Centre Régional AGRHYMET

ACMAD

Seasonal forecasts of the Agro-hydro-climatic characteristics of the rainy season for the Sudanian and Sahelian zones (PRESASS - 2020)

20 to 24th April 2020

The 2020 rainy season is expected to be wet overall. Indeed, above average rainfall amounts relatively to the 1981-2010 period are expected over the entire Sahelian strip. An early to average onset, a late to average cessation, shorter dry spells at the beginning of the season and average dry spells towards the end of the season, and globally average to above-average flows are expected.

In view of the COVID-19 pandemic, PRESASS 2020 was organized online by the AGRHYMET Regional Center, the African Center of Meteorological Applications for Development (ACMAD), the National Meteorological and Hydrological Services (NMHSs) of West African countries and Chad, the Basin Organizations, and with the collaboration of the World Meteorological Organization (WMO).

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

I. Forecast summaries

The 2020 seasonal forecasts are based on the current and future configuration of Sea Surface Temperatures (SSTs), forecasts from major world centers, outputs from statistical and dynamic models, and expert knowledge of the climate characteristics in the region. As a result, the following trends emerge for the key parameters of the 2020 rainy season:

- **Generally above-average total cumulative rainfall amounts** are expected over the Sahelian and Sudanian strip from Chad to the Atlantic coast, particularly over the southern part of Chad, the agricultural strip of Niger, Burkina Faso, the agricultural part of Mali, southern Mauritania, Senegal, The Gambia, Guinea Bissau, Cape Verde, northern Guinea, the extreme northern parts of Côte d'Ivoire, Ghana, Togo, Benin and Nigeria. On the other hand, Liberia and Sierra Leone are expected to receive average to below-average cumulative rainfall amounts over the July-August-September period.
- Early to average **season onset dates** are likely to occur in the central and eastern parts of the Sahel, particularly in south-eastern Mali, Burkina Faso, the agricultural belts of Niger and Chad and in the northern parts of Côte d'Ivoire, Ghana, Togo, Benin and Nigeria. On the other hand, in the Western Sahel (southern Mauritania, Senegal, south-western Mali, Guinea, Guinea Bissau, Sierra Leone and northern Liberia), average to late season onset dates are expected, with the possibility of an early onset in some places due in particular to the ongoing warming of the Senegalese and Mauritanian coasts.

- Late to average **season cessation dates** are expected in Central and Eastern Sahel. However, on the western façade covering south-west Mauritania, Senegal, western Mali, Gambia, Guinea Bissau and western Guinea, average to late season cessation could be observed.
- Shorter to average **dry spell durations after the onset of the season** are expected in the Central and Eastern Sahel and in some localities in the northern parts of Ghana, Togo, Benin and Nigeria. **Towards the end of the season**, generally shorter dry spells are expected over the entire Sahelian and Sudanian band, except in the Lake Chad area (Niger, Nigeria and Chad) where longer to average dry spell durations could be observed.
- Generally above-average **flows** are expected in the following basins: Gambia, Senegal, Upper Volta Basin, Middle and Upper Niger, Bandama, Sassandra, Cavally, Komadougou-Yobe, Chari and in the Lake Chad region. As for the Comoé, Mono, Ouémé, Lower Niger, Logone and Lower Volta basins, they are expected to have average flows.

II. Recommendations for the reduction of key risks

1) Regarding flood risks

In view of the expected above-average rainfall totals allover the Sahelian strip, shorter to average dry spell durations, and above-average river flows, the risk of flooding is high. In order to mitigate these risks to people, animals, crops and goods, it is recommended to :

- closely monitor the alert thresholds in the various high-risk flood sites;
- Strengthen the communication of seasonal forecasts and awareness raising among vulnerable communities, by involving state actors and the various disaster risk reduction platforms in the communication and crisis management chain,
- prevent the uncontrolled occupation of flood-prone areas, particularly in urban areas,
- strengthen the monitoring and response capacities of agencies in charge of flood monitoring, disaster risk reduction and humanitarian aid,
- ensure the regular cleaning of the drainage channels,
- conduct simulation exercises as part of the preparation of flood response plans.

