COMITE PERMANENT INTER- ETATS DE LUTTE CONTRE LA SECHERESSE DANS LE SAHEL
PERMANENT INTER-STATE COMMITTEE FOR DROUGHT CONTROL IN THE SAHEL

AGRHYMET RCC-WAS

Regional Climate Centre for West Africa and the Sahel

Seasonal Forecasts of Agro-hydro-climatic characteristics of the rainy season for the Sudanian and Sahelian zones of West Africa and the Sahel.

PRESASS Special Bulletin – 04/2026

The 2026 edition of PRESASS was organized from 20 to 24 April 2026 in N'Djamena, Chad, by AGRHYMET Regional Climate Centre for West Africa and the Sahel (AGRHYMET CCR-AOS), the National Meteorological Agency (ANAM) and the Directorate of Water Resources of Chad, in collaboration with the African Centre for Meteorological Applications for Development (ACMAD), the National Meteorological and Hydrological Services (NMHSs) of the 17 countries of West Africa and the Sahel, river basin organizations and with the participation of representatives of user interface platforms (from the agriculture and food security, water resources and disaster risk reduction and climate security sectors), focal points for anticipatory actions and regional women's organizations.

For the 2026 rainy season, above average to average rainfall totals are expected in the Central and Eastern Sahel and average to below average rainfall in the Sudanian part and the Western Sahel; normal to late starting dates of agricultural season in the Western Sahel and normal to early in the Central and Eastern Sahel; late to anormal ending dates of the season in the Western Sahel and normal in the Central and Eastern Sahel; long to medium dry spells and; average to above average flows in the main river basins.

I. State and outlook of Sea Surface Temperatures

1.1. Sea Surface Temperature conditions

Figure 1 highlights, for the month of March 2026, that generally, the sea surface temperature (SST) anomalies are warmer than normal (average over the period 1991-2020), with several important regional characteristics:

- Over the equatorial Pacific (ENSO region), near-normal to slightly positive anomalies in the central and eastern equatorial Pacific, reflecting a neutral ENSO situation with a slight warming trend.
- In the tropical Atlantic Ocean, the northern portion (North tropical Atlantic) shows moderate positive anomalies, while the southern part (South tropical Atlantic) is relatively less warm. This induces a positive north–south meridian gradient. Also, the SSTs in the Gulf of Guinea are close to normal to slightly above normal, with no clear establishment of the cold tongue along the equatorial coasts.
- The Mediterranean Sea basin presents warmer than normal conditions, especially in the western and central parts.
- The Indian Ocean SST anomalies are weak and relatively close to neutral, with no marked east–west gradient.
- More pronounced positive anomalies are observed at higher latitudes (extratropical regions) of the Northern Hemisphere, consistent with the global warming signal

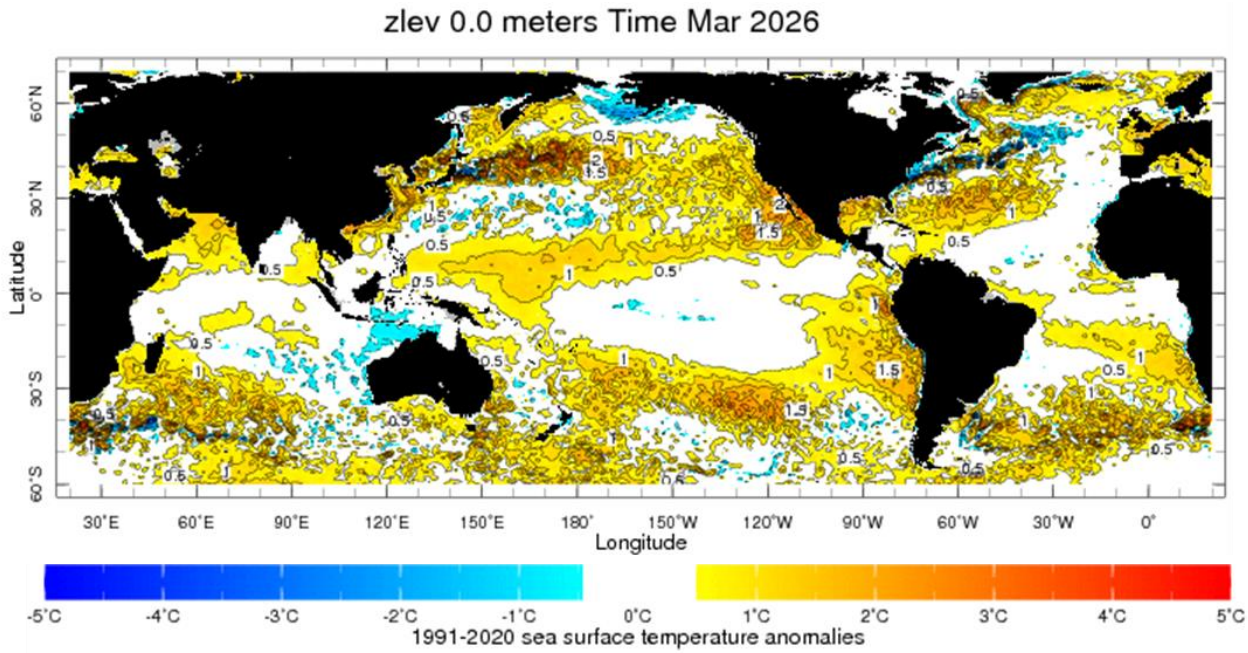

Figure 1: *Sea surface temperature (SST) anomalies for March 2026, compared to the 1991-2020 reference period average (Source:* IRI/NOAA/NCDC/ERSST-version5*).*

1.2. Sea Surface Temperature Outlook

The outlook for SST indicates a shift towards an El Niño condition for the upcoming seasons, with a gradual build-up from June or July 2026 and an expected peak between August and October.

