

NATIONAL METEOROLOGICAL SERVICES AGENCY

MONTHLY AGROMETEOROLOGICAL BULLETIN

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SUMMARY

August 2004

During the first dekad of August 2004, the observed normal to above normal rainfall over most parts of Meher growing areas favored season's agricultural activities. Nevertheless, most parts of western half of the countries exhibited heavy falls greater than 30 mm. Even some areas experienced heavy fall repeatedly two to three days. Among the reporting stations Adama (31 and 43.3 mm), Senkata (34.5 and 64.4 mm), Shire (32.6 and 32.4 mm), Gelemso (38.6 and 78.3 mm), Nekemte (48.0 and 53.1 mm), Bahir Dar (45.9 and 39.8 mm) and Bullen (33.3, 51.4 and 78.8mm) exhibited heavy falls ranging from 31 - 78.8 mm.

During the second dekad of August 2004, Meher crops were in a good shape in most parts of Meher growing areas. Nevertheless the observed heavy falls ranging from 30 - 86.5 mm over some areas of western, north-western and north-eastern the parts of the country resulted in land slide, crop damage and livestock loss.

During the third dekad of August 2004, Benishangul-Gumuz, western Amhara, western Oromiya including Arsi and Bale high lands as well as pocket areas of northern tip of Somali experienced normal to above normal rainfall distribution while most parts of eastern half of the country experienced below normal rainfall. Those areas which received above normal rainfall registered falls ranging from 40.9-229.6 mm of dekad rainfall. Besides, Bullen, Gimbi, Gonger, Nejo, Pawe, Aira, Kachissie, Robe, Alge and Assosa received 42, 47.3, 49.5, 50.3, 54.8, 57.8, 58, 58.5, 59 and 63 mm of heavy fall in one rainy day, respectively. This situation resulted in land slide, crop damage, livestock and property loss in some areas of southern Amhara (Gina Ager), western Amhara (Chagni) and eastern Benishangul-Gumuz (Bullen) as well as Akaki. The observed normal to above normal rainfall over much of Meher growing areas assisted the on going season's agricultural activities. Regarding to the crop phenological reports maize was at wax and full ripening stage in western, eastern, central and southern Oromiya (Alge, Gelemso, Woliso, Zeway, Kibre Mengist), northern SNNPR (Hossaina and Bui); at flowering stage in western Oromiya (Bedelle, Gimbi, Aira, Sekoru and Nedjo) and western Amhara (Chagni); at tasseling stage in western and eastern Amhara (Dangila, and Sirinka) while at early vegetative stage in eastern Amhara (Bati). Sorghum was at flowering and near flowering stage in western Oromiya (Gimbi and Dembi Dolo); at shooting stage in western and eastern Oromiya (Aira and Gelemso), eastern Amhara (Cheffa), southwestern Benishangul-Gumuz (Assosa) and northeastern SNNPR (Bui); at tillering stage in western Oromiya (Alge), western and eastern Amhara (Chagni and Bati). Wheat was at shooting stage in eastern and northeastern Amhara (Combolcha and Lalibela), western and central Oromiya (Nejo, Fitcha, Zeway and Kulumsa), and at tillering stage in southern Amhara (Amba Mariam and Debre Berehan), central Oromiya (Kachissei) and southeastern Tigray (Mekele) while at 3rd leaf stage in northern SNNPR (Hossaina), southeastern Amhara (Were ilu) and central Oromiya (Shambu). Teff was at tasseling stage in central Oromiya (Zeway); at shooting stage in western Oromiya (Bedelle and Gimbi), western and southeastern Amhara (Dangila and Majete), northern SNNPR (Sodo); at 3rd leaf stage in eastern and southeastern Amhara (Combolcha, Sirinka and Were ilu), eastern and central Oromiya (Gelemso, Nazareth and Kulumsa) and southeastern Tigray (Mekele); at early vegetative stage in eastern Amhara (Bati and Cheffa), southwestern Benishangul Gumuz (Assosa), central Oromiya (Woliso and Shambu). Millet was at tasseling stage in eastern

