



2025 Forum on Seasonal Forecasts of Agro-hydro-climatic Characteristics of the Rainy Season for the Sudanian and Sahelian Zones of West Africa and the Sahel (PRESASS, 2025)

April 25, 2025

For the 2025 rainy season, average to above average rainfall totals are expected in the Sahel, with early to normal onset dates, late to average cessation dates, long to average dry spells in the Centre and above-average flows in the main river basins.

Organized from 21 to 25 April 2025 in Bamako (Mali), by AGRHYMET Regional Climate Centre for West Africa and the Sahel (AGRHYMET CCR-AOS) and Mali-Météo, in collaboration with ACMAD, the National Meteorological and Hydrological Services (NMHS) 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 sectors, on water resources and disaster risk reduction, climate security), the 2025 edition of PRESASS reached the following conclusions.

I. Forecast summaries

The seasonal forecasts are based on, among other things, the analysis of the current situation and likely changes in Ocean Surface Temperatures (OST), forecasts from global climate centres and statistical analyses of data from National Meteorological and Hydrological Services (NMHSs), as well as expert knowledge of climate characteristics in West Africa and the Sahel. Based on the 1991-2020 climatological reference, the consensus between the various pieces of information analysed made it possible to establish the following forecasts:

- **Average to above average** rainfall totals are expected over the **May-June-July and June-July-August 2025** periods over almost the entire Sahelian strip, from Senegal to Chad and on the coastal parts of Liberia. Cumulative rainfall is expected to be below average in Cabo Verde, the southern part of Senegal, The Gambia, northern Guinea and the coastal parts of Nigeria, Benin, Togo and Ghana.
- **Cumulative rainfall** above the average for the reference period is expected in **July-August-September 2025**, in Burkina Faso, The Gambia, Guinea Bissau, the agricultural bands of Chad, Niger, Mali, Mauritania as well as in the northern parts of Guinea, Côte d'Ivoire, Ghana, Togo, Benin and Nigeria. However, the cumulative rainfall is expected to be equivalent to or below average over this period in Senegal and the coastal parts of Ghana, Togo, Benin and Nigeria.
- **Early to normal** onset dates are expected on the Sahelian strip covering south-central Chad, the agricultural strip of Niger (except the extreme southwest), the far northern parts of Nigeria and Burkina Faso, the central and northwestern agricultural strip of Mali, southern Mauritania and northwestern Senegal. The onset of the season is expected to be normal to late in the north-central parts of Nigeria, southwestern Niger, Burkina Faso (except the northern part of the country), southern Mali, southern Guinea and the

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northern parts of Benin, Togo, Ghana and Côte d'Ivoire. They are expected to be late to normal in the extreme south of Chad, central and northern Guinea, northern Sierra Leone, Guinea Bissau, Cabo-Verde and the coastal parts of The Gambia and Senegal.

