



Seasonal forecasting forum on Agro-Hydro-climatic characteristics for the Sudanian and Sahelian zones

Forum régional sur les prévisions saisonnières agro-hydro-climatiques pour les pays de la zone soudano-sahélienne

From April 26 to 30, 2021

FINAL COMMUNIQUE AND RECOMMENDATIONS

The 2021 rainy season is expected to be overall wet with: rainfall amounts equivalent to above the seasonal averages for the 1981-2010 period over the Central and Eastern Sahel, an early to normal onset of the season, a late to normal ending of the season, longer dry spells at the beginning average towards the end of the season, and overall average to above average river flows.

In view of the persistence of the health situation related to COVID-19, **PRESASS 2021** was organized online by the AGRHYMET Regional Center of CILSS, the African Center of Meteorological Applications for Development (ACMAD), the Meteorological and Hydrological Services (MHS) of the West African countries and Chad, the Basin Organizations, with the collaboration of the World Meteorological Organization (WMO) and representatives of some Major World Climate Centers.

The forum was attended by several guests including representatives of ECOWAS, CILSS Technical and Financial Partners, disaster risk reduction agencies and Producers' Organizations.

I. Forecast summaries

The seasonal forecast for 2021 is based on the current and future pattern of Sea Surface Temperatures (SST), forecasts from major global centers, statistical and dynamical model outputs and expert knowledge of climate dynamics and characteristics in the region. At the end of the work, the following trends for the key parameters of the 2021 rainy season were identified:

- **Rainfall amounts** are expected to be equivalent to or above the average cumulative rainfall for the 1981-2010 period in June-July-August and July-August-September over the Sahelian and Sudanian strip covering the southern and far western parts of Chad, the agricultural strip of Niger, Burkina Faso, Southern and Central Mali, the northern parts of Nigeria, Benin, Togo, Côte d'Ivoire, and the far northeast of Guinea. On the other hand, coastal areas of Mauritania, Senegal, The Gambia, Guinea Bissau, Guinea, Northern Sierra Leone, Eastern Liberia, Côte d'Ivoire, Ghana, Togo, Benin, Nigeria, and Cameroon could experience equivalent to below average cumulative rainfall for the entire season. (Annex 1)
- Early to normal **onset dates** of season are likely over most of the Sahelian strip extended to northern parts of the Gulf of Guinea countries. However, in the area covering far Southern Senegal, Guinea Bissau, and Western Guinea, there are equal chances of having early, normal, or late onset dates;
- Late to normal **ending dates of season** are expected over the Sahelian and Sudanian strip spanning southern Chad, the Niger agricultural zone, Southern Mali, Burkina Faso, far Southern Mauritania, Senegal (except far southwest), The Gambia, the eastern half of Guinea, and northern parts of Nigeria, Benin, Togo, Ghana, and Cote d'Ivoire. Over Central Nigeria and coastal parts of West Africa from southwestern Senegal to Sierra Leone, the chances of observing early, normal or late ending dates are equal;
- Long to medium **dry spells** are expected after the onset of the season over the eastern Sahel (Eastern Niger and Southern Chad extended to northern parts of Nigeria, Benin and Togo) and over the northern part of the central and western Sahel (central Mali, far Southern Mauritania, Senegal and Northeastern Guinea). On the other hand, over Burkina Faso, the western part of Niger, southern Mali, the northern parts of Benin, Togo, Ghana, Côte d'Ivoire and Guinea, and the coastal parts from northern Sierra Leone to the Senegal loop, the chances of observing longer, equivalent or shorter than average dry spells are the same. (Appendix 2)

- Equivalent to or above average **river flows** relatively to the 1981-2010 baseline period are expected in the following basins: Niger, Senegal, The Gambia, Volta, Chari, Logone, Komadougou-Yobé, Bandama, Comoé, Ouémé, Mono and Oti. As for the Sassandra, Cavally, Mano, Saint Paul, Saint John and Lofa basins in Liberia, they are expected to record overall average to deficit flows.

