

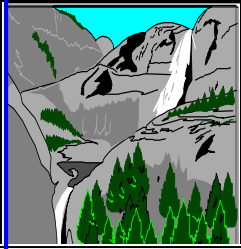
FEDERAL DEMOCRATIC REPUBLIC OF ETHIOPIA
MINISTRY OF WATER AND ENERGY
NATIONAL METEOROLOGICAL AGENCY
CLIMATOLOGICAL SERVICES TEAM

MONTHLY CLIMATE BULLETIN
JUNE 2017

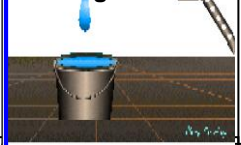
Some Applications of Climate Information



Disaster Management



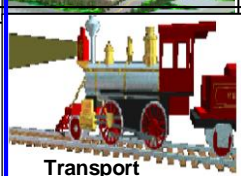
Water Resources Management



Construction



Environment & Health



Transport



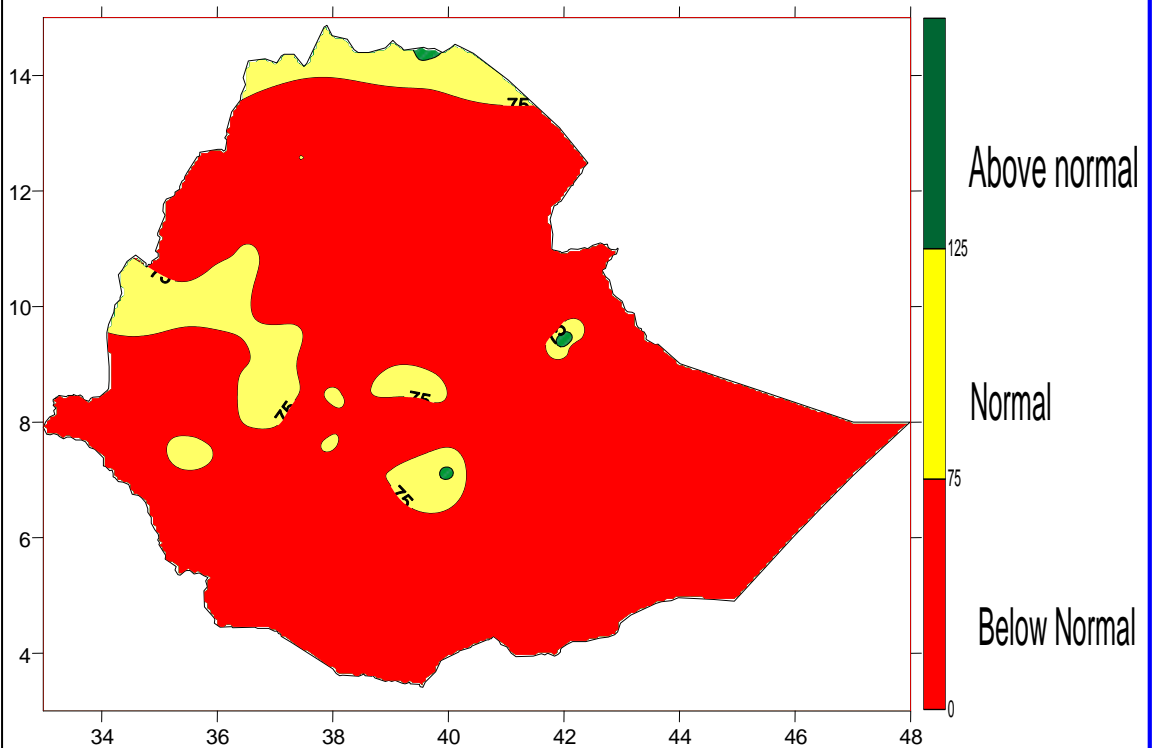
Recreation & Tourism

In June 2017, Monthly total rainfall recorded was below normal over most parts of the country especially Amahara, Southern parts of Tigray, most parts of Oromiya, SNNPR, all parts of Ethio-Somalia region, Gambella and Harar. Normal rainfall was recorded over some central parts of Oromiya, western Oromiya, North west SNNPR, South West Amahara, western Central and Eastern Tigray during the indicated month.

Only some pocket areas of central parts of Jigjiga and North East Tigray have got above Normal rainfall in the month.

In general, the total amount of rainfall recorded in June 2017 was less than of June 2016.

Sea surface temperatures (SSTs) during June 2017 remained near-average in the eastern equatorial Pacific and above-average across the central and east-central equatorial Pacific.



Percent of Normal Rainfall of June 2017

Foreword

This climate bulletin is prepared and disseminated by the National Meteorological Agency (NMA). It is aimed at providing climatological information to different services of the community involved in various socio- economic activities.

The information contained in the bulletin is believed to assist planners, decision-makers and the community at large by providing details of the climatic conditions of the nation in a given period.