Benishangul-Gumuz (Bullen) while at shooting stage in western Oromiya (Nejo), and at tillering stage in western Amhara (Chagni). Cereals like beans and peas were at ripeness stage in central Oromiya (Kulumsa) and at flowering stage in central Oromiya (Fitch) and southern Amhara (Amba Mariam) while at early vegetative stage in northeastern Amhara (Wegul Tena). Oil crops like nug and flax were at green ripeness stage in eastern Benishangul-Gumuz (Bullen) and elongation stage in central Oromiya (Kachissei). In addition to this, slight water logging on teff, sorghum and barely fields observed on

Assosa, Bui and Debre Berehan also slight wilting and slight damage due to pests and disease happened on Combolcha, Dembi Dollo, Bullen, Zeway on their fields.

In general during the month of August, Amhara, Tigray, Gambela western and central Oromiya including Arsi and Bale high lands much of SNNPR, southern and western Afar as well as pocket areas of northern tip of Somali experienced normal to above normal rainfall distribution while rest parts of the country experienced below normal rainfall. Among some of the reporting stations: Pawe, Gimbi, Dangila, Nejo, Aira, Enewary, Debre Berehan, Gonder, Fitch and Masha registered 504.3, 366.9, 363.8, 339.9, 331.2, 328.9, 316.6, 312.3, 309.4 and 304.2 mm of monthly rainfall, respectively. This situation favored the on going season's agricultural activities on much of Merher growing areas of the country. However, the observed heavy falls in western Oromiya (Alge), southern and western Amhara (Mezezo, Enewary, Chagni, Ginager, Debre Tabor and Mekane Selam), eastern Benishangul-Gumuz (Bullen) and Akaki generated crop damage, water logging , livestock and property loss on the on the aforementioned areas, Patricularly in Mezezo and Gin Ager resulted in land slide.