II. Recommendations for the reduction of the major risks

Based on the expected wetness of the 2021 rainy season, coupled with the likelihood of early to normal onset dates, late to normal ending dates, longer dry spells in early season and average towards the end, and overall average to above average river flows, we make the following recommendations:

2.1. With regard to flooding

Considering the overall above-average cumulative rainfall expected over the Sahelian strip and the average to surplus river flows expected in most river basins, the risk of flooding is high. To avoid or reduce these risks to people, animals, crops and material goods, it is recommended to :

- prevent the anarchic occupation of flood-prone areas, especially in urban areas,
- take measures to anticipate the safety of people and the maintenance of infrastructures installed in flood-prone areas;
- Strengthen the dikes to protect against flooding;
- ensure regular cleaning of sewage gutters;
- closely monitor the alert thresholds in the various sites at high risk of flooding;
- Strengthen the communication of seasonal forecasts and the sensitization of vulnerable communities, by involving state actors and the various platforms for disaster risk reduction and crisis management;
- Strengthen the monitoring and intervention capacities of agencies in charge of flood monitoring, disaster risk reduction and humanitarian aid;

2.2. With regard to phytosanitary risk and food insecurity

In view of the overall wet situation expected for the 2021 rainy season, there is a possibility of locust swarms' incursion due to the early onset and long dry spells expected in the Sahelian strip. This risk, combined with the situation related to the COVID19 pandemic, could aggravate food insecurity situations in the Sahel and West Africa. To prevent the risks, it is recommended to:

- States, to strengthen Locust surveillance in areas at risk and to maintain vigilance against other crop pests, including the Fall armyworm;
- Inter-Governmental Organizations (IGOs) in the region, to mobilize Technical and Financial Partners (TFPs) and the international community to support countries in the preventive management of phytosanitary risks
- TFPs, to support the States and IGOs of the region in their efforts to combat crop pests and other plagues that can negatively impact agricultural production and, beyond that, the food and nutritional security of the populations.

2.3. With regard to drought risk

Despite the expected wetness of the 2021 rainy season, the long dry spells expected after the onset of the season could delay the installation of crops and fodder biomass in some areas. Water deficits could lead to planting failures, affect plant growth, favor the development of crop pests, delay the northward movement of transhumant animals, prolong the lean period for animals, and provoke conflicts between herders and farmers. To prevent these risks, it is recommended to:

- diversify agricultural practices, including the adoption of water management techniques at the plot level and the promotion of irrigation and market gardening to reduce the risk of reduced production in exposed areas
- Establish livestock feed stocks,
- Prevent conflicts by raising awareness among herders and farmers and maintaining a watchful eye to ensure that they live together well,
- Strengthen the monitoring and orientation of herders' movements in search of pastures and water points,
- strengthen the capacities of the crop protection services to intervene in case of outbreaks of crop pests,

- ensure an integrated management of water resources for a better consideration of the various uses, in particular the needs of hydroelectric dams and hydro-agricultural infrastructures,
- interact with technicians from the National Meteorological, Agricultural, Hydrological and Crop Protection Departments for country-specific information and agro-hydro-meteorological advice on what to do ;

2.4. With regard to the risk of diseases

To reduce the risk of water-related diseases (cholera, malaria, dengue fever, bilharzia, diarrhea, etc.) in wet or flooded areas, it is strongly recommended to:

- Raise awareness of climate-sensitive diseases, in collaboration with meteorological, hydrological and health services,
- Vaccinate the population and animals, encourage the use of mosquito nets, set up stocks of medication for curative treatments, especially in areas that will be difficult to access in case of flooding,
- Monitor water quality and implement treatment products,
- Strengthen the capacity of national health systems and disaster risk reduction platforms,

