



REGIONAL CLIMATE OUTLOOK FORUM

**PRESASS-04**

Accra, Ghana 15<sup>th</sup> – 19<sup>th</sup> May, 2017



**THEME:** *“Seasonal forecast: A Climate Service to build resilience and reduce climate risks in the Sudano-Sahelian region of Africa”*

SEASONAL CLIMATE OUTLOOK BULLETIN  
VALID FOR JUNE –JULY-AUGUST AND JULY-AUGUST-SEPTEMBER, 2017  
OVER THE SOUDANO-SAHELIAN REGION OF AFRICA,  
(Accra, 19<sup>th</sup> MAY, 2017)

Produced by

The African Centre of Meteorological Applications for development (ACMAD) in collaboration with National Meteorological and Hydrological Services of West Africa, Cameroon, Chad and CAR with support of WMO designated Global Producing Centers for Long Range Forecasts and the International Research Institute for Climate & Society at Columbia University in New-York USA.



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## EXECUTIVE SUMMARY

Given the current Seas Surface and Sub-surface Temperature patterns and trends, models outputs and expert judgment, the precipitation outlooks for June-July-August and July-August-September 2017 are as follows:

- Significant disturbances on the distribution of precipitation are very likely during the season with dry and wet spells as well as moderate to heavy precipitation events;
- Below average precipitation is very likely over, parts of Guinea-Bissau, Guinea, much of Sierra Leone, Liberia, southern Côte d'Ivoire and extreme southwestern Ghana from June to September 2017;
- Near to Below average precipitation is very likely over the coastal southeastern Ghana and extreme southern Togo from July to September 2017;
- Near to above average precipitation is expected over most of the central Sahel in southern Mauritania, much of north Senegal, central part of Mali, much of eastern part of Burkina Faso, southwestern Niger and northeastern Ghana, much of northern parts Benin and Togo and westernmost of Nigeria from June to August, 2017;
- Above average precipitation is expected over eastern Cameroon, southern Chad and northern-west CAR from June to August, 2017;
- During July to September 2017 above average precipitation is very likely over southern Mauritania, much of north eastern Senegal, central part of Mali, southern Mauritania, much of eastern part of Burkina Faso, southern-west Niger and northern-east Ghana, much of northern parts Benin, and Togo, westernmost and easternmost part of Nigeria, northern Cameroon, southern Chad and extreme CAR;
- During the monsoon season, two to three weeks with below average precipitation are expected in June 2017 followed by average to above average precipitation in July and August much of Sahel.
- Disaster risk managers over the Sahel region are advised to prepare for heavy rain potentially leading to floods from western Niger to Senegal and much southern Mauritania.
- Sahelian areas with average start of the precipitation season in June are very likely to record near average to late start of the season. Long dry spells are also expected during the month of June 2017 over parts of Sahel.

Countries and regional organizations are advised to strengthen capacity for climate monitoring, update of seasonal outlooks and sub-seasonal forecasting for better management of expected risks related to local precipitation deficits and irregular distribution of precipitation during the season. Agriculture extension workers and water managers will be important contributors to mitigation of precipitation deficits and related risk by collecting climate information from climate service providers and deriving relevant impacts and advices for users.

## RECENT CLIMATE CONDITIONS AND OUTLOOK

### I- STATE OF THE TROPICAL OCEANS AND TRENDS

- On the equatorial Pacific, cooling conditions (weak La Niña) has been observed since the end of 2016, followed by a neutral condition in April and May 2017. These conditions are expected to evolve towards weak to moderate El Niño summer season in the northern hemisphere until the end of 2017.
- Near average Sea Surface Temperatures (SSTs) were recorded from end March to April 2017 in the Tropical North Atlantic. This pattern will evolve towards near to above average conditions over the next few months.
- The Equatorial Atlantic region has been characterized by warm to neutral conditions during past few months. Most models and expert assessment indicate that the situation will persist over the next few months.
- The SSTs of the Tropical South Atlantic were near to above average from January to May 2017. Most models and expert assessment indicate that this condition is likely to persist over the next few months.
- Near to above average SSTs have been observed over the Mediterranean Sea in recent months. These conditions are expected to evolve towards above-average SSTs over the next three months.
- The Tropical Indian Ocean SSTs has been near average during the past few months. Near to above average SSTs were observed over the western part, and near to below average over the eastern part. This Dipole pattern is expected to intensify in the coming months.
- The south western part of the Indian Ocean will be characterized by near to above average SSTs during the coming three to four months.