- **Generally late to average end-of-season dates** are expected in all Sahelian and Sudanian bands of West Africa and the Sahel.
- **Short to average dry spells** are expected at the beginning of the rainy season in southern Chad, northern Liberia, Sierra Leone, Guinea, Guinea-Bissau, The Gambia, Senegal, southern Mauritania and the agricultural strip of Mali (except in the extreme south of the country). These dry spells are likely to be shorter to normal in northern Côte d'Ivoire, southern Mali, central and southern Burkina Faso and in the extreme northern parts of Ghana, Togo and Benin. They are expected to be longer to normal in the northern part of Nigeria, the agricultural strip of Niger, the extreme north of Burkina Faso, western Mali and in the north-central parts of Ghana, Togo and Benin. Towards the end of the season, long to average dry spells are expected on all Sahelian and Sudanian bands of West Africa and the Sahel, except on the Atlantic coast covering northern Liberia, Sierra Leone, Guinea, Guinea Bissau, Senegal and The Gambia.
- **Flows** broadly equivalent to or above the average for the 1991-2020 reference period are expected in most river basins in West Africa and the Sahel. Specifically, they are expected to be above average in the **upper Senegal basin** (in Guinea, Mali and Senegal), **the upper Niger River basin** (in Guinea, Côte d'Ivoire and Mali), **the Inner Niger Delta** (in Mali), **the middle Niger** (in Niger, Burkina Faso, Benin and Nigeria), **the Komadougou Yobé** (in Niger), **the Chari** and **lower Logone** (in Chad), **the upper Volta basin** (in Mali, Burkina Faso, Benin, Togo, Ghana and Côte d'Ivoire), **the Ouémé basin** (in Benin) and **the upper Comoé basin** (in Burkina Faso and Côte d'Ivoire). They are estimated to be average to above average in **the Gambia Basin** (in The Gambia and Senegal), **the lower Senegal River basin** (in Senegal and Mauritania), the Malian portion of the **middle Niger River basin**, the southern part of the **Middle Niger** (in Nigeria) and the **upper Logone basin** (in Chad). On the other hand, flows are expected to be average to below average in the **basins of the Bandama** and **Sassandra** (in Côte d'Ivoire), **the Mono** (in Togo and Benin), **the Benue** (in Nigeria and Chad), **the Lower Niger Delta** (in Nigeria), **the Lower Comoé** (in Côte d'Ivoire), **the Lower Volta** (in Ghana), and in the **Cavally basin** (Côte d'Ivoire).

II. Possible Implications of 2025 Seasonal Forecasts

The 2025 seasonal forecasts, while indicating generally favourable characteristics, may have negative implications. Indeed, in areas where above-average rainfall totals, early onset dates of the season, above-average runoff and short (or even long) dry spells are expected, it is not excluded to observe situations of above average soil moisture for crops, erosive and dangerous runoff, overflowing of watercourses and rapid filling of low-laying areas. The risks associated with these situations can be many and varied, depending on the area. Indeed, these situations could make it more difficult for people and animals to move around and access to vital, economic and health centres of interest, particularly in areas of civil insecurity. They also imply significant risks of flooding, submersion of cultivated areas, significant damage to crops and fodder, loss of animal and human lives, destruction of infrastructure (including roads, electricity networks, markets, schools, health centres, places of worship, cemeteries and material goods). They can favor the proliferation of waterborne and diarrhoeal disease germs, the proliferation of crop pests, landslides, the silting up of watercourses, the proliferation of weeds, post-harvest losses, etc.

In areas where late onset dates and long dry spells are expected, poor rainfall distribution is to be expected, which can disrupt crop and fodder development, and transhumance movements. This situation could also prolong the lean season, exacerbate the vulnerability of populations and lead to the abandonment of fields and the departure of able-bodied 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 decreases in agricultural yields. This could exacerbate inflation, rising food prices, depreciating animal prices, and food and nutrition crises.

The combination of these likely climate risks with civil insecurity, population poverty and household vulnerability could exacerbate social tensions, land conflicts, conflicts between herders and farmers, conflicts over public infrastructure and encourage population idleness, begging, banditry, violence, terrorism, etc.

III. Recommendations

1) With regards to the risk of flooding

The expected overall wet situation in the Sahel region of West Africa and the expected above average flows in the majority of river basins point to high risks of flooding. To deal with them, it is recommended to:

- strengthen the communication of seasonal forecasts in order to inform and raise awareness among communities about the risks, supporting the efforts of the press, disaster risk reduction platforms, NGOs and Early Warning Systems (EWS);
- strengthen the capacities of vulnerable communities to reduce disaster risks;
- strengthen the operational monitoring and intervention capacities of the agencies in charge of monitoring floods and humanitarian aid;
- avoid the uncontrolled occupation of flood-prone areas by homes, crops and animals;
- strengthen protective dikes and maintain road infrastructure and dams with an emphasis on forward-looking management;
- clean the gutters to facilitate the evacuation of rainwater;
- strengthen collaboration between hydrological and meteorological services to enable anticipatory flood management;
- limit large-scale transhumance and avoid the movement of livestock without adequate supervision;
- promote the cultivation of plants adapted to the persistence of situations of above average water in the soil;