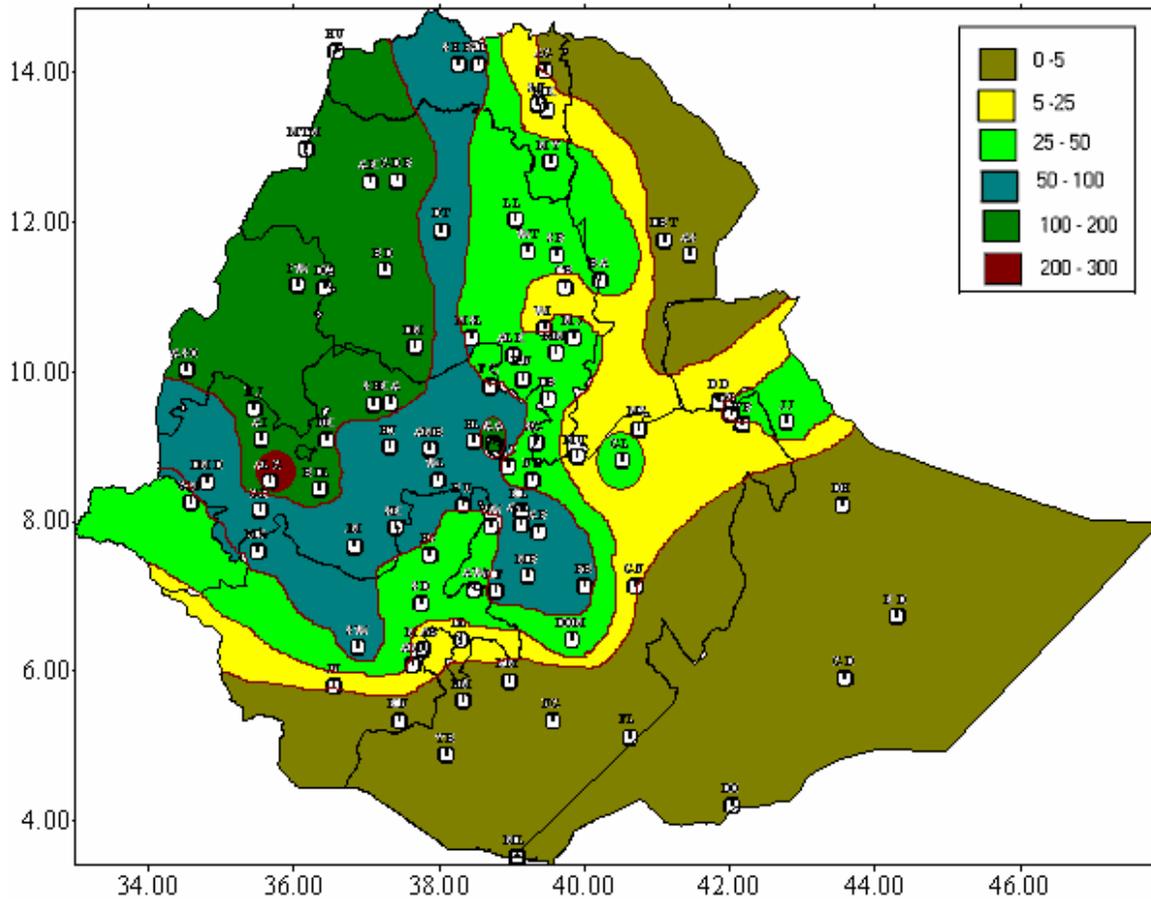


Fig 1. Rainfall distribution in mm (21-31 August, 2004)

1. WEATHER ASSESSMENT

1.1 21-31 August 2004

1.1.1 Rainfall amount (Fig.1)

Alge, Kachissie, Aira, Gimbi, Dangila, Debre Markos, Bahir Dar, Assosa, Addis Ababa (Observatory), Gonder, Pawe, Bedelle and Shambu received 229.6, 197.2, 142.6, 142.1, 124.4, 123.4, 119.7, 117.6, 117.1, 110.9, 110.1, 102.8 and 100.8 mm of dekadal rainfall, respectively.