2) Regarding phytosanitary and food insecurity risks

In view of the overall wet situation expected for the 2020 rainy season and the ongoing locust crisis in Eastern Africa and the Horn of Africa, it is very likely to observe an incursion of desert locust swarms due to the early onset of the rainy season in the Sahelian band. Combined with the situation related to the COVID19 pandemic, this risk of desert locust invasion could increase the risk of food insecurity for millions of people in the Sahel and West Africa. To prevent the risks, it is recommended that:

- States to strengthen surveillance for desert locust invasion in the risk areas of frontline countries and to maintain vigilance against other crop pests such as the armyworm;
- Inter-Governmental Organizations (IGOs) in the region to mobilize Technical and Financial Partners (TFPs) and the international community for preventive locust risk management.

- TFPs, to support the Sahel and West African States, the IGOs of the region in their efforts to fight against crop pests and other scourges that can negatively impact the food and nutritional security of populations.

3) Regarding drought risks

In spite of the overall wetness expected for the 2020 rainy season, it is likely to observe localized water deficits that may delay forage biomass establishment, lead to seeding failures and affect plant growth. These water deficits could also favor the development of crop pests. To prevent risks, it is recommended to:

- diversify agricultural practices, in particular through the promotion of irrigation and market gardening to reduce the risk of production failure in exposed areas;
- Ensure integrated water resource management to take better account of the various uses, in particular the needs of hydroelectric dams and irrigation infrastructures;
- interact with technicians from National Meteorological, Agricultural extension and Hydrological agencies for country-specific information and agro-hydro-meteorological advice;

4) Regarding health risks

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 on climate-sensitive diseases, in collaboration with meteorological, hydrological and health services,
- vaccinate people and animals, encourage the use of mosquito nets, set up stocks of antimalarials,
- provide stocks of medicines in hard-to-reach areas following the floods,
- monitor water quality and set up stocks of treatment products
- strengthen the capacities of national health systems and disaster risk reduction platforms,

III. Recommendations for the valorization of opportunities

In view of the expected overall wetness of the rainy season, it is recommended that farmers, pastoralists, authorities, water resource and hydropower managers, projects, NGOs and FOs should :

- Support the deployment of techniques to increase crop yields, through the application of fertilizers (organic and mineral fertilizers) and the use of high-yielding species and varieties;
- Strengthen the agro-hydro-meteorological support and supervision of producers;
- Facilitate farmers' access to improved seeds, especially of high-yielding species and varieties;
- Exploit the available water through the promotion of irrigation, flood recession croping and aquaculture, especially in flood plains.