2) With regards to the risks of diseases and crop pest attacks

Wetlands and flooded areas can be conducive to the development of disease germs (cholera, malaria, dengue fever, schistosomiasis, etc.). Also, the late onset dates of the season and the expected long dry spells could cause a persistence of high temperatures and dust winds favourable to the proliferation of other epidemic disease germs. To this end, it is recommended to:

- strengthen the dissemination of alert information on climate-sensitive diseases and raise awareness among the population, in collaboration with meteorological, hydrological and health services;
- strengthen the capacities of national health systems and national disaster risk reduction platforms;

- clean up built-up areas, treat and avoid contact with contaminated water, including the conduct of drainage and gutter cleaning operations;
- prevent diseases by vaccinating people and animals;
- to prevent epizootics with germs preferring humid conditions;
- Enhance vigilance against crop diseases and pests. In view of the expected humid conditions in the Sahel, particularly in the gregarious zones, it is imperative to redouble our efforts in the surveillance of the desert locust, the presence of which is already reported in the Maghreb countries.

3) With regards to the risks of drought

In areas where long dry spells are expected, leading to water deficits and affect crop and forage growth, it is recommended to:

- promote irrigation and market gardening to reduce the risk of reduced production;
- choose crop species and varieties that are tolerant to water deficit;
- adopt climate-smart farming techniques;
- prevent the proliferation of the millet ear leafminer caterpillar;
- ensure rational management of surface water resources to meet different uses and prevent conflicts;
- interact with technicians from the national and regional services of Meteorology, Hydrology and Agriculture to obtain specific information and adequate advice.

4) With regards to the risks of conflicts

In areas where long dry spells are expected leading to deficits in crop and fodder production, it is recommended to:

- strengthen production capacities at the grassroots level by promoting the use of appropriate strategies for adaptation, yield increase and resilience of agro-sylvo-pastoral production systems;
- create and maintain the conditions for inclusive, non-discriminatory and equitable management of public institutions and productive environmental and socio-economic resources;
- Promote job creation, private entrepreneurship and promote income-generating activities, especially for women and youth, to reduce idleness. This will make it possible to strengthen the attachment of populations to their land and to reduce migrations and mass departures in exodus;
- Develop basic infrastructure, improve the livelihoods of communities and secure the work of farmers, herders, fishermen, etc., in order to enable them to better manage the coming agricultural season, particularly in areas of civil insecurity.

5) Recommendations to make the most of the rainy season

In view of the overall rainy pattern of the season in the Sahel, it is recommended *that farmers, herders, water resource managers, projects, NGOs and authorities:*