The Indian Ocean Dipole is expected to evolve towards a positive phase, reflecting a relative warming of the western part of the basin.

In the tropical Atlantic, a generalized warming of the North Tropical Atlantic (NTA) and South Tropical Atlantic (STA) is expected, with an STA that would gradually become warmer than the NTA, thus inducing a weak or weak north–south meridian gradient. This configuration could attenuate the usually favourable effect of the North Tropical Atlantic on the monsoon upwelling.

In addition, the Mediterranean Sea is expected to remain warmer than normal, especially during the July–September period, which corresponds to the heart of the rainy season. This warming could increase moisture supplies to the continent and encourage the intensification of rainy episodes, particularly in the Sahel strip.

II. Forecasting agro-hydro-climatic characteristics of the rainy season

Seasonal forecasts are developed from a combination of approaches, including next-generation objective method, analysis of the current situation and likely changes in sea surface temperatures (SST), forecasts from global climate centres, as well as statistical analyses of data provided by the National Meteorological and Hydrological Services (NMHSs). In addition, experts have in-depth knowledge of the specific climate characteristics of West Africa and the Sahel.

Based on the 1991–2020 climatological baseline, the consensus resulting from the integration of these different sources of information has made it possible to establish the seasonal forecasts below:

2.1. Starting Dates of the agricultural season

This year, normal to late onset dates are expected in the western Sahel (Cape Verde Islands, southern Mauritania, Senegal, Gambia, Guinea Bissau, northern Guinea, western Mali,

southeastern Burkina Faso, and northwestern Ghana). In addition, normal to early onset dates are expected in central and eastern Sahel (eastern Burkina Faso, southern Niger, Chad) as well as in the northeastern part of the Gulf of Guinea countries (northeastern Ghana, northern Togo, Togo, and Nigeria), (Figure 2).

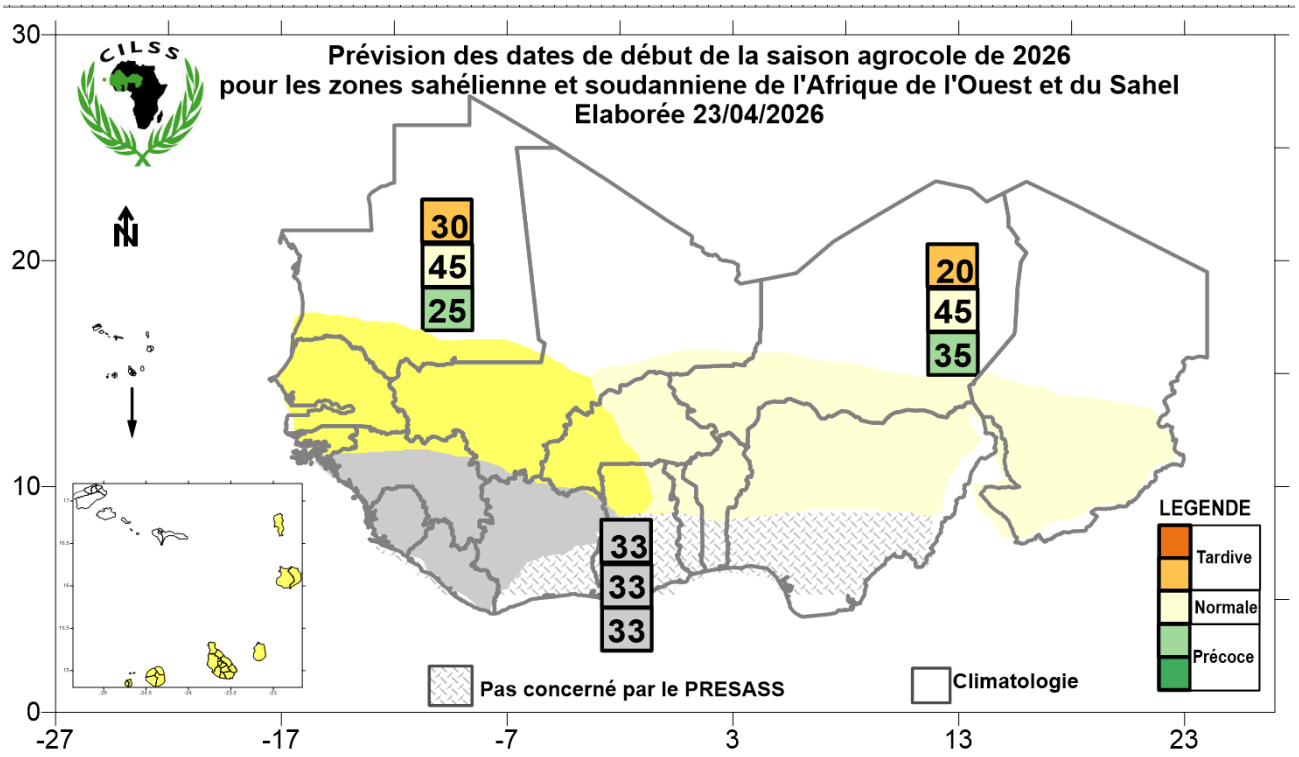

Figure 2: *Forecast dates for the 2026 agricultural season in the Sudanian and Sahelian zones of West African and Sahel countries.*

2.2.Cumulative rainfall

Globally, below average-to-average rainfall totals are expected over the period of **May-June-July** in West Africa and the Sahel, except in localities in Niger, northwestern Nigeria and in coastal areas of the Gulf of Guinea countries (Figure 3).