This bulletin differs from the other real time and near real time bulletins issued by the Agency, which for their input depend only on meteorological stations equipped with single side band radio for data transmission. Though this bulletin is not real time, published with a delay of a year, the information contained in this bulletin is based on data coming from a much larger number of meteorological stations. Moreover, the information contained in this bulletin is not sector-specific and a wide range of users can benefit from it.

The Agency disseminates monthly, seasonal and annual climatological bulletins in which all-necessary climatological information and significant climatic anomalies are highlighted.

We have a strong belief that various socio-economic activities related to planning disaster mitigation, water resources management, construction, environmental protection, transportation, recreation, tourism and others will be benefited most by the careful and continuous use of this bulletin. Meanwhile, your comments and constructive suggestions are highly appreciated to make the objectives of this bulletin a success.

Director General

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1. Synoptic Situation

1.1 Surface

The Mascarene high with a mean central pressure value of 1020hpa was centered at about 90°E, 25°S.

The St. Helena high with a mean central pressure value of 1020hpa was centered at about 20°W, 30°S.

The Azores high with a mean central pressure value of 1020hpa was centered at about 40° W,30°N.

The cross equatorial flow, which is associated with the Low Level Jet had exceeded 2m/s over western Indian Ocean and 4m/s over the adjoining areas of eastern Africa, while south westerly flow exceed 8m/s over western Indian Ocean, Arabian Sea and the adjoining areas of the Horn of Africa.

1.2 Lower Troposphere (850hpa vector wind)

Mean (top) and anomalous (bottom) 850hpa vector wind of June 2017 contour interval for isotachs is 4m/s (top) and 2 m/s (bottom).

1.3 Middle Troposphere (500hpa Geopotential Height)

The 500hPa circulation during June featured above-average heights over the western U.S., Europe, and north-central Asia, and below-average heights over the high latitudes of both the North Pacific and North Atlantic and also over western Russia.

1.4. Upper Troposphere (200 hpa vector wind)

A pronounced westward retraction of the mean subtropical ridge over Australasia, along with amplified mid-Pacific troughs in both hemispheres But stronger on south hemisphere with 45m/s. This pattern is consistent with the lingering La Niña-related pattern of enhanced convection over

Indonesia and suppressed convection across the central equatorial Pacific.

2. Tropical Oceanic and Atmospheric Highlights

Sea surface temperatures (SSTs) during June 2017 remained near-average in the eastern equatorial Pacific and above-average across the central and east-central equatorial Pacific. The latest monthly Niño indices were +0.6°C for the Niño 4 region, +0.6°C for the Niño 3.4 region, and +0.1°C for the Niño 1+2 region. The depth of the oceanic thermocline (measured by the depth of the 20°C isotherm) was near-average over the central and eastern equatorial Pacific and the corresponding sub-surface temperatures were 0-1°C above average.

Also during June, the lower-level and upper level winds were near average across most of the equatorial Pacific. Meanwhile, convection was suppressed over the central equatorial Pacific and enhanced over western equatorial Pacific. Collectively, these oceanic and atmospheric anomalies are consistent with ENSO-neutral conditions.

Reference: Climate Diagnostic

Bulletin of June2017

3. Weather

Temperature

In June 2017, days remained hot over Benishangul-Gumuz, Western Oromiya, North and Northwest of SNNPR and Southwest of Gambella (Figure 2).

With less but in similar condition, all parts of the country was under hot weather condition (Fig.2) Hence, the extreme maximum temperature values were as high as 40.5, 41.0, 41.5, 41.5, 41.8,42.0, and 43.5°C over Dansha, Omorate, Hana (Salamago), Melka Sedi, Teferi Ber, Dima and Darimu (Dopa) consecutively (Refer table 1).

On the other hand, the extreme minimum temperature values were below or equal to 3.4, 2.9, 2.0, 2.0, 2.0, 2.0, 1.5, and -6.0°C Over Meraro, Arsi-Robe, Bedele, Dinsho, Robe, Habe, Hunte and Belle consecutively.

In General, monthly average temperature values was 30.0°C - 36.0°C over Afar and Benishangul-gumuz whereas most parts of the country was 10.0-30.0 °c.

Table 1. Stations with extreme maximum temperature values of 44.0°C and above during June 2017

Station	Extreme Max.Temp. (°C)	Date
Assaita	44.5	28
Dubti	45.5	24,29
Ayisha	46.0	22
Semera	46.0	17

Table 2. Stations with extreme minimum temperature values of less than 6.0°C during June 2017

Station	Extreme Minimum Temp. (°C)	Date
A/Robe	6.0	15
Bore	6.0	27
Bui	4.0	19
Mehalmeda	6.0	29
Wegeltena	4.6	4

3.2 Rainfall

Normally, June was one of the months expected for kiremt rainfall in most Parts of the country except eastern and southeastern parts of the country. In Such a way Northern parts of SNNPR, Central Oromiya and southwestern Amahara have got 300-400mm. Central and western Oromiya Western Amahara and some pocket areas of Western Tigray have got 200 and above to 300mm. Assosa, Southern, Central and eastern Oromiya, Central Amahara, Afar and eastern Tigray have got 100 and above to 200mm of rainfall.