III. Recommendations for the valorization of opportunities to take advantage of

In relation with the overall wet nature of the rainy season, it is recommended that farmers, herders, authorities, water resource and hydroelectricity managers, projects, NGOs and POs:

- support the deployment of techniques to increase crop and forage yields through the choice of high-yielding varieties and the right sowing and fertilizer application periods (organic and mineral fertilizers)
- Strengthen the agro-hydro-meteorological supervision and assistance systems for producers;
- Facilitate producers' access to improved seeds, especially high-yielding ones that are adapted to local soil and climate conditions,
- Exploiting available water, through the promotion of irrigation, flood recession cropping and aquaculture, particularly in flood plains.

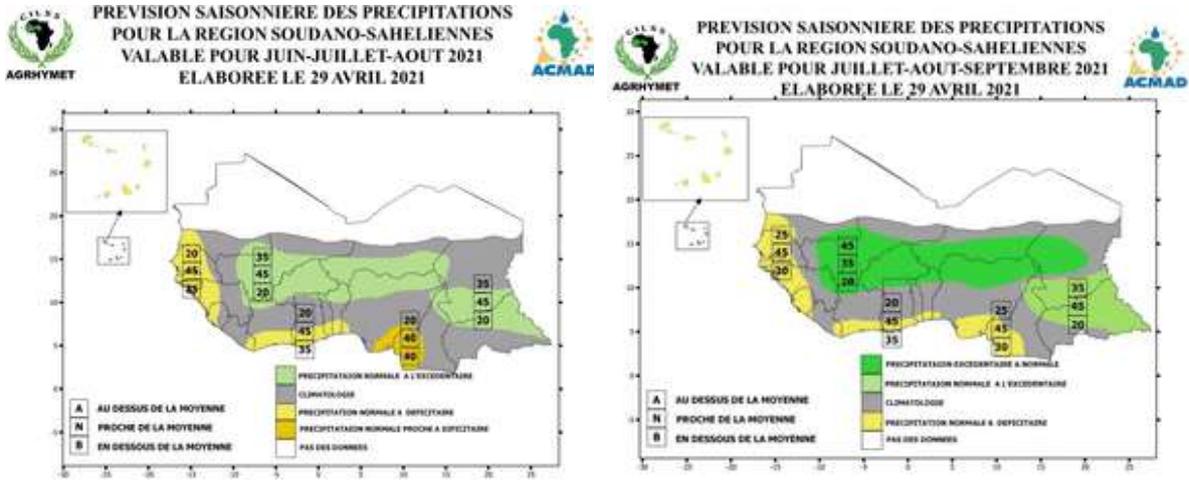
It is recommended that stakeholders involved in the monitoring of the cropping season pay attention to the updates that will be made by the AGRHYMET Regional Centre, ACMAD and the national meteorological and hydrological services.

