



Comité permanent Inter-Etats de Lutte contre la Sècheresse dans le Sahel  
Permanent Inter-State Committee For Drought Control in the Sahel

## AGRHYMET Regional Centre



### MONITORING BULLETIN FOR THE AGRO-PASTORAL CAMPAGNE IN WEST AFRICA

Special Bulletin n° 04 - Update of July 2017

## Seasonal forecast of the agro-hydro-climatic characteristics of the 2017 rainy season for the Sahelo-Soudanian countries of CILSS/ECOWAS region

*Following the update of the agro-hydro-climatic forecasts made in July 2017, the perspectives for the cumulative rainfall, ending dates of the season and river basins flows for the 2017 season remain broadly unchanged from the conclusions of the Seasonal Forecast Forum held in May 2017 in Accra, Ghana. As for the onset dates of the season and the durations of the longest dry spells during the crop installation phase, they were generally confirmed by the field observations and the analyses at the regional level.*

### I. State and perspectives of the Sea Surface Temperature (SST)

For the periods of July-August-September and September-October-November 2017, the Sea Surface Temperature (SST) forecast over the Equatorial Pacific shows warm but neutral conditions (between 0 ° C and 0.5 ° C) compared to the mean average of the period 1981-2010.

The warming of the Indian Ocean is expected to persist for the next few months.

The Tropical Atlantic will maintain the slightly above average temperatures during the periods mentioned above. On the Gulf of Guinea a neutral SST will persist; which could create a favourable gradient for the penetration of monsoon winds and convective phenomena in the Sahelo-Sudanian zone.

### II. Update of the forecasts

#### 2.1. Perspective on the cumulative rainfall

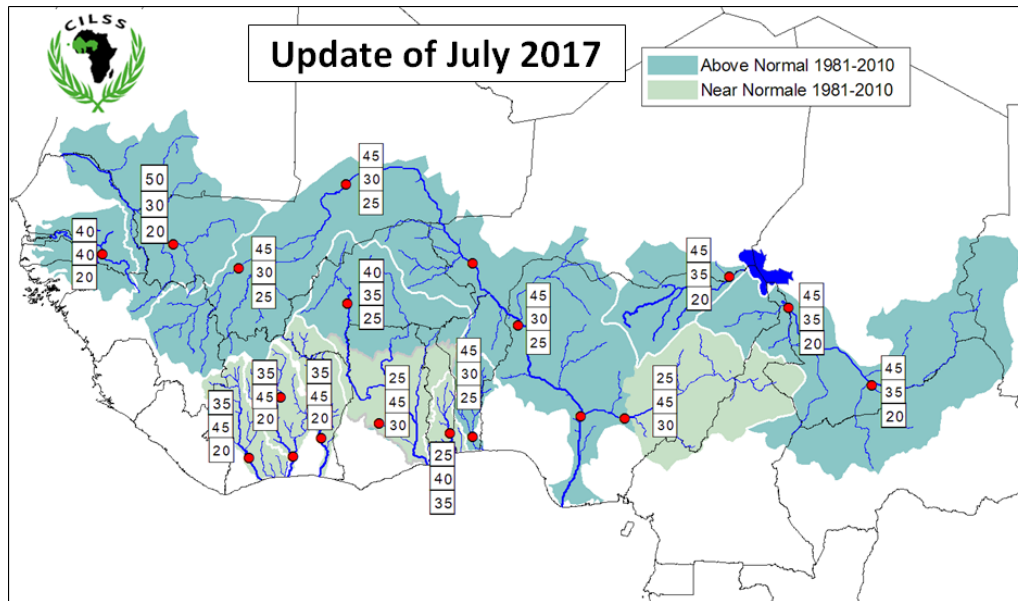
The update reiterates the seasonal forecasts of the cumulative rainfall of May 2017. Indeed, over the period May-June-July 2017, there has already been observed above average cumulative rainfall in most areas of the

central and western Sahel, extended to North Benin, Togo and Ghana. This update maintains the probability of above-average rainfall over July-August-September, over most of the Sahelo-Sudanian zone of West Africa and Chad.