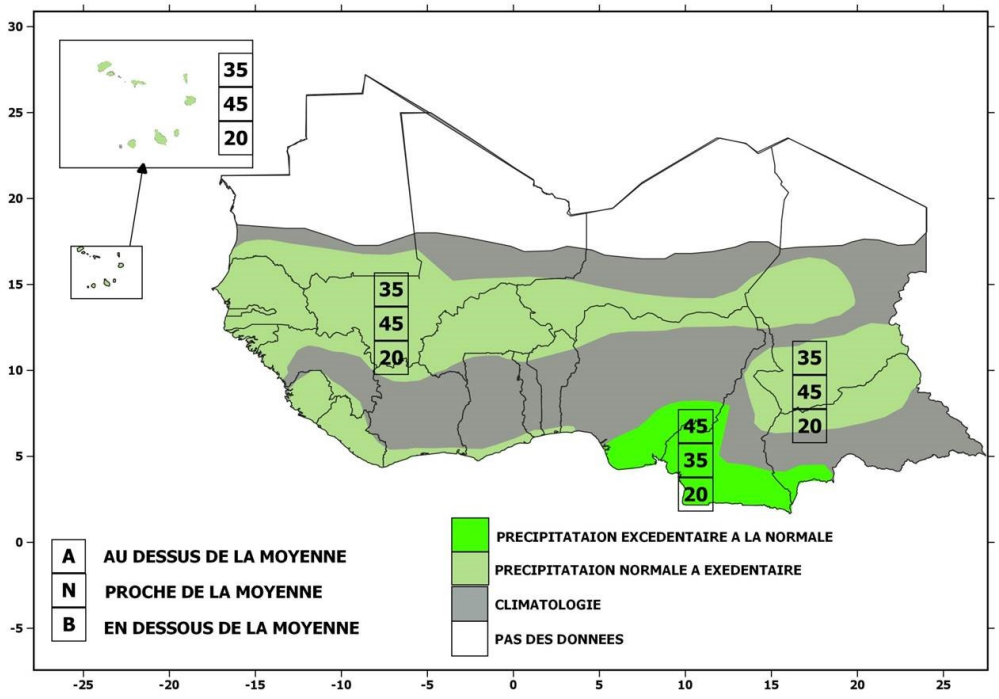
Finally, it is recommended to all the actors involved in the monitoring of the agricultural season to be attentive to the updates that will be made by the AGRHYMET Regional Centre, ACMAD and the national meteorological and hydrological services.