During **June-July-August** 2026 period, the rainfall deficit will still be persisting in the same areas, with a reduction of it intensity in northern Nigeria, Burkina Faso and northern Mali. During this period, above normal rainfall is expected in the central Sahel. The above normal rainfall will therefore persist in Niger, in certain localities in the far north of Nigeria, central and eastern Burkina Faso, northern Mali and eastern Mauritania, (Figure 4).

Over the **July-August-September** period, the below normal rainfall will continue to persist in the Western Sahel (western Mali, Mauritania, Senegal, Gambia, Guinea-Bissau and the central and eastern parts of Guinea), Côte d'Ivoire, Liberia and the southern parts of Ghana, Togo, Benin, Nigeria and Chad. On the other hand, cumulative rainfall is expected to be above normal to normal in the central and eastern Sahel areas, covering central Chad, Niger, the northern part of Nigeria, the central and northern parts of Benin, Burkina Faso (except the extreme south), the central and eastern parts of Mali, the eastern part of Mauritania and the coastal areas of Sierra Leone and Guinea, (Figure 5).

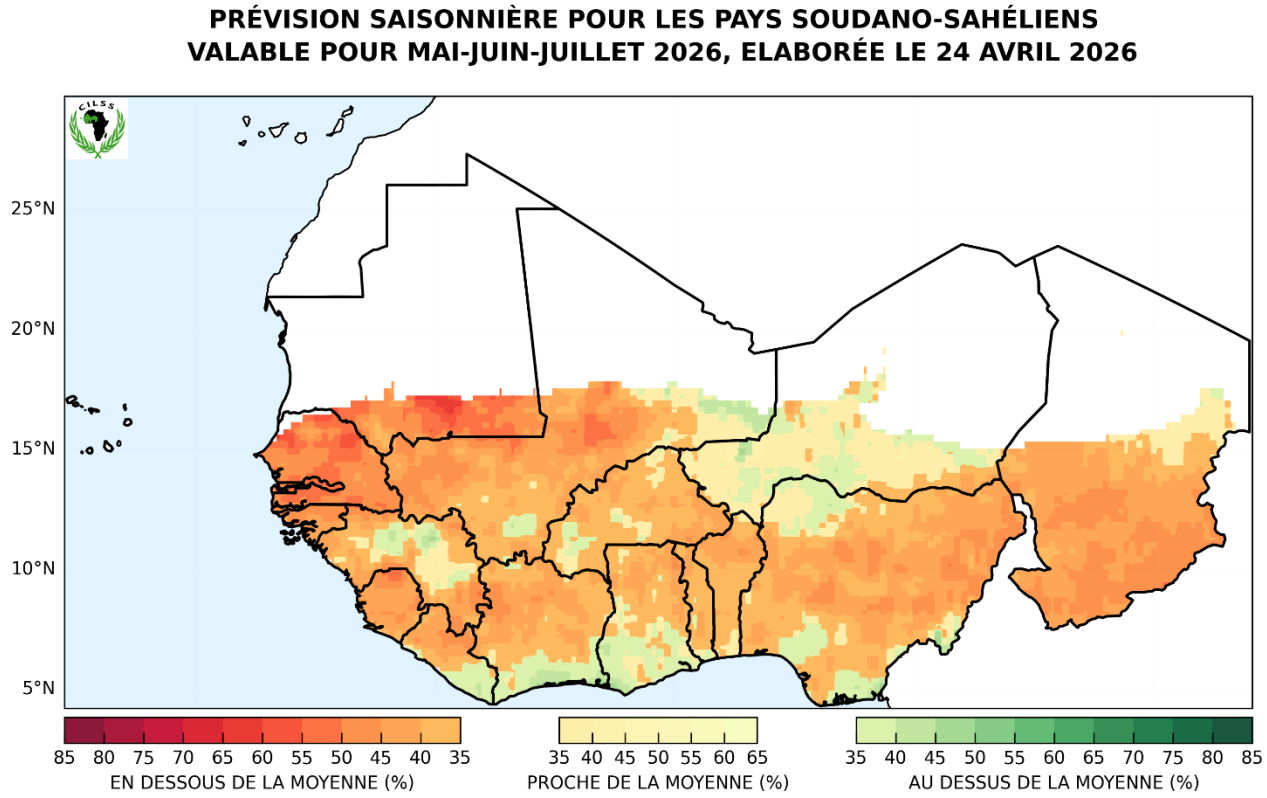

Figure 3: *Forecast of cumulative rainfall for the period May-June-July 2026 in West Africa and the Sahel.*