## 2.2. River basins Flows

Following the update of the seasonal agro-hydro-climatic forecasts made in July 2017, the outlook for runoff for the 2017 season remains broadly unchanged from the conclusions of the seasonal forecast forum held in May 2017 in Accra (Ghana). Only the upper Niger

basin experienced a slight change in the forecasts, which were more optimistic than in May. Indeed, the forecast of rivers flows in this part of the Niger basin shift from an average trend in May to an above average trend in July. Similarly, the flows expected in the Mono basin goes from a deficit to a normal trend. Forecasts for other basins remain unchanged (Figure 1).

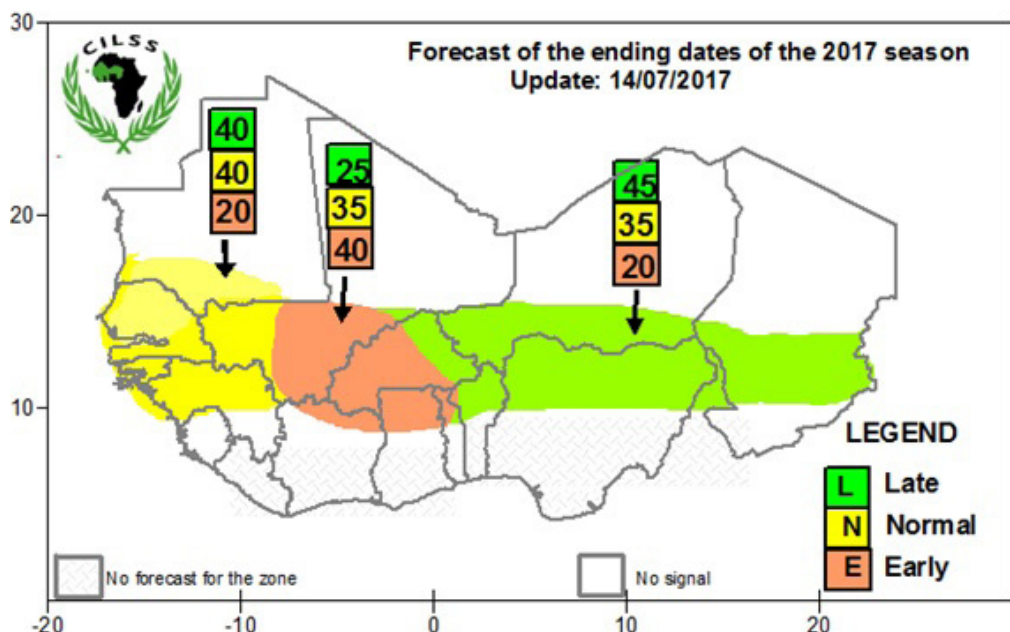


**Figure 1: July 2017 update of seasonal forecast of the major rivers basins flows in West Africa, compared to the reference period of 1981-2010.**

## 2.3. Ending dates of the 2017 raining season

The update of the ending dates of the rainfall season in the Sahelo-Sudanian zone reiterates the trends of May 2017. In fact, it is expected that the end of the 2017 rainy season will be late to normal over almost all the central and eastern parts of the Sahel (western Burkina Faso, the agricultural zone of Niger and south-central Chad) and Northern Benin and Nigeria. In the western part of the Sahelo-Sudanian zone, however, the update revealed a slight changes in the forecast of the ending

dates of the season. Thus, it should be noted that in Central and South Mali, West and Central Burkina Faso and the extreme northern parts of Cote d'Ivoire, Ghana and Togo, early to normal ending dates of the season are expected. Over the extreme western zone of the Sahelo-Sudanian belt covering southern Mauritania, western Mali, Senegal, The Gambia, Guinea Bissau and northern Guinea, average to slightly late ending dates of season are very likely to occur. Also, in many localities of the latter zone, the ending date of the season could reach the month of October (Figure 2).



