Development Association (CDA)  relief in Bulala area, Dicksis woreda, Tiyu / Ochole

Meki Catholic Secretariat (MCS)  Relief, water and agriculture rehabilitation and
development in Dodota Sire and Ziway Dugda woredas

Medical Emergency Relief International (MERLIN)  Health and water programme in Aseko,
Dodota Sire, Gololcha, Merti and Ziway Dugda woredas

Oromo Development Association (ODA)  relief in Amigna (Adele), Robe and Dodota Sire

Oromo Self Help Organisation (OSHO)  relief, water & irrigation in Gololcha, Merti and Ziway
Dugda

World Vision (WV)  Rural development & Relief in Jeju woreda
(Extension of their programme in East Shoa, Wolenchiti, Boset woreda)

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