Issued on the 24th april 2020

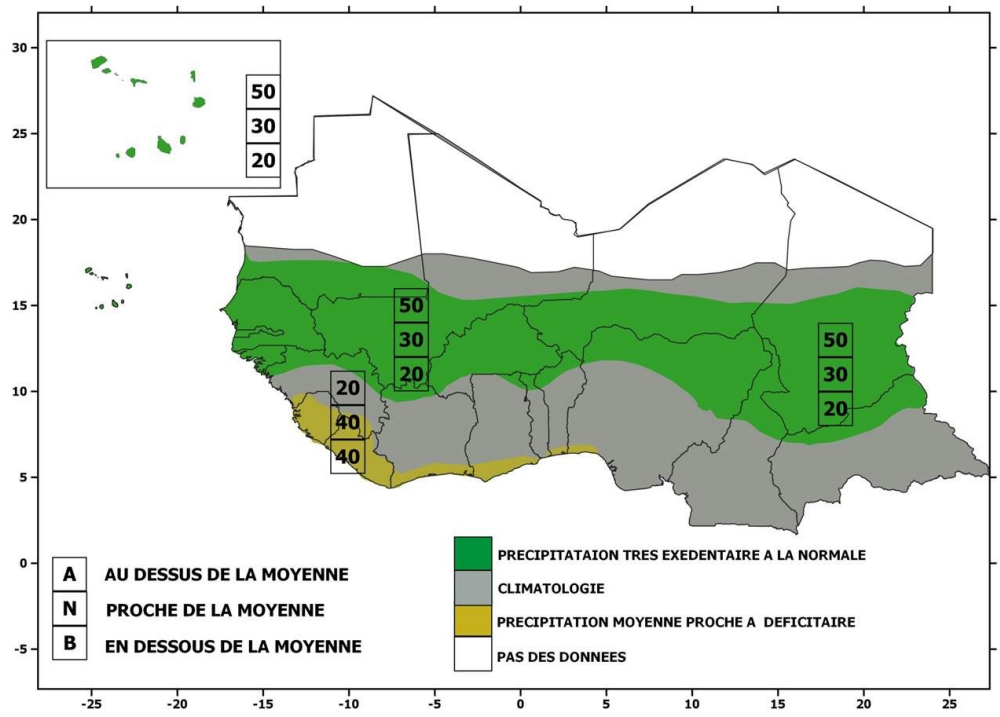
The Forum

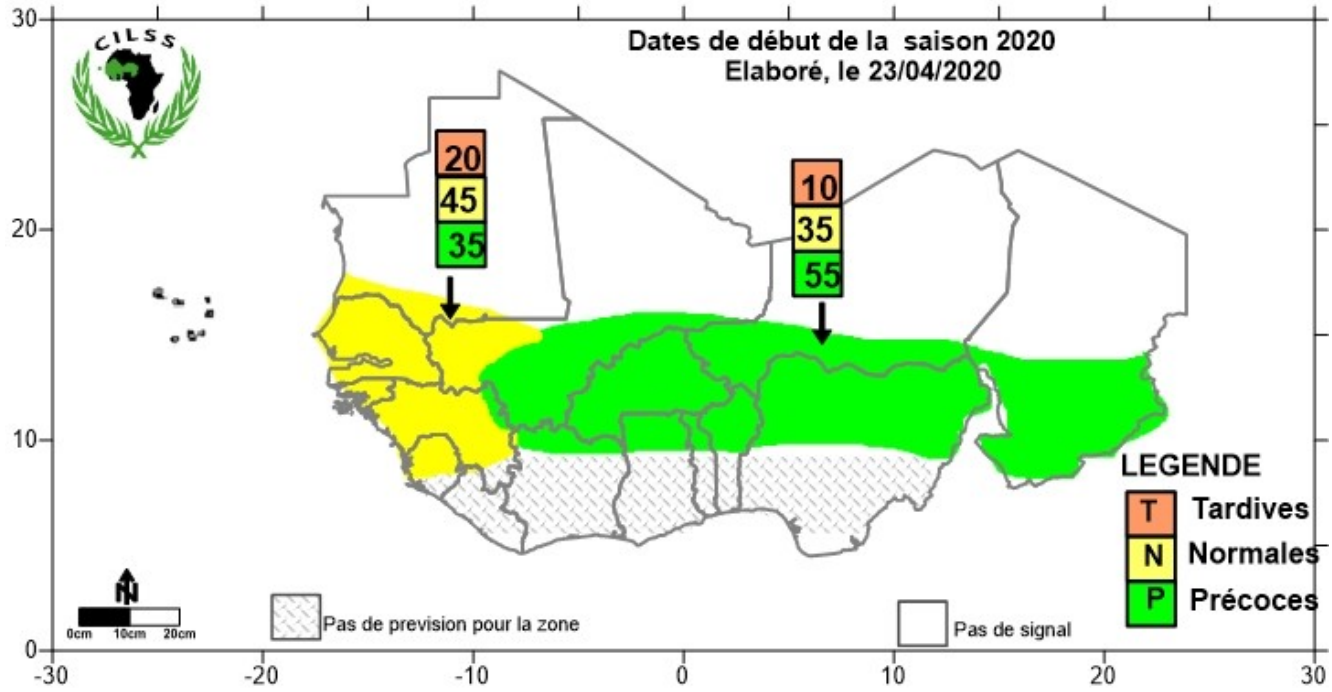
Annexes :

PREVISION SAISONNIERE DES PRECIPITATIONS POUR LA REGION SOUDANO-SAHELIENNE VALABLE POUR JUIN-JUILLET-AOUT 2020 ELABOREE LE 24 AVRIL 2020



PREVISION SAISONNIERE DES PRECIPITATIONS POUR LA REGION SOUDANO-SAHELIENNE VALABLE POUR JUILLET-AOUT-SEPTEMBRE 2020 ELABOREE LE 24 AVRIL 2020