### II- PRECIPITATION OUTLOOK

Given these SST anomalies, sub-surface temperature patterns and trends, knowledge and understanding of seasonal climate variability over the Sudano-Sahelian region of Africa, and available long range forecasts products, the following outlooks are provided for June-July-August (JJA) and July-August-September (JAS), 2017 seasons in the region (see figures 1 and 2 below):

- **Below average precipitation is very likely over, parts of Guinea-Bissau, Guinea, much of Sierra Leone, Liberia, southern Côte d'Ivoire and extreme southwestern Ghana from June to September 2017;**
- **Near to Below average precipitation is very likely over the coastal southeastern Ghana and extreme southern Togo from July to September 2017;**
- **Near to above average precipitation is expected over most of the central Sahel in southern Mauritania, much of north Senegal, central part of Mali, , much of eastern part of Burkina Faso, southwestern Niger and northeastern Ghana, much of northern parts Benin and Togo and westernmost of Nigeria from June to August, 2017;**
- **Above average precipitation is expected over eastern Cameroon, southern Chad and northern-west CAR from June to August, 2017;**

- During July to September 2017 above average precipitation is very likely over southern Mauritania much of north eastern Senegal, central part of Mali, southern Mauritania, much of eastern part of Burkina Faso, southern-west Niger and northern-east Ghana, much of northern parts Benin, and Togo, westernmost and easternmost part of , Nigeria, northern Cameroon , southern Chad and extreme CAR;

### III- HAZARDS ASSOCIATED WITH PRECIPITATION OUTLOOK

- ✓ Parts of Sahelian zone where the onset usually occurs in June are expected to record late onset;
- ✓ Long dry spells are very likely during the first half of the summer season particularly in June;
- ✓ Moderate to heavy precipitation potentially leading to floods is very likely from western Niger to Senegal and southern Mauritania areas from July to September 2017.

### IV-ADVICES

1. For farmers
  - In areas where it is more likely to observe cumulative below average precipitation, beginning late season dates, and longer dry spells after onset, farmers must:
    - Use varieties resistant to drought and / or short cycles,
    - Avoid additional inputs of fertilizer during the growing season,
    - Focus on promoting the cultivation techniques of soil water conservation.
    - Prioritize low land areas for planting;
    - crop varieties resistant to precipitation deficits;
    - use water conservation techniques;
    - plan for irrigation to manage possible precipitation deficits
  - For areas where it is more likely to observe above to well above average with early season start dates and shorter dry spells after onset, farmers must:
    - invest more in seed of improved varieties for both food crops to cash crops,
    - Strengthen vigilance against weeds and pests (locusts and other insects).
    - Sow early
    - prioritize high land areas for planting

#### 2. For Breeders:

In areas with a high probability of a normal to late start of the precipitation season, consider the livestock food stock and facilitate access to the animals to the nearest water point, to bring the livestock to shelter from the effects of lack of water and to avoid conflicts between farmers and herders, plan an late start of transhumance and Increase vigilance for conflicts between farmers and pastoralists.

### 3. Disaster Management Sector:

For areas where it is more likely to observe above to well above average precipitation (southeastern Niger, northeastern Nigeria, central of Chad)- updating of contingency plans, intensification of advocacy and resource mobilization is required to address the impact of an extended post-2016 harvest lean season, prepare for floods including drainage system and drug stocks.

#### Water authorities/managers are strongly advised to:

- Release excess water from dams and reservoirs of Volta, Niger and Lake Chad basins well before the peak precipitation month (August 2017)
- Monitor closely flood protection infrastructure (e.g dikes)
- Raise awareness of local communities living in flood risk areas of these basins

### 4. Health Sector

For areas where it is more likely to observe above to well above average precipitation:

- It is advised to sensitize states on disease surveillance services and non-Governmental organization to prepare drug stocks for use in case of epidemics.
- Enforce hygiene and sanitation system, monitor malaria, cholera and preposition drugs stocks

**NB: Users are strongly advised to contact National Meteorological and Hydrological Services for further expert advices and assistance.**