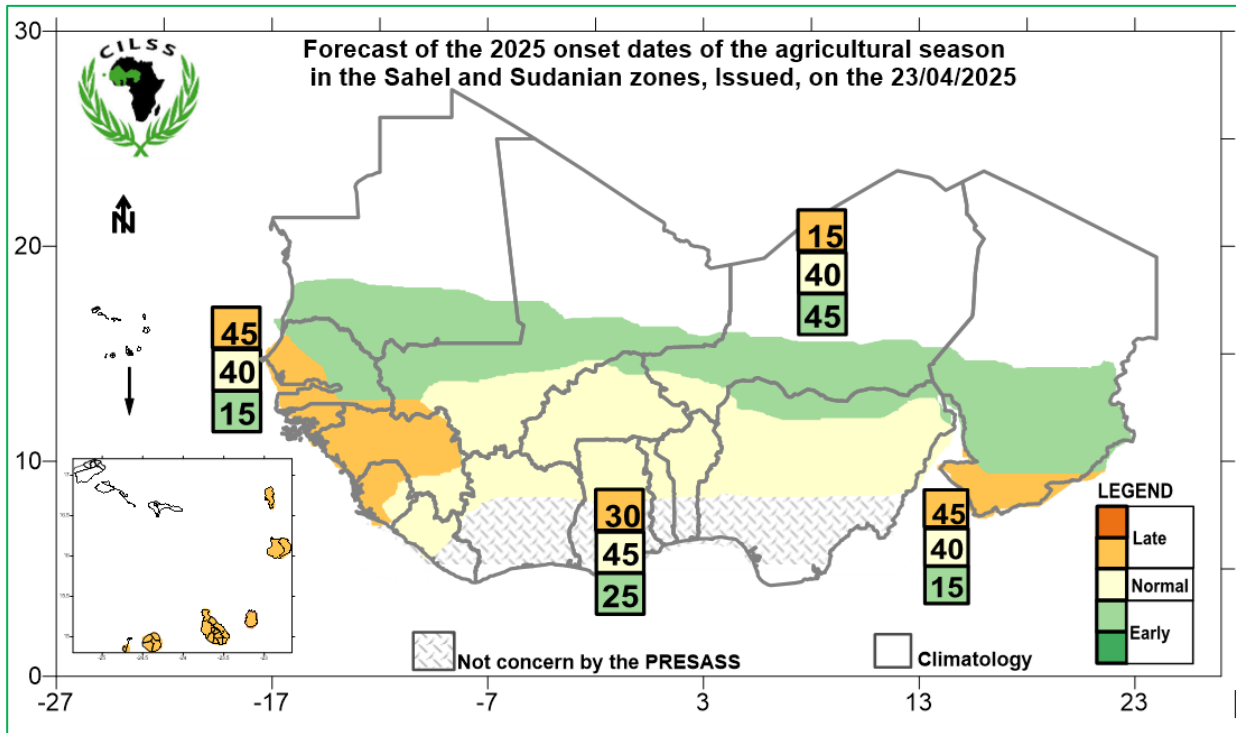
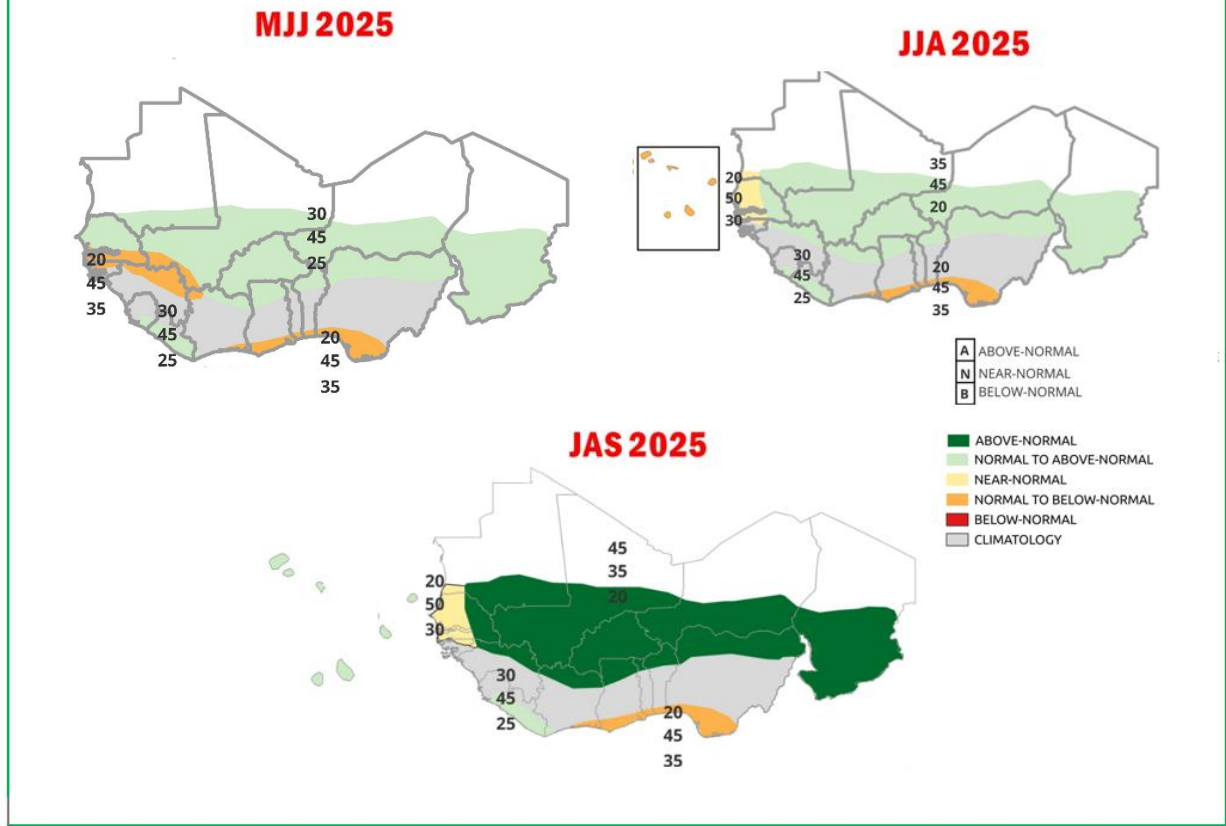
- Take advantage of situations of excess water through the development of irrigation, particularly in floodplains;
- invest more in high-yielding crops adapted to wet conditions (rice, sugarcane, tubers, etc.);
- set up rainwater collection and conservation systems for agricultural and domestic uses in the dry season;