Dates de début de la saison 2020
Elaboré, le 23/04/2020
20
45
35
10
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LEGENDE
T Tardives
N Normales
P Précoces
Pas de prevision pour la zone
Pas de signal
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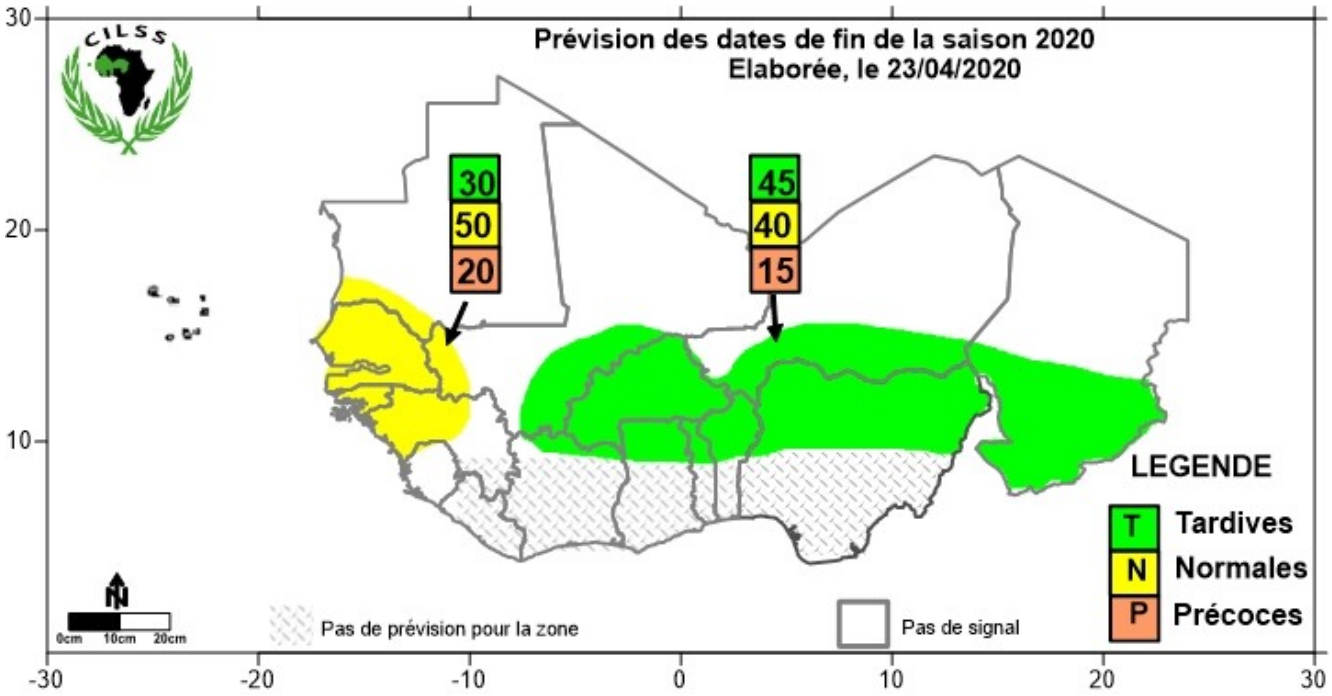
Prévision des dates de fin de la saison 2020