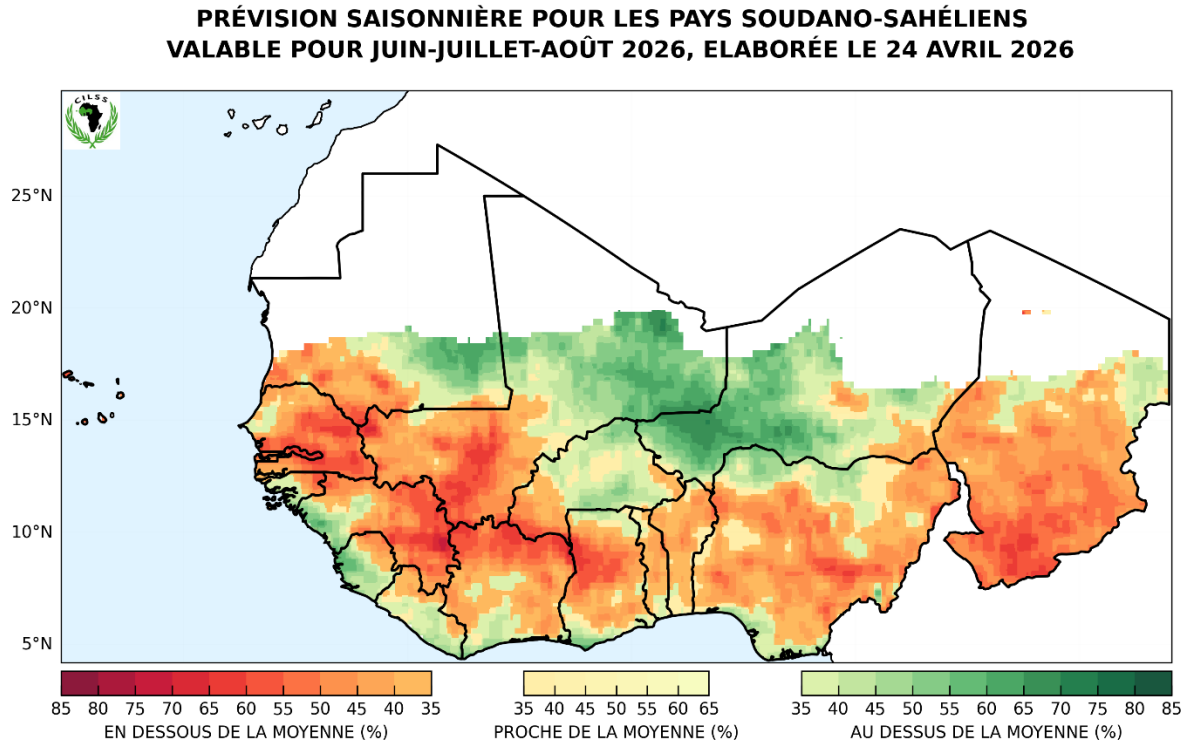

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Figure 4: *Forecast of cumulative rainfall for the period of June-July-August 2026 in West Africa and the Sahel.*

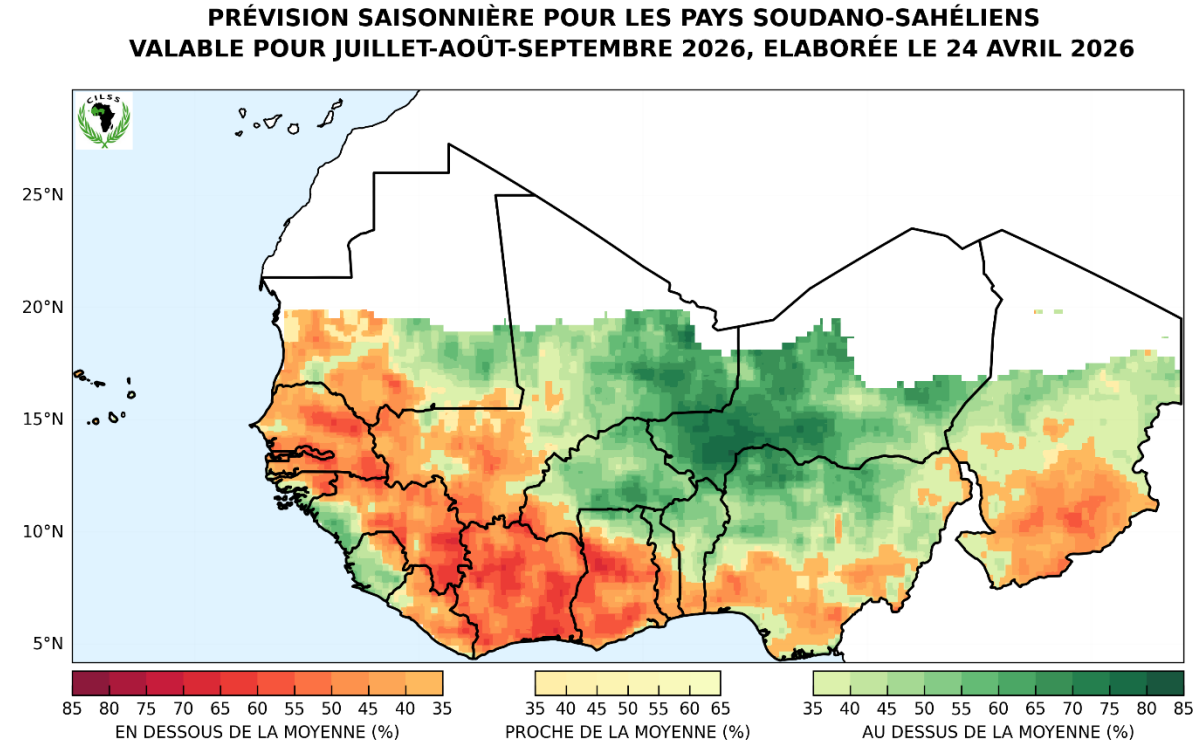

Figure 5: *Forecast of cumulative rainfall for the period of July-August-September 2026 in West Africa and the Sahel.*

2.3.. River basin flows

Average rivers flows are expected in the Senegal Basin (in Senegal, Gambia, Mali and Mauritania), the Upper Niger River Basin (in Guinea, Mali and Côte d'Ivoire), the Inner Niger Delta in (Mali), the Middle Niger (in Mali, Niger, Burkina Faso, Benin and Nigeria), the Middle Benue (in Nigeria), the Senegal Basin (in Senegal and the Gambia), the Gambia Basin (in Gambia and Senegal), the Volta Basin (in Mali, Burkina Faso, Benin, Togo, Ghana and Côte d'Ivoire), the Comoé (in Burkina Faso and Côte d'Ivoire), the Bandama and Sassandra basins (in Côte d'Ivoire), the Cavally (in Côte d'Ivoire and Liberia), the Chari (in Chad), the Mono (in Togo and Benin), the Ouémé (in Benin).