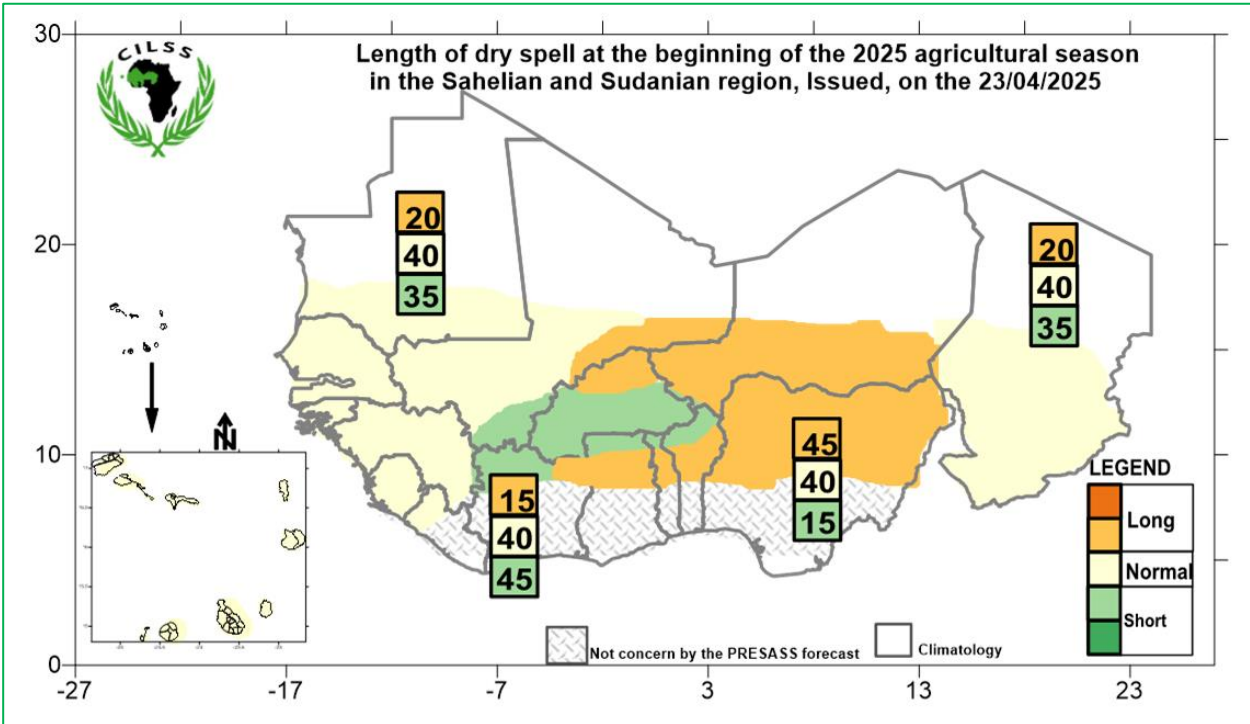
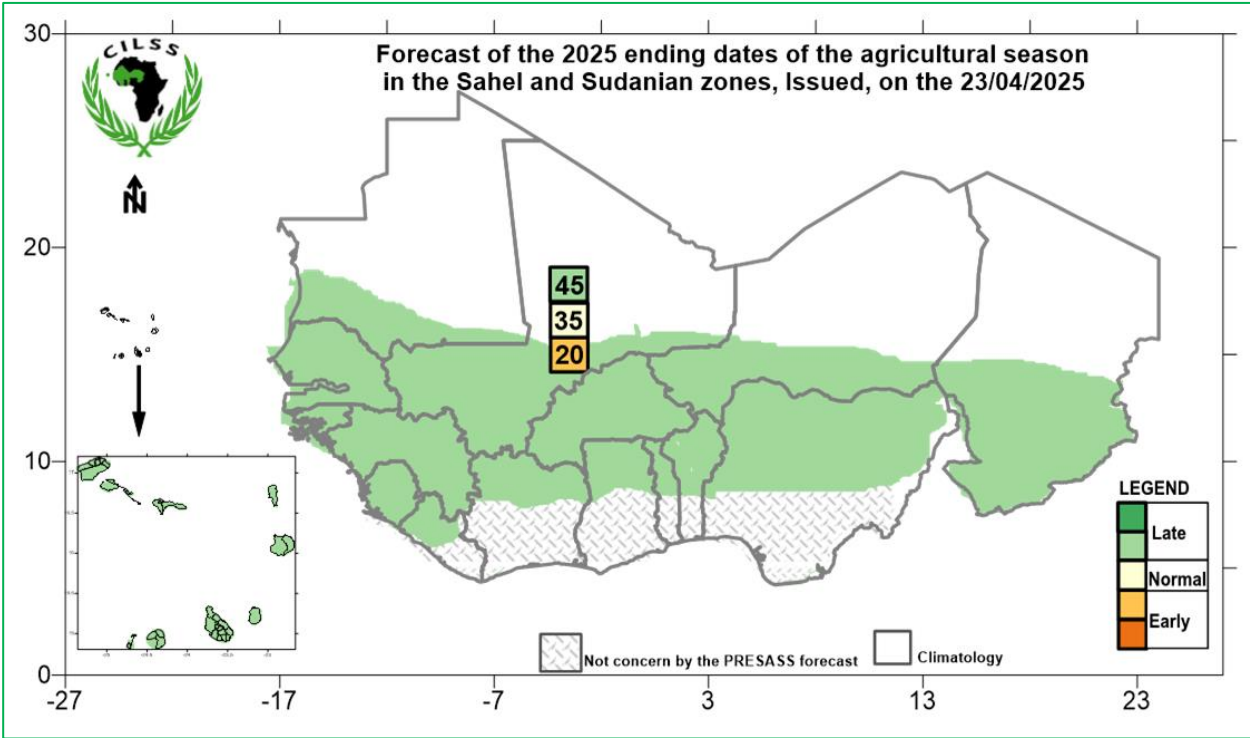
- support the deployment of climate-smart techniques to increase crop and forage yields;
- strengthen the information, supervision and agro-hydro-meteorological assistance systems for producers;
- facilitate producers' access to improved seeds and adapted agricultural inputs for better use of the rainy season;
- secure and motivate producers to make better use of cultivable areas in areas of civil insecurity;
- secure the incomes of agricultural producers by promoting and subscribing to index-based agricultural insurance.