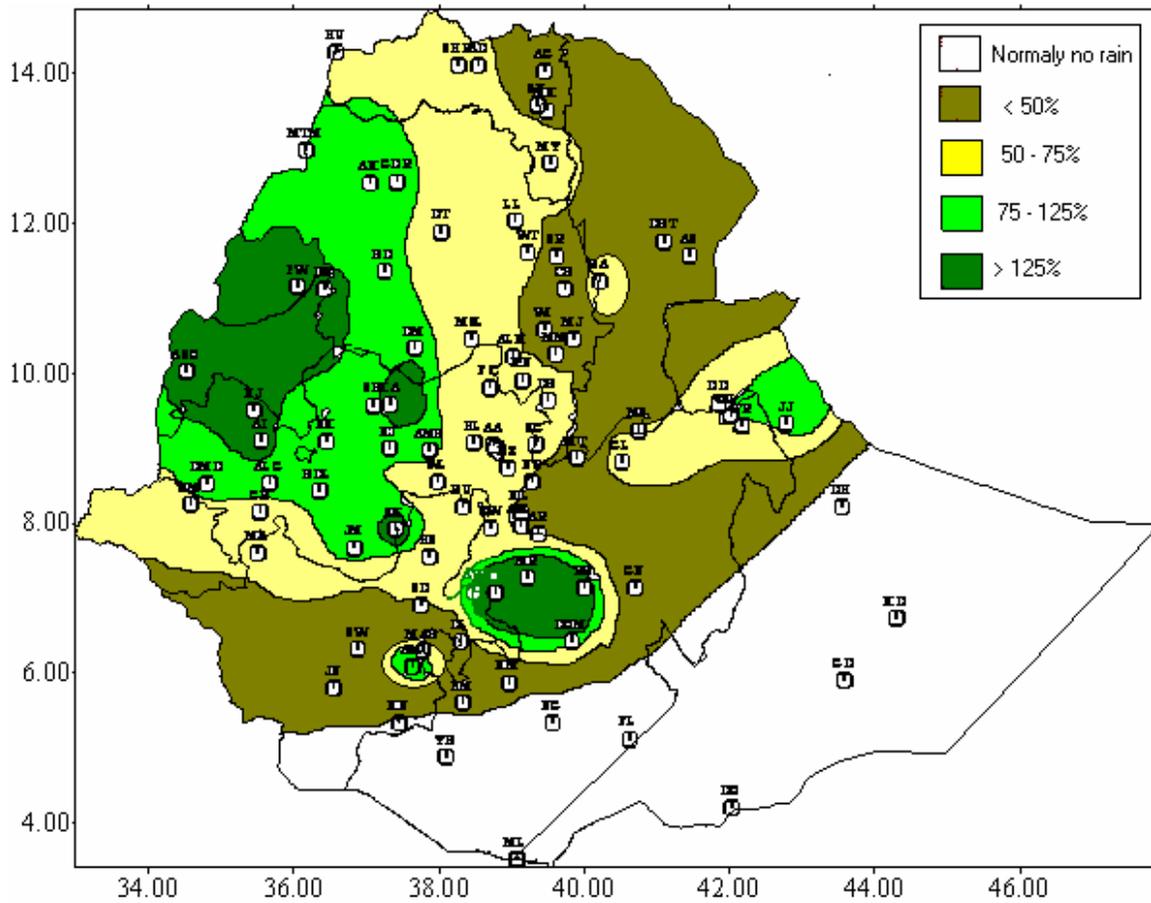


Fig. 2 Percent of normal rainfall (21-31 August, 2004)

Explanatory notes for the Legend:
 < 50-Much below normal
 50-75%-Below normal
 75-125%- Normal
 > 125% - Above normal

1.1.2 Rainfall Anomaly (Fig. 2)

Benishangul-Gumuz, western Amhara, western Oromiya including Arsi and Bale high lands as well as pocket areas of northern tip of Somali experienced normal to above normal rainfall distribution while most parts of eastern half of the country experienced below normal rainfall.