In addition, excess flows are expected in the Logone (Chad) and Komadougou-Yobé (Niger and Nigeria) basins (Figure 6).

Finally, the upper Benue basin (in Nigeria and Chad), the Lower Niger River Delta (in Nigeria), the Lofa (in Liberia and Guinea), and the Congo and Konkouré basins (in Guinea) are expected to experience deficit flows (Figure 6).

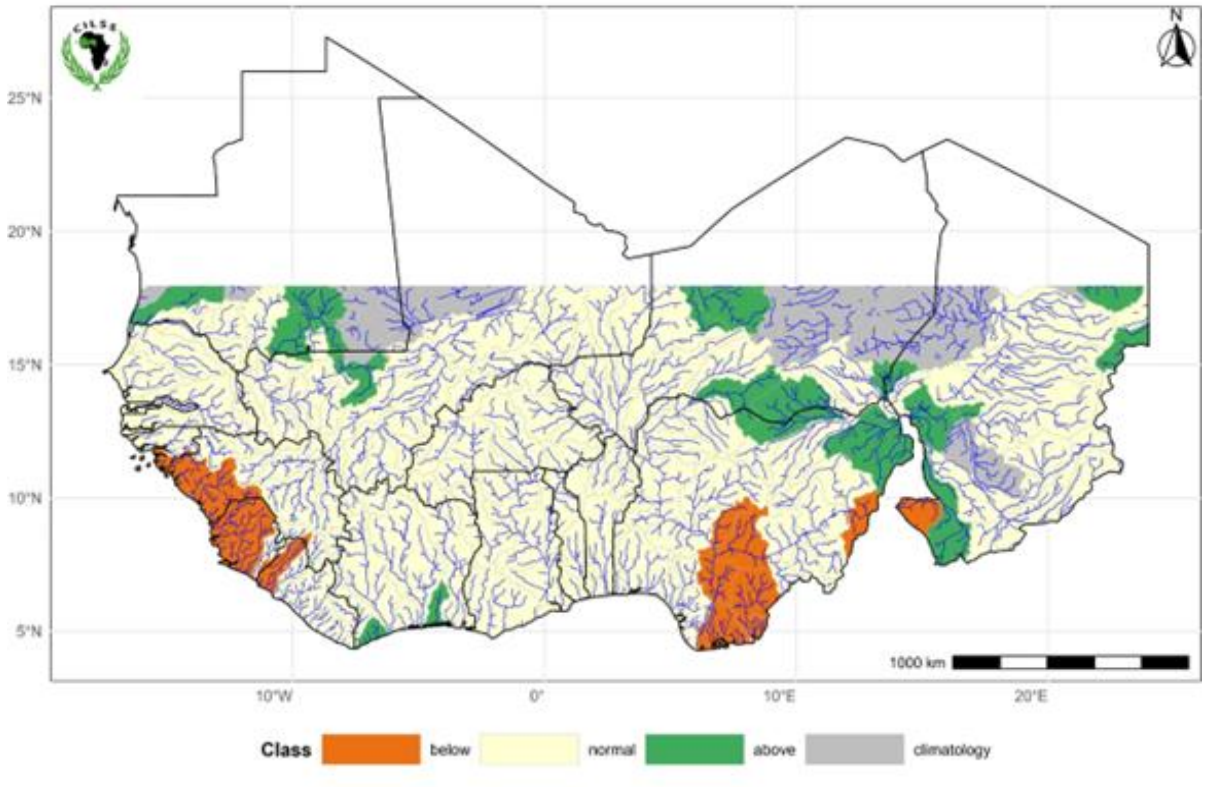

Figure 6: *Forecast of 2026 flows in river basins in West Africa and the Sahel.*

2.4.Duration of dry spells at the beginning of the season

Forecasts indicate that at the beginning of the agricultural season, dry spells durations are expected to be generally long to equivalent to averages over the entire Sahelian and Sudanian zones of West Africa and the Sahel, (Figure 7).