**Figure 2: July update of the forecast dates of the ending periods of the 2017 rainy season for the Sahelo-Sudanian zone of the CILSS / ECOWAS countries compared to the 1981 -2010 baseline.**

## 2.4. Duration of the longest dry spells towards the end of the rainy season (post-flowering)

Towards the end of the rainy season, the update of the seasonal forecasts of May 2017 reiterates the probability of dry spells of normal duration in Central Chad and Lake Chad region in Niger and Nigeria. In the Central part of the Sahelo-Sudanian area covering the central belt of Mali, extended to the far east of Mauritania, Burkina Faso, the Niger agricultural belt

and extreme north of Cote d'Ivoire, Ghana, Togo, Benin and Nigeria, it is rather longest to normal dry spells that are expected after the update. In the western part of the Sahelo-Sudanian zone, forecasts were unchanged with average to shorter dry spells duration that are very likely to be observed compared to those usually observed over Southern Mauritania, extreme Southwest Mali, Senegal, The Gambia, Guinea-Bissau, Northern Guinea and the extreme North-West Cote d'Ivoire (Figure 3).

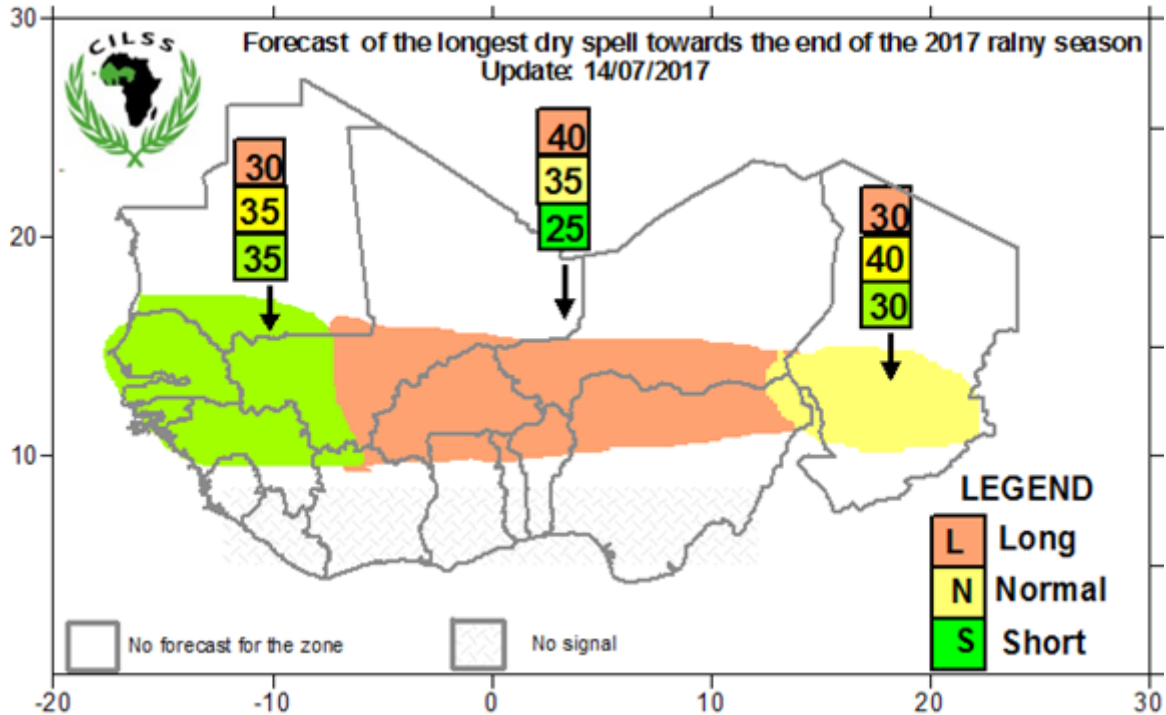


Figure 3: Update of the forecast of the durations of the longest dry spell towards the end of the 2017 rainy season for the Sahelo-Sudanian zone of the CILSS / ECOWAS countries compared to the 1981 -2010 baseline.