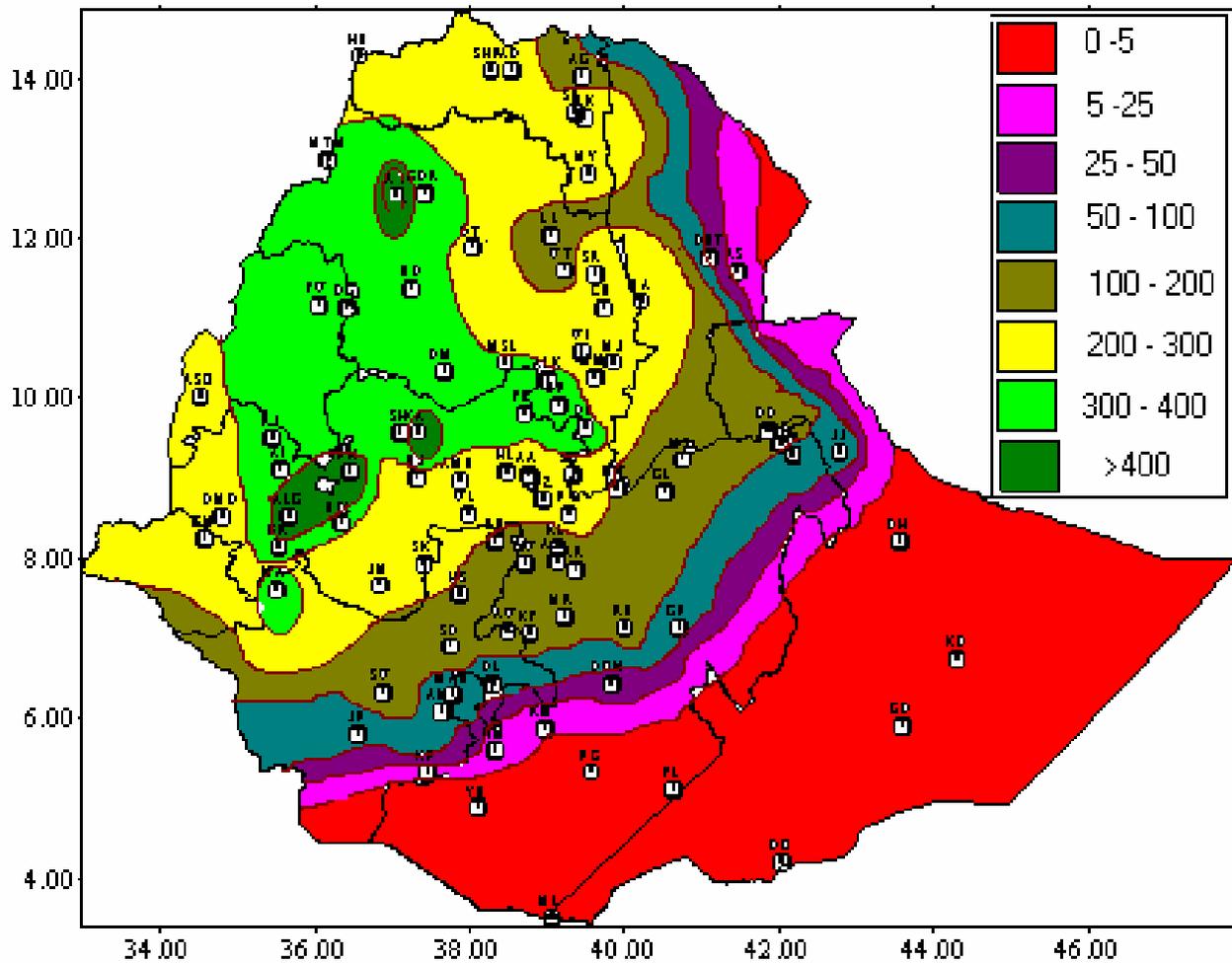


Fig. 3 Rainfall Distribution in mm for the month of August 2004

1.2 August 2004

1.2.1 Rainfall Amount (Fig.3)

Pawe, Gimbi, Dangila, Nejo, Aira, Enewary, Debre Berehan, Gonder, Fitcha and Masha registered 504.3, 366.9, 363.8, 339.9, 331.2, 328.9, 316.6, 312.3, 309.4 and 304.2 mm of monthly rainfall, respectively.