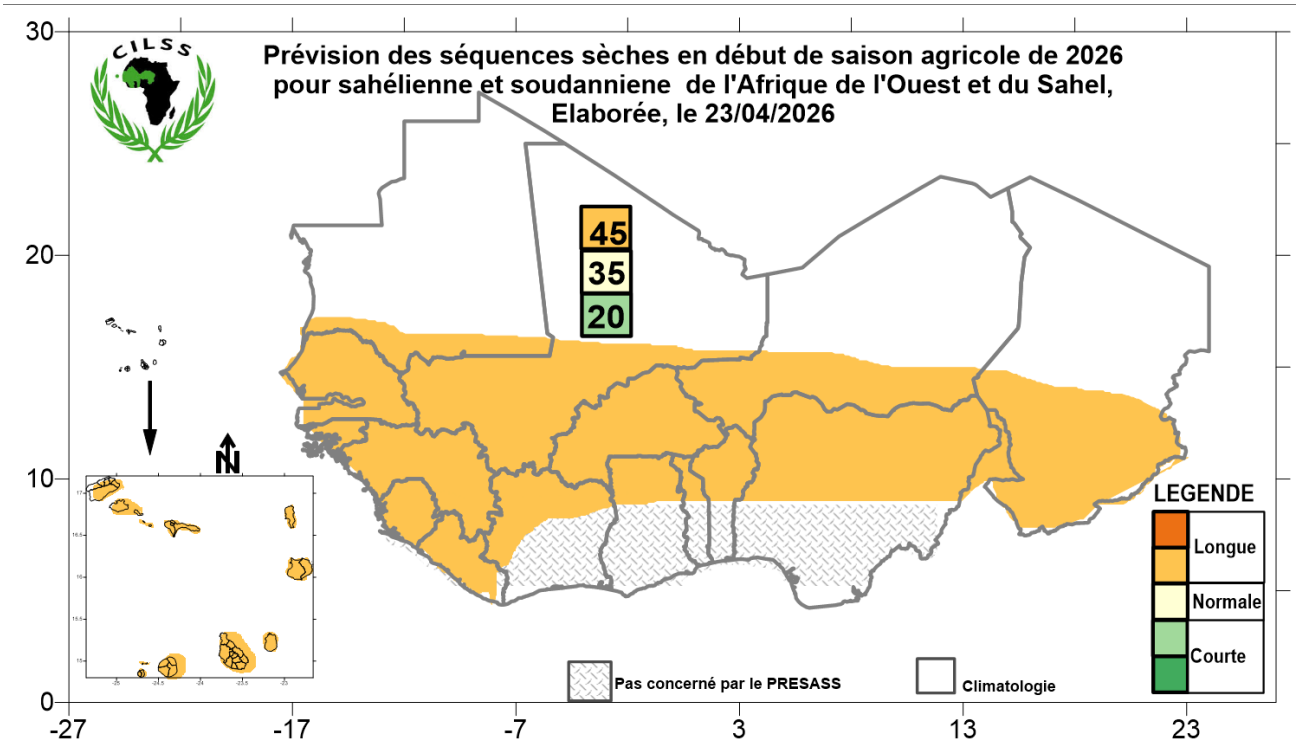

Figure 7: *Forecast of the duration of dry sequences at the beginning of the season in the Sahelian and Sudanian zones of West African and Sahel countries.*

2.5. Duration of dry spells towards the end of the agricultural season

Towards the end of the agricultural season, a dominant trend towards normal to long dry spells, with marked spatial variability is expected. Specifically, normal to long dry spells durations are expected in the West (South Mauritania, Senegal, West Guinea, Guinea Bissau, Gambia, Cape Verde, North Sierra Leone and West Mali), while, long to normal dry spells are expected in the Central and Eastern Sahel (Burkina Faso, Niger, Far East Mali and Southern Chad) and in the North of some Gulf of Guinea countries (Northern Ghana, Togo, Benin and Northwestern Nigeria). Elsewhere, a climatological situation is predicted, (Figure 8).

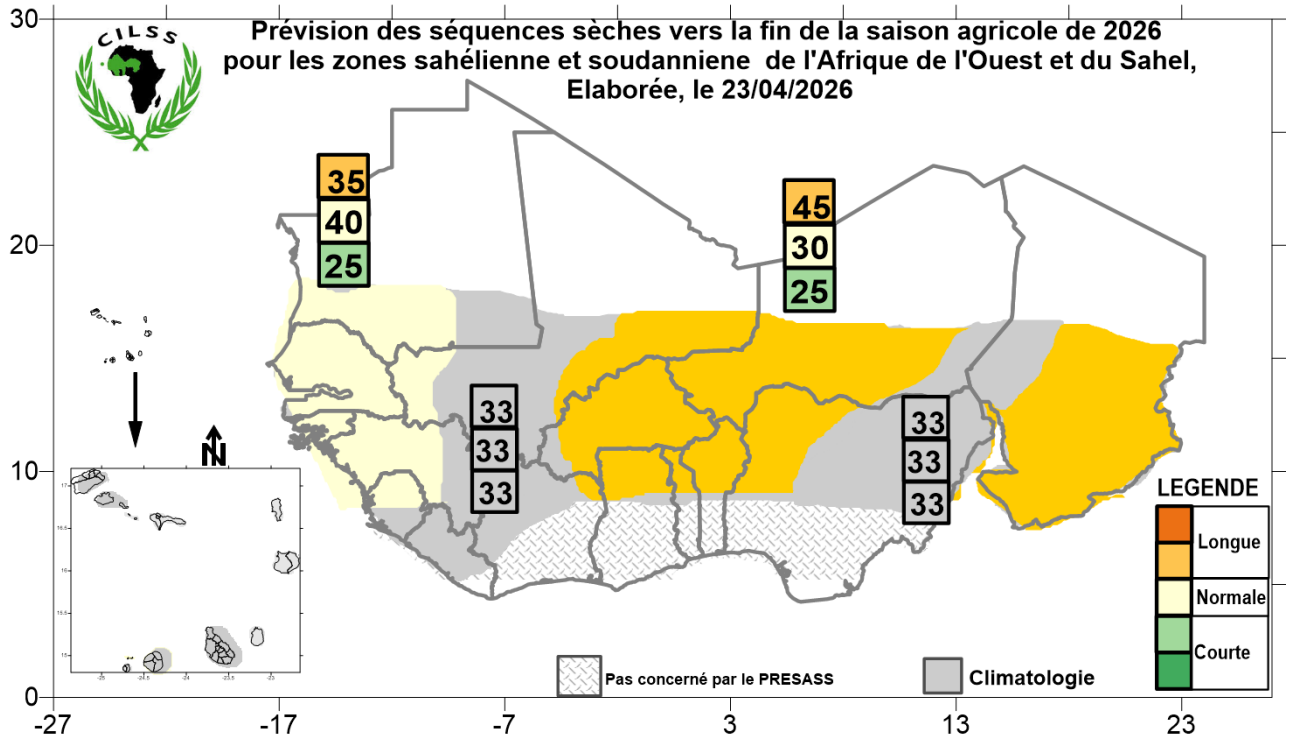

Figure 8: *Prediction of dry sequence durations towards the end of the season in the Sahelian and Sudanian zones of West African and Sahel countries.*

2.6. Ending dates of the agricultural season

This year, normal to late end-of-season dates are expected in the western Sahel (Senegal, southwestern Mali, southern Mauritania, Gambia, Guinea Bissau, northern and central Guinea) and normal in the central Sahel (Burkina Faso, southern Niger, southern Chad) and on the northern fringe of the Gulf of Guinea countries (from Sierra Leone to Nigeria), (Figure 9).