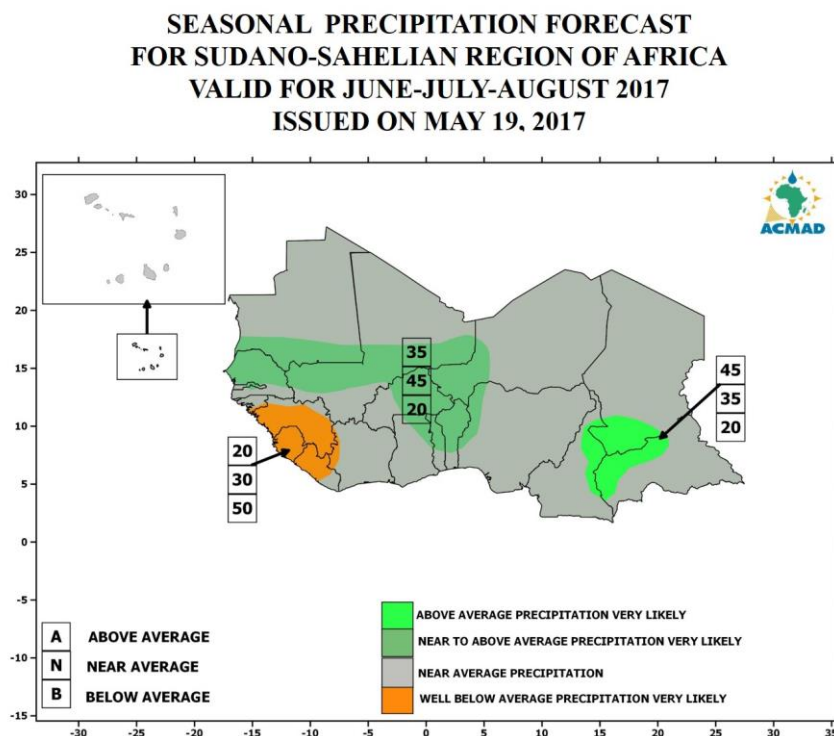


Figure 1: Seasonal forecast of precipitation for June-July-August, 2017

**SEASONAL PRECIPITATION FORECAST  
FOR SUDANO-SAHELIAN REGION OF AFRICA  
VALID FOR JULY-AUGUST-SEPTEMBER 2017  
ISSUED ON MAY 19, 2017**

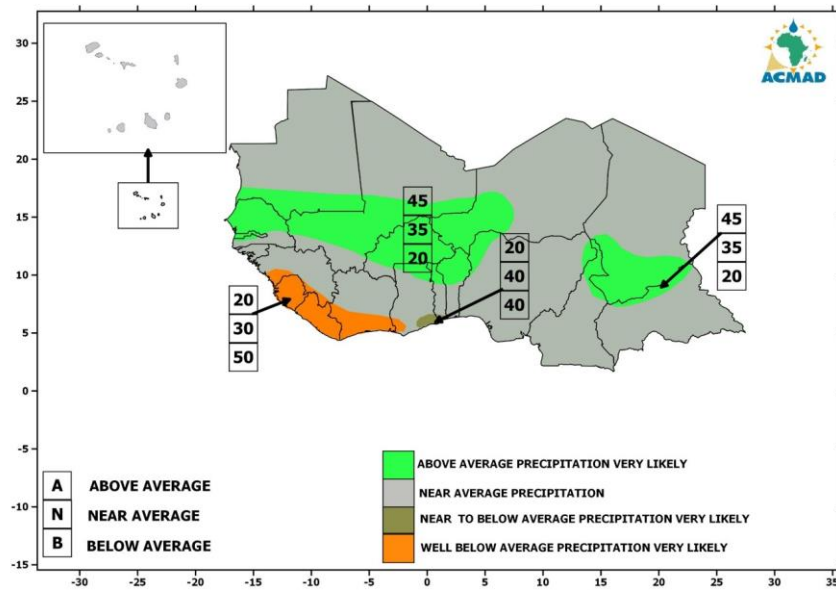


Figure 2: Seasonal forecast of Precipitation for July-August-September, 2017

*This outlook is produced at the regional scale. Thus, its interpretation should be for regional use. For local and/or country adaptation and applications needs, it is highly recommended to consult the National Meteorological and Hydrological Services for local details.*