Elaborée, le 23/04/2020
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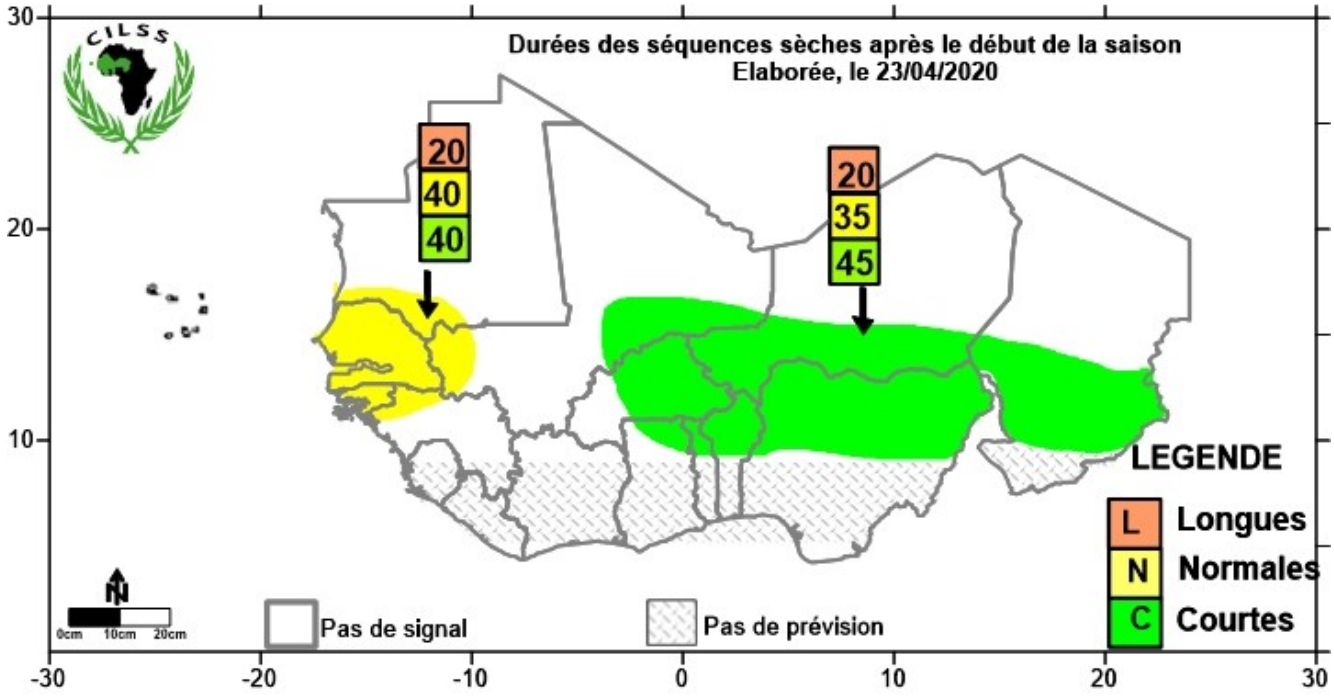
Durées des séquences sèches après le début de la saison
Elaborée, le 23/04/2020
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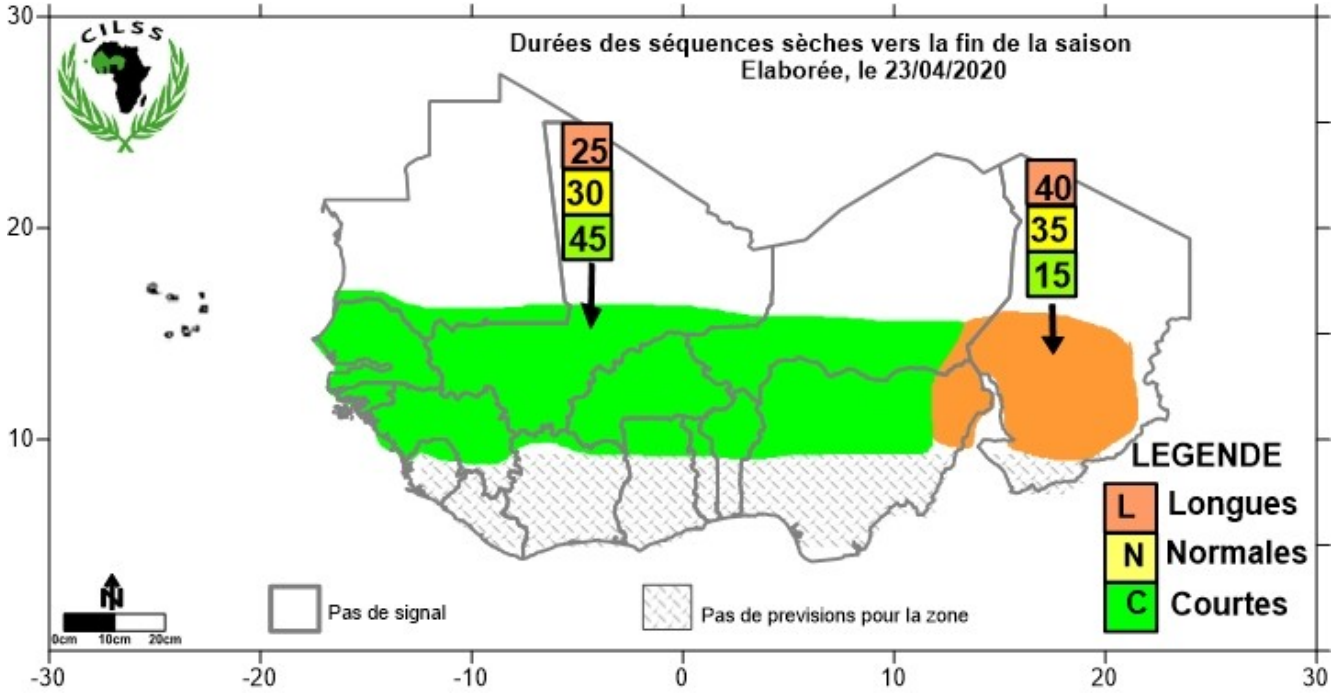
Durées des séquences sèches vers la fin de la saison