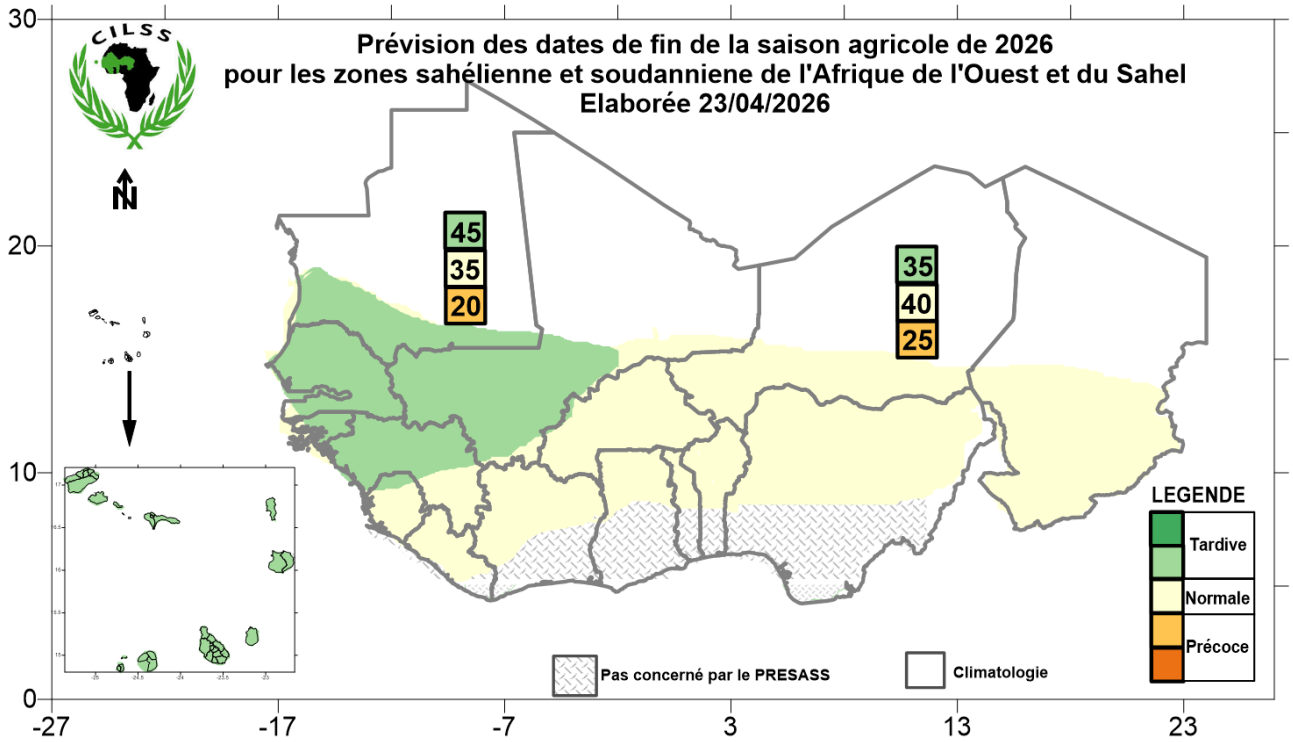

Figure 9 : *Forecast of the end dates of the 2026 rainy season in the Sahelian and Sudanian zones of West African and Sahel countries.*

III. Impacts of seasonal forecasts for the Sahelian and Sudanian areas

The 2026 seasonal forecast, although presaging generally favourable characteristics in the Central and Eastern Sahel, may have negative implications in some areas in West Africa and the Sahel. Indeed, in areas where it is expected:

- **Above-average rainfall totals, normal to early start onset of the agricultural season, normal to long dry spells and above-average runoff**, it is possible to observe conditions of high moisture for crops, erosive and dangerous runoff and overflowing of watercourses. These situations could lead to various risks depending on the area, including difficulties of people and animals mobilities, as well as access to vital, economic and health centres, particularly in areas of civil insecurity. They also portend significant risks of flooding, submersion of agricultural and fodder areas, loss of animal and human lives, destruction of infrastructure (including roads, electricity networks, markets, schools, health centres, places of worship, cemeteries and goods). They can also promote

the proliferation of waterborne and diarrhoeal disease germs, the proliferation of crop pests, the gregarization of desert locusts, landslides, the silting up of watercourses, the proliferation of weeds, post-harvest losses, etc.

- **Rainfall deficits, late onset of the agricultural season and long dry spells** mean that uneven rainfall is expected to disrupt crop calendars, crops and fodder growth, as well as transhumance movements. This situation could also prolong the lean season, exacerbate the vulnerability of populations and lead to the abandonment of fields and encourage the departure of workers in exodus. These areas would also be exposed to the risk of heat waves and hot winds that could lead to delays and losses of seedlings, and declines in agricultural yields. This situation could exacerbate inflation, rising food prices, depreciation of animal prices, and food and nutrition crises.