## III. Recommendations for the reduction of the major risks

This update of the 2017 seasonal forecasts remains largely similar to the forecast of May forecast. As a result, it still does not exclude disaster risks (droughts, floods, phytosanitary attacks, climate related diseases, strong winds, etc.) on crops, livestock and human lives and eco-environmental resources.

Therefore, we reiterate the following recommendations:

### 3.1. Related to the drought risks

Given the likely early ending dates of the season in the central west of the Sahelo-Sudanian zone and the attenuated long dry spells towards the end of the season over the centre of the same area, which may affect crop growth, yields, the development of grazing lands and the growth of certain crop pests, such as the millet earworm, it is important to:

- take steps to address potential production deficits in areas that may experience dry spells, late and /or early rainy season, through the promotion of

- market gardening, agroforestry, generating income, good monitoring of markets and prices and the establishment of local security stocks,
- prioritized the techniques that promote the conservation of soil water,
- avoid additional fertilizer inputs, such as nitrogen, during the crop installation period and those at risk of drought,
- plan and arrange for the use of supplementary irrigation,
- ensure efficient management and use of water resources,
- interact with the national meteorological staff and the agricultural and hydrological services for agro-hydro-meteorological information and advices on the techniques to be used,
- facilitate livestock access to the nearest water points, in order to protect them from water shortages effects and avoid conflicts between farmers and livestock herders.

### 3.2. Related to the floods risks

Considering the cumulative rainfall excess expected in the Sahelo-Sudanian belt, associated with high probabilities of occurrence of intense rainfall events and excess flows for most river basins, high levels of flood risk are to consider for the upper, middle and lower parts of the Senegal basin, the middle part of the Niger river basin, the Upper Oueme basin, the Logon sub-basin, the downstream part of the Chari-Logon system and Under the Komadougou-Yobé basin, it is necessary to:

- do a close monitoring of alert thresholds is recommended to enhance anticipatory flood management in identified high risk areas. Alert thresholds exist for most of these areas, but they deserve to be updated,
- ensure that animals do not risk drowning,
- to prevent germs epizootics that prefer good wet conditions,
- to strengthen collaboration between hydrological and meteorological services for the development of integrated flood risk monitoring and early warning systems,
- continue and strengthen exchanges between flood monitoring agencies and disaster risk reduction agencies and humanitarian agencies.

### 3.3. Related to the diseases risks

In areas where a wetter rainy season is expected, there are high levels of risk of Cholera, malaria, dengue, parasites (such as bilharzias is), and diarrhoea and Rift Valley fever for animals. Therefore, it is strongly recommended to:

- to inform and strengthen the capacities of national health systems through civil protection or national platforms on disaster risk reduction, climate-sensitive disease monitoring bulletins, awareness of protection systems Social, population, decision-makers and the promotion of collaboration between meteorological and health services.
- to establish, especially in areas that are potentially isolated during the rainy season, stockpiles of mosquito nets, anti-malarial, chlorine and other water treatment products in order to monitor quality water and sanitation, drainage and drainage of gutters.

### 3.4. Advices for farmers, herders, decisions makers, projects, NGOs and POs

For areas where it is more likely to observe excessive to normal rainfall, early onset and shorter dry spells after the start of the season, and an extension of floodplains, it is important to:

- bring fertilizers (organic fertilizer and mineral fertilizer),
- investing more in the use of available water, through the promotion of irrigation, flood recession and aquaculture,
- increase vigilance against weeds and crop pests (locusts, caterpillars and other insect pests),
- Invest more in the exploitation of available water through the promotion of irrigation and flood recession crops,
- provide agricultural services and farmers with equipment and means for the practice of irrigation, particularly around water points useful for this purpose,
- support and promote the communication on climate information, including seasonal and climate forecasts, to various users, including farmers,
- set up or strengthen the frameworks for farmers, monitoring and response to climate risks.

However, it is recommended that all actors in the follow-up of the agro-pastoral campaign be aware of the update to be made in August 2017 by the AGRHYMET Regional Centre, ACMAD and the national meteorological and hydrological services.

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