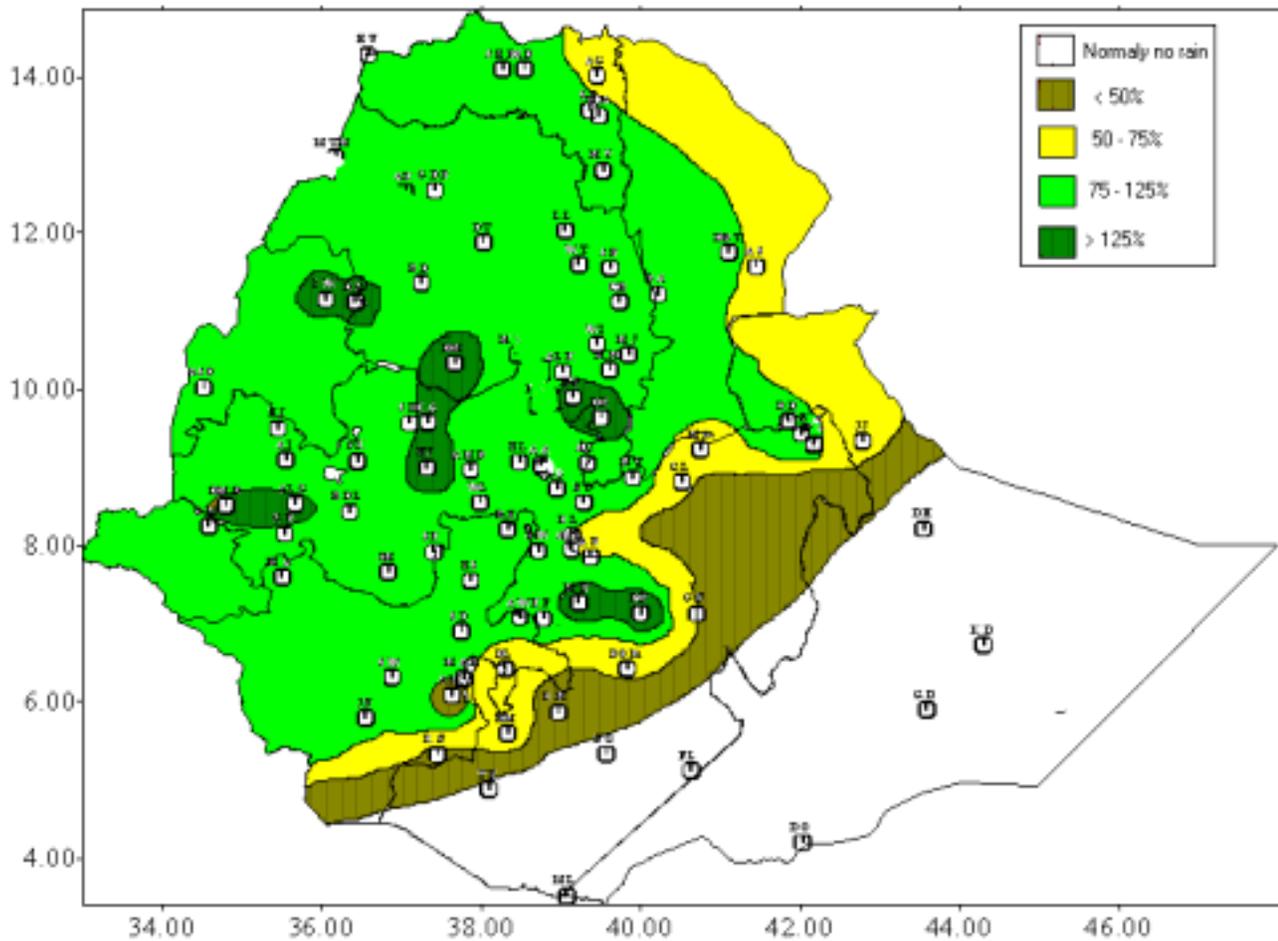


Fig. 4 Percent of Normal Rainfall for the month of August 2004

Explanatory notes for the Legend:
 < 50 -Much below normal
 50-75%-Below normal
 75-125%- Normal
 > 125% - Above normal

1.2.2 Rainfall Anomaly (Fig. 4)

Amhara, Tigray, Gambela western and central Oromiya including Arsi and Bale high lands much of SNNPR, southern and western Afar as well as pocket areas of northern tip of Somali experienced normal to above normal rainfall distribution while rest parts of the country experienced below normal rainfall

1.3 TEMPERATURE ANOMALY

There was no significant temperature anomaly.

2. WEATHER OUTLOOK

2.1 For the first dekad of September 2004

Under normal condition, the Kiremt rain-bearing systems weaken relatively over various parts of the country at the beginning of September. In association with this, the rainfall activity will weaken gradually and stop starting from the first week of September. Besides, a significant decrease in both amount and distribution is observed over the remaining parts of the country. Sunny condition accompanied by cloud clusters, however, will result in heavy falls with thunder over western half of the country. In general, below normal rainfall is anticipated over eastern Tigray, southern Afar, and eastern Amhara, southern and eastern portions of SNNPR, eastern and southern Oromiya as well as northern Somali. Besides, central and western Tigray and Amhara, Benishangul-Gumuz, western and central Oromiya, Gambela, northern and western SNNPR will have normal rainfall. However, some places will have a chance of getting above normal rainfall. Northern Afar as well as southern Somali will be mainly under sunny condition but will have small cloud bands at their places.

2.2 For the month of September 2004

Under normal condition, during September the number of rainy days decreases, sunny condition and heavy falls with thunder within a short period are common over pocket areas. In association with this, the rainfall activity decreases gradually from eastern half of the country. Besides, the number of dry spells will increase from northeastern, eastern and central Ethiopia. During this time, the sea surface temperature over Pacific is under normal condition. However, over western part of Indian Ocean is below normal and its southern part is warming. This will have an impact on the weather activities over eastern parts of the country. In general, western Tigray and Amhara, Benishangul-Gumuz, western and central Oromiya, Gambela and most parts of SNNPR will have near normal rainfall with a chance of getting above normal rainfall at places. Eastern Tigray and Amhara, eastern Oromiya, northern half of Somali, Afar, Hareri and Dire Dawa will have below normal rainfall. Under normal condition, southern and southeastern lowlands will start to get their seasonal rains but it will be below normal.