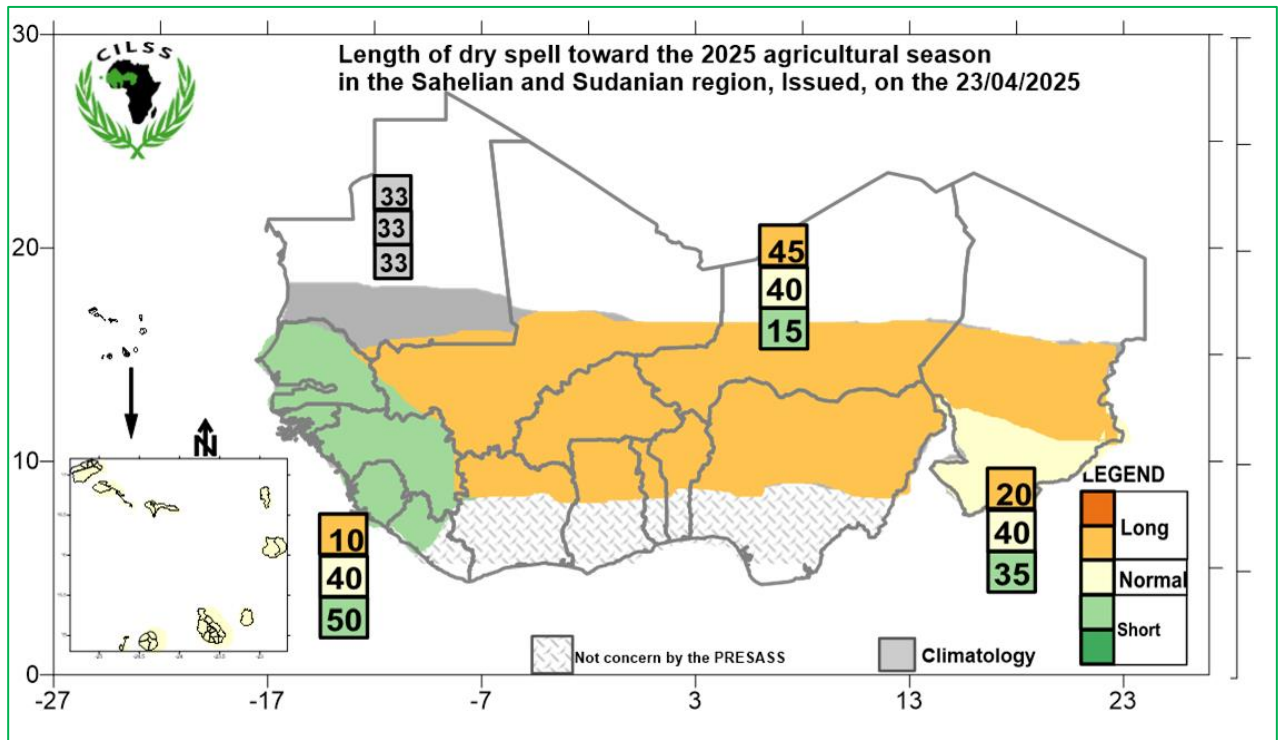
Updates: It is recommended that users in the different sectors pay attention to the updates of the seasonal agro-hydro-climatic forecasts that will be made by AGRHYMET CCR-AOS, ACMAD and the national meteorological and hydrological services, throughout the rainy season.

Done in Bamako on 25 April 2025
The Forum

Seasonal Cummulative rainfall forecasts for the 2025 rainy season in West Africa and the Sahel







Flow forecasts in the West Africa and the Sahel river basins during the 2025 rainy season