Normally, the total rainfall amount of June 2017 at stations was 0-400mm (Figure 4).

In general, the monthly total rainfall amount of June 2017 was below normal over all parts of the country.

Table 3. Station(s) with rainfall amount of 10.0 mm and above in 24 hours during June 2017

Station	Amount(mm)	Date
Arba Minch	10.0	5
Bure	29.0	5
Dire Dawa	66.6	26
Harar	15.4	17
Haro	11.5	17
Jinka	15.2	27
Meiso	21.8	25
Mirab Abaya	12.2	25
Robe	15.0	13
Aris-Robe	15.6	13
Ticho	16	14

Table 4. Station(s) with monthly Total rainfall amount 15.0mm and above during June 2017

Station	Amount (mm)
Bure	29.0
Dire Dawa	66.6
Harar	15.4
Jinka	15.2
Meiso	21.8
Meiso Mission	20.4
Robe	15.0
Robe-Aris	15.6
Ticho	16.0

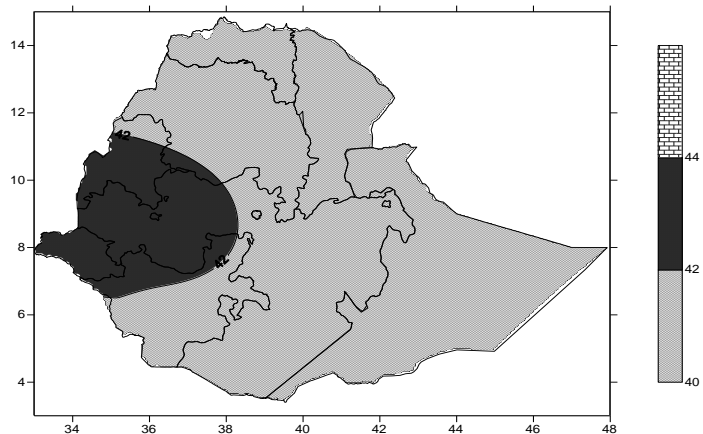


Figure 2. Extreme maximum temperature in °C during June 2017

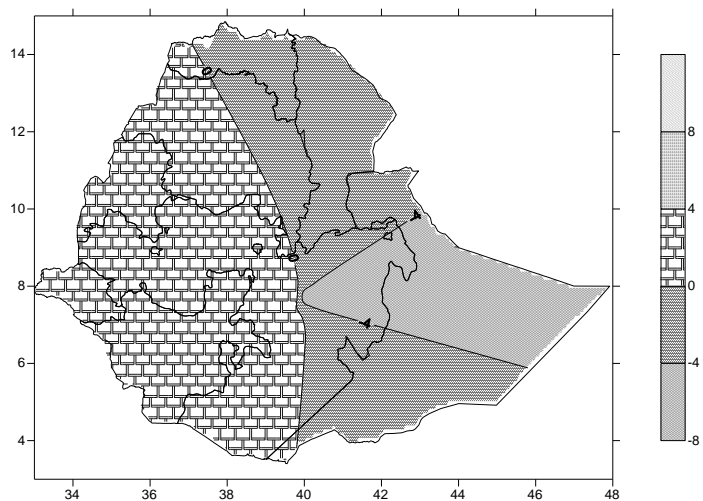


Figure 3. Extreme minimum temperature in °C in June 2017

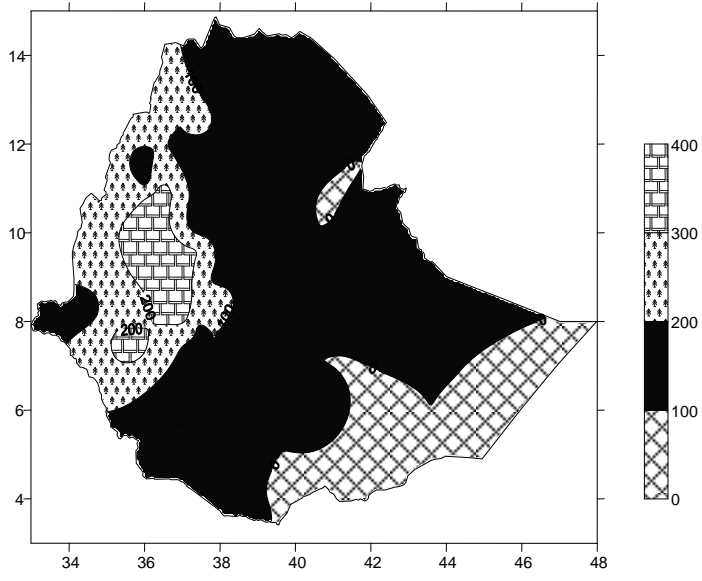


Figure 4. Monthly total rainfall in mm during June 2017

Figure 5. Percent of normal rainfall in mm during June 2017

