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# EARLY WARNING BULLETIN FOR FOOD SECURITY

No. 2019/02

## IN THE GAMBIA

Period: May 11 - 20, 2019

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Government of The Gambia

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Multidisciplinary Working Group

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### 1. SEASONAL CLIMATE FORECAST FOR YEAR 2019 OVER THE GAMBIA:

The Department of Water Resources under the Ministry of Fisheries and Water Resources is pleased to present the **climate forecast** for this **2019 Rainy Season**.

As in past years, this product is the result of collaboration with the National Meteorological Services within the sub-region and beyond.

To understand the forecast, the following facts must be noted:

- Seasonal forecasting relies on prediction of averages over space and time, and may not reflect all the various factors that influence regional and national climate differences;
- The forecast is relevant only for the entire season and within relatively large areas, since local and month-to-month variations may occur;
- Rainfall results are usually expressed as being either **Below Normal, Normal, or Above Normal**, with Normal rainfall defined as the average rainfall during a 30-year period; and
- Finally, the forecast is only valid for the combined period of July, August and September (**JAS**), when approximately 80 per cent of the total seasonal rainfall occurs in the sub-region, including The Gambia.

**Consequently, for the rainy season of JAS 2019, the forecast is one of Normal (most likely) to Above Normal rainfall (likely), that is a threshold of at least 580mm of rainfall in The Gambia.**

The 2019 rainfall is expected to start **after June 15<sup>th</sup>** in the Eastern Half (Upper River Region - URR and Central River Region - CRR) of the country; and **after June 25** in the Western Half (West Coast Region, Kanifing Municipal Council, Banjul City Council, North Bank Region and Lower River Region).

The cessation of rainfall is expected **after 15 October** in the Eastern Half **and after 25 October** in the Western Half of the country.

Long dry spells of about 4 to 12 days are expected during both the beginning and end of the seasons.

As at now, the above forecast is based on the best estimate of the impact of the various factors affecting rainfall in the country, and would be updated on a monthly basis starting from the end of June 2019. Furthermore it is worthy of note that the 2019 rainfall season is expected to undergo similar variability as in the 2018 season with events such as late onset, occasional flash flooding and wet/dry spells. Accordingly, this department will continue to provide ten-days outlooks and daily weather forecasts to better anticipate impacts of intra-seasonal climate events.

## 2. HYDROLOGICAL FORECAST

The forecast assesses the likelihood of having normal, above or below normal flows for the upcoming rainy season compared to the mean flows of the 1981 – 2018 reference period. It involves the synthesis of sea surface temperatures, model precipitations and river basin flows to develop a consensus forecast. Climate predictions of the Sea Surfaces Temperature (SST)\_Geo-physical Fluid Dynamic Laboratory (GFDL) model correlated best with most river basin flows. Geophysical fluid dynamics laboratory model outputs were used to predict the flows.

Prospective flows are presented as:

- A → percentage chance for above normal
- N → percentage chance for normal
- B → percentage chance for below normal

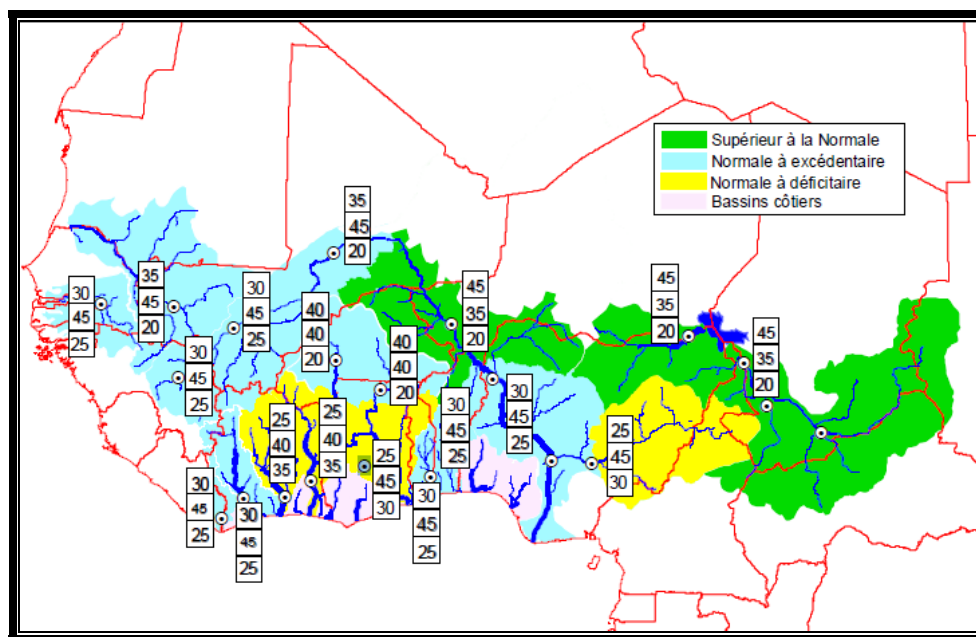


Figure 1: Prospective flows for river basins of West Africa

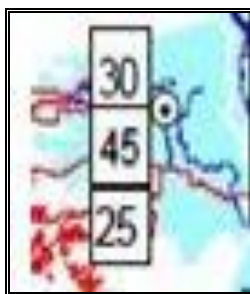


Figure 2: Prospective flows for River Gambia Basin

### 2.1 CONSEQUENCE OF FLOW FORECAST FOR THE GAMBIA

**Normal to slightly above normal flows are expected in the Gambia River Basin in 2019.** Of the riparian countries, The Gambia is the most downstream and is characterized by a very low terrain. Most of the Gambian terrain is within 0 – 20m above sea level. Thus with a predicted normal to slightly above normal flows, usual floods are expected to persist during the 2019 rainy season in the Gambia

The forecast is highly recommended for use in the planning of interventions in several socio-economic sectors.