3. AGROMETEOROLOGICAL CONDITIONS AND IMPACT ON AGRICULTURE

3.1 VEGETATION CONDITION AND IMPACT ON AGRICULTURE

The observed normal to above normal rainfall distribution over much of Meher growing areas of the country favored for the on going season's agricultural activities. On the contrary, The observed heavy falls associated with hailstorm over some areas of western and southern Amhara (Gina Ager, Chagin and Bullen) and Akaki generated flood, the over flow of rivers to wards crop fields, land slide, water logging on crop fields, crop damage and livestock and properties lose. Regarding to the crop phenological reports maize was at wax and full ripening stage in western, eastern, central and southern Oromiya (Alge, Gelemso, Woliso, Zeway, Kibre Mengist), northern SNNPR (Hossaina and Bui); at flowering stage in western Oromiya (Bedelle, Gimbi, Aira, Sekoru and Nedjo) and western Amhara (Chagni); at tasseling stage in western and eastern Amhara (Dangila, and Sirinka) while at early vegetative stage in eastern Amhara (Bati). Sorghum was at flowering and near flowering stage in western Oromiya (Gimbi and Dembi Dolo); at shooting stage in western and eastern Oromiya (Aira and Gelemso), eastern Amhara (Cheffa), southwestern Benishangul-Gumuz (Assosa) and northeastern SNNPR (Bui); at tillering stage in western Oromiya (Alge), western and eastern Amhara (Chagni and Bati). Wheat was at shooting stage in eastern and northeastern Amhara (Combolcha and Lalibela), western and central Oromiya (Nejo, Fitcha, Zeway and Kulumsa), and at tillering stage in southern Amhara (Amba Mariam and Debre Berehan), central Oromiya (Kachissei) and southeastern Tigray (Mekele) while at 3rd leaf stage in northern SNNPR (Hossaina), southeastern Amhara (Were ilu) and central Oromiya (Shambu). Teff was at tasseling stage in central Oromiya (Zeway); at shooting stage in western Oromiya (Bedelle and Gimbi), western and southeastern Amhara (Dangila and Majete), northern SNNPR (Sodo); at 3rd leaf stage in eastern and southeastern Amhara (Combolcha, Sirinka and Were ilu), eastern and central Oromiya (Gelemso, Nazareth and Kulumsa) and southeastern Tigray (Mekele); at early vegetative stage in eastern Amhara (Bati and Cheffa), southwestern Benishangul Gumuz (Assosa), central Oromiya (Woliso and Shambu). Millet was at tasseling stage in eastern Benishangul-Gumuz (Bullen) while at shooting stage in western Oromiya (Nejo), and at tillering stage in western Amhara (Chagni). Cereals like beans and peas were at ripeness stage in central Oromiya (Kulumsa) and at flowering stage in central Oromiya (Fitcha) and southern Amhara (Amba Mariam) while at early vegetative stage in northeastern Amhara (Wegul Tena). Oil crops like nug and flax were at green ripeness stage in eastern Benishangul-Gumuz (Bullen) and elongation stage in central Oromiya (Kachissei). In addition to this, slight water logging on teff, sorghum and barely fields observed on Assosa, Bui and Debre Berehan also slight wilting and slight damage due to pests and disease happened on Combolcha, Dembi Dollo, Bullen, Zeway on their fields.

3.2 EXPECTED WEATHER IMPACTS ON AGRICULTURE DURING THE COMING MONTH

The anticipated normal to above normal rainfall distribution over western half of the country, particularly on western Amhara, Gambela, northern and western SNNPR, as well as central Ethiopia will have positive impact on the on going season's agricultural activities and for long cycle crops that attain at flowering stage and perennials plants. On the contrary, the expected heavy falls over some of the above mentioned areas might be result in heavy falls that will generate flooding, landslide, the over flow of rivers and crop damage, water logging, livestock and properties lose over those areas. Thus, we advise the concerned personnel undertake precautions to minimize such adverse conditions. On the other hand, the expected below normal rainfall distributions over eastern half of the country, particularly on eastern Tigray, eastern Amhara, eastern Ethiopia, southern and eastern SNNPR where dry spells persisted during the previous dekads might be have negative impact on crop water requirements but the anticipated light rainfall over some of the above mentioned areas will have significant contribution for pasture and enhancement of moisture deficit.