Done online, April 30, 2021

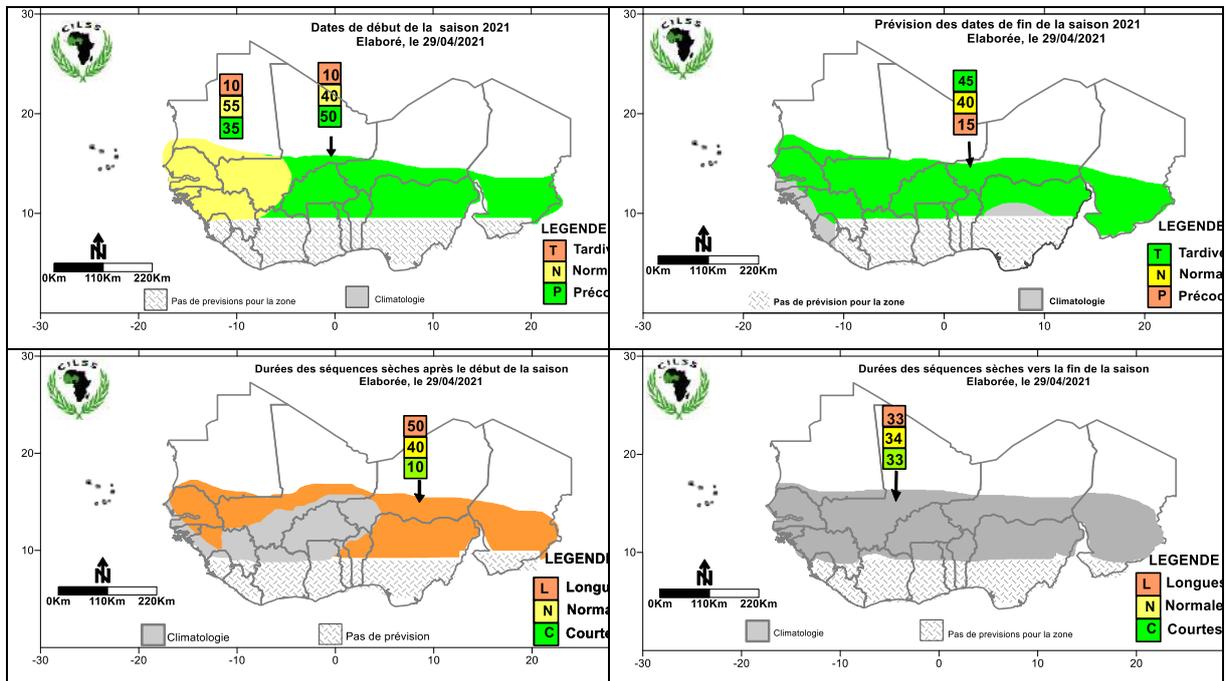
The Forum

ANNEXES

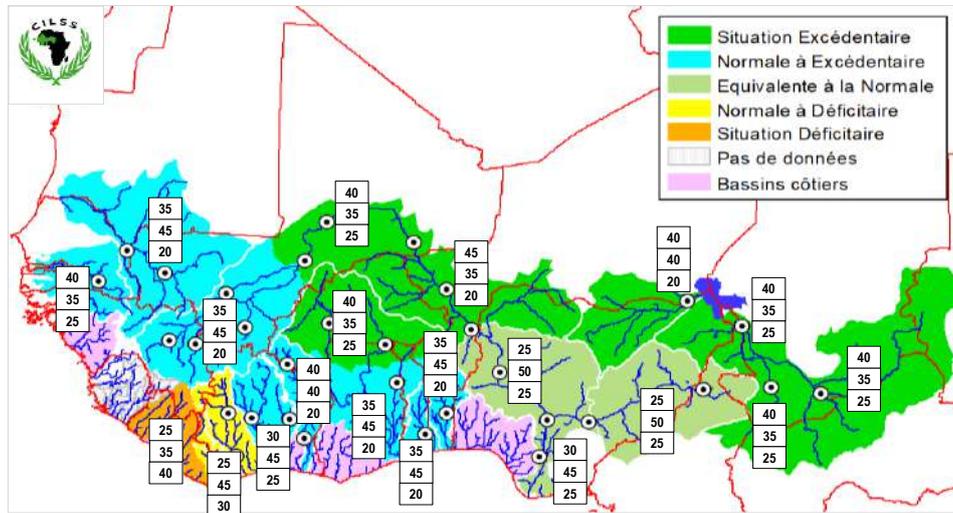
Annex 1: Seasonal rainfall forecasts for the periods June-July-August and July-August-September 2021



Annex 2: Forecast of the agroclimatic characteristics of the season: onset dates, ending dates and duration of the dry spells at the beginning and towards the end of the season



Annex 3: Runoff forecasts in the main river basins of the CILSS/ECOWAS area



Dans l'ensemble, des écoulements équivalents à supérieurs à la moyenne de la période de référence 1981-2010, sont attendus.