**For any clarification on the forecast, please contact the following telephone numbers:  
422 4122 / 447 2720**

### **3. SYNOPTIC SITUATION:**

The mean surface position of the Inter- Tropical Discontinuity (ITD), demarcating boundary between the dry and moist regions over West Africa during this dekad has experienced slight northward motion, fluctuating over extreme south-east edge of southern Senegal, stretching across central Mali and slanting onto southern Niger and Chad.

To the north of the ITD, dust haze has been observed over northern parts of Mauritania, Mali and central Algeria. The atmosphere elsewhere was generally stable.

Conversely, convective activities prevailed to the south of the ITD with rain and thunderstorms observed over Guinea Conakry, Liberia, Sierra Leon, south-western Mali, Liberia, Ghana, Togo and Nigeria.

### **4. WEATHER OUTLOOK FOR THE NEXT DEKAD (21<sup>ST</sup> - 31<sup>ST</sup> MAY 2019):**

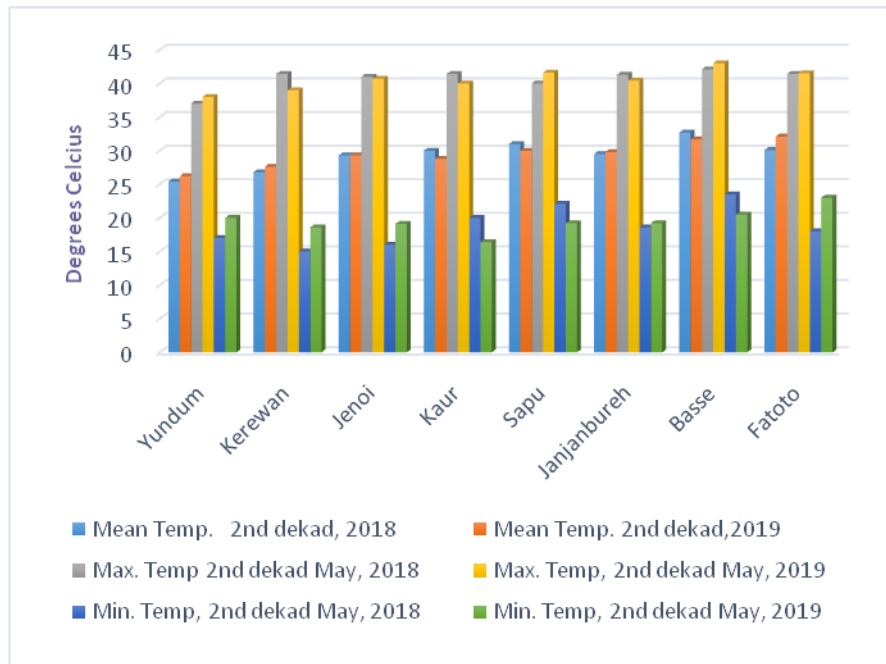
Generally cloudy to partly cloudy with cool mornings expected during the dekad, especially over the Coastal region. Values of Relative Humidity (RH) will continue to increase as the ITD progress towards north.

### **5. RAINFALL SITUATION:**

Similar to the last dekad, no rainfall was recorded across the country except at Janjanbureh and some parts of West Coast Region where traces (immeasurable rain) were recorded on the 18 May 2019. This depicts the same situation compared to the same period last year (2018).

### **6. AGROMETEOROLOGICAL SITUATION:**

The trend in temperature as at this dekad compared to last year (2018) of the same period shows that the Western Third of the country (Yundum to Kerewan) recorded the lowest temperature whilst the Eastern Third (Basse to Fatoto) recorded the highest temperature (figure 3) below. This can be attributed to the proximity of the Western Third to the Atlantic Ocean.



**Figure 3:** Comparison of temperatures (mean, min and max) during the second decade May 2018 and 2019

Wind recorded across the country during this dekad continued to be light to moderate in speed as in the last dekad, which has no negative impacts to lives and properties.

The average sunshine duration recorded across the country in this dekad varied from 4 to 10 hours.

Average relative humidity (RH) across the country ranged from a minimum of 35% recorded at Kaur in the Middle Third, whilst the maximum of 65% was recorded at Yundum in the Western Third of the country. This indicates a slightly lower atmospheric moisture condition this year as compared to the same period last year, when the same weather observing stations recorded minimum of 41% and maximum 66% respectively.

## 7. AGRICULTURAL SITUATION:

Agricultural activities of farmers in the country continue to include clearing and burning of agricultural fields, acquisition of seeds for sowing in the forth coming rainy season, preparation of farming implements, vegetable gardening and dry season rice cultivation mostly in the Central River Region.

## 8. LIVESTOCK SITUATION:

As farmers have begun clearing and burning agricultural fields in preparation for the coming cropping season, livestock situation across the country is not impressive. This imposes difficulties in terms of grazing process as well as milk production and causing weaknesses to livestock.

Banjul May 22, 2019.  
National MWG of The Gambia

### Composition of MWG:

Department of Water Resources  
 Planning Services - Department of Agriculture (DOA)  
 Communication, Extension & Education Services - DOA  
 Department of Livestock Services - DOA  
 Plant Protection Services - DOA  
 National Environment Agency

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