The combination of these probable hydro-climatic risks with civil insecurity, population poverty and household vulnerability could increase social stresses, land conflicts, conflicts between herders and farmers, conflicts over public infrastructure and boost the idleness of populations, banditry, violence, etc.

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IV. Recommendations

4.1. Regarding flood risk

The general wet conditions expected in the Central and Eastern Sahel, along with above-average river flows forecast in some river basins, like Lake Chad and the Komadougou-Yobé, indicate risks of flooding. To address this, it is recommended to:

- strengthen anticipatory actions, operational monitoring, and response capacities of organisations responsible for flood monitoring and humanitarian assistance;
- raise awareness among communities, especially those exposed to risks, in order to reduce disaster impacts;
- reinforce protective dikes and ensure maintenance of road infrastructure and dams, with an emphasis on forecast-based management;
- clear drainage channels and improve sanitation in urban areas to facilitate rainwater evacuation;

- strengthen collaboration between hydrological, meteorological, and civil protection services for better anticipatory flood risk management;
- avoid moving livestock into areas at risk of flooding and heavy runoff without adequate supervision;
- promote the cultivation of crops adapted to excessive soil moisture conditions, such as rainfed rice;
- ensure the protection of vulnerable people, particularly children, women, the elderly, and those with limited mobility;
- strengthen communication of seasonal forecasts and their use by communities, by supporting the efforts of the media, disaster risk reduction platforms, NGOs, and national Early Warning Systems (EWS);

4.2. Regarding drought risk

In areas where long dry spells and early end-of-season are expected, it may lead to water deficits and affect the growth and yields of crops and fourage, it is recommended to:

- prevent the proliferation of the millet head ear miner caterpillar;
- ensure rational management of surface water in order to meet different needs and prevent conflicts;
- promote the deployment of climate-smart techniques adapted to drought and strategies to reduce the risk of production losses, including the selection of species or varieties tolerant to water deficits, supplemental irrigation, large-scale irrigation, efficient use of agrometeorological advices, and the development of other income-generating activities;
- promote risk transfer to protect farmers against crop losses through subscription to index-based agricultural insurance;
- ensure regular and timely dissemination of meteorological, climatic, and hydrological information, as well as specific advice to users and decision-makers throughout the rainy season;
- interact with national and regional meteorological, hydrological, and agricultural services to obtain specific information and appropriate guidance.

4.3. Regarding the risks of diseases and phytosanitary attacks

Wet and flooded areas may promote the development of climate-sensitive disease pathogens (cholera, malaria, dengue, bilharzia, etc.). In addition, late onset of the season and the expected long dry spells could lead to persistent high temperatures, dust storms, and the proliferation of harmful insects and other pathogens causing respiratory and epidemic diseases. To address this, it is recommended to :

- strengthen the capacity of national health systems and national disaster risk reduction platforms;
- improve sanitation in cities and avoid contact with contaminated water;
- prevent diseases by vaccinating populations and animals;
- prevent epizootics caused by pathogens that thrive in favorable wet or dry conditions;
- strengthen vigilance against crop pests such as desert locusts and fall armyworms, given the expected wet conditions in the Central and Eastern Sahel;
- enhance monitoring of Rift Valley fever, given the above-average rainfall expected in the Central and Eastern Sahel;
- strengthen the dissemination of alert information on climate-sensitive diseases, in collaboration with meteorological, hydrological, and health services, NGOs, community radio stations, etc.c

4.4. Regarding conflict risk

In areas where late onset of the season, long dry spells, and early end of the season are expected, that can potentially lead to deficits in agricultural and forage production, it is recommended to:

- strengthen grassroots production capacities by promoting the use of appropriate strategies for adaptation, income generation, and resilience of agro-sylvo-pastoral production systems;
- create and maintain conditions for inclusive, non-discriminatory, and equitable management of public infrastructure and productive, environmental, and socio-economic resources;

- promote job creation, private entrepreneurship, and income-generating activities, particularly for women and youth, in order to reduce idleness. This will strengthen communities' attachment to their local areas and reduce migration and mass departures;
- Strengthen and expand basic infrastructure to support production, storage, and market access;
- promote actions to improve community livelihoods in order to secure agro-pastoral activities, particularly in areas affected by civil insecurity.

4.5. Recommendations to better benefit from the rainy season

Given the generally heterogeneous nature of the season across West Africa and the Sahel, it is recommended that farmers, herders, water resource managers, projects managers, NGOs, and policymakers, have to:

- maximize the benefits of above normal water conditions by efficiently using floodplains and surface water resources;
- establish systems for collecting and conserving rainwater to ensure continuity of agricultural and domestic uses during the dry season;
- invest more in high-yield crops adapted to humid conditions and to the expected onset and ending dates of the season, particularly in the Central and Eastern Sahel (rice, sugarcane, tubers, etc.);
- support the deployment of agrometeorological techniques to increase crop and pasture yields;
- strengthen information, advisory, and agro-hydro-meteorological support systems for producers;
- strengthen monitoring actions against desert locusts, particularly in frontline countries;
- facilitate farmers' access to improved seeds and agricultural inputs adapted to their needs, for better use of the rainy season;
- encourage both male and female producers to make better use of cultivable land, particularly in hard-to-access areas;

- secure farmers' incomes by promoting subscription to index-based agricultural insurance;
- strengthen interministerial coordination mechanisms to respond more effectively to impacts related to agro-hydro-climatic conditions.

Finally, users across different sectors are advised to pay attention to updates of these seasonal forecasts, which will be provided by AGRHYMET RCC-WAS and the national meteorological and hydrological services throughout the rainy season.