Elaborée, le 23/04/2020
25
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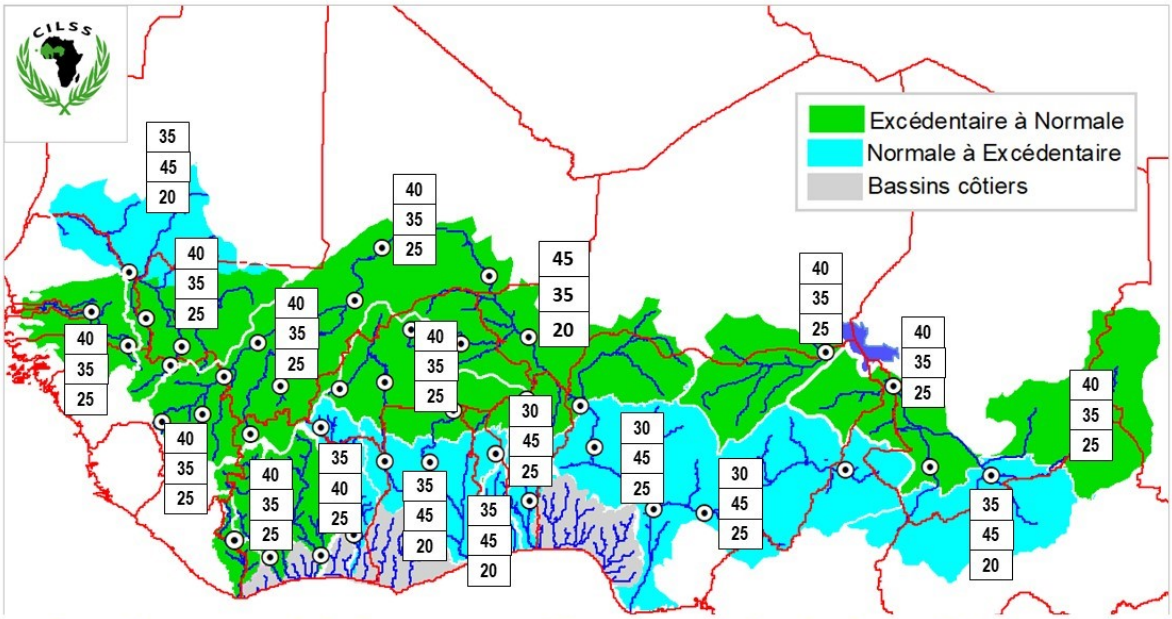
Perspectives des écoulements pour la saison 2020 dans l'espace CILSS/CEDEAO



Des écoulements globalement excédentaires à équivalents à la moyenne de la période de référence 1981-2010, sont attendus sur l'ensemble des bassins.